



Technical Bulletin FH 2022-01

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Prepared by:

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Applicable Standards:

FORTIFIED Home™–Hurricane
FORTIFIED Home™–High Wind

Applicable Designation Level:



FORTIFIED Home™ Roof Sheathing Nail Pattern Documentation Requirements

Introduction

The documentation requirements for roof sheathing attachment photos have changed, effective April 4, 2022. After that point, a total of **eight photos** (four taken from above the roof sheathing and four taken from within the attic) are required. It is the responsibility of the FORTIFIED Evaluator to find ways to collect the required documentation photos. However, when the specific field situations described below make it impossible to obtain the required photos, alternative documentation may be accepted.

This Technical Bulletin provides guidance on alternative roof sheathing documentation for situations where (1) photos can be obtained from above the roof deck but not below the roof deck, or (2) photos can be obtained from below the roof deck but not above the roof deck. If either the standard required photo documentation or the acceptable alternative photo documentation described in this Technical Bulletin are not provided, evaluations will be returned undesignated.

Providing the eight required photos (taken from both above and below the roof deck), documenting that the FORTIFIED roof deck attachment criteria are met, is the safest and easiest way to ensure this part of an evaluation audit will be satisfied.

However, in all cases **IBHS reserves the right to request additional documentation or return evaluations for lack of documentation at its sole discretion, at any time.**

Compliance Verification Requirements

There are two primary goals of roof deck nailing documentation:

1. **Confirm nail spacing**
2. **Confirm nail penetration into roof structural members**

The preferred vantage point for the first goal (confirming nail spacing) is from above the deck since the nail heads are visible and the distance between them can be measured.



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The preferred vantage point for the second goal (confirming nail penetration into roof members) is from below the deck since shiners are visible and excessive shiners can be observed if present.

For this reason, the standard roof deck nailing documentation requires photos from both above the deck and from below the deck as follows:

Standard Scenario: Access to top side and underside of roof deck

Eight total photos showing maximum nail spacing:

- **Four photos** must be taken from above roof deck showing nail spacing with tape measure in four different locations.
- **Four photos** must be provided from four different locations within the attic. Each photo in attic must include two consecutive structural roof members (truss and/or rafter) and show any areas where excessive shiners are present.
- All documentation photos must be site-specific and verified by a geolocation stamp or a home address visible in the photo.

Alternative Compliance Verification Requirements

Two alternative methods have been developed for when conditions make it impossible for the appropriate pictures to be obtained from either above or below the roof deck. These alternatives can be used ONLY if the conditions described are present.

Alternate Scenario #1: Existing Construction when there is no access to the attic, or the underside of the roof deck is obscured (e.g., with spray foam).

Sometimes photos from below the deck cannot be obtained in homes where there is no access to all or part of the attic, or the underside of the roof deck is obscured. This may occur when the roof configuration (e.g., cathedral ceilings) limit access, there is spray foam insulation, or there is no attic access at all. In these instances, all photos can be taken from the top side of the deck; however, nail penetration into the roof members must be



Roof Sheathing Nailing Documentation

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confirmed by the roofer snapping a chalk line to establish the centerline position of each rafter/truss and showing that nail heads are located along the centerline:

Eight total photos showing maximum nail spacing from above the roof deck:

- **All photos** must be taken from above roof deck showing nail spacing with tape measure in eight different locations.
- **All photos** must show that the roofer has snapped a vertical chalk line to establish the centerline position of the rafter or truss at each location, and nails heads must be located along the chalk line.
- All documentation photos must be site-specific and verified by a geolocation stamp or a home address visible in the photo.

Alternate Scenario #2: New Construction ONLY when photos from the top side of the deck cannot be obtained.

Sometimes photos from the top side of the deck are not able to be obtained for new construction when the roof framing and SRD system are installed by multiple contractors at different times. In these instances, all photos can be obtained from the underside of the roof deck; however, nail spacing must be confirmed with a metal scanner and photos must show tic marks at the nail locations. This method is not permitted for re-roofing because a metal scanner will detect all nails (old and new), which makes confirming the spacing of only the new nails challenging.

Six total photos showing maximum nail spacing from below the roof deck:

- **All photos** must be taken from the underside of the roof deck in six different locations within the attic. Each photo in attic must include 2 consecutive structural roof members (truss and/or rafter) showing tic marks at nail locations over a minimum 4-ft long span. At least 13 nails are required in each 4-ft span.
- **All photos** must show any areas where excessive shiners are present.



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- All documentation photos must be site-specific and verified by a geolocation stamp or a home address visible in the photo.

In addition, for all alternative documentation methods, if site conditions prevented the required photos from being collected, ***the evaluator shall include photos of the existing conditions that prevented the photos from being collected***, such as inadequate attic access or vaulted/cathedral ceilings.

Frequently Asked Questions

Q: It can be challenging to hold all the items required to take photos in the attic while taking a photo of a 4-ft span. Do you have any advice?

A: A squeeze clamp that can hold things like rulers or items that won't be marked permanently on the roof framing members (e.g., a piece of paper with address or project name) can help free up hands as you take pictures. For lighting, a headlamp or the flashlight on your cell phone will prevent the need for the evaluator to hold a flashlight as they capture a photo.

Q: Will the auditors be able to see the nailing clearly with a 4-ft width? Would it be better to provide a photograph of a smaller span?

A: 4 ft is the width of a standard sheet of plywood or OSB and can easily be captured in a picture. Providing photos that show a 4-ft span allows the audit team to better evaluate the overall construction.

Additional References

For additional guidance, refer to the following FORTIFIED Home™ Standard Details:

- [F-RS-1](#)
- [F-RS-2](#)
- [F-RS-3](#)