



DIVISION: 05 00 00—METALS
Section: 05 05 23—Metal Fastenings
Section: 05 40 00—Cold-Formed Metal Framing

DIVISION: 06 00 00—WOOD, PLASTICS AND COMPOSITES
Section: 06 05 23—Wood, Plastic, and Composite Fastenings
Section: 06 16 00—Sheathing

REPORT HOLDER:

HILTI, INC.

EVALUATION SUBJECT:

HILTI X-PN 37 B4 MX, X-PN 37 G2 MX AND X-PN 37 G3 MX POWER-ACTUATED FASTENERS USED TO ATTACH WOOD STRUCTURAL PANELS TO COLD-FORMED STEEL FRAMING

1.0 EVALUATION SCOPE

Compliance with the following codes:

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

For evaluation for compliance with codes adopted by Los Angeles Department of Building and Safety (LADBS), see [ESR-3059 LABC and LARC Supplement](#).

Property evaluated:

Structural

2.0 USES

The Hilti X-PN 37 B4 MX, X-PN 37 G2 MX and X-PN 37 G3 MX power-actuated fasteners (PAFs) are used to attach wood structural panels to cold-formed steel (CFS) framing. The fasteners may be used to transfer in-plane lateral loads between the panels and CFS framing, and to transfer out-of-plane transverse loads from the panels to the CFS framing. The fasteners may also be used as an alternative to screw fasteners prescribed by IBC Section 2211.1 (2015 IBC Section 2211.6) to construct Type I shear walls defined in Section B5.2.1 of AISI S240 (Section C2 of AISI S213 for the 2015 IBC) comprised of wood structural panel sheathing and CFS framing in structures assigned to Seismic Design Categories (SDCs) A through F. For structures regulated under the IRC, the PAFs may be used when an engineered design is submitted in accordance with IRC Section R301.1.3.

3.0 DESCRIPTION

3.1 Hilti X-PN 37 B4 MX, X-PN 37 G2 MX and X-PN 37 G3 MX:

The Hilti X-PN 37 B4 MX, X-PN 37 G2 MX and X-PN 37 G3 MX products are collated PAFs made from hardened ductile steel complying with the manufacturer's quality documentation. The fasteners have a twist knurled shank with a nominal shank diameter of 0.102 inch (2.6 mm), a nominal head diameter of 1/4 inch (6.4 mm), and a nominal shank length of 1 1/2 inches (38 mm). The fasteners have a proprietary corrosion-resistant coating and are collated in strips of ten replicate fasteners. Each product designation refers to a different collation design for use in a different tool. See Figures 1 and 2 for product images.

3.2 Shear Wall Assemblies:

3.2.1 General: Shear wall assemblies have been evaluated for a maximum height-to-width aspect ratio of 2:1. The walls must be constructed using wood structural panels fastened to one side of CFS framing using the Hilti X-PN 37 B4 MX, X-PN 37 G2 MX or X-PN 37 G3 MX PAFs. The shear wall must be connected to the supporting structure along its length at a maximum of 2 feet (610 mm) on center, and with a hold-down at each end. See Figure 3 for a depiction of a typical shear wall.

3.2.2 Fasteners for CFS Framing Connections: Fasteners used to connect CFS framing members together and to attach hold-downs to CFS framing must be minimum #8 Hilti self-drilling tapping screws addressed in [ESR-2196](#).

3.2.3 CFS Framing: CFS studs must have a minimum web depth of 3 1/2 inches (89 mm), a minimum flange width of 1 5/8 inches (41 mm), and a minimum flange stiffener (lip) length of 3/8 inch (9.5 mm). CFS tracks must have depth equal to the web depth of the CFS studs, and a minimum flange width of 1 1/4 inches (32 mm). CFS framing must have the minimum thickness designation shown in Table 1, 3 or 4, as applicable. CFS framing having a thickness designation of 43 mils or less must be manufactured from steel complying with ASTM A1003 ST33H or ASTM A653 SS Grade 33, with a minimum G60 coating designation. CFS framing having a thickness designation of 54 mils or greater must be manufactured from steel complying with ASTM A1003 ST50H or ASTM A653 SS Grade 50, Class 1, with a minimum G60 coating designation.

3.2.4 Wood Structural Panel Sheathing: Wood structural panels must be Exposure 1, Structural 1 plywood complying with DOC PS-1, or Oriented Strand Board (OSB) complying with the performance requirements in DOC PS-2 for Exposure 1, Structural 1 Sheathing, with sheathing thickness shown in Table 1, 2, 3 or 4, as applicable.

3.2.5 Hold-downs: The hold-downs must be capable of providing adequate resistance to overturning of the shear wall assemblies. Hold-down capacity must be as indicated in an ICC-ES evaluation report. Adequacy of the hold-downs must be justified to the satisfaction of the code official.

3.2.6 Connection to Supporting Structure: The connectors used along the length of the shear wall must be capable of transferring the applied shear loads. Connector or anchor capacity must be as indicated in the IBC or an ICC-ES evaluation report, as applicable. Adequacy of the connectors (anchorage) must be justified to the satisfaction of the code official.

4.0 DESIGN AND INSTALLATION

4.1 Design:

4.1.1 Single Fastener Connections: Allowable loads for pull-out from the steel base material, reference pull-through design values for the wood sheathing, and in-plane lateral load for the Hilti X-PN 37 B4 MX, X-PN 37 G2 MX and X-PN 37 G3 MX fasteners installed through wood structural panels into CFS framing are given in Tables 1, 2 and 3, respectively. The transverse loads are based on a minimum edge distance of $\frac{3}{8}$ inch (9.5 mm). Reference pull-through design values must be multiplied by all applicable adjustment factors from Table 11.3.1 of the ANSI/AWC NDS to obtain adjusted pull-through design values. The lateral loads are based on a 1-inch (25.4 mm) end distance in the direction of loading and a minimum edge distance of $\frac{3}{8}$ inch (9.5 mm). Single fastener connection values must not be used to determine allowable loads for systems such as shear walls and diaphragms.

4.1.2 Shear Walls:

4.1.2.1 Shear Strength: The shear walls described in Section 3.0 may be used to resist in-plane lateral forces, including wind and seismic forces in structures assigned to SDGs A through F. The shear walls must comply with the requirements of Section B5.2 of AISI S240 and Section E1 of AISI S400 (Section C of AISI S213 for 2015 IBC), except as specifically described in this report. For seismic design, the response modification coefficient, $R = 6\frac{1}{2}$, the system overstrength factor, $\Omega_o = 3$, and the deflection amplification factor, $C_d = 4$. Shear walls must comply with height limitations prescribed in Chapter 5 of the IBC and in ASCE 7 Table 12.2-1, and must comply with the special seismic requirements for shear walls in accordance with Section E1.4 of AISI S400 (Section C5.1 of AISI S213 for the 2015 IBC).

Table 4 provides nominal shear strength values for the wall assemblies. For ASD, the values in Table 4 must be divided by a safety factor, Ω , of 2.5 for seismic loads or 2.0 for wind loads, as applicable. For LRFD, the values in Table 4 must be multiplied by a resistance factor, Φ , of 0.60 for seismic loads or 0.65 for wind loads, as applicable.

The hold-downs and anchorage along the bottom of the shear wall must be selected by the design engineer. The hold-downs must comply with Section 3.2.5, and the connection to the supporting structure must comply with Section 3.2.6. In multistory applications, accumulative overturning forces must be accounted for in the selection of the hold-downs. The attachments at the bottom track of the shear wall must be capable of transferring the applied shear loads to the supporting structure.

4.1.2.2 In-plane Lateral Deflection: In-plane lateral deflection of Type I shear walls due to the applied shear load may be calculated using the equations shown in Figure 4, as applicable.

The variables and constants in the equations are defined in Section B5.2.5 of AISI S240 (Section C2.1.1 of AISI S213 for the 2015 IBC). Values for $G^*_{sheathing}$ may be taken from IBC Table 2305.2(2).

4.2 Installation:

4.2.1 General: The Hilti X-PN 37 B4 MX, X-PN 37 G2 MX and X-PN 37 G3 MX fasteners must be installed through the wood structural panel sheathing into the CFS framing using a gas or battery-actuated tool in accordance with Hilti, Inc. recommendations. A copy of the Hilti instructions for the use of the tool must be available on the jobsite at all times during installation.

4.2.2 Shear Walls: The shear wall assemblies must be constructed in accordance with the IBC, this report and the approved plans. A copy of the approved plans must be available on the jobsite at all times during shear wall construction.

At each end of the shear wall, two replicate CFS studs must be placed back-to-back, and fastened together at a maximum screw spacing of 12 inches (305 mm) on center. The remainder of the studs must be spaced at 16 inches (406 mm) on center or 24 inches (610 mm) on center, as specified in Table 4. The studs must be fastened to the tracks with one screw through each flange of the track. Hold-downs must be installed at each end of the shear wall, and fasteners or anchors connecting the bottom track to the supporting structure must be installed in accordance with the approved plans.

Wood structural panel sheathing may be installed parallel or perpendicular to the CFS studs. All panel edges must be supported by blocking complying with Section B5.2.2.3.1, items g and h of AISI S240 (Section C2.2, item 8 of AISI S213 for the 2015 IBC). Panels must be no less than 12 inches (305 mm) wide.

The fasteners must be installed a minimum of $\frac{3}{8}$ inch (9.5 mm) from the edges of the wood structural panel sheathing. The spacing of the fasteners must be a maximum of 12 inches (305 mm) on center in the field of the sheathing panels. The spacing of the fasteners at the edges of the sheathing panels must be a minimum of 2 inches (51 mm) on center and a maximum of 6 inches (152 mm) on center, as shown in the approved plans, based on Table 3.

4.3 Special Inspection:

Special inspection of the fastening and anchoring of the shear walls described in this report is required in accordance with IBC Sections 1705.1.1, 1705.11.2 including Exception 2, and 1705.12.3 including Exception 2. A Statement of Special Inspections must be submitted to the code official in accordance with IBC Section 1704.3.

5.0 CONDITIONS OF USE

The Hilti X-PN 37 B4 MX, X-PN 37 G2 MX and X-PN 37 G3 MX PAFs and the shear walls 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** The fasteners must be manufactured and identified in accordance with this report.
- 5.2** Other components of the shear walls must comply with this report, the applicable code, the approved plans and applicable ICC-ES evaluation reports.
- 5.3** Fastener installation must comply with this report and the Hilti, Inc., instructions. In the event of conflict

between this report and the Hilti, Inc., published instructions, this report governs.

- 5.4 Installation is limited to structures four stories or less in height with interior walls, partitions, ceilings and exterior wall systems that have been designed to accommodate story drift. Building height must also be limited in accordance with Chapter 5 of the IBC and ASCE 7 Table 12.2-1.
- 5.5 The aspect ratio (wall height/wall length) of the shear wall must not exceed 2:1. Shear walls with greater aspect ratios are outside the scope of this report.
- 5.6 Only Type I shear walls [defined in Section B5.2.1.1 of AISI S240 (Section C2 of AISI S213 for the 2015 IBC)] are addressed in this evaluation report. Type II shear walls [defined in Section B5.2.1.2 of AISI S240 (Section C3 of AISI S213 for the 2015 IBC)] are outside the scope of this report.
- 5.7 The shear wall assemblies described in Section 3.2 must be used throughout the structure to resist in-plane lateral loads and must not be combined with other types of lateral load-resisting systems, such as wood framed shear walls.
- 5.8 Calculations demonstrating that the applied in-plane shear loads are less than the available shear wall strength must be submitted to the code official for approval. The calculations must be prepared by a registered design professional where required by the statutes of the jurisdiction in which the project is constructed.
- 5.9 Calculations and details showing that the sheathing, the CFS framing, and connections at perimeters of the shear walls, including the foundation anchorage, are adequate to resist the applied transverse loads and comply with the applicable provisions in Section B5.2.1.1 of AISI S240 and Section E1.4 of AISI S400 (Sections C2 and C5 of AISI S213 for the 2015 IBC), must be submitted to the code official. The CFS framing must also be adequate to support the applied gravity loads. These calculations and details must be signed and sealed by a registered design professional, when required by the statutes of the jurisdiction in which the project is to be constructed.
- 5.10 Calculations and details must be submitted to the code official showing how the in-plane lateral loads are transferred from the roof or floor diaphragm into the shear wall, and from the shear wall into the supporting foundation structure. These calculations and details must be signed and sealed by a registered design professional, when required by the statutes of the jurisdiction in which the project is to be constructed.
- 5.11 When the shear wall assemblies are used above the first story, calculations and details must be submitted to the code official showing the complete load path(s) for the transfer of lateral and overturning forces from the upper story shear walls to the foundation. These calculations and details must be signed and sealed by a registered design professional, when required by the statutes of the jurisdiction in which the project is to be constructed.

5.12 Use of the fasteners is limited to dry locations.

5.13 The wood structural panel sheathing used on exterior walls must be protected by a weather-resistant exterior wall envelope.

5.14 Fasteners may be used in contact with fire-retardant-treated wood in dry, interior locations only, in accordance with IBC Section 2304.10.6. (2018 and 2015 IBC Section 2304.10.5.4) and Hilti's recommendations. Use of fasteners in contact with preservative-treated wood is outside the scope of this evaluation.

5.15 The Hilti X-PN 37 B4 MX, X-PN 37 G2 MX and X-PN 37 G3 MX fasteners 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 Power-actuated Fasteners for Shear Wall Assemblies Constructed with Cold-formed Steel Framing and Wood Structural Panels (AC230), dated October 2018 (editorially revised February 2021).

7.0 IDENTIFICATION

7.1 The ICC-ES mark of conformity, electronic labeling, or the evaluation report number (ICC-ES ESR-3059) along with the name, registered trademark, or registered logo of the report holder must be included in the product label.

7.2 In addition, components of the shear wall assemblies must be identified as follows:

7.2.1 PAFs: Each package of fasteners must be labeled with the product name. An "H", for Hilti, is marked on the head of each fastener as shown in Figures 1 and 2.

7.2.2 CFS: Each CFS stud and track must be identified with the minimum base steel thickness in decimal inches or mils, the minimum specified yield strength, and the galvanized coating designation.

7.2.3 Wood Structural Panels: Wood structural panels must be identified in accordance with DOC PS-1 or DOC PS-2, as applicable.

7.2.4 Hold-downs: Hold-downs must be identified in accordance with an applicable ICC-ES evaluation report.

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

HILTI, INC.
7250 DALLAS PARKWAY, SUITE 1000
PLANO, TEXAS 75024
(800) 879-8000
www.hilti.com

TABLE 1—ALLOWABLE PULL-OUT LOADS FOR CONNECTIONS OF WOOD STRUCTURAL PANELS TO CFS FRAMING USING HILTI X-PN 37 B4 MX, X-PN 37 G2 MX OR X-PN 37 G3 MX POWER-ACTUATED FASTENERS (lbf)^{1,3,4}

NOMINAL WOOD STRUCTURAL PANEL THICKNESS (in.) ²	PULL-OUT CAPACITY (lbf)				
	CFS FRAMING THICKNESS DESIGNATION, mils (gage)				
	27 (22)	33 (20)	43 (18)	54 (16)	68 (14)
³ / ₈	17	21	55	93	93
¹⁵ / ₃₂	21	21	55	112	112
¹⁹ / ₃₂	21	21	55	112	112

For **SI**: 1 inch = 25.4 mm, 1 lbf = 4.44N. 1 mil = 0.001 inch = 0.025 mm.

¹The lower of allowable pull-out capacity and adjusted reference pull-through design values must be used for design.

²Wood structural panel thicknesses shown are minimums. Thicker wood structural panels, up to ³/₄ inch thick, may be used.

³Allowable pull-out loads are based on a minimum wood structural panel edge distance of ³/₈ inch.

⁴Multiple fasteners are recommended by the fastener manufacturer for any attachment.

TABLE 2—REFERENCE PULL-THROUGH DESIGN VALUES FOR CONNECTIONS OF WOOD STRUCTURAL PANELS TO CFS FRAMING USING HILTI X-PN 37 B4 MX, X-PN 37 G2 MX OR X-PN 37 G3 MX POWER-ACTUATED FASTENERS (lbf)^{1,3,5}

NOMINAL WOOD STRUCTURAL PANEL THICKNESS (in.) ²	REFERENCE PULL-THROUGH DESIGN VALUES (lbf) ⁴	
	SPECIFIC GRAVITY	
	0.50	0.42
³ / ₈	48	34
¹⁵ / ₃₂	60	43
¹⁹ / ₃₂	77	54

For **SI**: 1 inch = 25.4 mm, 1 lbf = 4.44N.

¹The lower of adjusted reference pull-through design value and allowable pull-out capacity must be used for design.

²Wood structural panel thicknesses shown are minimums. Thicker wood structural panels, up to ³/₄ inch thick, may be used.

³Reference pull-through design values are based on a minimum wood structural panel edge distance of ³/₈ inch.

⁴Reference pull-through design values are based on calculations in accordance with the ANSI/AWC NDS Section 12.2.5.

⁵Multiple fasteners are recommended by the fastener manufacturer for any attachment.

TABLE 3—ALLOWABLE IN-PLANE LATERAL LOADS FOR CONNECTIONS OF PLYWOOD TO CFS FRAMING USING HILTI X-PN 37 B4 MX, X-PN 37 G2 MX OR X-PN 37 G3 MX POWER-ACTUATED FASTENERS (lbf)^{1,2,3,4,5}

NOMINAL PLYWOOD THICKNESS (in.) ³	CFS FRAMING THICKNESS DESIGNATION, mils (gage)				
	27 (22)	33 (20)	43 (18)	54 (16)	68 (14)
³ / ₈	68	88	128	128	155
¹⁵ / ₃₂	68	88	138	155	155
¹⁹ / ₃₂	68	88	150	193	193

For **SI**: 1 inch = 25.4 mm, 1 lbf = 4.44N. 1 mil = 0.001 inch = 0.025 mm.

¹Plywood thicknesses shown are minimums. Thicker plywood, up to ³/₄-inch thick, may be used.

²Allowable lateral loads are based on a minimum plywood edge distance of ³/₈ inch and a minimum plywood end distance in the direction of loading of 1 inch.

³For connections of OSB having thicknesses equal to or greater than those noted in the table, the allowable lateral capacity is equal to the applicable value from the table multiplied by 0.915.

⁴Allowable lateral loads based upon a safety factor calculated in accordance with Section K2.1.1 of AISI S100.

⁵Multiple fasteners are recommended by the fastener manufacturer for any attachment.

TABLE 4—NOMINAL SHEAR RESISTANCE TO SEISMIC AND WIND LOADS FOR SHEAR WALL ASSEMBLIES CONSTRUCTED WITH HILTI X-PN 37 B4 MX, X-PN 37 G2 MX OR X-PN 37 G3 MX POWER-ACTUATED FASTENERS (plf)^{1,2,3,4,5,6}

MINIMUM CFS FRAMING THICKNESS DESIGNATION [mils (gage)]	WOOD STRUCTURAL PANEL ^{7,8}	MAXIMUM STUD SPACING (in.)	FASTENER SPACING AT PANEL EDGES ⁵ (in.)			
			6	4	3	2
33 (20)	$\frac{3}{8}$ " plywood ⁸	24	395	540	650	765
		16	475	655	805	1000
	$\frac{15}{32}$ " plywood ⁸	24	395	540	650	765
		16	475	655	805	1000
	$\frac{19}{32}$ " & $\frac{23}{32}$ " plywood ⁸	24	395	540	650	765
		16	475	655	805	1000
43 (18)	$\frac{3}{8}$ " plywood ⁸	24	400	545	655	775
		16	475	665	815	1010
	$\frac{15}{32}$ " plywood ⁸	24	435	600	720	850
		16	525	725	890	1105
	$\frac{19}{32}$ " & $\frac{23}{32}$ " plywood ⁸	24	485	660	795	935
		16	580	805	985	1225
54 (16)	$\frac{3}{8}$ " plywood ⁸	24	610	830	1000	1180
		16	730	1010	1240	1540
	$\frac{15}{32}$ " plywood ⁸	24	710	975	1170	1380
		16	850	1185	1450	1800
	$\frac{19}{32}$ " & $\frac{23}{32}$ " plywood ⁸	24	835	1140	1370	1615
		16	995	1385	1700	2110

For **SI**: 1 inch = 25.4 mm, 1 mil = .001 inch = 0.025 mm, 1 plf = 14.6 N/m.

¹For Allowable Stress Design (ASD), the nominal shear resistance values listed in this table must be divided by a safety factor, Ω , of 2.0 for wind loads and 2.5 for seismic loads.

²For Load and Resistance Factor Design (LRFD), the nominal shear resistance values listed in this table must be multiplied by a resistance factor, Φ , of 0.60 for seismic loads and Φ of 0.65 for wind loads.

³Tabulated values are applicable for seismic and wind loads. For other in-plane lateral loads of normal or permanent load duration as defined in ANSI/AWC NDS, the values in the table must be multiplied by 0.63 (normal) or 0.56 (permanent).

⁴The minimum distance from the fastener to the wood structural panel edge must be $\frac{3}{8}$ inch.

⁵Fastener spacing must be a maximum of 12 inches on center in the field of the wood structural panel.

⁶Hold-downs, end posts and sill anchors must be designed to resist the required lateral loads.

⁷Wood structural panel sheathing thicknesses shown in this table are minimums. Thicker sheathing may be used without an increase in the shear resistance.

⁸For shear wall assemblies constructed with OSB having thicknesses equal to or greater than those noted in the table, the nominal shear resistance is equal to the applicable value in the table multiplied by 0.915.



FIGURE 1—HILTI X-PN 37 G2 MX OR X-PN 37 G3 MX FASTENERS



FIGURE 2—HILTI X-PN 37 B4 MX FASTENERS

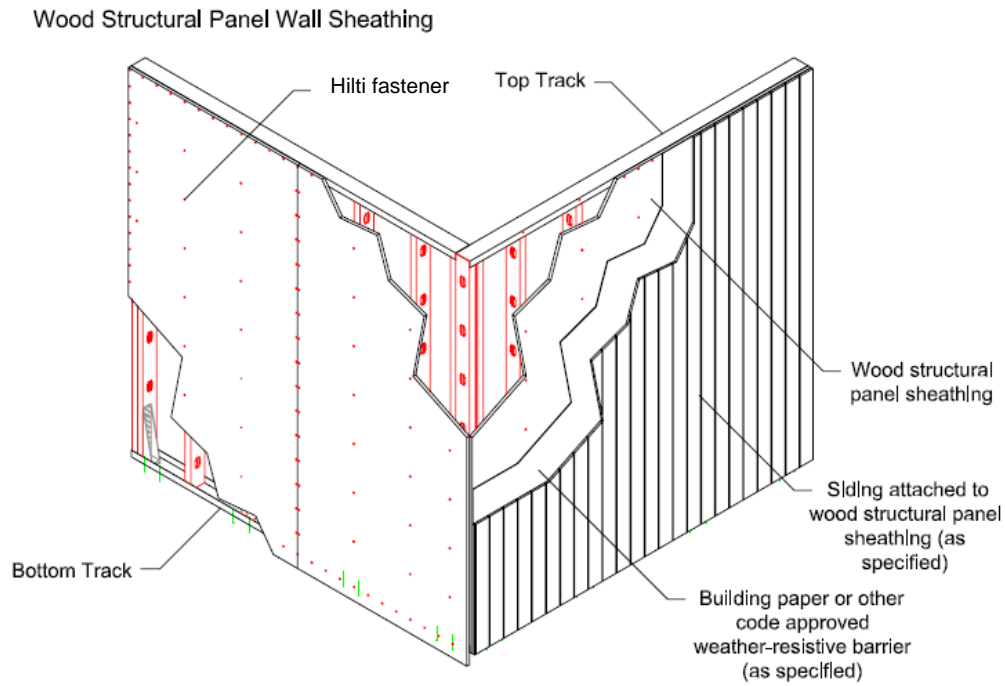


FIGURE 3—TYPICAL SHEAR WALL ASSEMBLY WITH COLD-FORMED STEEL FRAMING AND WOOD STRUCTURAL PANELS ATTACHED WITH HILTI X-PN 37 B4 MX, X-PN 37 G2 MX OR X-PN 37 G3 MX POWER-ACTUATED FASTENERS

$$\delta = \frac{8vh^3}{E_s A_c b} + \omega_1 \omega_2 \frac{vh}{\rho G t_{sheathing}} + \omega_1^{9/4} \omega_2 \omega_3 \omega_4 \left(\frac{v}{\beta}\right)^2 + \frac{h}{b} \delta_v, \text{ in.}$$

For SI:
$$\delta = \frac{2vh^3}{3E_s A_c b} + \omega_1 \omega_2 \frac{vh}{\rho G t_{sheathing}} + \omega_1^{9/4} \omega_2 \omega_3 \omega_4 \left(\frac{v}{0.00290\beta}\right)^2 + \frac{h}{b} \delta_v, \text{ mm}$$

FIGURE 4—DEFLECTION EQUATIONS
(See Section 4.1.2.2 for definition of terms.)

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HILTI, INC.

EVALUATION SUBJECT:**HILTI X-PN 37 B4 MX, X-PN 37 G2 MX AND X-PN 37 G3 MX POWER-ACTUATED FASTENERS USED TO ATTACH WOOD STRUCTURAL PANELS TO COLD-FORMED STEEL FRAMING****1.0 REPORT PURPOSE AND SCOPE****Purpose:**

The purpose of this evaluation report supplement is to indicate that the Hilti X-PN 37 B4 MX, X-PN 37 G2 MX and X-PN 37 G3 MX Power-Actuated Fasteners Used to Attach Wood Structural Panels to Cold-Formed Steel Framing, described in ICC-ES evaluation report [ESR-3059](#), 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:

- 2023 *City of Los Angeles Building Code* (LABC)
- 2023 *City of Los Angeles Residential Code* (LARC)

2.0 CONCLUSIONS

The Hilti X-PN 37 B4 MX, X-PN 37 G2 MX and X-PN 37 G3 MX Power-Actuated Fasteners, described in Sections 2.0 through 7.0 of the evaluation report [ESR-3059](#), comply with the LABC Chapter 22 and 23 and the LARC, and are subject to the conditions of use described in this supplement.

3.0 CONDITIONS OF USE

The Hilti X-PN 37 B4 MX, X-PN 37 G2 MX and X-PN 37 G3 MX Power-Actuated Fasteners Used to Attach Wood Structural Panels to Cold-Formed Steel Framing described in this evaluation report supplement must comply with all of the following conditions:

- All applicable sections in the evaluation report [ESR-3059](#).
- The design, installation, conditions of use and identification of the Hilti X-PN 37 B4 MX, X-PN 37 G2 MX and X-PN 37 G3 MX Power-Actuated Fasteners are in accordance with the 2021 *International Building Code*® (2021 IBC) provisions noted in the evaluation report [ESR-3059](#).
- 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 2023 and revised January 2024.

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The purpose of this evaluation report supplement is to indicate that the Hilti X-PN 37 B4 MX, X-PN 37 G2 MX and X-PN 37 G3 MX Power-actuated Fasteners (PAFs) used to attach wood structural panels to cold-formed steel framing, described in ICC-ES evaluation report ESR-3059, have also been evaluated for compliance with the codes noted below.

Applicable code editions:

- 2023 *Florida Building Code—Building*
- 2023 *Florida Building Code—Residential*

2.0 CONCLUSIONS

The Hilti X-PN 37 B4 MX, X-PN 37 G2 MX and X-PN 37 G3 MX PAFs used to attach wood structural panels to cold-formed steel framing, described in Sections 2.0 through 7.0 of the ICC-ES evaluation report ESR-3059, comply with the *Florida Building Code—Building* and the *Florida Building Code—Residential* with the replacement of the referenced ASCE 7 edition as noted below. The design requirements shall be 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-3059 for the 2021 *International Building Code*® meet the requirements of the *Florida Building Code—Building* or the *Florida Building Code—Residential*, as applicable.

References to ASCE 7-16/S1 in ESR-3059 shall be replaced with ASCE 7-22. This is necessary as the 2023 *Florida Building Code—Building* references ASCE 7-22 and the 2021 *International Building Code*® references ASCE 7-16/S1.

Use of the Hilti X-PN 37 B4 MX, X-PN 37 G2 MX and X-PN 37 G3 MX Power-actuated Fasteners has also been found to be in compliance with the High-Velocity Hurricane Zone provisions of the *Florida Building Code—Building* and the *Florida Building Code—Residential*, provided that design wind loads are based on Section 1620 of the *Florida Building Code—Building*.

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).

This supplement expires concurrently with the evaluation report, reissued July 2023 and revised January 2024.