



# CBUCK Engineering

Specialty Structural Engineering

CBUCK, Inc. Florida Certificate of Authorization # 8064

## Evaluation Report of Streamline Roofing & Construction, Inc. “200 MS”

**Metal Roof Assembly**  
*for*  
**Florida Product Approval**  
**# FL 7207.10 R1**  
**Florida Building Code 2007**  
**Per Rule 9B-72**

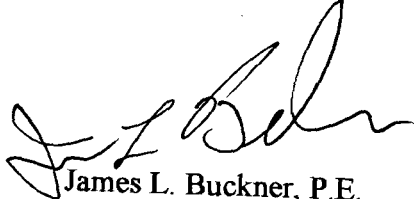
**Method: 1 - D**  
**Category: Roofing**  
**Sub - Category: Metal Roofing**

**Product:** “200 MS” Roof Panel  
**Material:** Steel  
**Panel Thickness:** 24 Gauge  
**Panel Width(s):** 16”  
**Support Type:** Steel Deck

**Prepared for:**  
**Streamline Roofing & Construction, Inc.**  
P.O. Box 2378  
Tallahassee, Florida 32316

**Prepared by:**  
**James L. Buckner, P.E.**  
Florida Professional Engineer # 31242  
Florida Evaluation ANE ID: 1916  
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Report No. 08-137-200MS-16-S4S -ER  
Date: 10 / 10 / 08

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James L. Buckner, P.E.  
Florida, P.E. #31242  
10/23/08

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<b>Manufacturer:</b>	<b>Streamline Roofing &amp; Construction, Inc.</b>
<b>Product Name:</b>	<b>“200 MS”</b>
<b>Product Category:</b>	Roofing
<b>Product Sub-Category</b>	Metal Roofing
<b>Compliance Method:</b>	State Product Approval Rule 9B-72.070 (1) (d)
<b>Panel Description:</b>	“200 MS”, Steel, Standing Seam Roof Panel attached to Steel Deck.
<b>Panel Material / Standards:</b>	Material: Steel Yield Strength: 40 ksi minimum Corrosion Resistance: Material shall comply with the Florida Building Code (FBC), 2007 Section 1507.4.3.
<b>Panel Dimension(s)</b>	Thickness: 24 gauge minimum Width: 16” Maximum (Net Coverage Width) Rib Height: 2”
<b>Support Type:</b>	<b>Steel Deck</b> (Design of support system is not included in this evaluation)
<b>Support Description:</b>	<ul style="list-style-type: none"><li>• Thickness: 22 gauge minimum</li><li>• Yield strength: 33 ksi minimum</li></ul>
<b>Slope Range:</b>	Minimum slope shall comply with FBC 2007, including Sections 1507.4.2, 1504.7 and in accordance with the Manufacturers recommendations.
<b>Underlayment:</b>	Underlayment shall be per manufacturer’s guidelines as required in FBC Section 1507.4.5.
<b>Insulation:</b>	<b>(Optional)</b> Rigid Insulation Board, 3” maximum thickness and shall comply with ASTM C 578 per FBC Section 1508.2.
<b>Fire Classification:</b>	Fire Classification is outside the scope of Rule 9B-72, and is therefore not included in this evaluation. Additional approved substrates may be added for Fire Classification purposes.

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**Attachment Component  
Description:**

**Roof Panel Clips**

Type: Two-part, floating assembly

Nominal Dimensions:

Upper Tab: 3-1/2" (tall) x 3" (wide)

Base: 1" (wide) x 1-1/4" (long)

Material & Thickness:

Upper Tab: 24 Ga. Galv. Steel or Stainless Steel

Base: 18 Ga. Stainless Steel

Yield Strength: 45 ksi minimum

Corrosion Resistance: Per FBC Section 1506.7

**Bearing Clips** (To be installed with optional insulation board)

Material: Steel

Thickness: 18 gauge

Yield Strength: 50 ksi minimum

Nominal Dimension: 3" (wide) x 3-1/4" (long) with 3/8" legs

Corrosion Resistance: Per FBC Table 1507.4.3(2)

**Clip Fasteners**

Type: Hex-head wood screws with 5/8" steel & neoprene washer

Material: Steel

Size: **##12-14** x 3/4" minimum penetration through steel deck

Corrosion Resistance: Per FBC Section 1507.4.4 and 1506.6

Standard: Per SAE J78-1979

**Installation:**

**Streamline "200 MS" Roof Panel Attached to Steel Deck:**

- **Clip Spacing: 30" o.c.** maximum  
(along the length of the panel)
- **TWO** Fasteners per Clip
- Rib Interlock: Mechanically seamed, 45° Minimum

Minimum fastener penetration or embedment into steel deck, 3/4".

**Design Uplift Pressure:** - 52.5 PSF ( Safety Factor of 2:1 )

Install the system in compliance with the attached installation method.  
Refer to manufacturer's installation instructions as a supplemental guide for attachment.

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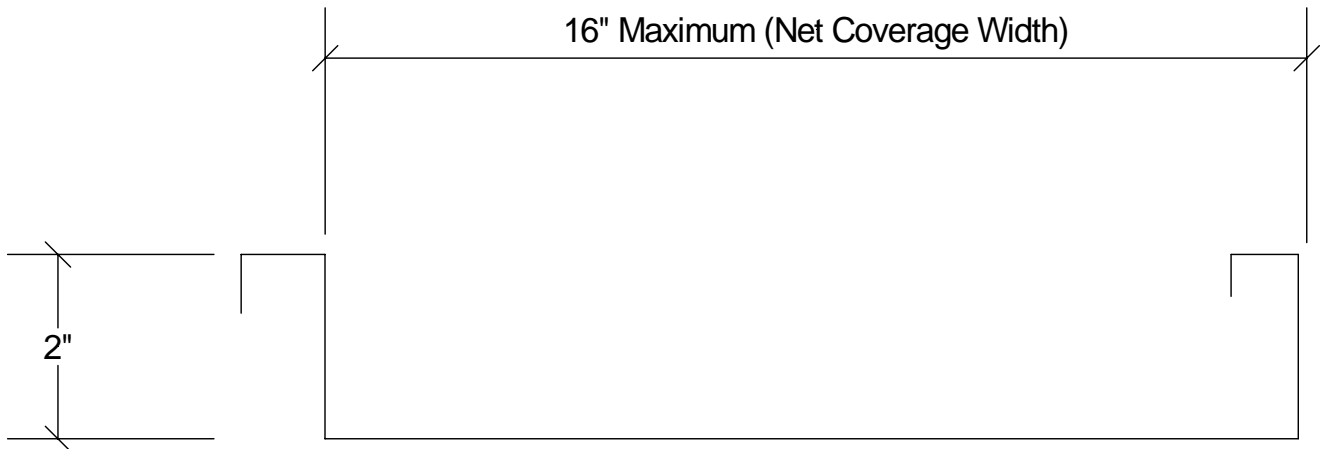
- Quality Assurance:** The manufacturer has demonstrated compliance of roof panel products in accordance with the Florida Building Code and Rule 9B-72.070 (3) for manufacturing under a quality assurance program audited by an approved quality assurance entity through **Underwriter's Laboratories, Inc.** (FBC Organization #: QUA 1743)
- Performance Standards:** The product described herein has demonstrated compliance with:
- **UL580-94 – Test for Uplift Resistance of Roof Assemblies – with Revisions through February 1998.**
- Code Compliance:** The product described herein has demonstrated compliance with the Florida Building Code 2007, Section 1507.4.3.2
- Evaluation Report Scope:** This product evaluation is limited to compliance with the structural wind load requirements of the Florida Building Code, as related to Rule 9B-72.
- System Limitations:** The required design wind loads shall be determined for each project per FBC, 2007, Section 1609. Any rational analysis shall be prepared by a qualified design professional as required by FBC 2007, Sections 104, 105, 106. The maximum fastener/clip spacing listed herein shall not be exceeded. This report does not evaluate use of this product in the High Velocity Hurricane Zone.
- Referenced Data:**
1. UL Uplift Class 90  
By Underwriters Laboratories, Inc., (FBC Organization #CER ID: 1739)  
UL File # TGKX.238A  
Based on UL580-94 (with February 1998 Revisions) Uplift Test
  2. Quality Assurance  
Underwriters Laboratories, Inc. (FBC Organization #QUA ID:1743)
  3. Certification of Independence  
By James L. Buckner, P.E. @ CBUCK Engineering  
(FBC Organization# ANE ID: 1916)

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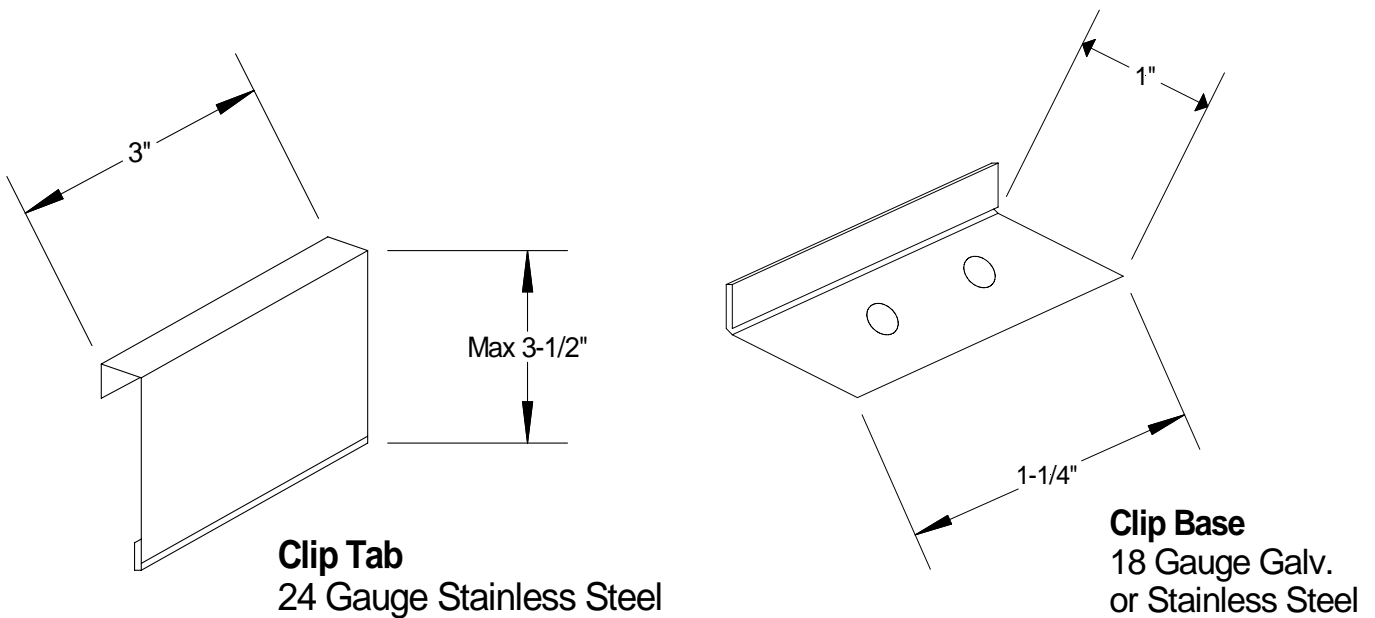
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## Installation Method Streamline Roofing & Construction, Inc. "200 MS" (24 Ga. Steel) Roof Panel Attached to Steel Deck



### Panel Profile View



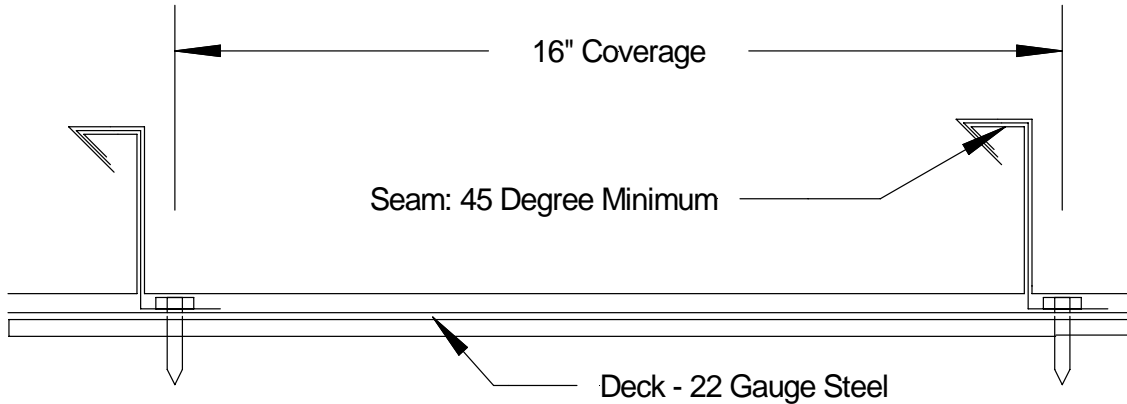
### Panel Clip

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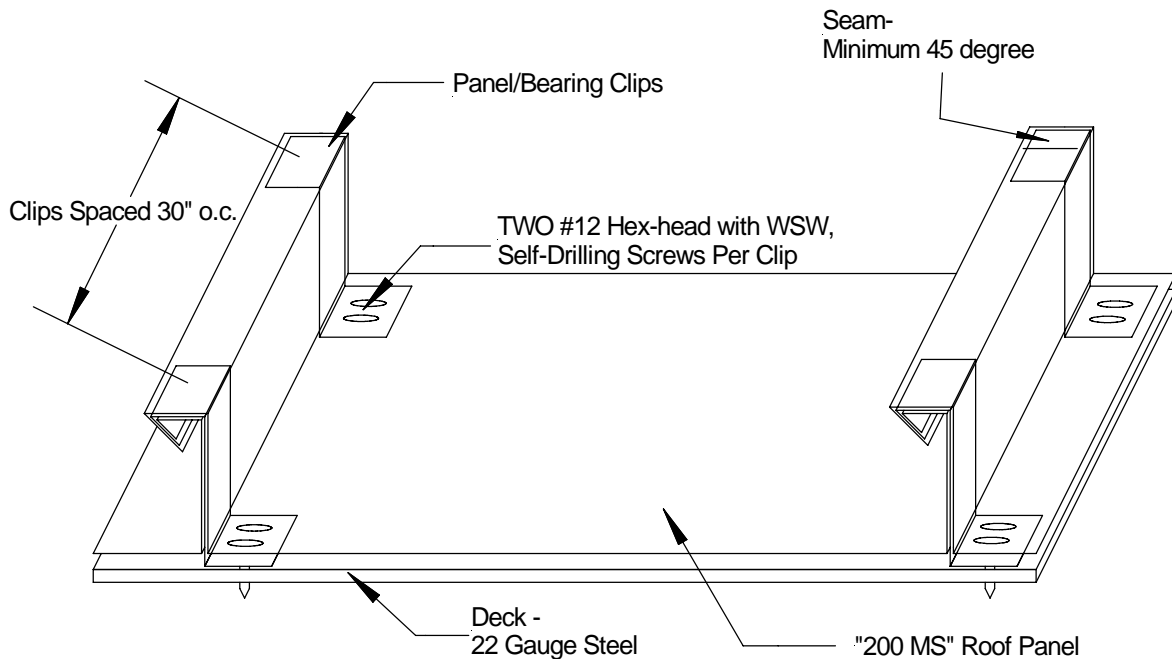
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## Installation Method Streamline Roofing & Construction, Inc. "200 MS" (24 Ga. Steel) Roof Panel Attached to Steel Deck



### Typical Assembly Profile View



### Typical Assembly Isometric View

#### Optional Insulation:

Rigid Insulation Board, 3" maximum thickness and shall comply with ASTM C 578 per FBC Section 1508.2.