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DIVISION: 06 00 00 – WOOD, PLASTICS AND COMPOSITES
Section: 06 50 00 – Structural Plastics
Section: 06 53 00 – Plastic Decking

REPORT HOLDER:

The AZEK® Company LLC
894 Prairie Avenue
Wilmington, Ohio 45177
(866) 862-7832
www.azekco.com

REPORT SUBJECT:

TimberTech® Decking Planks
(Wood-Plastic Composite Deck Boards)

DockSider™ Plank
Edge Premier Solid Plank
Edge Premier Grooved Plank
Edge Prime Solid Plank
Edge Prime Grooved Plank
Legacy Solid Plank
Legacy Grooved Plank
ReliaBoard Plank
Terrain Solid Plank
Terrain Grooved Plank
Reserve/Tropical Solid Plank
Reserve/Tropical Grooved Plank
TwinFinish® Solid Plank
TwinFinish® Grooved Plank

1.0 SCOPE OF EVALUATION

1.1. This Research Report addresses compliance with the following Codes:

- 2021, 2018 and 2015 *International Building Code®* (IBC)
- 2021, 2018 and 2015 *International Residential Code®* (IRC)
- 2020 *Florida Building Code excluding high velocity hurricane zone (HVHZ)*. See Section 9.0.

NOTE: This report references the most recent Code editions cited. Section numbers in earlier editions may differ.

1.2. TimberTech® Decking Planks have been evaluated for the following properties:

- Structural Performance
- Durability
- Surface Burning
- Decay Resistance
- Termite Resistance

1.3. TimberTech® Decking Planks have been evaluated for the following uses: as a walking surface on exterior decks, balconies, porches, and walkways, including stairs in One- and Two-Family Dwellings regulated by the IRC and other construction types regulated by the IBC in accordance with IBC Section 705.2.3 *Combustible projections*, where fire-resistance rated floor construction is not required for the deck or balcony.

2.0 STATEMENT OF COMPLIANCE

TimberTech® Decking Planks comply with the Codes listed in Section 1.1, for the properties stated in Section 1.2 and uses stated in Section 1.3, when installed as described in this report, including the Conditions of Use stated in Section 6.0.

3.0 DESCRIPTION

3.1. Materials and Processes – *DockSider™*, *ReliaBoard*, and *TwinFinish®* Planks are composed of a solid, co-extruded, fully capped, wood-plastic composite (WPC) core with a WPC cap. *Legacy*, *Terrain*, *Tropical* and *Reserve* are composed of a solid, co-extruded, fully-capped, wood-plastic composite (WPC) core with a polymer cap. *Edge Premier* and *Edge Prime* deck boards are composed of a solid, co-extruded, semi-capped, wood-plastic composite (WPC) core with a polymer cap.

3.2. Profiles – TimberTech® Decking Planks have a solid cross-section, solid cross-section with grooves, and contoured cross-section profiles. See Table 2 for product descriptions and Figures 1 through 8.





3.3. Walking Surface – The TimberTech® Decking Planks are finished with a textured, embossed wood pattern.

4.0 PERFORMANCE CHARACTERISTICS

4.1. Uniform Live Load ratings are given in Table 1 for the corresponding deck boards and fasteners indicated.

4.2. Deck boards used as stair treads are rated for the code-prescribed concentrated load equal to 300 lb. when installed with a maximum span indicated in Table 1. Deck boards used as stair treads shall be installed in a minimum two-span condition.

4.3. Wind Uplift Resistance ratings are given in Table 1 for the corresponding deck boards and fasteners indicated.

4.4. Materials used in the TimberTech® Decking Planks have a flame spread index not greater than 200, when tested in accordance with ASTM E84, as required by ICC-ES AC174.

4.5. Materials used are deemed equivalent to preservative treated or naturally durable wood for resistance to weathering effects, attack from Formosan termites and fungus decay.

4.6. Structural performance has been demonstrated for a temperature range from -20°F (-29°C) to 125°F (52°C).

5.0 INSTALLATION

TimberTech® Decking Planks must be installed in accordance with the manufacturer's published installation instructions, the applicable Code, and this Research Report. A copy of the manufacturer's instructions must be available on the jobsite during installation.

5.1. TimberTech® Decking Planks shall be installed with fastening as indicated in Table 1 and Figure 9.

6.0 CONDITIONS OF USE

6.1. Installation must comply with this Research Report, the manufacturer's published installation instructions, and the applicable Code. In the event of a conflict, this report governs.

6.2. Deck boards placed at an angle other than 90 degrees to the supporting joist will require support framing at a reduced spacing such that the span of the deck board does not exceed the span identified in Table 1.

6.3. The wind uplift resistance rating recognized in this report is based on attachment to treated Southern Pine framing (specific gravity, $G=0.55$). Installation on wood framing with a lesser specific gravity may result in a lower wind uplift rating.

6.4. Where required by the building official, engineering calculations and details shall be provided. The calculations shall verify that the anchorage complies with the building code for the type of framing and condition of the supporting construction.

6.5. Compatibility of the supporting construction materials with all fasteners, metal post mount components and other hardware components is subject to approval by the code official.

6.6. Only those types of fasteners and fastening methods described in this report have been evaluated for the installation of the TimberTech® Decking Planks (See Table 1 and Figure 9); other methods of attachment are outside the scope of this report.

6.7. Deck boards recognized in this report have been evaluated for use in areas subject to Formosan termite attack.

6.8. All products recognized by this report are manufactured by The AZEK® Company LLC in accordance with the manufacturer's approved quality control system with inspections by Intertek Testing Services NA, Inc.

7.0 SUPPORTING EVIDENCE

7.1. Manufacturer's drawings and installation instructions.

7.2. Reports of testing demonstrating compliance with ICC-ES AC174, Acceptance Criteria for Deck Board Span Ratings and Guardrail Systems (Guards and Handrails), revised December 2014.





7.3. Reports of testing and engineering analysis demonstrating compliance with the performance requirements of ASTM D 7032-17, Standard Specification for Establishing Performance Ratings for Wood-Plastic Composite Deck Boards and Guardrail Systems (Guards or Handrails).

7.4. Documentation of an Intertek approved quality control system for the manufacturing of products recognized in this report.

7.5. Intertek Listing Report, "[TimberTech® Decking Planks](#)" on the [Intertek Directory of Building Products](#).

8.0 IDENTIFICATION

TimberTech® Decking Planks are produced in accordance with this report shall be identified with labeling on the individual deck boards that includes the following information:

8.1. Name, address, phone number, and/or trademark of the manufacturer.

8.2. The following statement: "ASTM D 7032. See Intertek CCRR-0128 at <https://bpdirectory.intertek.com>."

8.3. The Intertek Code Compliance Research Report mark and number (CCRR-0128).



9.0 FLORIDA BUILDING CODE

9.1. Scope of Evaluation:

The TimberTech® Decking Planks were evaluated for compliance with the *2020 Florida Building Code – Building* and *Florida Building Code – Residential*.

9.2. Conclusion:

The TimberTech® Decking Planks, described in Sections 2.0 through 7.0 of this Research Report, comply with the *2020 Florida Building Code – Building* and *Florida Building Code – Residential*, subject to the following conditions:

- Use of the TimberTech® Decking Planks] for compliance with the High-Velocity Hurricane Zone provisions of the *2020 Florida Building Code – Building* and the *Florida Building Code – Residential* has not been evaluated and is outside the scope of this Research Report.
- Intertek is an approved *evaluation entity* and *quality assurance entity* pursuant to Florida Statute 553.842 – *Product Evaluation and Approval*.

10.0 CODE COMPLIANCE RESEARCH REPORT USE

10.1. Approval of building products and/or materials can only be granted by a building official having legal authority in the specific jurisdiction where approval is sought.

10.2. Code Compliance Research Reports shall not be used in any manner that implies an endorsement of the product by Intertek.

10.3. Reference to the <https://bpdirectory.intertek.com> is recommended to ascertain the current version and status of this report.





TABLE 1 – SPAN AND UPLIFT RESISTANCE RATINGS

Decking Plank	Span/Load Rating ¹	Stair Tread Span ²	Fastener	Wind Uplift Resistance ³
<i>DockSider™</i>	24/200	21"	#8 x 3" Deck Screw	220 lb/ft ²
<i>Edge Premier Solid</i>	16/100	12"	#10 x 2-1/2" <i>TOPLoc™</i> Steel Deck Screw	464 lb/ft ²
<i>Edge Premier Grooved</i>	16/100	Not Permitted ⁴	FUSIONLoc™ Hidden Deck Fastener, installed using 2 in long trim head stainless steel screw (11 TPI, 0.164 in major dia., 0.110 in minor dia., 0.119 in shank dia., 0.232 in head dia., square drive trim head, type 17 point)	248 lb/ft ²
			CONCEALoc® Hidden Fastener System ⁶ , installed using 1.6 in long trim head stainless steel screw (10 TPI, 0.160 in major dia., 0.105 in minor dia., 0.116 in shank dia., 0.225 in head dia., square drive trim head, type 17 point)	181 lb/ft ²
<i>Edge Prime Solid</i>	16/100	16" ⁽⁷⁾	#10 x 2-1/2" <i>TOPLoc™</i> Steel Deck Screw	464 lb/ft ²
			#10 x 2-3/4" <i>FastenMaster®</i> Cortex	338 lb/ft ²
<i>Edge Prime Grooved</i>	16/100	Not Permitted ⁴	FUSIONLoc™ Hidden Deck Fastener, installed using 2 in long trim head stainless steel screw (11 TPI, 0.164 in major dia., 0.110 in minor dia., 0.119 in shank dia., 0.232 in head dia., square drive trim head, type 17 point)	231 lb/ft ²
			CONCEALoc® Hidden Fastener System ⁶ , installed using 1.6 in long trim head stainless steel screw (10 TPI, 0.160 in major dia., 0.105 in minor dia., 0.116 in shank dia., 0.225 in head dia., square drive trim head, type 17 point)	181 lb/ft ²
<i>Legacy Solid</i>	18/100	10"	#10 x 2-1/2" <i>TOPLoc</i> Steel Deck Screw	393 lb/ft ²
			2-1/2" <i>GripRite PrimeGuard®</i> Plus Screw	393 lb/ft ²
<i>Legacy Grooved</i>	18/100	Not Permitted ⁴	CONCEALoc® Hidden Fastener System ⁶ , installed using 1.6 in long trim head stainless steel screw (10 TPI, 0.160 in major dia., 0.105 in minor dia., 0.116 in shank dia., 0.225 in head dia., square drive trim head, type 17 point)	184 lb/ft ²
<i>ReliaBoard</i>	16/100	9"	#8 x 2-1/2" Deck Screw	340 lb/ft ²
<i>Terrain Solid</i>	18/100	16" ⁽⁷⁾	#10 x 2-1/2" <i>TOPLoc™</i> Steel Deck Screw	464 lb/ft ²
			2-1/2" <i>GripRite PrimeGuard®</i> Plus Screw	575 lb/ft ²



Decking Plank	Span/Load Rating ¹	Stair Tread Span ²	Fastener	Wind Uplift Resistance ³
<i>Terrain Grooved</i>	18/100	Not Permitted ⁴	CONCEALoc® Hidden Fastener System ⁶ , installed using 1.6 in long trim head stainless steel screw (10 TPI, 0.160 in major dia., 0.105 in minor dia., 0.116 in shank dia., 0.225 in head dia., square drive trim head, type 17 point)	170 lb/ft ²
<i>Reserve/Tropical Solid</i>	16/100	10"	#8 x 2-1/2" Headcote™	436 lb/ft ²
			#10 x 2-3/4" FastenMaster® Cortex	436 lb/ft ²
			#10 x 2-1/2" TOPLoc™	436 lb/ft ²
<i>Reserve/Tropical Grooved</i>	16/100	Not Permitted ⁴	CONCEALoc® Hidden Fastener System ⁶ , installed using 1.6 in long trim head stainless steel screw (10 TPI, 0.160 in major dia., 0.105 in minor dia., 0.116 in shank dia., 0.225 in head dia., square drive trim head, type 17 point)	147 lb/ft ²
			FUSIONLoc™ Hidden Deck fastener with 2" pneumatic scrails (16 TPI, 0.113" shank dia., 0.258" head dia.). Starter board (edge) face-fastened with one #8 x 2-1/2" stainless steel trim-head Headcote™ screw	170 lb/ft ²
<i>TwinFinish® Solid</i>	24/100	12"	#8 x 3" Deck Screw	220 lb/ft ²
<i>TwinFinish® Grooved</i> ⁵	24/100	Not Permitted ⁴	CONCEALoc® Hidden Fastener System ⁶ , installed using 1.6 in long trim head stainless steel screw (10 TPI, 0.160 in major dia., 0.105 in minor dia., 0.116 in shank dia., 0.225 in head dia., square drive trim head, type 17 point)	104 lb/ft ²

¹ Span/Load rating is the maximum span in inches and the maximum allowable live load in pounds per square feet (psf).

² Stair tread span is based on a continuous deck board over two or more equal spans (3 supports).

³ Wind uplift resistance is based on two fasteners at each support (wood joist) except *Grooved* Planks which use one hidden fastener located at each joist. Values have been adjusted for wind load duration and end use. No further adjustments shall be made.

⁴ *Grooved* Deck Planks are not used as stair treads.

⁵ Mono-Extruded and Co-Extruded values are the same.

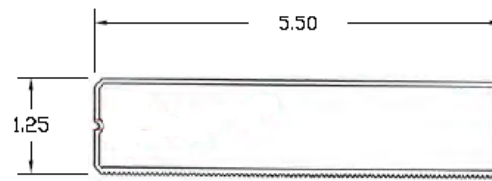
⁶ Alternatively, grooved deck boards may be face fastened with the fasteners recognized for the relevant solid deck board.

⁷ Terrain Solid and Edge Prime Solid deck boards stair tread spans require supplemental 2x6 blocking as detailed in Figure 10.



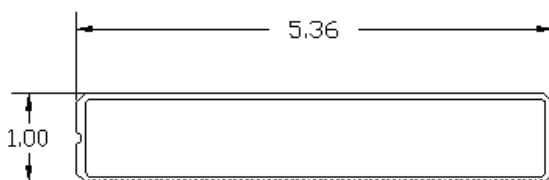
TABLE 2 – DECK BOARD DESCRIPTIONS AND COLORS

Decking Plank	Description	Color(s)
<i>DockSider™</i>	1.25" x 5.5" Solid cross-section with beveled corners.	Grey and Cedar
<i>Edge Prime Solid</i>	0.937" x 5.360" cross section with two bottom longitudinal grooves 0.437" deep and separated by 0.980" rib. Top corners have radiuses. Bottom surface corners have beveled corners.	Beachwood Brown, Dark Teak, Fieldstone Grey, Maritime Gray,
<i>Edge Prime Grooved</i>	0.937" x 5.360" cross section with two bottom longitudinal grooves 0.437" deep and separated by 1.010" rib, longitudinal side grooves are 0.212 x 0.400" deep for hidden fasteners. Top corners have radiuses. Bottom corners are beveled.	
<i>Edge Premier Solid</i>	0.890" x 5.360" solid cross section with beveled bottom edges	Beachwood Brown, Beachwood Gray, Dark Teak, Fieldstone Grey, Maritime Gray, Tidal Sand
<i>Edge Premier Grooved</i>	0.890" x 5.360" solid cross section with beveled bottom corners. Longitudinal side grooves are 0.212" x 0.400 deep for hidden fasteners	
<i>Legacy Solid</i>	0.938" x 5.360" solid cross section with beveled edges	Ashwood, Espresso, Mocha, Pecan, Sapele, Tigerwood, Whitewash Cedar
<i>Legacy Grooved</i>	0.938" x 5.360" solid cross section with beveled corners. Longitudinal side grooves are 0.212" x 0.400 deep for CONCEALoc® hidden fasteners	
<i>ReliaBoard</i>	0.938" x 5.4" Solid cross-section with beveled corners and 3 - 0.20" deep longitudinal grooves on the underside.	Grey and Cedar
<i>Terrain Solid</i>	0.937" x 5.360" cross section with two bottom longitudinal grooves 0.437" deep and separated by 0.980" rib. Top corners have radiuses. Bottom surface corners have beveled corners.	Brown Oak, Rustic Elm, Sandy Birch, Silver Maple, Stone Ash
<i>Terrain Grooved</i>	0.937" x 5.360" cross section with two bottom longitudinal grooves 0.437" deep and separated by 1.010" rib. longitudinal side grooves are 0.212 x 0.400" deep for CONCEALoc® hidden fasteners. Top corners have radiuses. Bottom corners are beveled.	
<i>Reserve/Tropical Solid</i>	0.938" x 5.360" Solid cross-section with beveled corners	Tropical: Amazon Mist, Antigua Gold, Antique Palm, Caribbean Redwood Reserve: Antique Leather, Dark Roast, Driftwood, Storm Gray
<i>Reserve/Tropical Grooved</i>	0.938" x 5.360" Solid cross-section with beveled corners and the bottom surface corners having 0.165" x 45° beveled corners. Longitudinal side grooves are 0.212" x 0.400" deep for CONCEALoc® hidden fasteners.	
<i>TwinFinish® Grooved</i>	1.0" x 5.4" Solid cross-section with 0.09" with beveled corners.	Cedar, Grey, Redwood
<i>TwinFinish® Grooved</i>	1.0" x 5.4" Solid cross-section with 0.09" with beveled corners and 0.212" x 0.400" deep longitudinal side grooves for CONCEALoc® hidden fasteners.	

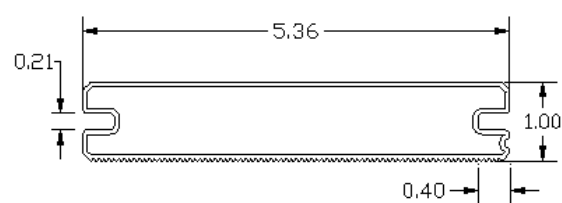


Co-Extruded

FIGURE 1 – DOCKSIDER™ PLANK



Solid



Grooved

FIGURE 2 – CO-EXTRUDED SOLID AND GROOVED TWINFINISH® PLANK

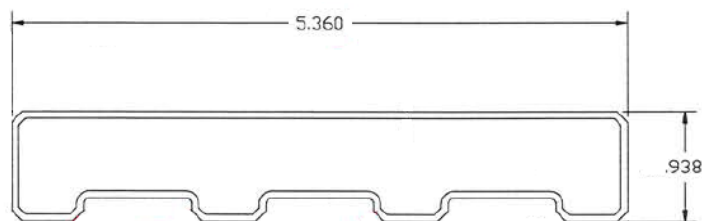
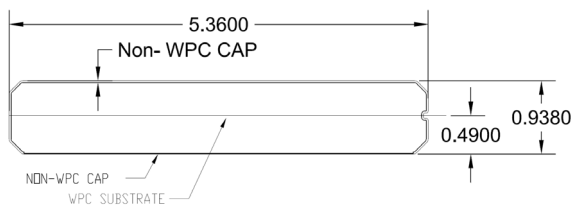
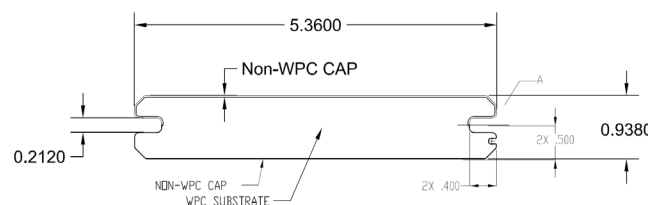


FIGURE 3 – RELIABOARD DECK BOARD PROFILE

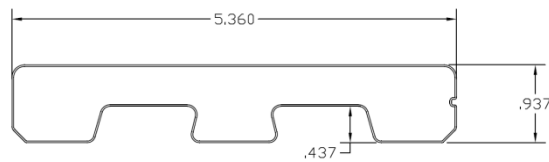


Solid

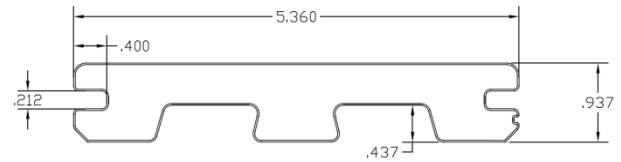


Grooved

FIGURE 4 – RESERVE/TROPICAL SOLID & GROOVED DECK BOARD PROFILES

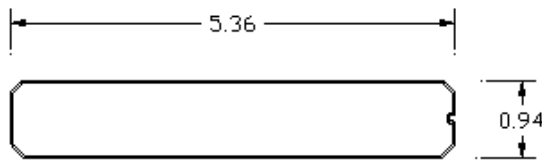


Solid

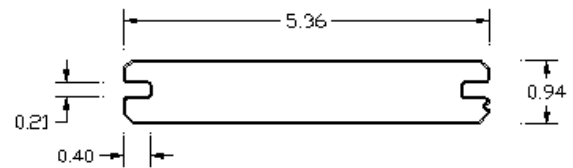


Grooved

FIGURE 5 – TERRAIN SOLID & GROOVED DECK BOARD PROFILES

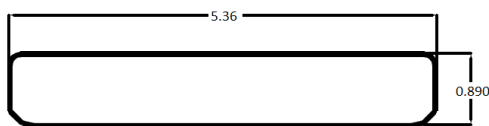


Solid

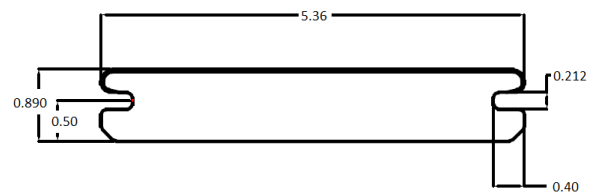


Grooved

FIGURE 6 – LEGACY DECKING

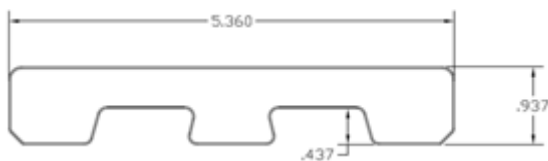


Solid

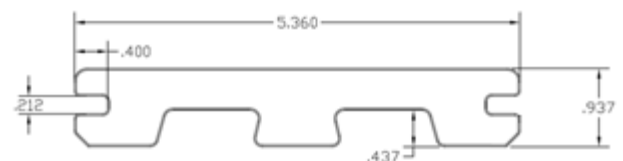


Grooved

FIGURE 7 – EDGE PREMIER SOLID & GROOVED DECK BOARD PROFILES



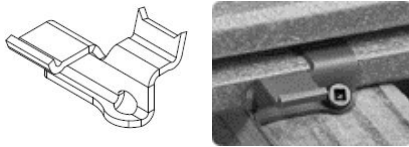
Solid



Grooved

FIGURE 8 – EDGE PRIME SOLID & GROOVED DECK BOARD PROFILES

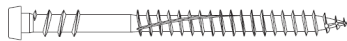




CONCEALoc® Hidden Fastener Clip



FusionLoc™ Hidden Fastener



FastenMaster® Cortex



TOPLoc™ Face Fastener

FIGURE 9 – FASTENERS

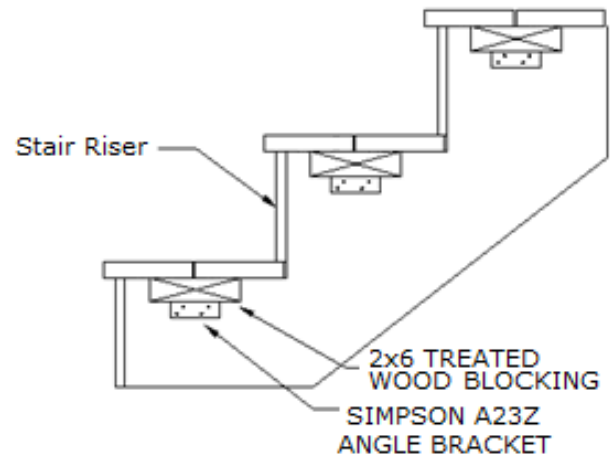
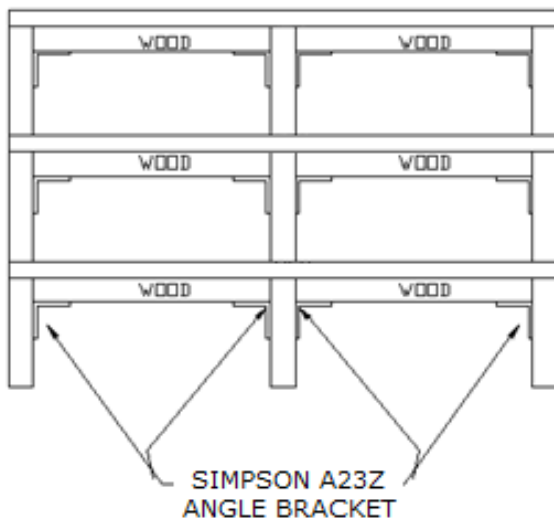


FIGURE 10 – STAIR TREAD INSTALLATION DETAIL
(REQUIRED FOR TERRAIN AND EDGE PRIME SOLID STAIR TREAD SPANS)