STANDARD DETAIL SET FOR FORTIFIED ROOF™

2020
## FORTIFIED Home™ Standard Details Table of Contents

### Roof Only Set

*For Use with 2020 FORTIFIED Home Standard*

<table>
<thead>
<tr>
<th>Detail Number</th>
<th>Detail Title</th>
<th>Applicable Levels</th>
</tr>
</thead>
<tbody>
<tr>
<td>F-G-1</td>
<td>Corrosion Protection Requirements</td>
<td>✓ ✓ ✓</td>
</tr>
<tr>
<td>F-G-2</td>
<td>Roof and Wall Zone Diagram</td>
<td>✓ ✓ ✓</td>
</tr>
<tr>
<td>F-RS-1</td>
<td>Roof Deck Attachment - Sawn Lumber or Wood Board Roof Deck with No Gaps</td>
<td>✓ ✓ ✓</td>
</tr>
<tr>
<td>F-RS-2</td>
<td>Hurricane - New Construction Roof Deck Attachment - Structural Wood Panels</td>
<td>✓ ✓ ✓</td>
</tr>
<tr>
<td>F-RS-3</td>
<td>High Wind - New Construction Roof Deck Attachment - Structural Wood Panels</td>
<td>✓ ✓ ✓</td>
</tr>
<tr>
<td>F-SRD-1</td>
<td>Roof Deck Attachment and Sealed Roof Deck from Within Using Spray Foam</td>
<td>✓ ✓ ✓</td>
</tr>
<tr>
<td>F-SRD-2</td>
<td>Steep Slope Sealed Roof Deck - Flashing Tape and Underlayment - Shingle or Metal Roof Covers</td>
<td>✓ ✓ ✓</td>
</tr>
<tr>
<td>F-SRD-3</td>
<td>Steep Slope Sealed Roof Deck - Two Layers Felt Underlayment - Shingle or Metal Roof Covers</td>
<td>✓ ✓ ✓</td>
</tr>
<tr>
<td>F-SRD-4</td>
<td>Steep Slope Sealed Roof Deck - Self-Adhered Membrane (Showing Bond Break for Asphalt Shingles) - Shingle and Metal Roof Covers</td>
<td>✓ ✓ ✓</td>
</tr>
<tr>
<td>F-SRD-5</td>
<td>Steep Slope Sealed Roof Deck - Flashing Tape, Underlayment and Roof Tile Cap Sheet - Concrete and Clay Tile Roof Covers</td>
<td>✓ ✓ ✓</td>
</tr>
<tr>
<td>F-DE-1</td>
<td>Hurricane - Drip Edge Installation Over Underlayment</td>
<td>✓ ✓ ✓</td>
</tr>
<tr>
<td>F-DE-2</td>
<td>DISCONTINUED IN 2020</td>
<td>N/A N/A N/A</td>
</tr>
<tr>
<td>F-DE-3</td>
<td>High Wind - Drip Edge Installation Over Underlayment</td>
<td>✓ ✓ ✓</td>
</tr>
<tr>
<td>F-RC-1</td>
<td>Asphalt Shingle Installation Guidance for Steep Slope - Option 1: Peel and Stick Starter Strip Installation at Eave or Rake</td>
<td>✓ ✓ ✓</td>
</tr>
<tr>
<td>F-RC-2</td>
<td>Asphalt Shingle Installation Guidance for Steep Slope - Option 2: Shingle Strip Starter Installation at Eave or Rake</td>
<td>✓ ✓ ✓</td>
</tr>
<tr>
<td>F-RC-3</td>
<td>Asphalt Shingle Installation Guidance for Steep Slope - Option 3: Shingles Set Directly in Flashing Cement at Rake Only</td>
<td>✓ ✓ ✓</td>
</tr>
<tr>
<td>F-RR-1</td>
<td>Re-Roofing Deck Replacement Fastening Detail</td>
<td>✓ ✓ ✓</td>
</tr>
<tr>
<td>F-RR-2</td>
<td>Re-Roofing New Scab Member Detail for Damaged or Deteriorated Wood Framing Member</td>
<td>✓ ✓ ✓</td>
</tr>
<tr>
<td>F-RR-3</td>
<td>Hurricane - Re-Nailing the Roof Deck (Wood Structural Panels)</td>
<td>✓ ✓ ✓</td>
</tr>
<tr>
<td>F-RR-4</td>
<td>High Wind - Re-Nailing the Roof Deck (Wood Structural Panels)</td>
<td>✓ ✓ ✓</td>
</tr>
<tr>
<td>F-RS-2</td>
<td>New for 2020</td>
<td></td>
</tr>
<tr>
<td>F-GS-1</td>
<td>Temporary Gable Vent Shuttering</td>
<td>✓ ✓ ✓</td>
</tr>
</tbody>
</table>
FORTIFIED Home™ Standard Details Naming Convention

FORTIFIED Home™ Standard Detail numbers are comprised of three alphanumeric identifications to provide general categorization:

1. **First alphabetic identification – FORTIFIED Detail:**
   - F = FORTIFIED

2. **Second alphabetic identification – Secondary Category**
   - G = General Information
   - RS = Roof Sheathing
   - SRD = Sealed Roof Deck
   - DE = Drip Edge
   - RC = Roof Cover
   - RR = Re-Roof
   - GS = Gable Shuttering
   - GE = Gable End
   - S = Soffit
   - CTD = Chimney Tie Down

3. **Numeric identification – chronological order detail was completed**

   **Example: F-RS-1**

   *Fortified Detail ➔ Roof Sheathing Detail ➔ First Detail in this category*
### Requirements

1. **Corrosion Protection:** Requirements for corrosion protection include

   - **Suitable corrosion-resistant material:** Suitable corrosion-resistant material includes a variety of materials such as stainless steel, galvanized steel, and other materials that meet the requirements of ASCE A653.90.

   - **Corrosion-resistant anchor bolts:** Anchor bolts shall meet the requirements of ASTM A490 Class 1 or an equal corrosion resistance by coating, galvanization, or other means.

   - **Hot-dip galvanized ears:** All hot-dip galvanized ears shall meet the requirements of ASTM A153, Class D for nails and screws.

2. **Examples of exposed areas include:**

   - Steel and roof vent fasteners
   - Soft and roof vent fasteners
   - Joist hangers in exposed areas
   - Steel and roof vent fasteners

3. **Metal framing connectors, fasteners, and anchors:**

   - Soft and roof vent fasteners
   - Joist hangers in exposed areas

   - Metal framing connectors, fasteners, and anchors

4. **Hot-dip galvanized ears:**

   - Hot-dip galvanized ears are required for all hot-dip galvanized anchor bolts.

### Notes

- **Building on open:** Elevated foundations within 1,000 ft of saltwater shall follow the requirements of structures within 300 ft of saltwater.

- **Structures more than 3,000 ft from saltwater:**

   - Not required to meet minimum corrosion protection requirements unless required by the local building code or ordinance.

- **Structures more than 3,000 ft from saltwater or saltwater but less than 3,000 ft from saltwater:**

   - Not required to meet minimum corrosion protection requirements unless required by the local building code or ordinance.

- **Structures within 300 ft of saltwater:**

   - Not required to meet minimum corrosion protection requirements unless required by the local building code or ordinance.

- **Structures within 300 ft of saltwater:**

   - Not required to meet minimum corrosion protection requirements unless required by the local building code or ordinance.
STRUCTURAL WOOD PANELS
ROOF DECK ATTACHMENT
HURRICANE - NEW CONSTRUCTION

Table F-RS-2: Minimum Requirements for Roof Sheathing Thickness

<table>
<thead>
<tr>
<th>Minimum Sheathing Thickness</th>
<th>Minimum Nail Spacing</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.04&quot;</td>
<td>2.0&quot; Max.</td>
</tr>
<tr>
<td>0.08&quot;</td>
<td>2.6/8&quot;</td>
</tr>
</tbody>
</table>

FORFIELD HOME: HURRICANE 2019

1. GENERAL NOTES
   - FORFIELD home standards are to be applied in conjunction with local codes.
   - State and local codes, ordinances, and regulations in addition to the
     applicable FORFIELD home standards are to be reviewed to avoid conflict.
   - Refer to applicable FORFIELD home standards for additional information.

2. REFERENCES
   - Refer to Table F-RS-2 for nail spacing requirements.
### Thickness Requirements

Table F-RS-3 for minimum F-RS-3 for roof sheathing (plywood or structural wood panel)

<table>
<thead>
<tr>
<th>N/A</th>
<th>Thickness</th>
<th>7/16&quot;</th>
<th>3/8&quot;</th>
<th>1/2&quot;</th>
<th>3/4&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>4&quot;</td>
<td>7/16&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6&quot;</td>
<td>7/16&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Notes:**

1. Fasten close to panel edge when using 76 mm (3") or 91 mm (3 1/2") length nails. Use 91 mm (3 1/2") for 4" framing member.

2. For minimum vertical sheathing thickness, use the following:
   - 76 mm (3") nails: 1/2"
   - 91 mm (3 1/2") nails: 3/4"

3. For roof framing members, use 91 mm (3 1/2") nails:
   - 7/16": 4" framing
   - 3/8": 6" framing
   - 1/2": 6" framing

4. For rapid installation, use 91 mm (3 1/2") nails into 76 mm (3") thick sheathing:
   - 7/16": 4" framing
   - 3/8": 6" framing
   - 1/2": 6" framing

**Additional Notes:**

- For minimum vertical sheathing thickness, use 91 mm (3 1/2") nails:
  - 1/2": 6" framing
- For framing members, use 91 mm (3 1/2") nails:
  - 7/16": 4" framing
  - 3/8": 6" framing
  - 1/2": 6" framing

**General Notes:**

- For minimum vertical sheathing thickness, use 91 mm (3 1/2") nails:
  - 1/2": 6" framing
- For framing members, use 91 mm (3 1/2") nails:
  - 7/16": 4" framing
  - 3/8": 6" framing
  - 1/2": 6" framing
Spray Foam
Sealed Roof Deck with Spray Uning
Steep Slope Roof Deck Attachment and
Spray Appled Closed Cell
-15 to 3 Fillet of 2 Part Spray Appled Closed Cell

GENERAL NOTES:
- Note #2 - Refer to central panel for spray appled closed cell
- Note #3 - Refer to minimum spray appled closed cell

Existing Structural Wood
Existing Sheathing and Perpendicular To The
Vales. Refer to minimum spray appled closed cell

1. Minimum Requirements for Spray
2. Perpendicular To The
3. Spray Appled Closed Cell
4. Perpendicular To The
5. Spray Appled Closed Cell

spray foam
Sealed Roof Deck with Spray Uning
Steep Slope Roof Deck Attachment and
Spray Appled Closed Cell
-15 to 3 Fillet of 2 Part Spray Appled Closed Cell

GENERAL NOTES:
- Note #2 - Refer to central panel for spray appled closed cell
- Note #3 - Refer to minimum spray appled closed cell

Existing Structural Wood
Existing Sheathing and Perpendicular To The
Vales. Refer to minimum spray appled closed cell

1. Minimum Requirements for Spray
2. Perpendicular To The
3. Spray Appled Closed Cell
4. Perpendicular To The
5. Spray Appled Closed Cell

spray foam
Sealed Roof Deck with Spray Uning
Steep Slope Roof Deck Attachment and
Spray Appled Closed Cell
-15 to 3 Fillet of 2 Part Spray Appled Closed Cell

GENERAL NOTES:
- Note #2 - Refer to central panel for spray appled closed cell
- Note #3 - Refer to minimum spray appled closed cell

Existing Structural Wood
Existing Sheathing and Perpendicular To The
Vales. Refer to minimum spray appled closed cell

1. Minimum Requirements for Spray
2. Perpendicular To The
3. Spray Appled Closed Cell
4. Perpendicular To The
5. Spray Appled Closed Cell
Drip edge refer to General Note #3.

Prime with ATIN-D4 Primer for sealing the PRF on the drip edge. Prime by the manufacturer's manufacturer's procedure. OP of the drip edge is clean of oil and
F. the drip edge is cleaner. Three or all four underlap over underlayment making sure the top surface along all edges and the edge installed on top of the existing roof. Use whichever is more stringent.

5. For roof slopes less than 2/12 refer to applicable approved roof pitch.ipe. Approved with 2/12 or greater drip edge use a manufacturer.

4. Approved underlayment. Use compatible manufacturer-approved underlayment. Underlayment to prevent air seepage below the drip edge.

Max thickness over the drip edge and underlayment installed in accordance with Fortified Home Installation Guidelines. Refer to Fortified Home Details F-1 for additional information.

1. Underlayment installed in accordance with Fortified home
2. Fasten with Fortified Home Details F-2.
Drip edge refer to general note #5. Primed with ATM DP4 primer for sealing the primered blue starter strip manufacturer required by the starter strip manufacturer of the drip edge is cleaned free of oil and primer underlayment makes sure the top surface along all edges and cable make edges installed metal drip edge (minimum 2 gauge for steel).

Use whichever is more stringent:
case of a conflict between provisions, structural design which is by others in regulations in addition to the state and local codes. Ordinances and applicable in conjunction with federal Fortified Home Standards are to be:
1. Requirements
Manufatureured drip edge installed for roof slope less than 45° refer to 5 roof pitch 2:12 or greater 4 approved or use a manufacturer water from accelerated under the warranty underlayment to prevent adhesive underlayment to prevent
2. Detail overlaps (2) nails
3. - 4 x max. Sticks e. 24" x 24" max. thickness over the drip edge and over compatible flashing cement with 18" of compatible flashing cement with 18" o compatible
4. Starter strap or applying an 8" wide later starter strap using a self-adhering underlayment and starter strap at the
5. Underlayment on starter strip at the
F & R-3. F-3A-4. OR F-3A-5. Underlayment installed in accordance with Fortified Home Standards in accordance with Fortified Home Standards.

1. General Notes
2. Refer to Fortified Home Standard Details C-1
3. For corrosion protection requirements
4. Refer to Fortified Home Standard Details C-1
WOOD FRAMING MEMBER
FOR DAMAGED OR DETROPIATED RE-ROOFING NEW SCAB MEMBER DETAIL

SPAN CONDITION
AND 2.4" O.C. MAX SPACING
MIN. NOMINAL THICKNESS
MEMBER BEYOND W/2
EXISTING WOOD ROOF

NEW SCAB MEMBER TO
MATCH EXISTING W/16
2" O.C. STAGGERED.

EXISTING WOOD ROOF

EXISTING BEARING WALL
AND 2.4" O.C. MAX SPACING
MIN. NOMINAL THICKNESS
MEMBER BEYOND W/2

EXISTING WOOD ROOF

NEW SCAB MEMBER TO MATCH
2.4" O.C. STAGGERED
LENGTH, WHICH IS GREATER
2.4" OR TWICE THE OVERHANG.

OVERHANG

EXISTING BEARING WALL

NEW SCAB MEMBER TO MATCH

RE-ROOFING

2.4" BEYOND W/2

OVERLAP

2.0" "BEYOND EACH SIDE

PROVISIONS, USE WHICHEVER IS MORE STRICT.

STRUCTURAL DESIGN WHICH IS BY OTHERS IN CASE OF A CONFLICT BETWEEN
STATE AND LOCAL CODES, ORDINANCES AND REGULATIONS IN ADDITION TO THE
FORTIFIED HOME STANDARDS ARE TO BE APPLIED IN CONJUNCTION WITH FEDERAL.

6

8

5

4

3

2

1

GENERAL NOTES

REFER TO APPLICABLE FORTIFIED HOME STANDARDS FOR ADDITIONAL INFORMATION.
(Wood Structural Panels)

Hurricane - Re-Nailing The Roof Deck

To 3 in.

slaughtered when 8.1 less than or equal to 3 in. shall be
not be less than 2 in. nails shall be
between new and existing nails. B. Shall
B: To avoid wood splitting. Spacing

Sheathing thickness requirements:

Sheathing. Refer to 8.2 for

0.125 in. x 2.38 in. RD

Additional 0.125 in. x 2.38 in. RD

ADDITIONAL FASTENER
A = Spacing of Additional Fasteners
+ = Additional Fasteners
O = Existing Fasteners

EXISTING FASTENERS

This notation is used when additional fasteners are required. Refer to 8.2 for

NOT REQUIRED. Supplementation in 15 is

required to meet the

规定 shall be in accordance with a

Conflict between provisions. Use whichever is more stringent.

Additional to the structural design which is by others. In case of A

Federal, state, and local codes, ordinances, and regulations in

FORTIFIED HOME STANDARDS ARE TO BE APPLIED IN CONJUNCTION WITH

FORTIFIED HOME STANDARDS FOR ADDITIONAL

GENERAL NOTES.

Refer to applicable Fortified Home Standards for Additional
TO 3 IN.
STACKED WHEN 7 IN. LESS THAN OR EQUAL
NOT LESS THAN 2 IN. NAILS SHALL BE
BETWEEN NEW AND EXISTING NAILS. B. SHALL
EXISTING STRUCTURAL WOOD PANEL ROOF

SHEATHING THICKNESS REQUIREMENTS
SHEATHING. REFER TO F.R-3 FOR
TO F.R-1 FOR DAMAGE OR DEFORMATION REFER
W/NO DAMAGE OR DEFORMATION REFER
OTHERS SHEATHING (PLYWOOD OR ASBD) BY OTHERS
EXISTING STRUCTURAL WOOD PANEL ROOF

SPACING REQUIREMENTS
#3 FOR ROOF MEMBER
REFER TO GENERAL NOTE

DAMAGED MEMBERS.
DETERIORATED OR
ROUND CHISELED OR
HEAD CLIPPED

NOT REQUIRED.
SUPPLEMENTAL FASTENING (+) IS
REQUIRED OF F.R-3 THEN
NAILING MEETS THE
DOCUMENTED THAT EXISTING
EXISTING FASTENERS, IT CAN BE

ADDITIONAL FASTENER
B = SPACING BETWEEN EXISTING AND
A = SPACING OF ADDITIONAL FASTENERS
+ = ADDITIONAL FASTENERS
O = EXISTING FASTENERS

RE:
TEMPORARY CABLE VENT SHUTTERING

Below:

The house and not into the wall cavity can drain to the outside of vent. Can silt out the wall inside of attic. Ensure that any vent edges if shutter is installed on shutter striping can be used to seal the

NOTES:

1. Use self-adhesive weather

LAS MIN. WITHIN WALL CAPACITY.

MASONRY/STUCCO USE CORROSION RESISTANT ANCHORS W/1500

tons, WHERE SCREWS ARE TREATED TO MATCH OR

1.5

WASHER

EMBEDMENT 11/16

1/4 FASTENER W/2

WOOD

2.5 EMBEDMENT 11/16

1/4 LAG SCREWS W/

FASTENER TYPE

DISTANCE "D"

END TYPE SUPPORT STRUCTURE

TABLE E-5: FASTENING SCHEDULE FOR CABLE VENT COVER

Support Structure

1. REFER TO PORTFIELD HOME STANDARDS FOR ADDITIONAL INFORMATION

2. PERSONAL ATTIC VENTILATION MUST BE MAINTAINED ON A REGULAR BASIS.

3. TO MAINTAIN PROPER ATTIC VENTILATION, VENT SHUTTERING MAY BE REMOVED AFTER A STORM THREAT IS OVER.

4. ADEQUATE ATTIC VENTILATION MUST BE MAINTAINED ON A REGULAR BASIS.

5. REFER TO PORTFIELD STANDARD DETAILS FOR CORROSION PROTECTION REQUIREMENTS.