ICC EVALUATION SERVICE

ICC-ES Evaluation Report

ESR-2442

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DIVISION: 06 00 00—WOOD, PLASTICS, AND COMPOSITES
Section: 06 05 23—Wood, Plastic, and Composite Fastenings

REPORT HOLDER:

GRK FASTENERS™, A DIVISION OF ILLINOIS TOOL WORKS, INC.

EVALUATION SUBJECT:

RSS™ RUGGED STRUCTURAL SCREWS, RSS PHEinox™ STAINLESS STEEL SCREWS, AND RSS JTS™ TRUSS SCREWS AND CLIMATEK™ COATING

1.0 EVALUATION SCOPE

Compliance with the following codes:

- 2018, 2015, 2012, 2009 and 2006 *International Building Code*® (IBC)
- 2018, 2015, 2012, 2009 and 2006 *International Residential Code*® (IRC)

For evaluation for compliance with codes adopted by Los Angeles Department of Building and Safety (LADBS), see ESR-2442 LABC and LARC Supplement.

Properties evaluated:

- Structural
- Corrosion resistance

2.0 USES

The RSS screws described in this report are alternate dowel-type threaded fasteners used in wood. Climatek coated RSS screws are intended for use in Exposure Conditions shown in Table 6. The screws may be used under the IRC when an engineered design is submitted in accordance with IRC Section R301.1.

3.0 DESCRIPTION

3.1 RSS Screws:

The RSS screws that have been evaluated are partially-threaded screws which have a star shaped driving recess in the head. The screws have rolled threads with W-Cut™ threads towards the point, and a Type 17 point (Zip-Tip™). The carbon steel fasteners have a proprietary finish (Climatek). The RSS and RSS PHEinox screws have 7 threads per inch, while the RSS JTS screws have 8 threads per inch. See Table 1 for the screw dimensions.

3.1.1 RSS Rugged Structural Screws (RSS): The RSS screws are case-hardened carbon steel screws. The screws have a flat washer head style with teeth under the washer. Screws with a length of $3^1/_8$ inches (79 mm) or greater have a CEE Thread™ between the smooth portion of the shank and the threads. See Figure 1 for a depiction of the screw.

3.1.2 RSS PHEinox Stainless Steel Screws (RSS PHEinox): The RSS PHEinox screws are formed from Type 305 or 316 stainless steel. The screws have the same design as the RSS screws described in Section 3.1.1. See Figure 1 for a depiction of the screw.

3.1.3 RSS JTS Truss Screws (RSS JTS): The RSS JTS screws are case-hardened carbon steel screws. The screws have a flat washer head style and a CEE Thread between the smooth portion of the shank and the threads. See Figure 2 for a depiction of the screw.

3.2 Climatek Coating:

The proprietary Climatek coating consists of multiple layers of various materials, including layers of zinc and polymer.

3.3 Wood Members:

For the purposes of connection design, solid-sawn wood members must have a minimum assigned specific gravity as indicated in the tables in this report. Assigned specific gravity for solid-sawn lumber must be determined in accordance with Table 12.3.3A of the ANSI/AWC National Design Specification (NDS) for Wood Construction (Table 11.3.3A of NDS-12 for the 2012 IBC; Table 11.3.2A of NDS-05 for the 2009 and 2006 IBC).

For the purposes of connection design, structural glued laminated timber (GL) must have a Specific Gravity for Fastener Design (addressed in Tables 5A through 5D of the NDS Supplement), as indicated in the tables in this report.

When designing connections for cross-laminated timber (CLT) all of the laminations must have a minimum assigned specific gravity in accordance with the NDS as indicated in the tables in this report.

Use of the fasteners in engineered wood products (EWP) other than those addressed above is outside the scope of this report.

The thickness of the wood main member, t_m, must be equal to or greater than the screw length less the thickness of the side member.

4.0 DESIGN AND INSTALLATION

4.1 Engineered Design:

The design values in this report are intended to aid the designer in meeting the requirements of IBC Section 1604.2. For connections not completely described in this report, determination of the suitability of the screws for the

specific application is the responsibility of the designer and is outside the scope of this report. The designer is responsible for determining the available strengths for the connection, considering all applicable limit states, and for considering serviceability issues.

4.1.1 Fastener Strength: Allowable fastener tension and shear strength and specified bending yield strength for the screws are shown in Table 1.

4.1.2 Reference Withdrawal Design Values (W) and Reference Head Pull-through Design Values (P): Reference withdrawal design values are given in Table 2. Select reference head pull-through design values are given in Table 2. Reference head pull-through design values for other member thicknesses and specific gravities may be determined in accordance with Equations 12.2-6a and 12.2-6b of the 2018 NDS.

4.1.3 Reference Lateral Design Values (Z): Reference lateral design values (Z) for single shear, wood-to-wood connections with the RSS™, RSS PHEinox™ and RSS JTS™ screws loaded parallel or perpendicular to grain may be determined in accordance with Section 12.3.1 of the NDS (Section 11.3.1 of the NDS for the 2012, 2009 and 2006 IBC) using the following parameters and limitations:

1. The applicable specified bending yield strength from Table 1 must be used for design.
2. The wood side member thickness must be a minimum of $^3/_4$ inches (19.1 mm).
3. The minimum fastener penetration into the main member, excluding tip length, must be 6D.

Reference lateral design values based on testing for select wood-to-wood connections loaded parallel and perpendicular to the grain are given in Table 3.

4.1.4 Governing Design Values for Two-member Wood-to-wood Connections: The allowable load for a single-screw connection in which the screw is subject to tension is the least of: (a) the allowable screw tension strength given in Table 1; (b) the reference withdrawal design value given in Table 2, multiplied by the effective thread length in the main member and adjusted by all applicable adjustment factors; and (c) the reference head pull-through design value described in Section 4.1.1, adjusted by all applicable adjustment factors.

The allowable lateral load for a single-screw connection is the lesser of: (a) the allowable screw shear strength given in Table 1; and (b) the reference lateral design value described in Section 4.1.3, adjusted by all applicable adjustment factors.

4.1.5 Adjustments to Reference Design Values: Reference design values must be adjusted in accordance with the requirements for dowel-type fasteners in Section 11.3 of the NDS (Section 10.3 of the NDS for the 2012, 2009 and 2006 IBC), except the wet service factor, C_M, must be as shown in Tables 2 and 3, as applicable. The reference design values must also be adjusted in accordance with the requirements for screws in Section 12.5 of the NDS (Section 11.5 of the NDS for the 2012, 2009 and 2006 IBC).

4.1.6 Connections with Multiple Screws: Connections made with multiple screws must be designed in accordance with Sections 11.2.2 and 12.6 of the NDS (Sections 10.2.2 and 11.6 of the NDS for the 2012, 2009 and 2006 IBC).

4.1.7 Combined Loading: When the screws are subjected to combined lateral and withdrawal loads, connections must be designed in accordance with Section 12.4.1 of the NDS (Section 11.4.1 of the NDS for the 2012, 2009 and 2006 IBC).

4.1.8 Capacity Requirements for Wood Members: When designing a connection, the structural members must be checked for load-carrying capacity in accordance with Section 11.1.2 of the NDS (Section 10.1.2 of the NDS for the 2012, 2009 and 2006 IBC), and local stresses within the connection must be checked against Appendix E in the NDS to ensure the capacity of the connection and fastener group.

4.2 Prescriptive Design:

GRK screws may be substituted for nails prescribed in the IBC and IRC on a one-to-one basis, as described in Table 4. Use of the GRK screws as substitutes for nails used in lateral-force resisting assemblies (diaphragms, shear walls and braced walls) is outside the scope of this report.

4.3 Corrosion Resistance: The Climatek™ coated RSS and RSS JTS screws may be used in treated wood, as alternates to hot-dip galvanized fasteners prescribed in IBC Section 2304.10.5 (2012, 2009 and 2006 IBC Section 2304.9.5), when subject to the Exposure Conditions shown in Table 6. The Climatek coated RSS screws are recognized for use in wood treated with waterborne alkaline copper quaternary (ACQ-D) preservatives with a maximum retention of 0.40 pcf (6.4 kg/m³) or in wood treated with copper azole (CA-B) preservatives with a maximum retention of 0.40 pcf (6.4 kg/m³).

The RSS PHEinox screws may be used in treated wood in accordance with IBC Section 2304.10.5 (2012, 2009 and 2006 IBC Section 2304.9.5).

4.4 Installation:

Screws must be installed in accordance with the GRK Fasteners published installation instructions and this report. The screws must be installed perpendicular to the plane of the wood side member. The underside of the washer head must be flush with the surface of the wood side member. Screws must not be overdriven. Unless otherwise specified, design values in this report are applicable to screws installed without lead holes, provided splitting of the wood is avoided. Screws must be installed with the minimum spacing, end distances, and edge distances to prevent splitting of the wood or as noted in Table 5, whichever is more restrictive. For screws installed into wood with a specific gravity of more than 0.55, use of lead holes complying with Section 12.1.5 of the NDS (Section 11.1.5 of the NDS for the 2012, 2009 and 2006 IBC) is recommended. The screws must be installed by turning with Star Drive (Torx) bits, not by driving with a hammer.

5.0 CONDITIONS OF USE

The RSS screws and Climatek coating described in this report comply with, or are suitable alternatives to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

5.1 Installation must comply with this report, the report holder's published instructions and the applicable code. A copy of the report holder's published installation instructions must be available at the jobsite at all times during installation. In the event of a conflict between the report holder's published installation instructions and this report, this report governs.

5.2 When the capacity of a connection is controlled by fastener metal strength, rather than wood strength, the metal strength must not be multiplied by the adjustment factors specified in the NDS.

5.3 Installation must be limited to connections between wood members each with a minimum specific gravity of 0.42.

5.4 The screws are manufactured under a quality control program with inspections by ICC-ES.

6.0 EVIDENCE SUBMITTED

6.1 Data in accordance with the ICC-ES Acceptance Criteria for Dowel-type Threaded Fasteners Used in Wood (AC233), dated February 2020.

6.2 Data in accordance with the ICC-ES Acceptance Criteria for Corrosion-resistant Fasteners and Evaluation of Corrosion Effects of Wood Treatments (AC257), dated October 2009 (editorially revised March 2018).

7.0 IDENTIFICATION

7.1 The RSS™ screws are identified by the designation "RSS" or "JTS" on the head of each screw, along with the diameter and length in millimeters, as shown in Figures 1 and 2. In addition, the letters "GRK" may be marked on the head of each screw, as shown in Figures 1 and 2. Packaging labels for the RSS screws include the GRK Fasteners name and address, the evaluation report number (ESR-2442), the fastener designation (RSS™ or JTS™), the fastener size and length, and the finish or coating designation (PHEinox™ or Climatek™).

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

GRK FASTENERS™, A DIVISION OF ILLINOIS TOOL WORKS, INC.
1452 BREWSTER CREEK BOULEVARD
BARTLETT, ILLINOIS 60103
(877) 489-2726
www.grkfasteners.com
grk@grkfasteners.com

TABLE 1—RSS™ FASTENER SPECIFICATIONS

FASTENER DESIGNATION		LENGTH[1] (inches)	THREAD LENGTH[2] (inches)	HEAD DIAMETER (inch)	DRIVE SIZE	HEAD HEIGHT (inch)	SHOULDER ø (inch)	MINOR THREAD DIAMETER (inch)	SHANK DIAMETER (inch)	OUTSIDE THREAD DIAMETER (inch)	SPECIFIED BENDING YIELD STRENGTH[3] F_{yb} (psi)	ALLOWABLE STEEL STRENGTH	
												TENSILE (lbf)	SHEAR (lbf)
RSS™	1/4 x 2 1/2"	2 1/2	1 1/2	0.533	T-25	0.110	0.244	0.152	0.169	0.236	153,400	1112	754
	1/4 x 2 3/4"	2 3/4	1 3/4										
	1/4 x 3 1/8"	3 1/8	2										
	1/4 x 3 1/2"	3 1/2	2 3/8										
	5/16 x 2 1/2"	2 1/2	1 1/2	0.620	T-30	0.157	0.301	0.167	0.195	0.276	171,800	1415	982
	5/16 x 2 3/4"	2 3/4	1 3/4										
	5/16 x 3 1/8"	3 1/8	2										
	5/16 x 3 1/2"	3 1/2	2 3/8										
	5/16 x 4"	3 7/8	2 1/2										
	5/16 x 5 1/8"	5	3 3/8										
	5/16 x 6"	5 7/8	3 7/8										
	3/8 x 3 1/8"	3 1/8	2	0.689	T-40	0.181	0.364	0.191	0.219	0.313	160,200	1941	1231
	3/8 x 4"	3 7/8	2 1/2										
	3/8 x 5 1/8"	5	3 3/8										
	3/8 x 6"	5 7/8	3 7/8										
	3/8 x 7 1/4"	7	4 3/8										
	3/8 x 8"	7 3/4	4 3/8										
	3/8 x 10"	9 3/4	5										
	3/8 x 12"	11 3/4	5 7/8										
	3/8 x 14 1/8"	14 1/8	5 7/8										
	3/8 x 16"	15 5/8	5 7/8										
RSS PHEinox™	1/4 x 2 1/2"	2 1/2	1 1/2	0.533	T-25	0.110	0.244	0.152	0.169	0.236	100,300	628	546
	1/4 x 3 1/8"	3 1/8	2										
	5/16 x 2 1/2"	2 1/2	1 1/2	0.620	T-30	0.157	0.301	.167	0.195	0.276	106,500	806	668
	5/16 x 3 1/8"	3 1/8	2										
	5/16 x 4"	3 7/8	2 1/2										
	5/16 x 5 1/8"	5	3 3/8										
	5/16 x 6"	5 7/8	3 7/8										
RSS JTS™				0.534	T-25	0.090	0.244	0.152	0.171	0.240	203,700	1104	769
	1/4 x 5"	5	1 3/8										
	1/4 x 6 3/4"	6 5/8	1 3/8										

For **SI:** 1 inch = 25.4 mm; 1 psi =6.9 kPa; 1 lbf = 4.4 N.

[1]The length of fasteners is measured from the underside of the head to bottom of the tip. See Figure 1.
[2]Length of thread includes tip. See Figure 1.
[3]Bending yield strength determined in accordance with ASTM F1575 using the minor thread diameter.
[4]See Figure 1 for additional dimensional information.

TABLE 2—RSS™ REFERENCE WITHDRAWAL (*W*) AND PULL-THROUGH (*P*) DESIGN VALUES[1,]

FASTENER DESIGNATION		THREAD LENGTH (inches)	*W* (lbf/ in.)[2] For Specific Gravities of:		P (lbf) For Specific Gravities of:						WET SERVICE FACTOR, C_M
					0.42 ≤ G < 0.50		0.50 ≤ G < 0.55		0.55 ≤ G < 0.67		
			0.42 ≤ G < 0.55	0.55 ≤ G < 0.67	Side Member Thickness						
					3/4 inch	1 1/2 inch	3/4 inch	1 1/2 inch	3/4 inch	1 1/2 inch	
RSS™	1/4 x 2 1/2"	1 1/2	151	186	153	272	217	385	262	466	0.70
	1/4 x 2 3/4"	1 3/4									
	1/4 x 3 1/8"	2									
	1/4 x 3 1/2"	2 3/8									
	5/16 x 2 1/2"	1 1/2	165	227	178	356	252	504	305	610	
	5/16 x 2 3/4"	1 3/4									
	5/16 x 3 1/8"	2									
	5/16 x 3 1/2"	2 3/8									
	5/16 x 4"	2 1/2									
	5/16 x 5 1/8"	3 3/8									
	5/16 x 6"	3 7/8									
	3/8 x 3 1/8"	2	180	259	198	395	280	560	339	678	
	3/8 x 4"	2 1/2									
	3/8 x 5 1/8"	3 3/8									
	3/8 x 6"	3 7/8									
	3/8 x 7 1/4"	4 3/8									
	3/8 x 8"	4 3/8									
	3/8 x 10"	5									
	3/8 x 12"	5 7/8									
	3/8 x 14 1/8"	5 7/8									
	3/8 x 16"	5 7/8									
RSS PHEinox™	1/4 x 2 1/2"	1 1/2	134	187	153	272	217	385	262	466	0.70
	1/4 x 3 1/8"	2									
	5/16 x 2 1/2"	1 1/2	136	202	178	356	252	504	305	610	
	5/16 x 3 1/8"	2									
	5/16 x 4"	2 1/2									
	5/16 x 5 1/8"	3 3/8									
	5/16 x 6"	3 7/8									
RSS JTS™	1/4 x 5"	1 3/8	152	191	153	273	217	386	263	467	0.68
	1/4 x 6 3/4"	1 3/8									

For **SI:** 1 inch = 25.4 mm; 1 lbf = 4.4 N.

[1]Values must be multiplied by all applicable adjustment factors, in accordance with the NDS. When the fasteners are used in wet service conditions, the wet service factors shown in the table are applicable.

[2]Tabulated reference withdrawal design values are in pounds per inch of thread penetration into the side grain of the main member, and must be multiplied by the thread length embedded in the member in order to get the total withdrawal design value in pounds. Length of CEE™ threads must not be included in the withdrawal value determination.

TABLE 3—RSS™ REFERENCE LATERAL DESIGN VALUES (*Z*) FOR SINGLE SHEAR (TWO-MEMBER) CONNECTIONS[1]
[For Sawn Lumber with Both Members of Identical Specific Gravity]

FASTENER DESIGNATION		SIDE MEMBER THICKNESS, t (inches)	FASTENER PENETRATION INTO MAIN MEMBER, *p* (inches)	REFERENCE LATERAL DESIGN VALUE, *Z* (lbf) FOR SPECIFIC GRAVITIES OF:						WET SERVICE FACTOR, C_M
				0.42 ≤ G < 0.50		0.50 ≤ G < 0.55		0.55 ≤ G < 0.67		
				Parallel to Grain, $Z_\parallel$	Perpendicular to Grain, $Z_\perp$	Parallel to Grain, $Z_\parallel$	Perpendicular to Grain, $Z_\perp$	Parallel to Grain, $Z_\parallel$	Perpendicular to Grain, $Z_\perp$	
RSS™	1/4 x 2 1/2"	3/4	1 3/4	153	137	153	175	175	175	0.70
	1/4 x 2 3/4"	3/4	2							
	1/4 x 3 1/8"	3/4	2 3/8	183	137	183	175	183	175	
	1/4 x 3 1/2"	3/4	2 3/4							
	5/16 x 2 1/2"	3/4	1 3/4	168	133	168	133	214	178	
	5/16 x 2 3/4"	3/4	2							
	5/16 x 3 1/8"	3/4	2 3/8							
	5/16 x 3 1/2"	3/4	2 3/4							
	5/16 x 4"	1 1/2	2 3/8	239	236	333	236	333	257	
	5/16 x 5 1/8"	1 1/2	3 1/2							
	5/16 x 6"	2	3 7/8	265	289	472	289	472	289	
	3/8 x 4"	1 1/2	2 3/8	224	205	274	205	274	264	
	3/8 x 5 1/8"	1 1/2	3 1/2							
	3/8 x 6"	2	3 7/8	270	296	325	288	325	288	
	3/8 x 7 1/4"	2 3/4	4 1/4	423	291	593	304	593	304	
	3/8 x 8"	3 1/2	4 1/4							
	3/8 x 10"	3 1/2	6 1/4							
	3/8 x 12"	3 1/2	8 1/4							
	3/8 x 14 1/8"	3 1/2	10 5/8							
	3/8 x 16"	3 1/2	12 1/8							
RSS PHEinox™	1/4 x 2 1/2"	3/4	1 3/4	162	134	162	185	215	185	0.70
	1/4 x 3 1/8"	3/4	2 3/8							
	5/16 x 2 1/2"	3/4	1 3/4	151	149	151	149	181	175	
	5/16 x 3 1/8"	3/4	2 3/8	205	149	205	149	181	175	
	5/16 x 4"	1 1/2	2 3/8	249	229	377	229	377	272	
	5/16 x 5 1/8"	1 1/2	3 1/2							
	5/16 x 6"	2	3 7/8	302	340	302	358	449	358	
RSS JTS™	1/4 x 5"	1 3/4	3 1/4	168	221	241	237	241	237	0.70
	1/4 x 6 3/4"	1 3/4	4 7/8							

For **SI:** 1 inch = 25.4 mm ; 1 lbf = 4.4 N.

[1]Values must be multiplied by all applicable adjustment factors, in accordance with the NDS. When the fasteners are used in wet service conditions, the wet service factors shown in the table are applicable.

TABLE 4—PRESCRIPTIVE SUBSTITUTIONS FOR FRAMING CONNECTIONS[1,2,3,4]

CODE PRESCRIBED NAIL	MINIMUM DIAMETER AND RSS™ SCREW TYPE	APPLICABLE LENGTHS OF RSS™ SCREWS (inches)
8d box ($2^1/_2$ x 0.113)	$^1/_4$ inch RSS, RSS PHEinox™	$2^1/_2$, $2^3/_4$
8d common ($2^1/_2$ x 0.131)	$^1/_4$ inch RSS, RSS PHEinox	$2^1/_2$, $2^3/_4$
3 x 0.131	$^1/_4$ inch RSS, RSS PHEinox	$3^1/_8$, $3^1/_2$
10d common (3 x 0.148)	$^1/_4$ inch RSS, RSS PHEinox	$3^1/_8$, $3^1/_2$
16d common ($3^1/_2$ x 0.162)	$^5/_{16}$ inch RSS, RSS PHEinox	$3^1/_2$, 4
20d common (4 x 0.192)	$^3/_8$ inch RSS	4

For SI: 1 inch = 25.4 mm

[1]Use of RSS screws in diaphragms, shear walls and braced walls is outside the scope of this report.
[2]Substitutions are based on RSS screws have a minor diameter that is larger than the diameter or the prescribed nail, having a length equal to or longer than that of the prescribed nail, and having a bending yield strength greater than that required for the prescribed nail.
[3]RSS™ must be fully embedded in the wood member.
[4]Connection geometry requirements in Table 5 apply.

TABLE 5—CONNECTION GEOMETRY

CONNECTION GEOMETRY/ CRITERIA	DIAMETERS[1]	REQUIRED DIMENSION (inches)		
		RSS, RSS PHEinox & RSS JTS $^1/_4$" NOMINAL DIAMETER	RSS & RSS PHEinox $^5/_{16}$" NOMINAL DIAMETER	RSS $^3/_8$" NOMINAL DIAMETER
Minimum Edge Distance				
Loading Parallel to Grain	8	$1^1/_2$	$1^5/_8$	$1^7/_8$
Loading Perpendicular to Grain, Loaded Edge	8	$1^1/_2$	$1^5/_8$	$1^7/_8$
Loading Perpendicular to Grain, Unloaded Edge	8	$1^1/_2$	$1^5/_8$	$1^7/_8$
Minimum End Distance				
Tension Load Parallel to Grain	15	$2^5/_8$	3	$3^3/_8$
Compression Load Parallel to Grain	10	$1^3/_4$	2	$2^1/_4$
Load Perpendicular to Grain	10	$1^3/_4$	2	$2^1/_4$
Spacing (Pitch) Between Fasteners in a Row.				
Parallel to Grain	15	$2^5/_8$	3	$3^3/_8$
Perpendicular to Grain	10	$1^3/_4$	2	$2^1/_4$
Spacing (Gage) Between Rows of Fasteners				
In-Line	5	$^7/_8$	1	$1^1/_8$
Staggered	$2^1/_2$	$^1/_2$	$^1/_2$	$^5/_8$
Minimum Penetration into Main Member for Single Shear Connections	6	$1^1/_8$	$1^1/_4$	$1^3/_8$

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

[1]Diameter is the shank diameter as specified in Table 1.

TABLE 6—EXPOSURE CONDITIONS FOR FASTENERS WITH INTENDED USE AND LIMITATIONS OF RECOGNITION

EXPOSURE CONDITION	TYPICAL APPLICATIONS	RECOGNITION LIMITATIONS
Corrosion Resistance of Fasteners		
1	Treated wood in dry use applications	Limited to use where equilibrium moisture content of the chemically treated wood meets the dry service conditions as described in the NDS.
3	General construction	Limited to freshwater and chemically treated wood exposure, e.g., no saltwater exposure.

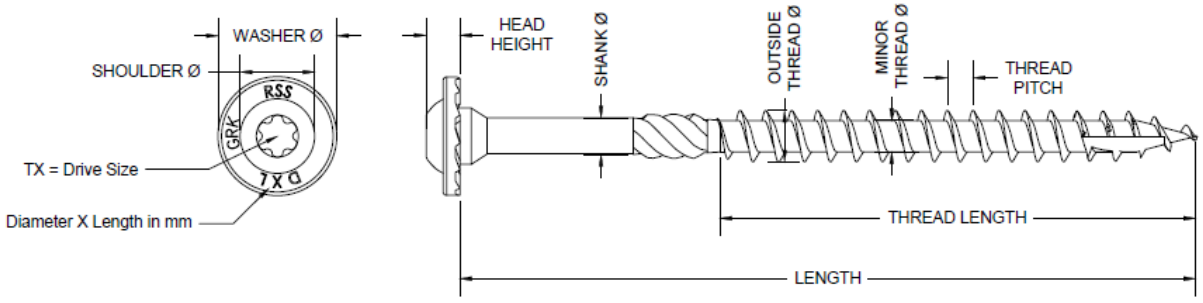

FIGURE 1—RSS™ AND RSS PHEINOX™ SCREWS

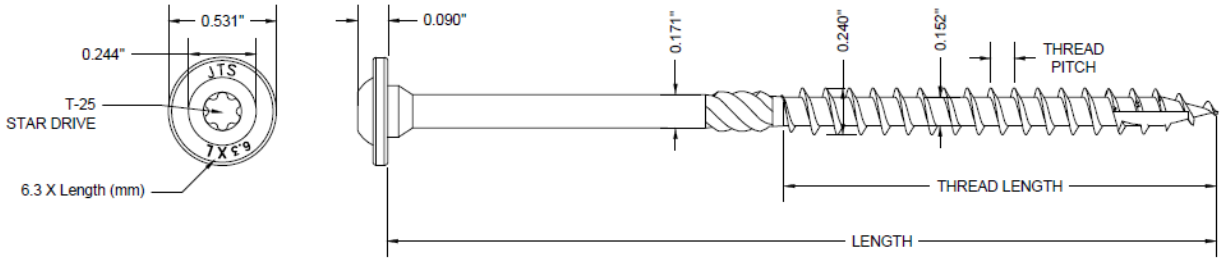

FIGURE 2—RSS JTS™ SCREWS

DIVISION: 06 00 00—WOOD, PLASTICS, AND COMPOSITES
Section: 06 05 23—Wood, Plastic, and Composite Fastenings

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1.0 REPORT PURPOSE AND SCOPE

Purpose:

The purpose of this evaluation report supplement is to indicate that the RSS™ Rugged Structural Screws, RSS PHEinox™ Stainless Steel Screws, and RSS JTS™ Truss Screws and Climatek™ Coating, described in ICC-ES evaluation report ESR-2442, 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:

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

2.0 CONCLUSIONS

The RSS™ Rugged Structural Screws, RSS PHEinox™ Stainless Steel Screws, and RSS JTS™ Truss Screws and Climatek™ Coating, described in Sections 2.0 through 7.0 of the evaluation report ESR-2442, comply with the LABC Chapter 19, and the LARC, and are subject to the conditions of use described in this supplement.

3.0 CONDITIONS OF USE

The RSS™ Rugged Structural Screws, RSS PHEinox™ Stainless Steel Screws, and RSS JTS™ Truss Screws and Climatek™ Coating described in this evaluation report supplement must comply with all of the following conditions:

- All applicable sections in the evaluation report ESR-2442.
- The design, installation, conditions of use and identification of the product are in accordance with the 2018 *International Building Code®* (IBC) provisions noted in the evaluation report ESR-2442.
- The design, installation and inspection are in accordance with additional requirements of LABC Chapters 16 and 17, as applicable.
- The screws are not approved for installations in contact with fire-retardant treated lumber in exterior applications.
- Under the LARC, an engineered design in accordance with LARC Section R301.1.3 must be submitted.

This supplement expires concurrently with the evaluation report, reissued October 2019 and revised May 2020.

DIVISION: 06 00 00— WOOD, PLASTICS, AND COMPOSITES
Section: 06 05 23— Wood, Plastic, and Composite Fastenings

REPORT HOLDER:

GRK FASTENERS™, A DIVISION OF ILLINOIS TOOL WORKS, INC.

EVALUATION SUBJECT:

RSS™ RUGGED STRUCTURAL SCREWS, RSS PHEinox™ STAINLESS STEEL SCREWS, AND RSS JTS™ TRUSS SCREWS AND CLIMATEK™ COATING

1.0 REPORT PURPOSE AND SCOPE

Purpose:

The purpose of this evaluation report supplement is to indicate that RSS™ Rugged Structural Screws, RSS PHEinox™ Stainless Steel Screws, and RSS JTS™ Truss Screws and Climatek™ Coating, recognized in ICC-ES evaluation report ESR-2442, has also been evaluated for compliance with the codes noted below.

Applicable code editions:

- 2017 *Florida Building Code—Building*
- 2017 *Florida Building Code—Residential*

2.0 CONCLUSIONS

The RSS™ Rugged Structural Screws, RSS PHEinox™ Stainless Steel Screws, and RSS JTS™ Truss Screws and Climatek™ Coating, described in Sections 2.0 through 7.0 of ICC-ES evaluation report ESR-2442, complies with the *Florida Building Code—Building* and the *Florida Building Code—Residential*, provided the design requirements are 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-2442 for the 2015 *International Building Code®* meet the requirements of the *Florida Building Code—Building* or the *Florida Building Code—Residential,* as applicable.

Use of the RSS™ Rugged Structural Screws, RSS PHEinox™ Stainless Steel Screws, and RSS JTS™ Truss Screws and Climatek™ Coating has also been found to be in compliance with the High-Velocity Hurricane Zone provisions of the *Florida Building Code—Building* or the *Florida Building Code—Residential*.

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).

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