Continuous Load Path: Documentation Procedures

CONTINUOUS LOAD PATH (CLP) CONNECTIONS

A continuous load path connects all structural elements of a home together, from the roof to the foundation and is integral to home resiliency. Appropriate connections from the roof to the wall, from the wall above to the wall below, and from the wall to the foundation must be documented to qualify for FORTIFIED Home™ Gold designation consideration. The Continuous Load Path connections must be based on resisting loads from 110 mph (ASD)/140 mph (ULT) 3-second gust design wind loads for terrain Exposure B. This document outlines procedures for properly documenting the continuous load path. Complete documentation of the installation of continuous load path connections, from the roof all the way to the foundation, must be submitted by the certified FORTIFIED Home™ Evaluator and meet all compliance requirements upon review.

EXISTING HOMES

Proper verification of an appropriate continuous load path on an existing home is not possible without professional engineering guidance. Unless undergoing a significant renovation or retrofit, many of the continuous load path connections will be concealed by finish materials. To demonstrate compliance for an existing home, it is necessary to have an analysis performed by a professional engineer who can then provide a professional opinion about whether an adequate continuous load path exists. This engineering continuous load path analysis must validate that the installed connections are capable of resisting loads from 110 mph (ASD)/140 mph (ULT) 3-second gust design wind speeds for terrain Exposure B. See the specific engineering requirements in the Continuous Load Path (CLP) Gold Designation Requirements for Existing Homes section of the FORTIFIED Home™ High Wind or the High Wind & Hail Standards.

SUMMARY OF CLP VERIFICATION PROCEDURES FOR EXISTING HOMES:

A. With a professional engineer

1. An analysis of the installed continuous load path connections by a professional engineer followed by a description and photos of the continuous load path and a statement from that engineer indicating that the installed connections are capable of providing a continuous load path that is appropriate for a 110 mph (ASD)/140 mph (ULT) wind speed in Exposure B.

NEW HOMES

SUMMARY OF CLP VERIFICATION PROCEDURES FOR NEW HOMES:

A. With a professional engineer. When a professional engineer is responsible for the structural design of the home.

1. The Professional engineer completes the Continuous Load Path Compliance Form – Engineering (CLP 1). The engineered continuous load path must be based on providing connections to resist loads using 110 mph (ASD)/140 mph (ULT) 3-second gust design wind loads for terrain Exposure B. Submit all documentation and compliance forms to the FORTIFIED Home™ Evaluator.

2. The Contractor installing the connections specified by the Professional Engineer in CLP 1 completes the Continuous Load Path Compliance Form – Installation (CLP 2). Submit all documentation and compliance forms to the FORTIFIED Home™ Evaluator.

3. The FORTIFIED Home™ Evaluator makes an on-site inspection to verify and photo document: 1) roof to wall connections, 2) wall above to wall below connections, 3) wall to foundation connections, 4) hold-down connections at the corners of all exterior walls, 5) the presence of fully sheathed exterior walls with 7/16” minimum wood structural panels. The required photo documentation will be reviewed for conformance with submitted Continuous Load Path Compliance Forms.

4. The FORTIFIED Home™ Evaluator submits all engineering and contractor Compliance Forms, the Evaluator Checklist for Documentation of Continuous Load Path, and all photo documentation of CLP connections to IBHS through the FOCUS software.

B. Without a professional engineer. When no professional engineer is involved in the home design.

1. The licensed contractor completes the FORTIFIED Home™: High Wind and High Wind & Hail Compliance Form for Continuous Load Path (Form CLP3-HWH), a Worksheet for the Documentation of Gold Designation Continuous Load Path Prescriptive Measures. The requirements outlined in the worksheet follow the specific requirements in the Continuous Load Path (CLP) Gold Designation Prescriptive Measures for One-Story or Two-Story Buildings for New Homes that can be found in the FORTIFIED™ Home High Wind or the High Wind & Hail Standards. Submit all documentation and compliance forms to the FORTIFIED Home™ Evaluator.

2. The certified FORTIFIED Home™ Evaluator makes an on-site inspection to verify and photo document: 1) roof to wall connections, 2) wall above to wall below connections, 3) wall to foundation connections, 4) hold-down connections at the corners of all exterior walls, 5) the presence of fully sheathed exterior walls with 7/16” minimum wood structural panels. The FORTIFIED Home™ Evaluator completes the Evaluator Checklist for Documentation of Continuous Load Path.

3. The FORTIFIED Home™ Evaluator submits all engineering and contractor Compliance Forms, the Evaluator Checklist for Documentation of Continuous Load Path, and all photo documentation of CLP connections to IBHS through the FOCUS software.

IMPORTANT NOTE: All documentation must be submitted to IBHS through the FORTIFIED Home™ Evaluator.