



ICC-ES Evaluation Report

ESR-1976

Reissued July 2022

This report is subject to renewal July 2024.

DIVISION: 05 00 00—METALS
Section: 05 05 23—Metal Fastenings

REPORT HOLDER:

ITW BUILDDEX

EVALUATION SUBJECT:

ITW BUILDDEX TEKS® SELF-DRILLING FASTENERS

1.0 EVALUATION SCOPE

Compliance with the following codes:

- 2021, 2018, 2015 and 2012 *International Building Code*® (IBC)
- 2021, 2018, 2015 and 2012 *International Residential Code*® (IRC)

For evaluation for compliance with codes adopted by Los Angeles Department of Building and Safety (LADBS), see [ESR-1976 LABC and LARC Supplement](#).

Property evaluated:

Structural

2.0 USES

The ITW Buildex TEKS® Self-drilling Fasteners described in this report are used in engineered or code-prescribed connections of cold-formed steel framing and of sheet steel sheathing to cold-formed steel framing.

3.0 DESCRIPTION

3.1 General:

ITW Buildex TEKS® Self-drilling Fasteners are self-drilling tapping screws complying with the material, process, and performance requirements of ASTM C1513. The screws have either a hex washer head (HWH), an HWH with serrations, or a Phillips® (Type II) pan head. The screws are fully threaded with threads that comply with ASME B18.6.4, and the screws' drill points and flutes are proprietary and are designated as TEKS/1, TEKS/2, TEKS/3, TEKS/4, TEKS/4.5, TEKS/5.0 and TEKS/5. The screws have nominal sizes of No.10 (0.190 inch), No.12 (0.216 inch), and 1/4 inch (0.250 inch), and lengths from 1/2 inch to 4 inches (12.7 mm to 102 mm). See Figures 1 through 3 for depictions of the screws. Table 1 provides screw descriptions (size, tpi, length), nominal diameters, head style, head diameters, point styles, drilling capacity ranges, length of load-bearing area, minimum required protrusion lengths and coatings.

3.2 Material:

ITW Buildex TEKS® Self-drilling Fasteners are case-hardened from carbon steel conforming to ASTM A510, Grades 1018 to 1022, and are heat-treated and case-hardened to give them a hard outer surface necessary to cut internal threads in the joint material. Screws are coated with corrosion preventive coating identified as Climaseal®, or are plated with electrodeposited zinc (E-Zinc) complying with the minimum corrosion resistance requirements of ASTM F1941.

3.3 Cold-formed Steel:

Cold-formed steel material must comply with one of the ASTM specifications listed in Section A3.1 of AISI S100 (Section A2.1 of AISI S100 for the 2015 and 2012 IBC) and have the minimum specified tensile strengths shown in the tables in this report.

4.0 DESIGN AND INSTALLATION

4.1 Design:

4.1.1 General: Selection of screw length must be based on the thickness of the fastened steel members plus the minimum required protrusion past the back of the supporting steel. Point selection must be based on the drilling capacity of the screw. See [Table 1](#) for minimum required protrusion lengths and drilling capacities.

When tested for corrosion resistance in accordance with ASTM B117, the screws meet the minimum requirement listed in ASTM F1941, as required by ASTM C1513, with no white corrosion after three hours and no red rust after 12 hours.

4.1.2 Prescriptive Design: ITW Buildex TEKS Self-drilling Fasteners described in Section 3.1 may be used where ASTM C1513 screws of the same size and head style/dimension are prescribed in the IRC and in the AISI standards referenced in IBC Section 2211 for steel-to-steel connections.

4.1.3 Engineered Design: ITW Buildex TEKS® Self-drilling Fasteners may be used in engineered connections of cold-formed steel construction. Design of the connection must comply with Section J4 of AISI S100 (Section E4 of AISI S100 for the 2015 and 2012 IBC), using the nominal and allowable fastener tension and shear strength for the screws, shown in Table 5. Allowable connection strength for use in Allowable Strength Design (ASD) for pull-out, pullover, and shear (bearing) capacity for common sheet steel thicknesses are provided in Tables 2, 3, and 4,

respectively, based upon calculations in accordance with AISI S100. Instructions on how to calculate connection design strengths for use in Load Resistance Factor Design (LRFD) are found in the footnotes of these tables. The connection strength values are applicable to connections where the connected steel elements are in direct contact with one another. For connections subject to tension, the least of the allowable pullout, pullover, and fastener tension strength found in Tables 2, 3 and 5, respectively, must be used for design. For connections subject to shear, the lesser of the fastener shear strength and allowable shear (bearing) found in Tables 5 and 4, respectively, must be used for design. Design provisions for tapping screw connections subjected to combined shear and tension loading are outside the scope of this report.

Under the 2021 IBC, for screws used in framing connections, in order for the screws to be considered fully effective, the minimum spacing between screws must be 3 times the nominal screw diameter and the minimum edge distance must be 1.5 times the nominal screw diameter. Under the 2018, 2015 and 2012 IBC, for screws used in framing connections, in order for the screws to be considered fully effective, the minimum spacing between the fasteners and the minimum edge distance must be three times the nominal diameter of the screws, except when the edge is parallel to the direction of the applied force, the minimum edge distance must be 1.5 times the nominal screw diameter. When the spacing between screws is less than 3 times the nominal screw diameter, but at least 2 times the nominal screw diameter, the connection shear strength values in Table 4 must be reduced by 20 percent [Refer to Section B1.5.1.3 of AISI S240 (Section D1.5 of AISI S200 for the 2015 and 2012 IBC)].

For screws used in applications other than framing connections, the minimum spacing between the fasteners must be three times the nominal screw diameter and the minimum edge and end distance must be 1.5 times the nominal screw diameter.

Connected members must be checked for rupture in accordance with Section J6 of AISI S100 (Section E6 of AISI S100 for the 2015 IBC, Section E5 of AISI S100-07/S2-10 for the 2012 IBC).

4.2 Installation:

Installation of ITW Buildex TEKS® Self-drilling Fasteners must be in accordance with the manufacturer's published installation instructions and this report. The manufacturer's published installation instructions must be available at the jobsite at all times during installation.

The screws must be installed perpendicular to the work surface, using a screw driving tool. The installation speed for 1/4-inch TEKS/3, 1/4-inch TEKS/5, #12 TEKS/5.0 and #12 TEKS/5 screws should not exceed 1,800 rpm; the installation speed for all other screws should not exceed 2,500 rpm. The screw must penetrate through the supporting steel with a minimum of three threads protruding past the back side of the supporting steel.

5.0 CONDITIONS OF USE

The ITW Buildex TEKS® Self-drilling Fasteners 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 Fasteners must be installed in accordance with the manufacturer's published installation instructions and this report. In the event of a conflict between this report and the manufacturer's published installation instructions, this report governs.
- 5.2 The use of the screws in engineered steel deck diaphragms has not been evaluated and is outside the scope of this evaluation report.
- 5.3 Evaluation of screws subjected to cyclic or fatigue loading is outside the scope of this report. Applicable Seismic Design Categories must be determined in accordance with the code for the entire assembly constructed with the screws.
- 5.4 The allowable load values (ASD) specified in Section 4.1 for screws or for screw connections are not permitted to be increased for short-duration loads, such as wind or earthquake loads.
- 5.5 Drawings and calculations verifying compliance with this report and the applicable code must be submitted to the code official for approval. The drawings and calculations are to be prepared by a registered design professional when required by the statutes of the jurisdiction in which the project is to be constructed.
- 5.6 The screws are manufactured under a quality control program with inspections by ICC-ES.

6.0 EVIDENCE SUBMITTED

Data in accordance with the ICC-ES Acceptance Criteria for Tapping Screw Fasteners Used in Steel-to-steel Connections (AC118), dated January 2018 (editorially revised December 2020).

7.0 IDENTIFICATION

- 7.1 ITW Buildex TEKS® Self-drilling Fastener heads are marked with "BX" as shown in Figures 1 through 3. Each box of fasteners has a label bearing the company name (ITW Buildex), fastener description (model, point type, diameter and length), lot number, and the evaluation report number (ESR-1976).
- 7.2 The report holder's contact information is the following:

ITW BUILDEX
155 HARLEM AVENUE
GLENVIEW, ILLINOIS 60025
(800) 848-5611
www.itwbuildex.com
techsupport@itwccna.com

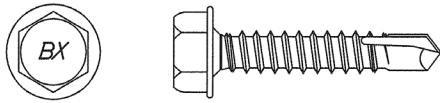


FIGURE 1—HEX WASHER HEAD (HWH)

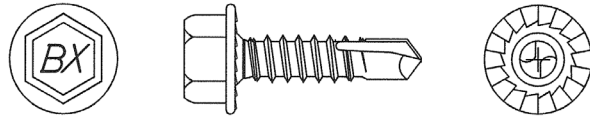


FIGURE 2—HWH WITH SERRATIONS

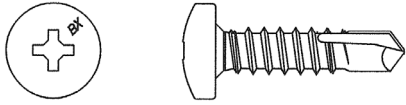


FIGURE 3—PHILLIPS PAN HEAD

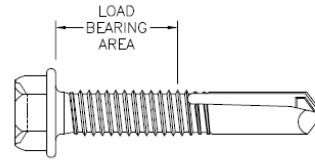


FIGURE 4—LENGTH OF LOAD-BEARING AREA

TABLE 1—TESK® SELF-DRILLING TAPPING SCREWS¹

DESCRIPTION (nom. size-tpi x length)	NOMINAL DIAMETER (inch)	HEAD STYLE	HEAD DIAMETER (inch)	DRILL POINT	DRILLING CAPACITY ³ (in.)		LENGTH OF LOAD BEARING AREA ⁴ (inch)	MINIMUM REQUIRED PROTRUSION (inch)	COATING
					Min.	Max.			
10-16 x 3/4"	0.190	HWH	0.400	TEKS/1	0.018	0.095	0.220	0.530	Climaseal
12-14 x 3/4"	0.216	HWH	0.415	TEKS/1	0.018	0.095	0.205	0.545	Climaseal
1/4-14 x 7/8"	0.250	HWH	0.415	TEKS/1	0.018	0.095	0.380	0.495	Climaseal
10-16 x 1/2"	0.190	Pan	0.365	TEKS/3	0.036	0.175	0.075	0.425	Climaseal
10-16 x 5/8"	0.190	Pan	0.365	TEKS/3	0.036	0.175	0.200	0.425	Climaseal
10-16 x 3/4"	0.190	Pan	0.365	TEKS/3	0.036	0.175	0.325	0.425	Climaseal
10-16 x 1/2"	0.190	HWH	0.400	TEKS/3	0.036	0.175	0.075	0.425	Climaseal
10-16 x 5/8"	0.190	HWH	0.400	TEKS/3	0.036	0.175	0.200	0.425	Climaseal
10-16 x 3/4"	0.190	HWH	0.400	TEKS/3	0.036	0.175	0.325	0.425	Climaseal
10-16 x 1"	0.190	HWH	0.400	TEKS/3	0.036	0.175	0.575	0.425	Climaseal
10-16 x 1"	0.190	Pan	0.365	TEKS/3	0.036	0.175	0.575	0.425	Climaseal
10-16 x 1 1/4"	0.190	HWH	0.400	TEKS/3	0.036	0.175	0.825	0.425	Climaseal
10-16 x 1 1/2"	0.190	HWH	0.400	TEKS/3	0.036	0.175	1.075	0.425	Climaseal
10-16 x 3/4"	0.190	HWH ²	0.435	TEKS/3	0.036	0.175	0.325	0.425	E-Zinc
12-14 x 3/4"	0.216	HWH	0.415	TEKS/3	0.036	0.210	0.200	0.550	Climaseal
12-14 x 1"	0.216	HWH	0.415	TEKS/3	0.036	0.210	0.450	0.550	Climaseal
12-14 x 1 1/4"	0.216	HWH	0.415	TEKS/2	0.036	0.210	0.550	0.700	Climaseal
12-14 x 1 1/2"	0.216	HWH	0.415	TEKS/2	0.036	0.210	0.800	0.700	Climaseal
12-14 x 2"	0.216	HWH	0.415	TEKS/3	0.036	0.210	1.450	0.550	Climaseal
12-14 x 2 1/2"	0.216	HWH	0.415	TEKS/3	0.036	0.210	1.950	0.550	Climaseal
12-14 x 3"	0.216	HWH	0.415	TEKS/3	0.036	0.210	2.450	0.550	Climaseal
12-14 x 4"	0.216	HWH	0.415	TEKS/3	0.036	0.210	3.450	0.550	Climaseal
1/4-14 x 3/4"	0.250	HWH	0.500	TEKS/3	0.036	0.210	0.150	0.600	Climaseal
1/4-14 x 1"	0.250	HWH	0.500	TEKS/3	0.036	0.210	0.400	0.600	Climaseal
1/4-14 x 1 1/4"	0.250	HWH	0.500	TEKS/3	0.036	0.210	0.650	0.600	Climaseal
1/4-14 x 1 1/2"	0.250	HWH	0.500	TEKS/3	0.036	0.210	0.900	0.600	Climaseal
1/4-14 x 2"	0.250	HWH	0.500	TEKS/3	0.036	0.210	1.400	0.600	Climaseal
1/4-14 x 2 1/2"	0.250	HWH	0.500	TEKS/3	0.036	0.210	1.900	0.600	Climaseal
1/4-14 x 3"	0.250	HWH	0.500	TEKS/3	0.036	0.210	2.400	0.600	Climaseal
1/4-14 x 4"	0.250	HWH	0.500	TEKS/3	0.036	0.210	3.400	0.600	Climaseal
1/4-14 x 3/4"	0.250	HWH ²	0.610	TEKS/3	0.036	0.210	0.150	0.600	Climaseal
1/4-14 x 1"	0.250	HWH ²	0.610	TEKS/3	0.036	0.210	0.400	0.600	Climaseal
12-24 x 7/8"	0.216	HWH	0.415	TEKS/4	0.125	0.250	0.325	0.550	Climaseal
12-24 x 1 1/4"	0.216	HWH	0.415	TEKS/4.5	0.125	0.375	0.575	0.675	Climaseal
12-24 x 1 1/4"	0.216	HWH	0.415	TEKS/5.0	0.125	0.500	0.450	0.800	Climaseal
12-24 x 1 1/4"	0.216	HWH	0.415	TEKS/5	0.125	0.500	0.375	0.875	Climaseal
12-24 x 1 1/2"	0.216	HWH	0.415	TEKS/5	0.125	0.500	0.625	0.875	Climaseal
12-24 x 2"	0.216	HWH	0.415	TEKS/5	0.125	0.500	1.125	0.875	Climaseal
1/4-28 x 3"	0.250	HWH	0.415	TEKS/5	0.125	0.500	2.150	0.850	Climaseal
1/4-28 x 4"	0.250	HWH	0.415	TEKS/5	0.125	0.500	3.150	0.850	Climaseal

For SI: 1 inch = 25.4 mm.

¹ Screw dimensions comply with ASME B18.6.4 (nom. size = nominal screw size, tip = threads per inch, length = inches).

² HWH with serrations.

³ Drilling capacity refers to the minimum and maximum total allowable thicknesses of steel the fastener is designed to drill through.

⁴ Length of load-bearing area is the total screw length minus the length from the screw point to the third full thread. See Figure 4.

TABLE 2—ALLOWABLE TENSILE PULL-OUT LOADS (P_{NOT}/Ω), pounds-force^{1, 2, 3, 4, 5}

Steel $F_u = 45$ ksi, Applied Factor of Safety, $\Omega=3.0$												
Screw Designation	Nominal Diameter (in.)	Design Thickness of Member Not in Contact with the Screw Head (in)										
		0.018	0.024	0.030	0.036	0.048	0.060	0.075	0.105	0.125	0.187	0.250
10-16	0.190	44	58	73	87	116	145	182	254	303	⁶	⁶
12-14, 12-24	0.216	50	66	83	99	132	165	207	289	344	515	689
¹ / ₄ -14, ¹ / ₄ -28	0.250	57	77	96	115	153	191	239	335	398	596	797

For SI: 1 inch = 25.4 mm, 1 lbf = 4.45 N, 1 ksi = 6.89 MPa.

¹For tension connections, the least of the allowable pull-out, pullover, and fastener tension strength found in Tables 2, 3, and 5, respectively, must be used for design.

²ANSI/ASME standard screw diameters were used in the calculations and are listed in the tables.

³The allowable pull-out capacity for other member thickness can be determined by interpolating within the table.

⁴To calculate LRFD values, multiply values in table by the ASD safety factor of 3.0 and multiply again with the LRFD Φ factor of 0.5.

⁵For $F_u = 58$ ksi, multiply values by 1.29; for $F_u = 65$ ksi, multiply values by 1.44.

⁶Outside drilling capacity limits.

TABLE 3—ALLOWABLE TENSILE PULLOVER LOADS (P_{NOV}/Ω), pounds-force^{1, 2, 3, 4, 5}

Steel $F_u = 45$ ksi, Applied Factor of Safety, $\Omega=3.0$													
Screw Designation	Nominal Diameter (in.)	Head or Integral Washer Diameter (in.)	Design Thickness of Member in Contact with the Screw Head (in)										
			0.018	0.024	0.030	0.036	0.048	0.060	0.075	0.105	0.125	0.187	0.250
Hex Washer Head (HWH)													
10-16	0.190	0.400	162	216	270	324	432	540	675	945	1125	⁶	⁶
12-14, 12-24	0.216	0.415	168	224	280	336	448	560	700	980	1167	1746	2334
¹ / ₄ -14	0.250	0.500	203	270	338	405	540	675	844	1181	1406	2104	2813
¹ / ₄ -14, ¹ / ₄ -28	0.250	0.415	168	224	280	336	448	560	700	980	1167	1746	2334
HWH with Serrations													
10-16	0.190	0.435	176	235	294	352	470	587	734	1028	1223	⁶	⁶
¹ / ₄ -14	0.250	0.610	203	270	338	405	540	675	844	1181	1406	2104	⁶
Phillips Pan Head													
10-16	0.190	0.365	148	197	246	296	394	493	616	862	1027	⁶	⁶

For SI: 1 inch = 25.4 mm, 1 lbf = 4.45 N, 1 ksi = 6.89 MPa.

¹For tension connections, the lower of the allowable pull-out, pullover, and fastener tension strength found in Tables 2, 3, and 5, respectively must be used for design.

²ANSI/ASME standard screw diameters were used in the calculations and are listed in the tables.

³The allowable pull-over capacity for other member thickness can be determined by interpolating within the table.

⁴To calculate LRFD values, multiply values in table by the ASD safety factor of 3.0 and multiply again with the LRFD Φ factor of 0.5.

⁵For $F_u = 58$ ksi, multiply values by 1.29; for $F_u = 65$ ksi, multiply values by 1.44.

⁶Outside drilling capacity limits.

TABLE 4—ALLOWABLE SHEAR (BEARING) CAPACITY (P_{NS}/Ω), pounds-force^{1, 2, 3, 4, 5}

Steel $F_u = 45$ ksi, Applied Factor of Safety, $\Omega=3.0$														
Screw Designation	Nominal Diameter (in.)	Design Thickness of Member Not in Contact with the Screw Head (in)	Design Thickness of Member in Contact with the Screw Head (in)											
			0.018	0.024	0.030	0.036	0.048	0.060	0.075	0.105	0.125	0.187	0.250	
10-16	0.190	0.018	66	66	66	66	66	66	66	66	66	---	---	
		0.024	102	102	102	102	102	102	102	102	102	102	---	---
		0.030	111	143	143	143	143	143	143	143	143	143	---	---
		0.036	120	152	185	188	188	188	188	188	188	188	---	---
		0.048	139	168	199	228	289	289	289	289	289	289	---	---
		0.060	139	185	213	239	327	404	404	404	404	404	---	---
		0.075	139	185	231	251	337	427	564	564	564	564	---	---
		0.105	139	185	231	277	356	436	570	808	808	808	---	---
		0.125	139	185	231	277	369	442	571	808	962	962	---	---
12-14 12-24	0.216	0.018	71	71	71	71	71	71	71	71	71	71	71	
		0.024	109	109	109	109	109	109	109	109	109	109	109	
		0.030	125	152	152	152	152	152	152	152	152	152	152	
		0.036	136	170	205	200	200	200	200	200	200	200	200	
		0.048	157	190	223	253	308	308	308	308	308	308	308	
		0.060	157	210	240	266	362	430	430	430	430	430	430	
		0.075	157	210	262	282	375	468	601	601	601	601	601	
		0.105	157	210	262	315	402	483	624	919	919	919	919	
		0.125	157	210	262	315	420	494	629	919	1094	1094	1094	
		0.187	157	210	262	315	420	525	642	919	1094	1636	1636	
1/4-14 1/4-28	0.250	0.018	76	76	76	76	76	76	76	76	76	76	76	
		0.024	117	117	117	117	117	117	117	117	117	117	117	
		0.030	142	164	164	164	164	164	164	164	164	164	164	
		0.036	156	193	215	215	215	215	215	215	215	215	215	
		0.048	182	218	253	283	331	331	331	331	331	331	331	
		0.060	182	243	276	300	406	463	463	463	463	463	463	
		0.075	182	243	304	322	424	521	647	647	647	647	647	
		0.105	182	243	304	365	461	544	694	1063	1063	1063	1063	
		0.125	182	243	304	365	486	560	703	1063	1266	1266	1266	
		0.187	182	243	304	365	486	608	731	1063	1266	1893	1893	
		0.250	182	243	304	365	486	608	759	1063	1266	1893	2531	

For **SI**: 1 inch = 25.4 mm, 1 lbf = 4.45 N, 1 ksi = 6.89 MPa.

¹The lower of the allowable shear (bearing) and the allowable fastener shear strength found in Tables 4 and 5, respectively, must be used for design.

²ANSI/ASME standard screw diameters were used in the calculations and are listed in the tables.

³The allowable bearing capacity for other member thickness can be determined by interpolating within the table.

⁴To calculate LRFD values, multiply values in table by the ASD safety factor of 3.0 and multiply again with the LRFD Φ factor of 0.5.

⁵For $F_u = 58$ ksi, multiply values by 1.29; for $F_u = 65$ ksi, multiply values by 1.44.

TABLE 5—FASTENER STRENGTH OF SCREWS^{1, 2, 3, 4, 5}

SCREW DESIGNATION	DIAMETER (in.)	ALLOWABLE FASTENER STRENGTH		NOMINAL FASTENER STRENGTH	
		Tensile, P_{ts}/Ω (lbf)	Shear, P_{ss}/Ω (lbf)	Tensile, P_{ts} (lbf)	Shear, P_{ss} (lbf)
10-16	0.190	885	573	2654	1718
12-14	0.216	1184	724	3551	2171
12-24	0.216	1583	885	4750	2654
1/4-14	0.250	1605	990	4816	2970
1/4-28	0.250	1922	1308	5767	3925

For **SI**: 1 inch = 25.4 mm, 1 lbf = 4.45 N.

¹For tension connections, the least of the allowable pull-out, pullover, and fastener tension strength found in Tables 2, 3, and 5, respectively, must be used for design.

²For shear connection, the lower of the allowable shear (bearing) and the allowable fastener shear strength found in Table 4 and 5, respectively, must be used for design.

³See Section 4.1 for fastener spacing and end distance requirements.

⁴Nominal strengths are based on laboratory tests

⁵To calculate LRFD values, multiply nominal strength values by the LRFD Φ factor of 0.5.

DIVISION: 05 00 00—METALS

Section: 05 05 23—Metal Fastenings

REPORT HOLDER:

ITW BUILDEX

EVALUATION SUBJECT:

ITW BUILDEX TEKS® SELF-DRILLING FASTENERS

1.0 REPORT PURPOSE AND SCOPE

Purpose:

The purpose of this evaluation report supplement is to indicate that the ITW Buildex TEKS® Self-Drilling Fasteners, described in ICC-ES evaluation report [ESR-1976](#), 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 ITW Buildex TEKS® Self-Drilling Fasteners, described in Sections 2.0 through 7.0 of evaluation report [ESR-1976](#), comply with the LABC Chapter 22, and the LARC, and are subject to the conditions of use described in this supplement.

3.0 CONDITIONS OF USE

The ITW Buildex TEKS® Self-Drilling Fasteners described in this evaluation report supplement must comply with all of the following conditions:

- All applicable sections in the evaluation report [ESR-1976](#).
- The design, installation, conditions of use and identification of the ITW Buildex TEKS® Self-drilling Fasteners are in accordance with the 2018 *International Building Code*® (IBC) provisions noted in the evaluation report [ESR-1976](#).
- The design, installation and inspection are in accordance with additional requirements of LABC Chapters 16 and 17, as applicable.
- 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 July 2022.

DIVISION: 07 00 00—THERMAL AND MOISTURE PROTECTION**Section: 07 24 00—Exterior Insulation and Finish Systems****Section: 07 24 19—Water-Drainage Exterior Insulation and Finish System****REPORT HOLDER:**

PAREX USA, INC.

EVALUATION SUBJECT:**PAREX USA WATERMASTER LCR SYSTEM, LAHABRA WATERMASTER LCR AND EL REY WATERMASTER LCR SYSTEMS****1.0 REPORT PURPOSE AND SCOPE****Purpose:**

The purpose of this evaluation report supplement is to indicate that the Parex USA WaterMaster LCR system, LaHabra WaterMaster LCR system and El Rey WaterMaster LCR system, recognized in ICC-ES master report ESR-1689, have also been evaluated for compliance with the codes noted below.

Applicable code editions:

- 2020 *Florida Building Code—Building*
- 2020 *Florida Building Code—Residential*

2.0 CONCLUSIONS

The Parex USA WaterMaster LCR system, Parex Standard WaterMaster system, LaHabra WaterMaster LCR system and El Rey WaterMaster LCR system, described in Sections 2.0 through 7.0 of the master evaluation report ESR-1689, comply with the *Florida Building Code—Building* and the *Florida Building Code—Residential*, provided the design and installation are in accordance with the 2018 *International Building Code*® and the 2018 *International Residential Code*® provisions noted in the master report and the following condition apply:

1. Design wind loads must be based on Section 1609 of the *Florida Building Code—Building* or Section R301.2.1 of the *Florida Building Code—Residential*, as applicable.
2. Installation must meet the requirements of Section 1403.8 of the *Florida Building Code—Building* or Section R318.7 of *Florida Building Code—Residential*, as applicable.

Use of the Parex USA WaterMaster LCR system, LaHabra WaterMaster LCR system and El Rey WaterMaster LCR system for compliance with the High-Velocity Hurricane Zone provisions of the *Florida Building Code—Building* and the *Florida Building Code—Residential* has not been evaluated, and is outside the scope of this evaluation report.

For products falling under Florida Rule 9N-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).

This supplement expires concurrently with the evaluation report, reissued July 2022.