



CERTIFICATION



Approved. Sealed. Code Compliant.

Technical Evaluation Report

TER 1911-02

**Big Timber® STX and SCTX Stainless
Screw Properties**

**Western Builders Supply
DBA Big Timber®**

Products:

STX and SCTX Stainless Screws

Issue Date:

April 27, 2021

Revision Date:

March 9, 2022

Subject to Renewal:

October 1, 2022



COMPANY
INFORMATION:

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DBA Big Timber®

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DIVISION: 06 00 00 - WOOD, PLASTICS AND COMPOSITES

SECTION: 06 05 23 - Wood, Plastic, and Composite Fastenings

1 PRODUCTS EVALUATED¹

- 1.1 STX and SCTX Stainless Screws

2 APPLICABLE CODES AND STANDARDS^{2,3}

2.1 Codes

- 2.1.1 *IBC—12, 15, 18: International Building Code®*
- 2.1.2 *IRC—12, 15, 18: International Residential Code®*
- 2.1.3 *FBC-B—17, 20: Florida Building Code – Building (FL 41094)*
- 2.1.4 *FBC-R—17, 20: Florida Building Code – Residential⁴ (FL 41094)*

2.2 Standards and Referenced Documents

- 2.2.1 *AISI S904: Standard Test Methods for Determining the Tensile and Shear Strength of Screws*
- 2.2.2 *ANSI / AWC NDS: National Design Specification (NDS) for Wood Construction*
- 2.2.3 *ASTM A493: Standard Specification for Stainless Steel Wire and Wire Rods for Cold Heading and Cold Forging*
- 2.2.4 *ASTM B117: Standard Practice for Operating Salt Spray (Fog) Apparatus*
- 2.2.5 *ASTM D1761: Standard Test Methods for Mechanical Fasteners in Wood*
- 2.2.6 *ASTM D2395: Standard Test Methods for Density and Specific Gravity (Relative Density) of Wood and Wood-Based Materials*
- 2.2.7 *ASTM D2915: Standard Practice for Sampling and Data-Analysis for Structural Wood and Wood-Based Products*

¹ For more information, visit drjcertification.org or call us at 608-310-6748.

² Unless otherwise noted, all references in this TER are from the 2018 version of the codes and the standards referenced therein. This material, design, or method of construction also complies with the 2000-2015 versions of the referenced codes and the standards referenced therein.

³ All terms defined in the applicable building codes are italicized.

⁴ All references to the *FBC-B* and *FBC-R* are the same as the 2018 *IBC* and 2018 *IRC* unless otherwise noted in the Florida Supplement at the end of this TER

- 2.2.8 *ASTM D4442: Standard Test Methods for Direct Moisture Content Measurement of Wood and Wood-Based Materials*
- 2.2.9 *ASTM F1575: Standard Test Method for Determining Bending Yield Moment of Nails*
- 2.2.10 *ASTM G85: Standard Practice for Modified Salt Spray (Fog) Testing*
- 2.2.11 *DOS PS 2: Performance Standard for Wood-based Structural-use Panels*

3 PERFORMANCE EVALUATION

- 3.1 Big Timber® STX and SCTX Stainless Screws were tested and evaluated to determine their structural resistance properties, which are used to develop reference design values for allowable stress design (ASD). The following properties were evaluated:
 - 3.1.1 Withdrawal strength in accordance with *ASTM D1761*
 - 3.1.2 Lateral shear in accordance with *NDS*
 - 3.1.3 Bending yield in accordance with *ASTM F1575*
 - 3.1.4 Tensile strength in accordance with *AISI S904*
 - 3.1.5 Shear strength in accordance with *AISI S904*
 - 3.1.6 Head pull-through in accordance with *ASTM D1761*
 - 3.1.7 Corrosion resistance in accordance with *ASTM B117 and ASTM G85*
- 3.2 Any code compliance issues not specifically addressed in this section are outside the scope of this TER.
- 3.3 Any engineering evaluation conducted for this TER was performed within DrJ's ANAB accredited ICS code scope and/or the defined professional engineering scope of work on the dates provided herein.

4 PRODUCT DESCRIPTION AND MATERIALS

- 4.1 STX and SCTX Stainless screws are made from Grade 316 stainless steel. The STX screw has a round flat head with ribs and a star drive (torx screw) and is partially threaded (Figure 1). The SCTX screw has a round washer head and a star drive (torx screw) and is partially threaded (Figure 2).



FIGURE 1. STX GENERAL PURPOSE STAINLESS STEEL SCREW



FIGURE 2. SCTX CONSTRUCTION LAG STAINLESS STEEL SCREW

- 4.2 STX and SCTX screws are manufactured using a standard cold-formed process.
- 4.3 STX and SCTX screws approved for use in chemically treated or untreated lumber where *ASTM A153, Class D* coatings are approved for use in accordance with *IBC Section 2304.10*⁵ and *IRC Section R317.3*.

⁵ 2012 IBC Section 2304.9

- 4.3.1 The stainless fasteners have been tested and found to exceed the protection provided by code-approved hot-dipped galvanized coatings meeting *ASTM A153, Class D (IBC Section 2304.10.5⁶ and IRC Section R317.3)*, allowing for its use in pressure treated wood.
- 4.4 STX and SCTX screws are approved for use in fire-retardant-treated lumber, provided the conditions set forth by the fire-retardant-treated lumber manufacturer are met, including appropriate strength reductions.
- 4.5 STX and SCTX screws are approved for use in chemically-treated wood with exposure to saltwater, including coastal construction applications.
- 4.6 The fasteners evaluated in this TER are set forth in Table 1.

TABLE 1. FASTENER SPECIFICATIONS

Fastener Name(s)	Designation	Head		Nominal Length ¹ (in)	Thread Length ¹ (in)	Shank Diameter ² (in)	Thread Diameter (in)		Nominal Bending Yield, f_{yb} (psi)	Allowable Fastener Strength (lbf)	
		Diameter (in)	Drive Type				Minor	Major		Tensile	Shear ³
STX	8 x 1¼"	0.329	Torx 20	1¼	¾	0.116	0.100	0.163	122,000	360	355
	8 x 1½"			1½	1						
	8 x 2"			2	1¼						
	9 x 1⅝"	0.350	Torx 25	1⅝	1	0.130	0.110	0.181	122,000	375	340
	9 x 2"			2	1¼						
	9 x 2½"			2½	1½						
	9 x 3"	0.376	Torx 25	3	1½	0.145	0.126	0.193	124,000	440	420
	10 x 2½"			2½	1½						
	10 x 3"			3	1½						
	10 x 3½"			3½	2						
10 x 4"	0.620	Torx 30	4	2	0.202	0.179	0.275	111,000	855	725	
15 x 2"			2	1½							
15 x 2½"			2½	1½							
15 x 3"			3	2							
15 x 3½"			3½	2½							
15 x 4"			4	2½							
15 x 5"			5	3							
15 x 6"			6	3							
15 x 7"			7	3½							
15 x 8"	8	4									

SI: 1 in = 25.4 mm, 1 lb = 4.45 N, 1 psi = 0.00689 MPa

1. STX fastener length is measured from the top of the head to the tip. SCTX fastener length is measured from the underside of the head to the tip. Thread length includes the tapered tip.
2. Shank diameter based on manufactured thickness.
3. Shear strength applicable at both the smooth shank and thread diameter.

⁶ 2012 IBC Section 2304.9.5



5 APPLICATIONS

5.1 *General*

- 5.1.1 STX and SCTX screws are used to attach wood framing members in conventional light-frame construction and provide resistance against withdrawal, head pull-through, axial, and shear loads. See Section 6 for installation requirements.
- 5.1.2 STX and SCTX screws are installed without lead holes, as prescribed in *NDS*.
- 5.1.3 Where the application exceeds the limitations set forth herein, design shall be permitted in accordance with accepted engineering procedures, experience, and technical judgment.

5.2 *Structural Applications*

- 5.2.1 Design of STX and SCTX screws is governed by the applicable code and the provisions for dowel-type fasteners in *NDS*.
- 5.2.2 Unless otherwise noted, adjustment of the design stresses for duration of load shall be in accordance with the applicable code.

5.3 *STX and SCTX Reference Lateral Design Values (Z)*

- 5.3.1 Reference lateral design values (lb) for shear load parallel and perpendicular to grain for STX and SCTX screws are specified in Table 2 for oriented strand board (OSB) and Table 3 for sawn lumber.

TABLE 2. REFERENCE LATERAL DESIGN VALUES FOR SPF MAIN MEMBER AND OSB SIDE MEMBER CONNECTIONS

Fastener Name	Designation	Nominal Length (in)	Thread Length (in)	Minimum Side Member Thickness (in)	Minimum Main Member Penetration ⁴ (in)	Lateral Design Value ^{2,3} , Z (lbf)	
						OSB ⁵ (SG = 0.50)	
						Z _⊥	Z
STX	8 x 1½"	1½	1	23/32	¾	50	50
	8 x 2"	2	1¼		1¼	60	60
	9 x 1⅝"	1⅝	1		7/8		
	9 x 2"	2	1¼		1¼	65	65
	9 x 2½"	2½	1½		1½		
	9 x 3"	3	1½				
	10 x 2½"	2½	1½				
	10 x 3"	3	1½		1½	80	80
	10 x 3½"	3½	2				
	10 x 4"	4	2				
	8 x 1¼"	1¼	¾	7/16	¾	40	40
	8 x 1½"	1½	1		1	45	45
	8 x 2"	2	1¼		1½		
	9 x 1⅝"	1⅝	1		1⅝	55	55
	9 x 2"	2	1¼				
	9 x 2½"	2½	1½		1½		
	9 x 3"	3	1½				
	10 x 2½"	2½	1½				
	10 x 3"	3	1½		1½	70	70
	10 x 3½"	3½	2				
10 x 4"	4	2					

SI: 1 in = 25.4 mm, 1 lb = 4.45 N

- Reference lateral design values apply to two-member single shear connections where the side member is OSB, the main member is SPF (SG = 0.42), and the fastener is installed in the face of the member and oriented perpendicular to grain. The main member shall have a minimum thickness of 1.5"
- Tabulated lateral design values (Z) shall be adjusted by all applicable adjustment factors per NDS Table 11.3.1.
- Z_⊥ = Lateral Design Values Perpendicular to Main Member Grain, Z_{||} = Lateral Design Values Parallel to Main Member Grain.
- Fastener main member penetration is the length embedded in the main member, including the tip.
- OSB shall comply with DOC PS 2. OSB shall have a specific gravity of at least 0.50.

TABLE 3. REFERENCE LATERAL DESIGN VALUES FOR CONNECTIONS IN SAWN LUMBER

Fastener Name	Designation	Nominal Length (in)	Thread Length (in)	Minimum Side Member Thickness (in)	Minimum Main Member Penetration ⁵ (in)	Lateral Design Value, Z (lbf)						
						HF/SPF (SG = 0.42)		DF-L (SG = 0.50)		SP (SG = 0.55)		
						Z _⊥	Z _∥	Z _⊥	Z _∥	Z _⊥	Z _∥	
STX	8 x 1½"	1½	1	¾	¾	40	40	55	55	65	65	
	8 x 2"	2	1¼			1¼	50	50	60	60	70	70
	9 x 1⅝"	1⅝	1	¾	7/8	50	50	70	70	80	80	
	9 x 2"	2	1¼			1¼	60	60	75			75
	9 x 2½"	2½	1½	1½	1	60	60	75	75	80	80	
	9 x 3"	3	1½			1½	65					65
	10 x 2½"	2½	1½	1½	1	75	75	95	95	110	110	
	10 x 3"	3	1½			1½	85	85	100	100	110	110
	10 x 3½"	3½	2									
	10 x 4"	4	2									
SCTX	15 x 2"	2	1½	¾	1¼	75	95	105	130	125	155	
	15 x 2½"	2½	1½			1½	95	115	115	145	130	160
	15 x 3"	3	2	1½	1½	115	140	145	185	160	200	
	15 x 3½"	3½	2½			125	155					
	15 x 4"	4	2½	1½	2½	125	155	145	185	160	200	
	15 x 5"	5	3									
	15 x 6"	6	3									
	15 x 7"	7	3½	3½	3½	125	155	145	185	160	200	
	15 x 8"	8	4									

SI: 1 in = 25.4 mm, 1 lb = 4.45 N

- Reference lateral design values apply to two-member single shear connections where both members are of the same specific gravity, and the fastener is installed in the face of the member and oriented perpendicular to grain. Where the members are of different specific gravities, use the lower of the two.
- For wood species with a specific gravity between 0.42 and 0.50, use the tabulated values for specific gravity of 0.42.
- Tabulated lateral design values (Z) shall be adjusted by all applicable adjustment factors per NDS Table 11.3.1.
- Z_⊥ = Lateral Design Values Perpendicular to Grain, Z_∥ = Lateral Design Values Parallel to Grain.
- Fastener main member penetration is the length embedded in the main member, including the tip.

5.4 STX and SCTX Reference Withdrawal Design Values (W) in Side Grain Applications

- 5.4.1 Reference withdrawal design values (lb/in) for STX and SCTX screws in sawn lumber are specified in Table 4 and Table 5, respectively.

TABLE 4. STX REFERENCE WITHDRAWAL DESIGN VALUES¹

Fastener Name	Designation	Nominal Length (in)	Thread Length (in)	Withdrawal Design Value, W (lbf/in)		
				Wood Species ² (Specific Gravity)		
				HF/SPF (0.42)	DF-L (0.50)	SP (0.55)
STX	8 x 1¼"	1¼	¾	100	150	150
	8 x 1½"	1½	1			
	8 x 2"	2	1¼			
	9 x 1 ⁵ / ₈ "	1 ⁵ / ₈	1	120	155	155
	9 x 2"	2	1¼			
	9 x 2½"	2½	1½			
	9 x 3"	3	1½			
	10 x 2½"	2½	1½	110	160	165
	10 x 3"	3	1½			
	10 x 3½"	3½	2			
	10 x 4"	4	2			

SI: 1 in = 25.4 mm, 1 lb/ft = 0.0146 kN/m

1. Tabulated withdrawal values (W) shall be adjusted by all applicable adjustment factors per *NDS* Table 11.3.1.
2. For wood species with a specific gravity between 0.42 and 0.50, use the tabulated values for specific gravity of 0.42.
3. The full design withdrawal value is equal to the reference withdrawal value multiplied by the length of the threaded portion of the fastener embedded in the main member. Fastener penetration is the threaded length embedded in the main member, including the tip.

TABLE 5. SCTX REFERENCE WITHDRAWAL DESIGN VALUES¹

Fastener Name	Designation	Nominal Length (in)	Thread Length (in)	Withdrawal Design Value ³ , W (lbf/in)		
				Wood Species ² (Specific Gravity)		
				HF/SPF (0.42)	DF-L (0.50)	SP (0.55)
SCTX	15 x 2"	2	1½	140	195	215
	15 x 2½"	2½	1½			
	15 x 3"	3	2			
	15 x 3½"	3½	2½	175		230
	15 x 4"	4	2½			
	15 x 5"	5	3			
	15 x 6"	6	3			
	15 x 7"	7	3½			
	15 x 8"	8	4			

SI: 1 in = 25.4 mm, 1 lb/ft = 0.0146 kN/m

1. Tabulated withdrawal values (W) shall be adjusted by all applicable adjustment factors per *NDS* Table 11.3.1.
2. For wood species with a specific gravity between 0.42 and 0.55, use the tabulated values for specific gravity of 0.42.
3. The full design withdrawal value is equal to the reference withdrawal value multiplied by the length of the threaded portion of the fastener embedded in the main member. Fastener penetration is the threaded length embedded in the main member, excluding the tip.

5.5 STX and SCTX Reference Head Pull-Through Design Values (P)

- 5.5.1 Reference design values for head pull-through (lb) for STX screws are specified in Table 6 for OSB and Table 7 for sawn lumber.
- 5.5.2 Reference design values for head pull-through (lb) for SCTX screws are specified in Table 8.

TABLE 6. STX REFERENCE HEAD PULL-THROUGH DESIGN VALUES IN OSB

Fastener Name	Designation	Nominal Length (in)	Thread Length (in)	Head Pull-Through Design Value ¹ , P (lbf)	
				OSB ² Thickness (SG = 0.50)	
				23/32"	7/16"
STX	8 x 1¼"	1¼	¾	115	50
	8 x 1½"	1½	1		
	8 x 2"	2	1¼		
	9 x 1⅝"	1⅝	1	135	80
	9 x 2"	2	1¼		
	9 x 2½"	2½	1½		
	9 x 3"	3	1½		
	10 x 2½"	2½	1½	145	90
	10 x 3"	3	1½		
	10 x 3½"	3½	2		
	10 x 4"	4	2		

SI: 1 in = 25.4 mm, 1 lb = 4.45 N

1. Tabulated pull-through values (P) shall be adjusted by all applicable adjustment factors per *NDS* Table 11.3.1.
2. OSB shall comply with *DOC PS 2*. OSB and have a specific gravity of at least 0.50. Listed thicknesses are minimums.

TABLE 7. STX REFERENCE HEAD PULL-THROUGH DESIGN VALUES IN SAWN LUMBER

Fastener Name	Designation	Nominal Length (in)	Thread Length (in)	Head Pull-Through Design Value ^{1,3} , P (lbf)		
				Wood Species ² (Specific Gravity)		
				HF/SPF (0.42)	DF-L (0.50)	SP (0.55)
STX	9 x 1 ⁵ / ₈ "	1 ⁵ / ₈	1	125	185	200
	9 x 2"	2	1 ¹ / ₄			
	9 x 2 ¹ / ₂ "	2 ¹ / ₂	1 ¹ / ₂			
	9 x 3"	3	1 ¹ / ₂			
	10 x 2 ¹ / ₂ "	2 ¹ / ₂	1 ¹ / ₂	140	215	230
	10 x 3"	3	1 ¹ / ₂			
	10 x 3 ¹ / ₂ "	3 ¹ / ₂	2			
	10 x 4"	4	2			

SI: 1 in = 25.4 mm, 1 lb = 4.45 N

1. Tabulated pull-through values (P) shall be adjusted by all applicable adjustment factors per NDS Table 11.3.1.
2. For wood species with a specific gravity between 0.42 and 0.50, use the tabulated values for specific gravity of 0.42.
3. Pull-through design values apply to connections having a minimum wood side member thickness of at least 1.5".

TABLE 8. SCTX REFERENCE HEAD PULL-THROUGH DESIGN VALUES IN SAWN LUMBER

Fastener Name	Designation	Nominal Length (in)	Thread Length (in)	Head Pull-Through Design Value ^{1,3} , P (lbf)		
				Wood Species ² (Specific Gravity)		
				HF/SPF (0.42)	DF-L (0.50)	SP (0.55)
SCTX	15 x 2"	2	1 ¹ / ₂	340	485	485
	15 x 2 ¹ / ₂ "	2 ¹ / ₂	1 ¹ / ₂			
	15 x 3"	3	2			
	15 x 3 ¹ / ₂ "	3 ¹ / ₂	2 ¹ / ₂			
	15 x 4"	4	2 ¹ / ₂			
	15 x 5"	5	3			
	15 x 6"	6	3			
	15 x 7"	7	3 ¹ / ₂			
	15 x 8"	8	4			

SI: 1 in = 25.4 mm, 1 lb = 4.45 N

1. Tabulated pull-through values (P) shall be adjusted by all applicable adjustment factors per NDS Table 11.3.1.
2. For wood species with a specific gravity between 0.42 and 0.55, use the tabulated values for specific gravity of 0.42.
3. Pull-through design values apply to connections having a minimum wood side member thickness of at least 1.5".

6 INSTALLATION

- 6.1 Installation shall comply with the manufacturer’s installation instructions and this TER. In the event of a conflict between the manufacturer’s installation instructions and this TER, the more restrictive shall govern.
- 6.2 Minimum penetration is 1”, unless otherwise stated in this TER. Install fasteners with head flush to the surface of the wood member.
- 6.3 Lead holes are not required.
- 6.4 Screws shall be installed with the appropriate rotating powered driver and never driven with a hammer.
- 6.5 Minimum requirements for screw spacing, edge distance, and end distance shall be in accordance with Table 9.

TABLE 9. STX AND SCTX SCREW SPACING, EDGE DISTANCE, AND END DISTANCE REQUIREMENTS^{1,2}

Connection Geometry	Minimum Spacing/Distance (in)			
	STX8	STX9	STX10	SCTX15
Edge Distance – Load in any direction	3/8	3/8	3/8	5/8
End Distance – Load parallel to grain, towards end	1 3/4	2	2 1/4	3 1/8
End Distance – Load parallel to grain, away from end	1 1/4	1 3/8	1 1/2	2 1/8
End Distance – Load perpendicular to grain	1 1/4	1 3/8	1 1/2	2 1/8
Spacing between Fasteners in a Row – Parallel to grain	1 3/4	2	2 1/4	3 1/8
Spacing between Fasteners in a Row – Perpendicular to grain	1 1/4	1 3/8	1 1/2	2 1/8
Spacing between Rows of Fasteners – In-line	5/8	3/4	3/4	1 1/8
Spacing between Rows of Fasteners – Staggered	3/8	3/8	3/8	5/8

SI: 1 in = 25.4 mm

1. Edge distances, end distances, and spacing of fasteners shall be sufficient to prevent splitting of the wood or as shown in this table, whichever is the more restrictive.
2. Values for “Spacing between Rows of Fasteners-Staggered” apply where the screws in adjacent rows are offset by one half of the “Spacing between Fasteners in a Row”

7 SUBSTANTIATING DATA

- 7.1 Testing has been performed under the supervision of a professional engineer and/or under the requirements of ISO/IEC 17025 as follows:
 - 7.1.1 Bending yield testing in accordance with *ASTM F1575*
 - 7.1.2 Shear and tensile testing in accordance with *AISI S904*
 - 7.1.3 Lateral strength testing in accordance with *ASTM D1761*
 - 7.1.4 Withdrawal strength testing in accordance with *ASTM D1761*
 - 7.1.5 Head pull-through testing in accordance with *ASTM D1037 and ASTM D1761*
 - 7.1.6 Corrosion resistance testing in accordance with *ASTM B117 and ASTM G85*
- 7.2 Calculations for reference lateral design values in accordance with *NDS* and accepted engineering practice.
- 7.3 Information contained herein is the result of testing and/or data analysis by sources which conform to *IBC Section 1703* and/or *professional engineering regulations*. DrJ relies upon accurate data to perform its ISO/IEC 17065 evaluations.
- 7.4 Where appropriate, DrJ’s analysis is based on provisions that have been codified into law through state or local adoption of codes and standards. The providers of the codes and standards are legally responsible for their content. DrJ analysis may use code-adopted provisions as a control sample. A control sample versus a test sample establishes a product as *being equivalent* to that prescribed in this code in quality, *strength*, effectiveness, *fire resistance*, durability, and safety. Where the accuracy of the provisions provided herein is reliant upon the published properties of materials, DrJ relies upon the grade mark, grade stamp, mill certificate, and/or test data provided by material suppliers to be minimum properties. DrJ analysis relies upon these properties to be accurate.

8 FINDINGS

- 8.1 When used and installed in accordance with this TER and the manufacturer's installation instructions, the product(s) listed in Section 1.1 have the reference design value properties defined herein and are approved for use in accordance with the applicable code.
- 8.2 This product has been evaluated in the context of the codes listed in Section 2 and is compliant with all known state and local building codes. Where there are known variations in state or local codes applicable to this TER, they are listed here.
 - 8.2.1 No known variations
- 8.3 Building codes require data from valid research reports be obtained from approved sources (i.e., licensed registered design professionals [RDPs]).
 - 8.3.1 Building official approval of a licensed RDP is performed by verifying the RDP and/or their business entity is listed by the licensing board of the relevant jurisdiction.
- 8.4 Agencies who are accredited through ISO/IEC 17065 have met the code requirements for approval by the building official. DrJ is an ISO/IEC 17065 ANAB-Accredited Product Certification Body – Accreditation #1131 and employs RDPs.
- 8.5 Through ANAB accreditation and the IAF MLA, DrJ certification can be used to obtain product approval in any jurisdiction or country that has IAF MLA Members & Signatories to meet the Purpose of the MLA – “certified once, accepted everywhere.”
- 8.6 IBC Section 104.11 (IRC Section R104.11 and IFC Section 104.9 are similar) states:

104.11 Alternative materials, design and methods of construction and equipment. The provisions of this code are not intended to prevent the installation of any material or to prohibit any design or method of construction not specifically prescribed by this code...Where the alternative material, design or method of construction is not *approved*, the *building official* shall respond in writing, stating the reasons the alternative was not *approved*.

9 CONDITIONS OF USE

- 9.1 Wood member moisture content shall be less than or equal to 19% for sawn lumber and less than 16% for OSB.
- 9.2 Where required by the building official, also known as the authority having jurisdiction (AHJ) in which the project is to be constructed, this TER and the installation instructions shall be submitted at the time of permit application.
- 9.3 Any generally accepted engineering calculations needed to show compliance with this TER shall be submitted to the AHJ for review and approval.
- 9.4 Design loads shall be determined in accordance with the building code adopted by the jurisdiction in which the project is to be constructed and/or by the building designer (e.g., owner or RDP).
- 9.5 At a minimum, this product shall be installed per Section 6 of this TER.
- 9.6 This product has an internal quality control program and a third-party quality assurance program in accordance with IBC Section 104.4 and Section 110.4 and IRC Section R104.4 and Section R109.2.
- 9.7 The actual design, suitability, and use of this TER, for any particular building, is the responsibility of the owner or the owner's authorized agent.
- 9.8 This TER shall be reviewed for code compliance by the AHJ in concert with IBC Section 104.
- 9.9 The implementation of this TER for this product is dependent on the design, quality control, third-party quality assurance, proper implementation of installation instructions, inspections required by IBC Section 110.3, and any other code or regulatory requirements that may apply.



10 IDENTIFICATION

- 10.1 The product(s) listed in Section 1.1 are identified by a label on the board or packaging material bearing the manufacturer's name, product name, TER number, and other information to confirm code compliance.
- 10.2 Additional technical information can be found at bigtimberfasteners.com.

11 REVIEW SCHEDULE

- 11.1 This TER is subject to periodic review and revision. For the most recent version, visit drjcertification.org.
- 11.2 For information on the current status of this TER, contact [DrJ Certification](#).

Issue Date: March 9, 2022
Subject to Renewal: October 1, 2022

FBC Supplement to TER 1911-02

REPORT HOLDER: Western Builders Supply
DBA Big Timber®

1 EVALUATION SUBJECT

1.1 STX and SCTX Stainless Screws

2 PURPOSE AND SCOPE

2.1 Purpose

2.1.1 The purpose of this Technical Evaluation Report (TER) supplement is to show STX and SCTX Stainless Screws, recognized in TER 1911-02, has also been evaluated for compliance with the codes listed below as adopted by the Florida Building Commission.

2.2 Applicable Code Editions

2.2.1 *FBC-B—17, 20: Florida Building Code – Building (FL 41094)*

2.2.2 *FBC-R—17, 20: Florida Building Code – Residential (FL 41094)*

3 CONCLUSIONS

3.1 STX and SCTX Stainless Screws, described in TER 1911-02, complies with the *FBC-B* and *FBC-R* and is subject to the conditions of use described in this supplement.

3.2 Where there are variations between the *IBC* and *IRC* and the *FBC-B* and *FBC-R* applicable to this TER, they are listed here.

3.2.1 *FBC-B* Section 104.4 and Section 110.4 are reserved.

3.2.2 *FBC-R* Section R104 and Section R109 are reserved.

4 CONDITIONS OF USE

4.1 STX and SCTX Stainless Screws, described in TER 1911-02, must comply with all of the following conditions:

4.1.1 All applicable sections in TER 1911-02

4.1.2 The design, installation, and inspections are in accordance with additional requirements of *FBC-B* Chapter 16 and Chapter 17, as applicable.