FORM 100 - REROOFING INSTALLATION SUMMARY FORM

ASPHALT SHINGLES or WOOD SHAKES/SHINGLES

☐ Main House or Duplex

SITE ADDRESS: _____ ☐ Accessory Structure (Detached Garage, Shed, etc.)

Sloped Roof Pitch: _____ / 12 **Mean Roof Height:** _____ Ft **Sloped Roof Area (SQRs):** _____

☐ **AERIAL DEPICTION of Structure is included (per Google Earth, Pictometry, EagleView, etc.)**

****SUPPLEMENTAL Details and Information (Identify all items related to the site-specific conditions)**

☐ MANDATED RETROFITS- Existing Wood decks, include **Mandated Roof-to-Wall Connection Retrofit** Form

☐ Tie-In Detail (Required) ☐ Repair (<25% ROOF AREA-(**PER 1511.1.1 FBC 2023**)

☐ **Verify** Roof Deck Attachment-Per 2023 Existing FBC-706 & Table 706.7.1.2

☐ Sheath-over (ENGINEERING DEAILS ATTACHED)

☐ Re-cover (**ONE ADDITIONAL LAYER ONLY**/ MUST BE ALLOWED BY PRODUCT APPROVAL)

☐ Skylights/ Vents/ etc. (REPLACEMENT ONLY) Provide Product Approval #_____ (ATTACHED)

☐ FLAT Roof Deck portion included in Reroofing Scope (PROVIDE FORM 400-FLAT ROOF)

UNDERLAYMENT Method & Material (Select one): ☐ Product approval #_____ (ATTACHED)

A	B	C
☐ Self-Adhered (Direct to Deck) **NOT an Option for Wood Shake/Shingle**	☐ 3 ¾" Wide Strip (AAMA 711) Over all Joints/Seams (Per Table R905.1.1.1)	☐ 2 Layers of 30# Felt (ASTM Approved) OR
Self –Adhered (ASTM D1970) Polymer-Modified Bitumen Underlayment applied directly to entire roof deck	3¾" Wide Strip of self-adhering flexible flashing tape per AAMA 711 Level 3 applied over all joints with 30# felt on top	Two layers of ASTM D226 Type II or ASTM D4869 Type III, Type IV. Layers to be lapped Per FBC R905.1.1.1 B1507.1.1

PRODUCT Specifications:

Manufacturer	Product Name	Material Type	Product Approval #

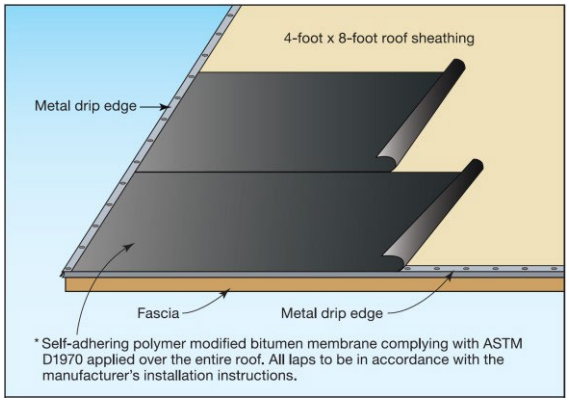
☐ **Applicant's Affidavit: I hereby certify that I have read the material on all pages of this document and have FULLY provided ALL the information requested.**

_____ _____ _____

Qualifier Name Qualifier Signature Date

(Underlayment Options (SELECT One)

☐

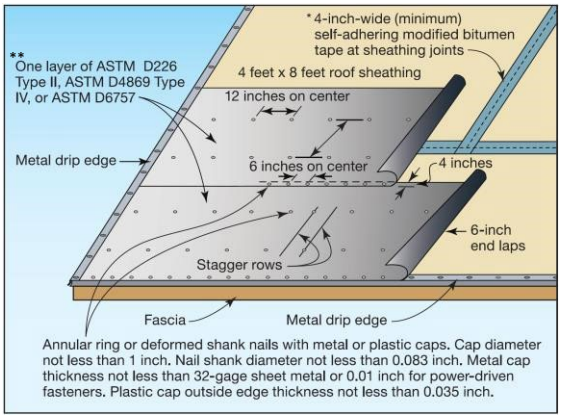


Source: FEMA Hurricane Michael in Florida Recovery Advisory 2

Underlayment Roof Deck Option A

[**NOTE**: **A** is NOT an Option for Wood Shake/Shingle]

☐

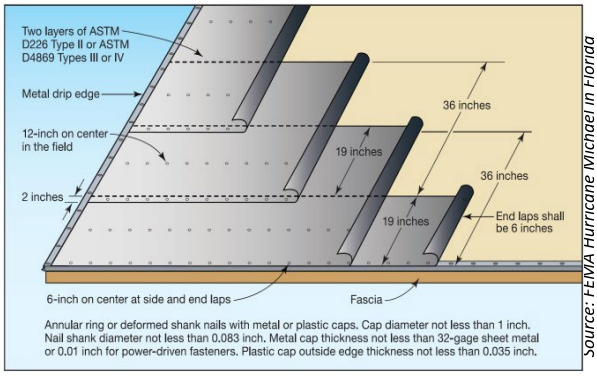


Source: FEMA Hurricane Michael in Florida Recovery Advisory 2

*3 ¾ inch AAMA 711 flashing tape is also permitted.

Underlayment Roof Deck Option B

☐



Source: FEMA Hurricane Michael in Florida Recovery Advisory 2

Underlayment Roof deck Option C

Mandated Retrofits of Roof-to-Wall Connection

THIS FORM MUST BE FILLED OUT AND INCLUDED WITH ALL RE-ROOFING APPLICATIONS FOR EXISTING STRUCTURES WITH WOOD ROOF DECKS.

Address: _____

For the purpose of this document, "Sections" as cited below are from the Florida Building Code-Existing Building, 8TH Edition (2023) Section 706.8, unless otherwise noted.

When the roof covering on an existing structure with a wood roof deck is removed and replaced…the structure shall be evaluated for mandated retrofits of the roof-to-wall connections in accordance with Section 706.8.

1. **Was permit for the original construction of the building applied for on or after January 1, 1990?**
   - ☐ **Yes** – The application date was on or after January 1, 1990.
     *** Proceed to signature and permit submittal.* (Attach documentation verifying the application date)
   - ☐ **No** – The application date was prior to January 1, 1990.
     *** Continue with questions and details below.*

2. **Applicant must provide one of the following to document the value of the building.**
   - ☐ Copy of current home insurance summary sheet.
   - ☐ Copy of the latest Tax Bill or Property Appraiser Valuation for the structure (the *Appraised Improvement Value* determines the threshold amount).

3. **Based on the documentation provided, is the value of the Building $300,000 or more?**
   - ☐ **No -** Building is valued at less than $300,000
     *** Proceed to signature and permit submittal.*
   - ☐ **Yes -** Building valuation exceeds $300,000
     *** Enhanced Roof-to-Wall connections are required unless meeting one of the following exceptions:*

     - ☐ **Exception 1:** Cost of "evaluation and roof-to-wall connections" at gable ends or **all** corners will exceed 15% of the cost of the roof replacement (attach professional estimate by a Florida Licensed General or Building Contractor).
     - ☐ **Exception 2:** Analysis submitted by FL Design Professional validates the existing roof-to-wall load path connections are compliant for the applicable wind loads in Table 706.8.1.

COMPLIANCE Options to Complete Mandated Retrofits (Identify one)

- ☐ **Prescriptive Retrofit Procedures**.
  - Roof-to-wall connections will be enhanced using the prescriptive measures in Sections 706.8.1.3 – 7.
  - Priority of work shall be determined by Section 706.8.1.7.
  - Details provided on page 2
- ☐ **Professional Design**
  - Provide engineered design plan, and identify details on page 2

If enhanced roof to wall connections are required, the following page (Connection Details) must also be completed and submitted along with a roof plan of the building, including span distances and gable/ hip locations identified. Plan should indicate areas to be retrofitted, connectors to be used, and fastener requirements. Please include product approvals for all the connectors specified.

_____	_____	_____
Qualifier or Owner/Builder Name (Print)	Qualifier or Owner/Builder Signature	Date

Roof to Wall Mandated Retrofits (Cont.)

MANDATED RETROFIT CONNECTION DETAILS

Exterior Wall Construction:

☐ Wood
☐ CBS
☐ Other explain: _____

Roof Geometry:

☐ Gable
☐ Hip
☐ Flat
☐ Other explain: _____

Existing Anchors

Identify existing straps/anchors and fasteners (quantity & size) at areas proposed for retrofit.

Strap/Anchor: _____ Fasteners: _____

Determine if *Existing Straps* were *manufactured and rated* for four (4) fasteners at each end.

☐ YES - *Existing Straps* were *manufactured and rated* for four (4) fasteners at each end
- Specify additional fastener size and quantity: _____

NOTE: A Roofing Contractor (CCC) may install the additional fasteners to the existing straps – Details shall be included in primary Reroof permit scope of work.

☐ NO - *Existing Straps* were not *manufactured and rated* for four (4) fasteners at each end
- Retrofit straps/anchors shall be added and installed (CGC, CBC or CRC required)

NOTE: Installation of new straps/ anchors is outside the scope of a Roofing Contractor (CCC), and requires an appropriately licensed *building* Contractor (CGC, CBC or CRC).

Retrofit Straps/ Anchors (Minimum uplift capacity of 500 pounds each, unless designed by FL P.E.)

"B" Subpermit ("*Mandated Retrofits, GC required*") shall be added to the primary Reroof permit.

Manufacturer: _____

Type/ Model: _____

Fasteners: _____
(Nails, Screws, Bolts / Size / Quantity / Minimum Embedment / Spacing / etc.)

_____	_____	_____
Qualifier or Owner/Builder Name (Print)	Qualifier or Owner/Builder Signature	Date

FORM 200 - REROOFING INSTALLATION SUMMARY FORM

CONCRETE or CLAY TILE

☐ Main House or Duplex

SITE ADDRESS: _____ ☐ Accessory Structure (Detached Garage, Shed, etc.)

Sloped Roof Pitch: _____ / 12* **Mean Roof Height:** _____ Ft **Sloped Roof Area (SQRs):** _____

Roof Design: ☐ Gable Roof ☐ Hip Roof **Design Pressures:** (Obtained from Tables on Page 2) **LPZ:** _____ **HPZ:** _____

☐ **AERIAL DEPICTION of Structure is included (per Google Earth, Pictometry, EagleView, etc.)**

****SUPPLEMENTAL Details and Information (Identify all items related to the site-specific conditions)**

☐ MANDATED RETROFITS- Existing Wood decks, include **Mandated Roof-to-Wall Connection Retrofit** Form

☐ Tie-In Detail (**REQUIRED**)

☐ **Verify** Roof Deck Attachment-Per 2023 Existing FBC-706 & Table 706.7.1.2

☐ Battens (Per FRSA\TRI Installation manual)

☐ Skylights/ Vents/ etc. (REPLACEMENT ONLY) Provide Product Approval #_____(ATTACHED)

☐ FLAT Roof Deck portion included in Reroofing Scope (PROVIDE FORM 400-FLAT ROOF)

☐ Repair (<25% ROOF AREA-(**PER 1511.1.1 FBC 2023**)

BASE SHEET/CAP SHEET Specifications: (Identify One System) ☐ Engineers Design Attached

Design A

☐ Double Ply		☐ Single Ply
Base Sheet Type: _____	**Cap Sheet** ☐ Self-Adhered ☐ Other	**Direct-to-Deck** ☐ Self-Adhered
☐ Mechanically Attached ☐ Self-Adhered (EXPOSURE **NOT** TO EXCEED 90 DAYS.)	☐Heat Applied ☐Cold Applied Product Approval # _____ System: _____	Type: _____ Product Approval # _____ System: _____

ROOF TILE Specifications:

Manufacturer	Product Name	Material Type	Product Approval #

ROOF TILE ATTACHMENT Details (Attachment details **SHALL be Identified/Circled in** Product Approval**)**

MECHANICAL Per-FRSA or Product Approval # _____	**FOAM ADHESIVE** * FL Product Approval # _____		**MORTAR** * Product Approval # _____
☐___ # Ring Shank Nails ☐___ # Smooth Shank Nail ☐___ # 8 Screws	Paddy: ☐ Single ☐ Double	Paddy Size: _____ Paddy Weight (g): _____ Moment Resistance (ft-lbf): _____	Allowable Moment Resistance (ft-lbf): _____ Per: ☐ FRSA or Product Approval

*** Slopes over 6/12 require additional mechanical fasteners (Per Product Approval – FRSA Manual or Engineers Design as applicable)**

Applicant's Affidavit: I hereby certify that I have read the material on all pages of this document and have FULLY provided ALL the information requested.

_____ _____ _____

Qualifier Name Qualifier Signature Date

DESIGN PRESSURES FOR UNDERLAYMENT AND RIDGE ATTACHMENT REQUIRED FOR CATEGORY II BUILDINGS HAVING A 3:12 AND GREATER PITCH PER ASCE 7-22 (psf)

TABLE 1-H

Hip Roof -ASCE 7-22 (3:12 and Over), Category II Buildings (psf)
Required Design Uplift Pressures (psf) For Underlayment and Ridge Attachment

ROOF EXPOSURE	ROOF ZONES	MEAN ROOF HEIGHT	170 DESIGN PRESSURE (psf)
EXP B	ALL	0-15	68.7
		20	68.7
		30	68.7
		40	72.6
		50	77.5
		60	81.4
EXP C	ALL	0-15	83.4
		20	88.3
		30	96.1
		40	102.0
		50	106.9
		60	110.9
EXP D	ALL	0-15	101.0
		20	106.0
		30	113.8
		40	119.7
		50	124.6
		60	128.5

Notes:

1. The pressures (psf) in the above table are indicative of the required design uplift pressure based upon less than 4.5: 12 for roof zone 3.
2. The roofing professional has the option to review and determine alternative methods that would reflect the full calculation options of ASCE 7-22 that might provide lower uplift resistance values in certain areas.
3. For actual uplift resistance values for Foam Adhesives or Mortar installations, please see the Adhesive manufacturer's formal product approvals for additional information.

DESIGN PRESSURES FOR UNDERLAYMENT AND RIDGE ATTACHMENT REQUIRED FOR CATEGORY II BUILDINGS HAVING A 3:12 AND GREATER PITCH PER ASCE 7-22 (psf)

TABLE 1-G

Gable Roof-ASCE 7-22 (3:12 and Over), Category II Buildings

Pressures for Underlayment and Ridge Attachment (psf)

ROOF EXPOSURE	ROOF ZONES	MEAN ROOF HEIGHT	170 DESIGN PRESSURE (psf)
EXP B	ALL	0-15	95.1
		20	95.1
		30	95.1
		40	100.5
		50	107.3
		60	112.7
EXP C	ALL	0-15	115.5
		20	122.3
		30	133.1
		40	141.3
		50	148.1
		60	153.5
EXP D	ALL	0-15	139.9
		20	146.7
		30	157.6
		40	165.7
		50	172.5
		60	177.9

Notes:

1. The pressures (psf) in the above table are indicative of the required design uplift pressure based upon less than 4.5: 12 for roof zone 3.
2. The roofing professional has the option to review and determine alternative methods that would reflect the full calculation options of ASCE 7-22 that might provide lower uplift resistance values in certain areas.
3. For actual uplift resistance values for Foam Adhesives or Mortar installations, please see the Adhesive manufacturer's formal product approvals for additional information.

TABLE 2 GC

Gable Roof – ASCE 7-22
Exposure C – Tile Factor = 1.407 ft³

Roof Slopes	Mean Roof Height (ft.)	Roof Zones	170 Ma (ft-lbf)
Less than 4.5:12	0-15	LPZ	39.3
		HPZ	48.8
	20	LPZ	41.6
		HPZ	51.7
	30	LPZ	45.3
		HPZ	56.3
	40	LPZ	48.1
		HPZ	59.8
	50	LPZ	50.4
		HPZ	62.6
	60	LPZ	52.2
		HPZ	64.9
4.5: 12 to less than 6:12	0-15	LPZ	37.2
		HPZ	42.5
	20	LPZ	39.4
		HPZ	45.0
	30	LPZ	42.8
		HPZ	49.0
	40	LPZ	45.5
		HPZ	52.0
	50	LPZ	47.7
		HPZ	54.5
	60	LPZ	49.4
		HPZ	56.5
6:12 to 12:12	0-15	LPZ	31.9
		HPZ	37.2
	20	LPZ	33.7
		HPZ	39.4
	30	LPZ	36.7
		HPZ	42.8
	40	LPZ	39
		HPZ	45.5
	50	LPZ	40.8
		HPZ	47.7
	60	LPZ	42.3
		HPZ	**49.4**

TABLE 2 HC

Hip Roof – ASCE 7-22
Exposure C – Tile Factor = 1.407 ft³

Roof Slopes	Mean Roof Height (ft.)	Roof Zones	170 Ma (ft-lbf)
Less than 4.5:12	0-15	LPZ	36.1
		HPZ	38.2
	20	LPZ	38.2
		HPZ	40.5
	30	LPZ	41.6
		HPZ	44.1
	40	LPZ	44.2
		HPZ	46.8
	50	LPZ	46.3
		HPZ	49.0
	60	LPZ	48.0
		HPZ	50.8
4.5: 12 to less than 6:12	0-15	LPZ	31.9
		HPZ	31.9
	20	LPZ	33.7
		HPZ	33.7
	30	LPZ	36.7
		HPZ	36.7
	40	LPZ	39.0
		HPZ	39.0
	50	LPZ	40.8
		HPZ	40.8
	60	LPZ	42.3
		HPZ	42.3
6:12 to 12:12	0-15	LPZ	29.7
		HPZ	36.1
	20	LPZ	31.5
		HPZ	38.2
	30	LPZ	34.3
		HPZ	41.6
	40	LPZ	36.4
		HPZ	44.2
	50	LPZ	38.1
		HPZ	46.3
	60	LPZ	39.5
		HPZ	**48.0**

LPZ - Low Pressure Zones 2 for Hip Roofs
HPZ - High Pressure Zones 3 for Hip Roofs
h/B ≤ 0.80 values used where applicable (most conservative)

Mandated Retrofits of Roof-to-Wall Connection

THIS FORM MUST BE FILLED OUT AND INCLUDED WITH ALL RE-ROOFING APPLICATIONS FOR EXISTING STRUCTURES WITH WOOD ROOF DECKS.

Address: _____

For the purpose of this document, "Sections" as cited below are from the Florida Building Code-Existing Building, 7TH Edition (2020) Section 706.8, unless otherwise noted.

When the roof covering on an existing structure with a wood roof deck is removed and replaced…the structure shall be evaluated for mandated retrofits of the roof-to-wall connections in accordance with Section 706.8.

1. **Was permit for the original construction of the building applied for on or after January 1, 1990?**
   - ☐ **Yes** – The application date was on or after January 1, 1990.
     *** Proceed to signature and permit submittal.* (Attach documentation verifying the application date)
   - ☐ **No** – The application date was prior to January 1, 1990.
     *** Continue with questions and details below.*

2. **Applicant must provide one of the following to document the value of the building.**
   - ☐ Copy of current home insurance summary sheet.
   - ☐ Copy of the latest Tax Bill or Property Appraiser Valuation for the structure (the *Appraised Improvement Value* determines the threshold amount).

3. **Based on the documentation provided, is the value of the Building $300,000 or more?**
   - ☐ **No -** Building is valued at less than $300,000
     *** Proceed to signature and permit submittal.*
   - ☐ **Yes -** Building valuation exceeds $300,000
     *** Enhanced Roof-to-Wall connections are required unless meeting one of the following exceptions:*

     - ☐ **Exception 1:** Cost of "evaluation and roof-to-wall connections" at gable ends or **all** corners will exceed 15% of the cost of the roof replacement (attach professional estimate by a Florida Licensed General or Building Contractor).
     - ☐ **Exception 2:** Analysis submitted by FL Design Professional validates the existing roof-to-wall load path connections are compliant for the applicable wind loads in Table 706.8.1.

COMPLIANCE Options to Complete Mandated Retrofits (Identify one)

- ☐ **Prescriptive Retrofit Procedures**.
  - Roof-to-wall connections will be enhanced using the prescriptive measures in Sections 706.8.1.3 – 7.
  - Priority of work shall be determined by Section 706.8.1.7.
  - Details provided on page 2
- ☐ **Professional Design**
  - Provide engineered design plan, and identify details on page 2

If enhanced roof to wall connections are required, the following page (Connection Details) must also be completed and submitted along with a roof plan of the building, including span distances and gable/ hip locations identified. Plan should indicate areas to be retrofitted, connectors to be used, and fastener requirements. Please include product approvals for all the connectors specified.

_____	_____	_____
Qualifier or Owner/Builder Name (Print)	Qualifier or Owner/Builder Signature	Date

Roof to Wall Mandated Retrofits (Cont.)

MANDATED RETROFIT CONNECTION DETAILS

Exterior Wall Construction:

☐ Wood
☐ CBS
☐ Other explain: _____

Roof Geometry:

☐ Gable
☐ Hip
☐ Flat
☐ Other explain: _____

Existing Anchors

Identify existing straps/anchors and fasteners (quantity & size) at areas proposed for retrofit.

Strap/Anchor: _____ Fasteners: _____

Determine if *Existing Straps* were *manufactured and rated* for four (4) fasteners at each end.

☐ YES - *Existing Straps* were *manufactured and rated* for four (4) fasteners at each end
- Specify additional fastener size and quantity: _____

NOTE: A Roofing Contractor (CCC) may install the additional fasteners to the existing straps – Details shall be included in primary Reroof permit scope of work.

☐ NO - *Existing Straps* were not *manufactured and rated* for four (4) fasteners at each end
- Retrofit straps/anchors shall be added and installed (CGC, CBC or CRC required)

NOTE: Installation of new straps/ anchors is outside the scope of a Roofing Contractor (CCC), and requires an appropriately licensed *building* Contractor (CGC, CBC or CRC).

Retrofit Straps/ Anchors (Minimum uplift capacity of 500 pounds each, unless designed by FL P.E.)

"B" Subpermit ("*Mandated Retrofits, GC required*") shall be added to the primary Reroof permit.

Manufacturer: _____

Type/ Model: _____

Fasteners: _____
(Nails, Screws, Bolts / Size / Quantity / Minimum Embedment / Spacing / etc.)

_____	_____	_____
Qualifier or Owner/Builder Name (Print)	Qualifier or Owner/Builder Signature	Date

FORM 300 - REROOFING INSTALLATION SUMMARY FORM

METAL ROOFING

SITE ADDRESS: _____ ☐ Main House or Duplex ☐ Accessory Structure (Detached Garage, Shed, etc.)

Sloped Roof Pitch: _____ / 12 **Mean Roof Height:** _____ Ft **Sloped Roof Area (SQRs):** _____

☐ **AERIAL DEPICTION of Structure is included (per Google Earth, Pictometry, Eagle-View, etc.)**

☐ **DESIGN WIND UPLIFT Pressure:** _____ (psf.)

****SUPPLEMENTAL Details and Information (Identify all items related to the site-specific conditions)**

☐ MANDATED RETROFITS- Existing Wood decks, include **Mandated Roof-to-Wall Connection Retrofit** Form
☐ Tie-In Detail (**REQUIRED**)
☐ **Verify** Roof Deck Attachment-Per 2023 Existing FBC-706 & Table 706.7.1.2
☐ Skylights/ Vents/ etc. (REPLACEMENT ONLY) Provide Product Approval #_____ (ATTACHED)
☐ FLAT Roof Deck portion included in Reroofing Scope (PROVIDE FORM 400-FLAT ROOF)
☐ Repair (<25% ROOF AREA-**PER 1511.1.1 FBC 2023**)

UNDERLAYMENT Method & Material (Select one Method): ☐ Product Approval #_____ (ATTACHED)

A	B	C
☐ Self-Adhered (Direct to Deck) **NOT an Option for Wood Shake/Shingle**	☐ 3 ¾" Wide Strip (AAMA 711) Over all Joints/Seams (Per Table R905.1.1.1)	☐ 2 Layers of 30# Felt (ASTM Approved) OR
Self –Adhered (ASTM D1970) Polymer-Modified Bitumen Underlayment Applied directly to entire roof deck	3 ¾" Wide Strip of self-adhering flexible flashing tape per AAMA 711 Level 3 applied over all joints with 30# felt on top	Two layers of ASTM D226 Type II or ASTM D4869 Type III, Type IV. Layers to be lapped **Per FBC 2023 R905.1.1.1, B1507.1.1**

METAL PANEL SPECIFICATIONS:

Manufacturer	Product Name	Panel Type	Product Approval #
_____	_____	_____	_____

METAL PANEL ATTACHMENT: (Attachment details SHALL be Identified/Circled in Product Approval)

Max. Allowed Pressure (Product Approval)	FASTENER Type	FASTENER/CLIP Spacing
_____ (psf)	☐ Fasteners* ☐ Clips* *Screws (size & quantity): _____	_____ (inches)

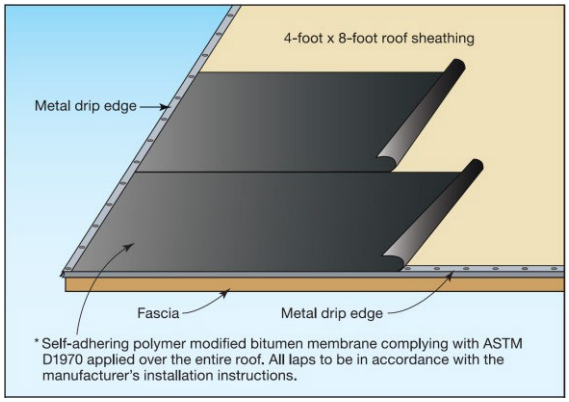
☐ **Applicant's Affidavit: I hereby certify that I have read the material on all pages of this document and have FULLY provided ALL the information requested.**

_____ _____ _____

Qualifier Name **Qualifier Signature** **Date**

Underlayment Options (Select One)

☐

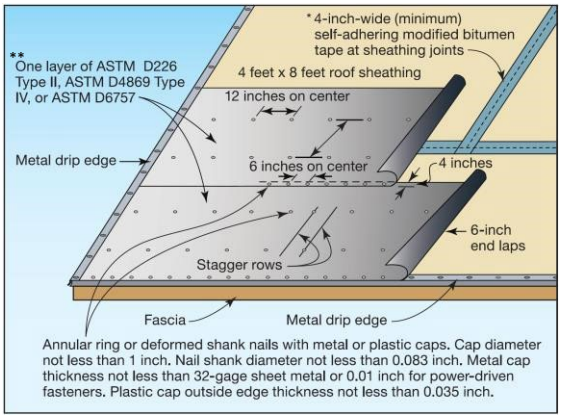


Source: FEMA Hurricane Michael in Florida Recovery Advisory 2

Underlayment Roof Deck Option A

[**NOTE**: **A** is NOT an Option for Wood Shake/Shingle]

☐



Source: FEMA Hurricane Michael in Florida Recovery Advisory 2

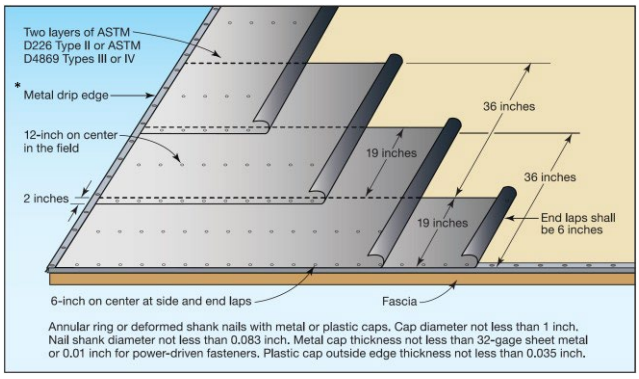
Figure 1Delete ASTM D6757

*3 ¾ inch AAMA 711 flashing tape is also permitted.

**Synthetic underlayment meeting the performance requirements specified in Option E may also be used.

Underlayment Roof Deck Option B

☐



Source: FEMA Hurricane Michael in Florida Recovery Advisory 2

*Synthetic underlayment meeting the performance requirements specified in Option E may also be used.

Underlayment Roof Deck Option C

SIMPLIFIED ROOF UPLIFT CHART FOR ROOFING APPLICATIONS

This simplified chart represents the worse-case wind pressures for the various roof slopes and heights. This chart is based on a Tributary Area = 10 SF which is required for roofing applications. If the roof height is less than 30 feet, but not exactly 15, 20, or 25 feet,you will need to go to the next higher roof height. If your roof is higher than 30 feet, these charts do not apply. Refer to Roof Chart Diagrams on Page 1 for Roof Zone Locations.

MEAN ROOF HEIGHT = 15 FEET

Flat Roof		Gable Roof				Hip Roof		
		1.51 to 4:12		4.1 to 6:12	6.1 to 12:12	1.51 to 4:12		4.1 to 6:12
Positive*	15.4/38.0	Positive 23.2		Positive 23.2	Positive 34.7	Positive 28.3		Positive 28.3
Zone		Zone	Roof	Roof	Roof	Zone	Roof	Roof
1	-60.5	1, 2e	-70.1	-54	-63.7	1	-63.7	-50.8
1'	-34.8	2n & 2r	-102	-86.2	-70.1	2e	-89.4	-70.1
2	-79.8	3e	-102	-86.2	-86.7	2r	-83	-70.1
3*	-109	3r	-102	-102	-70.1	3	-89.4	-70.1

MEAN ROOF HEIGHT = 20 FEET

Flat Roof		Gable Roof				Hip Roof		
		1.51 to 4:12		4.1 to 6:12	6.1 to 12:12	1.51 to 4:12		4.1 to 6:12
Positive*	16.4/40.3	Positive 24.6		Positive 24.6	Positive 36.9	Positive 30.1		Positive 30.1
Zone		Zone	Roof	Roof	Roof	Zone	Roof	Roof
1	-64.2	1, 2e	-74.5	-57.4	-67.7	1	-67.6	-54
1'	-36.9	2n & 2r	-109	-91.5	-74.5	2e	-95	-74.5
2	-84.8	3e	-109	-91.5	-92.1	2r	-88.1	-74.5
3*	-116	3r	-129	-108	-74.5	3	-95	-74.5

MEAN ROOF HEIGHT = 25 FEET

Flat Roof		Gable Roof				Hip Roof		
		1.51 to 4:12		4.1 to 6:12	6.1 to 12:12	1.51 to 4:12		4.1 to 6:12
Positive*	17.2/42.3	Positive 25.8		Positive 25.8	Positive 38.7	Positive 31.5		Positive 31.5
Zone		Zone	Roof	Roof	Roof	Zone	Roof	Roof
1	-67.3	1, 2e	-78.1	-60.2	-70.9	1	-70.9	-58.6
1'	-38.7	2n & 2r	-114	-96	-78.1	2e	-99.6	-78.1
2	-88.8	3e	-114	-96	-96.6	2r	-92.4	-78.1
3*	-121	3r	-135	-113	-78.1	3	-99.6	-78.1

MEAN ROOF HEIGHT = 30 FEET

Flat Roof		Gable Roof				Hip Roof		
		1.51 to 4:12		4.1 to 6:12	6.1 to 12:12	1.51 to 4:12		4.1 to 6:12
Positive*	17.9/43.9	Positive 26.8		Positive 26.8	Positive 40.2	Positive 32.8		Positive 32.8
Zone		Zone	Roof	Roof	Roof	Zone	Roof	Roof
1	-70	1, 2e	-81.1	-62.6	-73.7	1	-73.7	-58.8
1'	-40.2	2n & 2r	-118	-99.8	-81.1	2e	-103	-81.1
2	-92.3	3e	-118	-99.8	-100	2r	-96	-81.1
3*	-126	3r	-141	-118	-81.1	3	-103	-81.1

*If Parapet >= 3Ft occurs around entire building use the same Zone 2 pressure for Zone 3 and use the higher positive pressure shown.

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Mandated Retrofits of Roof-to-Wall Connection

THIS FORM MUST BE FILLED OUT AND INCLUDED WITH ALL RE-ROOFING APPLICATIONS FOR EXISTING STRUCTURES WITH WOOD ROOF DECKS.

Address: _____

For the purpose of this document, "Sections" as cited below are from the Florida Building Code-Existing Building, 8TH Edition (2023) Section 706.8, unless otherwise noted.

When the roof covering on an existing structure with a wood roof deck is removed and replaced…the structure shall be evaluated for mandated retrofits of the roof-to-wall connections in accordance with Section 706.8.

1. **Was permit for the original construction of the building applied for on or after January 1, 1990?**
   - ☐ **Yes** – The application date was on or after January 1, 1990.
     *** Proceed to signature and permit submittal.* (Attach documentation verifying the application date)
   - ☐ **No** – The application date was prior to January 1, 1990.
     *** Continue with questions and details below.*

2. **Applicant must provide one of the following to document the value of the building.**
   - ☐ Copy of current home insurance summary sheet.
   - ☐ Copy of the latest Tax Bill or Property Appraiser Valuation for the structure (the *Appraised Improvement Value* determines the threshold amount).

3. **Based on the documentation provided, is the value of the Building $300,000 or more?**
   - ☐ **No -** Building is valued at less than $300,000
     *** Proceed to signature and permit submittal.*
   - ☐ **Yes -** Building valuation exceeds $300,000
     *** Enhanced Roof-to-Wall connections are required unless meeting one of the following exceptions:*

     - ☐ **Exception 1:** Cost of "evaluation and roof-to-wall connections" at gable ends or **all** corners will exceed 15% of the cost of the roof replacement (attach professional estimate by a Florida Licensed General or Building Contractor).
     - ☐ **Exception 2:** Analysis submitted by FL Design Professional validates the existing roof-to-wall load path connections are compliant for the applicable wind loads in Table 706.8.1.

COMPLIANCE Options to Complete Mandated Retrofits (Identify one)

- ☐ **Prescriptive Retrofit Procedures**.
  - Roof-to-wall connections will be enhanced using the prescriptive measures in Sections 706.8.1.3 – 7.
  - Priority of work shall be determined by Section 706.8.1.7.
  - Details provided on page 2
- ☐ **Professional Design**
  - Provide engineered design plan, and identify details on page 2

If enhanced roof to wall connections are required, the following page (Connection Details) must also be completed and submitted along with a roof plan of the building, including span distances and gable/ hip locations identified. Plan should indicate areas to be retrofitted, connectors to be used, and fastener requirements. Please include product approvals for all the connectors specified.

_____	_____	_____
Qualifier or Owner/Builder Name (Print)	Qualifier or Owner/Builder Signature	Date

Roof to Wall Mandated Retrofits (Cont.)

MANDATED RETROFIT CONNECTION DETAILS

Exterior Wall Construction:

☐ Wood
☐ CBS
☐ Other explain: _____

Roof Geometry:

☐ Gable
☐ Hip
☐ Flat
☐ Other explain: _____

Existing Anchors

Identify existing straps/anchors and fasteners (quantity & size) at areas proposed for retrofit.

Strap/Anchor: _____ Fasteners: _____

Determine if *Existing Straps* were *manufactured and rated* for four (4) fasteners at each end.

☐ YES - *Existing Straps* were *manufactured and rated* for four (4) fasteners at each end
- Specify additional fastener size and quantity: _____

NOTE: A Roofing Contractor (CCC) may install the additional fasteners to the existing straps – Details shall be included in primary Reroof permit scope of work.

☐ NO - *Existing Straps* were not *manufactured and rated* for four (4) fasteners at each end
- Retrofit straps/anchors shall be added and installed (CGC, CBC or CRC required)

NOTE: Installation of new straps/ anchors is outside the scope of a Roofing Contractor (CCC), and requires an appropriately licensed *building* Contractor (CGC, CBC or CRC).

Retrofit Straps/ Anchors (Minimum uplift capacity of 500 pounds each, unless designed by FL P.E.)

"B" Subpermit ("*Mandated Retrofits, GC required*") shall be added to the primary Reroof permit.

Manufacturer: _____

Type/ Model: _____

Fasteners: _____
(Nails, Screws, Bolts / Size / Quantity / Minimum Embedment / Spacing / etc.)

_____	_____	_____
Qualifier or Owner/Builder Name (Print)	Qualifier or Owner/Builder Signature	Date

FORM 400 - REROOFING INSTALLATION SUMMARY FORM-FLAT ROOFING

☐ Main House or Duplex

SITE ADDRESS: _____ ☐ Accessory Structure (Detached Garage, Shed, etc.)

EXISTING Flat Roof System: _____ **Roof Area (SQRs):** _____ **Roof Height:** _____ (ft)

☐ **AERIAL DEPICTION of Structure is included (per Google Earth, Pictometry, EagleView, etc.)**

DESIGN WIND UPLIFT Pressure: *Field (Zone 1): _____ (psf) ***Perimeter/Corner** (Zones 2,3)**:** _____ (psf)

TESTS/ REPORTS/ CALCUATIONS

☐ Roof Moisture Survey and Report-**REQUIRED** when ***Re-Covering* or *Partial Re-roof*** (PREPARED BY AN APPROVED TESTING AGENCY)
Pull-Test (PERFORMED BY AN APPROVED TESTING AGENCY)

☐ Enhanced Fastening Specifications (FL ENGINEER, ARCHITECT or ROOFING CONSULTANT– ONLY IF allowed in product approval)

EXCEPTION: Flat roofs not over 400 ft^2, maximum 4" on center each way fastening of tin-tagged base sheets within 4 ft. of roof edges may be specified by the contractor or owner-builder.

****SUPPLEMENTAL DETAILs and Information (Identify all items related to the site-specific conditions)**

☐ MANDATED RETROFITS- Existing Wood decks, include **Mandated Roof-to-Wall Connection Retrofit** Form

☐ Tie-In Detail (**REQUIRED**)

☐ **Verify** Roof Deck Attachment-Per 2023 Existing FBC-706 & Table 706.7.1.2

☐ Recover/ Roof-over (ALL MATERIALS AND COMPONENTS MUST BE COMPATIBLE WITH EXISTING MATERIALS)

☐ Skylights/ Vents/ etc. (REPLACEMENT ONLY) Provide Product Approval #_____ (ATTACHED)

☐ Sheath-Over (ENGINEERING DETAILS ATTACHED

☐ Repair (<25% ROOF AREA-**PER 1511.1.1 FBC 2023**

FLAT ROOF SYSTEM Specifications:

☐ **BUILT-UP ROOF System/MODIFIED Bitumen System**

A. Design Uplift Pressure (FROM ATTACHED CHART): _____
B. Max Allowable Uplift Pressure (**PER Product Approval #**): _____ (If A>B: See Enhanced Fastening Requirements Above)
C. **Product Approval** # with Design pressures) Number:_____
D. System & Components (Identify in Product Approval or Provide Additional Specifications):
(i.e.: Insulation Layers/ Cover Board/ Ply Sheets/ Cap Sheet/ Other)

☐ **SINGLE-Ply System**

A. Design Pressure (SEE ATTACHED CHART): _____
B. Max Allowable Pressure (**PER Product Approval**): _____ (If A>B: See Enhanced Nailing Requirements Above)
C. Product Approval with Design pressures) # Number: _____
D. System # (**Identify in Product Approval**): _____
E. Insulation Layer(s): _____
F. Cover Board: _____
G. Other: _____

ROOF COATING – Product Approval #: _____ System: _____

☐ **Existing Roof Assembly:**_____

☐ **Proof of Material Compatibility:** _____

☐ **Affidavit: I hereby certify that I have read the material on this document and have FULLY provided ALL information requested.**

_____ _____ _____

Qualifier Name Qualifier Signature Date

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Phone: (561) 233-5100 • http://www.pbc.gov/pzb/building

SIMPLIFIED ROOF UPLIFT CHART FOR ROOFING APPLICATIONS

This simplified chart represents the worse-case wind pressures for the various roof slopes and heights. This chart is based on a Tributary Area = 10 SF which is required for roofing applications. If the roof height is less than 30 feet, but not exactly 15, 20, or 25 feet,you will need to go to the next higher roof height. If your roof is higher than 30 feet, these charts do not apply. Refer to Roof Chart Diagrams on Page 1 for Roof Zone Locations.

MEAN ROOF HEIGHT = 15 FEET

Flat Roof		Gable Roof				Hip Roof		
		1.51 to 4:12		4.1 to 6:12	6.1 to 12:12	1.51 to 4:12		4.1 to 6:12
Positive*	15.4/38.0	Positive 23.2		Positive 23.2	Positive 34.7	Positive 28.3		Positive 28.3
Zone		Zone	Roof	Roof	Roof	Zone	Roof	Roof
1	-60.5	1, 2e	-70.1	-54	-63.7	1	-63.7	-50.8
1'	-34.8	2n & 2r	-102	-86.2	-70.1	2e	-89.4	-70.1
2	-79.8	3e	-102	-86.2	-86.7	2r	-83	-70.1
3*	-109	3r	-102	-102	-70.1	3	-89.4	-70.1

MEAN ROOF HEIGHT = 20 FEET

Flat Roof		Gable Roof				Hip Roof		
		1.51 to 4:12		4.1 to 6:12	6.1 to 12:12	1.51 to 4:12		4.1 to 6:12
Positive*	16.4/40.3	Positive 24.6		Positive 24.6	Positive 36.9	Positive 30.1		Positive 30.1
Zone		Zone	Roof	Roof	Roof	Zone	Roof	Roof
1	-64.2	1, 2e	-74.5	-57.4	-67.7	1	-67.6	-54
1'	-36.9	2n & 2r	-109	-91.5	-74.5	2e	-95	-74.5
2	-84.8	3e	-109	-91.5	-92.1	2r	-88.1	-74.5
3*	-116	3r	-129	-108	-74.5	3	-95	-74.5

MEAN ROOF HEIGHT = 25 FEET

Flat Roof		Gable Roof				Hip Roof		
		1.51 to 4:12		4.1 to 6:12	6.1 to 12:12	1.51 to 4:12		4.1 to 6:12
Positive*	17.2/42.3	Positive 25.8		Positive 25.8	Positive 38.7	Positive 31.5		Positive 31.5
Zone		Zone	Roof	Roof	Roof	Zone	Roof	Roof
1	-67.3	1, 2e	-78.1	-60.2	-70.9	1	-70.9	-58.6
1'	-38.7	2n & 2r	-114	-96	-78.1	2e	-99.6	-78.1
2	-88.8	3e	-114	-96	-96.6	2r	-92.4	-78.1
3*	-121	3r	-135	-113	-78.1	3	-99.6	-78.1

MEAN ROOF HEIGHT = 30 FEET

Flat Roof		Gable Roof				Hip Roof		
		1.51 to 4:12		4.1 to 6:12	6.1 to 12:12	1.51 to 4:12		4.1 to 6:12
Positive*	17.9/43.9	Positive 26.8		Positive 26.8	Positive 40.2	Positive 32.8		Positive 32.8
Zone		Zone	Roof	Roof	Roof	Zone	Roof	Roof
1	-70	1, 2e	-81.1	-62.6	-73.7	1	-73.7	-58.8
1'	-40.2	2n & 2r	-118	-99.8	-81.1	2e	-103	-81.1
2	-92.3	3e	-118	-99.8	-100	2r	-96	-81.1
3*	-126	3r	-141	-118	-81.1	3	-103	-81.1

*If Parapet >= 3Ft occurs around entire building use the same Zone 2 pressure for Zone 3 and use the higher positive pressure shown.

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Mandated Retrofits of Roof-to-Wall Connection

THIS FORM MUST BE FILLED OUT AND INCLUDED WITH ALL RE-ROOFING APPLICATIONS FOR EXISTING STRUCTURES WITH WOOD ROOF DECKS.

Address: _____

For the purpose of this document, "Sections" as cited below are from the Florida Building Code-Existing Building, 8TH Edition (2023) Section 706.8, unless otherwise noted.

When the roof covering on an existing structure with a wood roof deck is removed and replaced…the structure shall be evaluated for mandated retrofits of the roof-to-wall connections in accordance with Section 706.8.

1. **Was permit for the original construction of the building applied for on or after January 1, 1990?**
   - ☐ **Yes** – The application date was on or after January 1, 1990.
     *** Proceed to signature and permit submittal.* (Attach documentation verifying the application date)
   - ☐ **No** – The application date was prior to January 1, 1990.
     *** Continue with questions and details below.*

2. **Applicant must provide one of the following to document the value of the building.**
   - ☐ Copy of current home insurance summary sheet.
   - ☐ Copy of the latest Tax Bill or Property Appraiser Valuation for the structure (the *Appraised Improvement Value* determines the threshold amount).

3. **Based on the documentation provided, is the value of the Building $300,000 or more?**
   - ☐ **No -** Building is valued at less than $300,000
     *** Proceed to signature and permit submittal.*
   - ☐ **Yes -** Building valuation exceeds $300,000
     *** Enhanced Roof-to-Wall connections are required unless meeting one of the following exceptions:*

     - ☐ **Exception 1:** Cost of "evaluation and roof-to-wall connections" at gable ends or **all** corners will exceed 15% of the cost of the roof replacement (attach professional estimate by a Florida Licensed General or Building Contractor).
     - ☐ **Exception 2:** Analysis submitted by FL Design Professional validates the existing roof-to-wall load path connections are compliant for the applicable wind loads in Table 706.8.1.

COMPLIANCE Options to Complete Mandated Retrofits (Identify one)

- ☐ **Prescriptive Retrofit Procedures**.
  - Roof-to-wall connections will be enhanced using the prescriptive measures in Sections 706.8.1.3 – 7.
  - Priority of work shall be determined by Section 706.8.1.7.
  - Details provided on page 2
- ☐ **Professional Design**
  - Provide engineered design plan, and identify details on page 2

If enhanced roof to wall connections are required, the following page (Connection Details) must also be completed and submitted along with a roof plan of the building, including span distances and gable/ hip locations identified. Plan should indicate areas to be retrofitted, connectors to be used, and fastener requirements. Please include product approvals for all the connectors specified.

_____	_____	_____
Qualifier or Owner/Builder Name (Print)	Qualifier or Owner/Builder Signature	Date

Roof to Wall Mandated Retrofits (Cont.)

MANDATED RETROFIT CONNECTION DETAILS

Exterior Wall Construction:

☐ Wood
☐ CBS
☐ Other explain: _____

Roof Geometry:

☐ Gable
☐ Hip
☐ Flat
☐ Other explain: _____

Existing Anchors

Identify existing straps/anchors and fasteners (quantity & size) at areas proposed for retrofit.

Strap/Anchor: _____ Fasteners: _____

Determine if *Existing Straps* were *manufactured and rated* for four (4) fasteners at each end.

☐ YES - *Existing Straps* were *manufactured and rated* for four (4) fasteners at each end
- Specify additional fastener size and quantity: _____

NOTE: A Roofing Contractor (CCC) may install the additional fasteners to the existing straps – Details shall be included in primary Reroof permit scope of work.

☐ NO - *Existing Straps* were not *manufactured and rated* for four (4) fasteners at each end
- Retrofit straps/anchors shall be added and installed (CGC, CBC or CRC required)

NOTE: Installation of new straps/ anchors is outside the scope of a Roofing Contractor (CCC), and requires an appropriately licensed *building* Contractor (CGC, CBC or CRC).

Retrofit Straps/ Anchors (Minimum uplift capacity of 500 pounds each, unless designed by FL P.E.)

"B" Subpermit ("*Mandated Retrofits, GC required*") shall be added to the primary Reroof permit.

Manufacturer: _____

Type/ Model: _____

Fasteners: _____
(Nails, Screws, Bolts / Size / Quantity / Minimum Embedment / Spacing / etc.)

_____	_____	_____
Qualifier or Owner/Builder Name (Print)	Qualifier or Owner/Builder Signature	Date

EXPEDITED RE-ROOF WORKSHEET – SFD only

"Like for Like" Replacement ONLY

Address of Structure: _____

Existing Roof Covering: Tile _____ Shingle _____ Metal _____ Flat _____

Existing Deck: Plywood Deck, Wood Plank, Other: _____

Proposed Type: Tile _____ Shingle _____ Metal _____ Flat _____
(Product approval) (Product approval) (Product approval) (Product approval)

Slope _____/12" Gable/ Hip (# of Squares):_____ Flat/Low Slope (Sq. Ft) **:_____

Design Wind Speed: 170Vult mph or per www.ascehazardtool.org Exposure Category: C

INSTALLATION Details:

Identify/Check the specific Installation methods and Attachment details in all Product Approvals, the FRSA Manual, and applicable Manufacturers' Specifications.

- Specify System Type, Details, and Pages: _____

UNDERLAYMENT (Asphalt & Metal Shingles, Non-Wood Shake, Metal Panels) **choose U/L per R905.1.1**

☐ Self-Adhered (Direct to Deck) ASTM D8527 **NOT an Option for Wood Shake/Shingle**	☐ 3 ¾" Wide Strip ASTM 1970 OR AAMA 711) Over all Joints/Seams (Per Table R905.1.1.1)	☐ 2 Layers of 30# Felt (ASTM Approved) OR
☐ Self –Adhered (ASTM D1970) Polymer-Modified Bitumen Underlayment Applied directly to entire roof deck	☐ 3 ¾" Wide Strip of self-adhering flexible flashing tape per AAMA 711 Level 3 applied over all joints with 30# felt on top	☐ Two layers of ASTM D226 Type II or ASTM D4869 Type III, Type IV. Layers to be lapped Per FBC R905.1.1.1 B1507.1.1

UNDERLAYMENT (Clay/ Cement TILE) - Attachment per: ☐ Product Approval ☐ FRSA 7th ☐ Engineers Design Attached

1) Underlayment (Tile) – Product Approval_____
2) Adhesive (if applicable) – Product Approval_____

DESIGN CRITERIA

1) Indicate required wind pressures from supplied chart_____
2) Indicate wind pressures from proposed system_____ (This must be >/= to above)

ACCESSORIES (EXISTING Replacement ONLY) - Ridge Vents, Turbines, Skylights, Other:_____
Product Approval_____

Please post an official copy of this completed worksheet with all other inspection documents on the jobsite prior to inspection.

Product Approvals listed above must be on job site during inspection

☐ I certify that all the foregoing information is accurate and all work performed will comply with all applicable codes & standards regulating construction.

_____ _____ _____ _____
QUALIFIER's Signature Print Name LICENSE # DATE

** Flat decks over 400 sf. must include enhance fastening details from a design professional.

SFD DETACHED REROOFING PERMIT CHECKLIST

INTENDED FOR LICENSED ROOFING CONTRACTORS ONLY

THIS APPLICATION IS NOT TO BE USED FOR "NEW" CONSTRUCTION

TWO COPIES OF THIS CHECKLIST MUST BE ATTACHED TO THE PERMIT APPLICATION (WITH ORIGINAL SIGNATURES) AND WITH ALL THE REQUIRED DOCUMENTATION AS NOTED BELOW.

Contractor must certify **ALL** the following statements apply by initialing each one:

_____This is a detached Single Family Dwelling (SFD) and/or a free-standing residential accessory structure
_____This structure was constructed after March 1, 2002, or the structure(s) improved value is < $300,000
_____This project involves one or more complete roof *sections* (see Ch.2-Definitions, Florida Residential Code)
_____This is a '**like for like**' only replacement.
_____There are no additional skylights being installed

Note: If unable to certify **all** of the above statements as true, this will disqualify the use of this form. Please refer to PB-O-094 and follow the procedure.

If there is any rooftop equipment (existing systems) that must be removed/replaced, please circle the applicable trade(s) and provide Sub-permit Applications.
Electrical Mechanical Plumbing Solar

ADDITIONAL DOCUMENTS REQUIRED

1. Re-Roof Worksheet
2. Complete Product Approval Information Including Cover Pages
3. Product Approval with **Specific System Descriptions** ***circled (Identify page # on worksheet)***
4. FRSA pages [if applicable to Tile product using Florida Product Approval (FL-)]
5. Roofing accessory product approvals and plan showing location (Ridge vents, Turbines, Mech stands, etc.)
6. On flat roofs a contractor may propose a worst case fastening of the perimeter (min. 4' from edge) Max 4" O.C. each way. Flat decks over 400 s.f. may be required to provide enhance fastening details from a design professional to the inspector.
7. Other additional data may be required for the integrity of the roofing system to be determined.
8. A fee sub application may be required for work outside the scope of this application.

TABLE 2 GC

Gable Roof – ASCE 7-22
Exposure C – Tile Factor = 1.407 ft³

Roof Slopes	Mean Roof Height (ft.)	Roof Zones	170 Ma (ft-lbf)
Less than 4.5:12	0-15	LPZ	39.3
		HPZ	48.8
	20	LPZ	41.6
		HPZ	51.7
	30	LPZ	45.3
		HPZ	56.3
	40	LPZ	48.1
		HPZ	59.8
	50	LPZ	50.4
		HPZ	62.6
	60	LPZ	52.2
		HPZ	64.9
4.5: 12 to less than 6:12	0-15	LPZ	37.2
		HPZ	42.5
	20	LPZ	39.4
		HPZ	45.0
	30	LPZ	42.8
		HPZ	49.0
	40	LPZ	45.5
		HPZ	52.0
	50	LPZ	47.7
		HPZ	54.5
	60	LPZ	49.4
		HPZ	56.5
6:12 to 12:12	0-15	LPZ	31.9
		HPZ	37.2
	20	LPZ	33.7
		HPZ	39.4
	30	LPZ	36.7
		HPZ	42.8
	40	LPZ	39
		HPZ	45.5
	50	LPZ	40.8
		HPZ	47.7
	60	LPZ	42.3
		HPZ	**49.4**

TABLE 2 HC

Hip Roof – ASCE 7-22
Exposure C – Tile Factor = 1.407 ft³

Roof Slopes	Mean Roof Height (ft.)	Roof Zones	170 Ma (ft-lbf)
Less than 4.5:12	0-15	LPZ	36.1
		HPZ	38.2
	20	LPZ	38.2
		HPZ	40.5
	30	LPZ	41.6
		HPZ	44.1
	40	LPZ	44.2
		HPZ	46.8
	50	LPZ	46.3
		HPZ	49.0
	60	LPZ	48.0
		HPZ	50.8
4.5: 12 to less than 6:12	0-15	LPZ	31.9
		HPZ	31.9
	20	LPZ	33.7
		HPZ	33.7
	30	LPZ	36.7
		HPZ	36.7
	40	LPZ	39.0
		HPZ	39.0
	50	LPZ	40.8
		HPZ	40.8
	60	LPZ	42.3
		HPZ	42.3
6:12 to 12:12	0-15	LPZ	29.7
		HPZ	36.1
	20	LPZ	31.5
		HPZ	38.2
	30	LPZ	34.3
		HPZ	41.6
	40	LPZ	36.4
		HPZ	44.2
	50	LPZ	38.1
		HPZ	46.3
	60	LPZ	39.5
		HPZ	**48.0**

LPZ - Low Pressure Zones 2 for Hip Roofs
HPZ - High Pressure Zones 3 for Hip Roofs
h/B ≤ 0.80 values used where applicable (most conservative)

DESIGN PRESSURES FOR UNDERLAYMENT AND RIDGE ATTACHMENT REQUIRED FOR CATEGORY II BUILDINGS HAVING A 3:12 AND GREATER PITCH PER ASCE 7-22 (psf)

TABLE 1-H

Hip Roof -ASCE 7-22 (3:12 and Over), Category II Buildings (psf)
Required Design Uplift Pressures (psf) For Underlayment and Ridge Attachment

ROOF EXPOSURE	ROOF ZONES	MEAN ROOF HEIGHT	170 DESIGN PRESSURE (psf)
EXP B	ALL	0-15	68.7
		20	68.7
		30	68.7
		40	72.6
		50	77.5
		60	81.4
EXP C	ALL	0-15	83.4
		20	88.3
		30	96.1
		40	102.0
		50	106.9
		60	110.9
EXP D	ALL	0-15	101.0
		20	106.0
		30	113.8
		40	119.7
		50	124.6
		60	128.5

Notes:

1. The pressures (psf) in the above table are indicative of the required design uplift pressure based upon less than 4.5: 12 for roof zone 3.
2. The roofing professional has the option to review and determine alternative methods that would reflect the full calculation options of ASCE 7-22 that might provide lower uplift resistance values in certain areas.
3. For actual uplift resistance values for Foam Adhesives or Mortar installations, please see the Adhesive manufacturer's formal product approvals for additional information.

DESIGN PRESSURES FOR UNDERLAYMENT AND RIDGE ATTACHMENT REQUIRED FOR CATEGORY II BUILDINGS HAVING A 3:12 AND GREATER PITCH PER ASCE 7-22 (psf)

TABLE 1-G

Gable Roof-ASCE 7-22 (3:12 and Over), Category II Buildings

Pressures for Underlayment and Ridge Attachment (psf)

ROOF EXPOSURE	ROOF ZONES	MEAN ROOF HEIGHT	170 DESIGN PRESSURE (psf)
EXP B	ALL	0-15	95.1
		20	95.1
		30	95.1
		40	100.5
		50	107.3
		60	112.7
EXP C	ALL	0-15	115.5
		20	122.3
		30	133.1
		40	141.3
		50	148.1
		60	153.5
EXP D	ALL	0-15	139.9
		20	146.7
		30	157.6
		40	165.7
		50	172.5
		60	177.9

Notes:

1. The pressures (psf) in the above table are indicative of the required design uplift pressure based upon less than 4.5: 12 for roof zone 3.
2. The roofing professional has the option to review and determine alternative methods that would reflect the full calculation options of ASCE 7-22 that might provide lower uplift resistance values in certain areas.
3. For actual uplift resistance values for Foam Adhesives or Mortar installations, please see the Adhesive manufacturer's formal product approvals for additional information.