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LOS ANGELES, CA 90012

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Hilti, Inc.
7250 Dallas Pkwy, Suite 1000
Plano, TX 75024

Attn: Hilti Technical Support
(972) 403-5809

RESEARCH REPORT: RR 25877
(CSI # 05 31 00)

BASED UPON ICC-ES EVALUATION
REPORT NO. ESR-2776

REEVALUATION DUE

DATE: October 1, 2017
Issued Date: October 1, 2015
Code: 2014 LABC

GENERAL APPROVAL –Reevaluation and Clerical Modification –Steel Deck Diaphragms attached with Hilti X-HSN24, X-EDNK22 THQ12, X-EDN19 THQ12 and X-ENP-19 L15 Power-Driven Fasteners and Hilti S-SLC01M HWH and S-SLC02M HWH Sidelap Connectors, and Verco Decking VSC2 sidelap connection

DETAILS

When in compliance with the use, description, design, installation, conditions of approval, and identification of Evaluation Report No. ESR-2776 reissued April 1, 2015, revised May 2015, of the ICC-ES Evaluation Services, Incorporated. The report, in its entirety, is attached and made part of this general approval.

The parts of the ES Report, ESR-2776, which are excluded on the attached copy have been removed by the Los Angeles Building Department as not being included in this approval.

The approval is subject to the following conditions:

1. The values from this report and its attached ESR-2776 shall supersede the Steel Deck Institute Diaphragm Design Manual 03 and its Addenda dated August 2013.
2. Calculations showing that the applied loads are less than the maximum allowable loads shall be submitted to Structural Plan Check for review and approval. The calculations shall be prepared by a Civil or Structural Engineer registered by the State of California.

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Hilti, Inc.

RE: Steel Deck Diaphragms attached with Hilti X-HSN24, X-EDNK22 THQ12, X-EDN19 THQ12 and X-ENP-19 L15 Power-Driven Fasteners and Hilti S-SLC01M HWH and S-SLC02M HWH Sidelap Connectors, and Verco Decking VSC2 sidelap connection

3. The following information shall be on the plans to be reviewed by Structural Plan Check:
 - a. Cross-section details of the deck units.
 - b. Fastener details, at support, diaphragm boundaries, deck unit sidelap connection, and shear transfer elements.
 - c. Length of deck units and span condition.
 - d. Design shear load capacity.
4. Diaphragm shear capacities in the tables shall not be increased for seismic or wind forces.
5. Where the diaphragm is used to provide out of plane wall anchorage, the end and side seam connections shall be structurally analyzed to determine whether they are adequate for this purpose.
6. The fasteners shall be installed per the manufacturer's instructions, a copy of which shall be available at each job site.

DISCUSSION

The Technical Modification is to add X-HSN 24 Power Driven Fasteners.

The report is in compliance with the 2014 Los Angeles City Building Code.

The approval is based on tests and analyses in accordance with the ICC-ES Acceptance Criteria for Steel Deck Roof and Floor Systems (AC43), dated February 2008 (editorially revised April 2008).

This general approval will remain effective provided the Evaluation Report is maintained valid and unrevised with the issuing organization. Any revisions to the report must be submitted to this Department for review with appropriate fee to continue the approval of the revised report.

Addressee to whom this Research Report is issued is responsible for providing copies of it, complete with any attachments indicated, to architects, engineers and builders using items approved herein in design or construction which must be approved by Department of Building and Safety Engineers and Inspectors.

This general approval of an equivalent alternate to the Code is only valid where an engineer and/or inspector of this Department has determined that all conditions of this Approval have been met in the project in which it is to be used.

Hilti, Inc.

RE: Steel Deck Diaphragms attached with Hilti X-HSN24, X-EDNK22 THQ12, X-EDN19 THQ12 and X-ENP-19 L15 Power-Driven Fasteners and Hilti S-SLC01M HWH and S-SLC02M HWH Sidelap Connectors, and Verco Decking VSC2 sidelap connection

QUAN NGHIEM, Chief
Engineering Research Section
201 N. Figueroa St., Room 880
Los Angeles, CA 90012
Phone- 213-202-9812
Fax- 213-202-9943

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Attachments: ICC ES Report No.ESR-2776 (19 Pages).