CBUCK Engineering

CBUCK, Inc. Florida Certificate of Authorization # 8064

Specialty Structural Engineering

Evaluation Report

of

Streamline Roofing & Construction, Inc.

"175 SL"

Metal Roof Assembly

for

Florida Product Approval

 # FL 7207.7 R1

Florida Building Code 2007

Per Rule 9B-72

Method: **1 - D**

Category: **Roofing**

Sub - Category: **Metal Roofing**

Product:	*"175 SL" Roof Panel*
Material:	*Aluminum*
Panel Thickness:	*0.032"*
Panel Width(s):	*16"*
Support Type:	*Wood 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
Project Manager: Diana Galloway

Report No. 08-137-175-SL-16-A3W -ER
Date: 10 / 10 / 08

Contents:

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

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Manufacturer:	**Streamline Roofing & Construction, Inc.**
Product Name:	**"175 SL"**
Product Category:	Roofing
Product Sub-Category	Metal Roofing
Compliance Method:	State Product Approval Rule 9B-72.070 (1) (d)
Panel Description:	"175 SL", Aluminum, Snap-Lock, Standing Seam Roof Panel attached to Wood Deck.
Panel Material / Standards:	Material**:** Aluminum Alloy Type: 3105-H14 Corrosion Resistance: Material shall comply with the Florida Building Code (FBC), 2007 Section 1507.4.3.
Panel Dimension(s)	Thickness: 0.032" minimum Width: 16" Maximum (Net Coverage Width) Rib Height: 1-3/4"
Support Type:	**Wood Deck** (Design of support system is not included in this evaluation)
Support Description:	• 15/32" or greater plywood, or • Wood plank
Slope Range:	Minimum slope shall comply with FBC 2007, including Sections 1507.4.2, 1504.7 and in accordance with the Manufacturers recommendations.
Underlayment:	Underlayment shall be per manufacturer's guidelines as required in FBC Section 1507.4.5.
Insulation:	**(Optional)** Rigid Insulation Board, 3" maximum thickness and shall comply with ASTM C 578 per FBC Section 1508.2.
Fire Classification:	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
Material**:** Steel
Thickness: 18 gauge
Yield Strength: 45 ksi minimum
Nominal Dimension: 1-7/8" (tall) x 3-1/2" (long) x 1-3/8" (horizontal leg)
Corrosion Resistance: Per FBC Section 1506.7

Clip Fasteners
Type: Low profile head self-drilling screws
Material: Steel or Aluminum
Size: **#10-12** x 3/4" minimum penetration through wood deck
Corrosion Resistance: Per FBC Section 1507.4.4 and 1506.6
Standard: ANSI/ASME B18.6.1

Installation:

Streamline "175 SL" Roof Panel Attached to Wood Deck:

- **Clip Spacing: 18" o.c.** maximum
  (along the length of the panel)
- **TWO** Fasteners per Clip
- Rib Interlock: Snap-Lock
  (Panel ribs shall be fully engaged to form an integral snap-lock**.**)

  Minimum fastener penetration or embedment into wood 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 1504.3.2

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.508
   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)

4. Engineering Analysis
   By CBUCK Engineering
   Report #C08-137, Dated: 10/19/08

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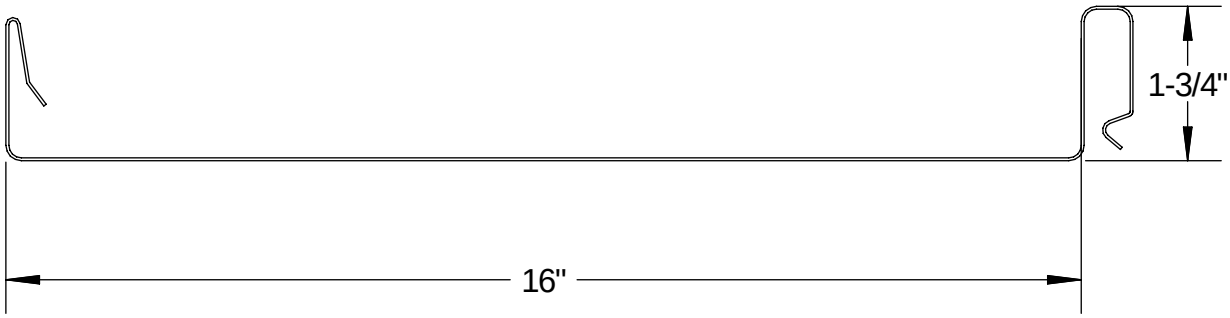
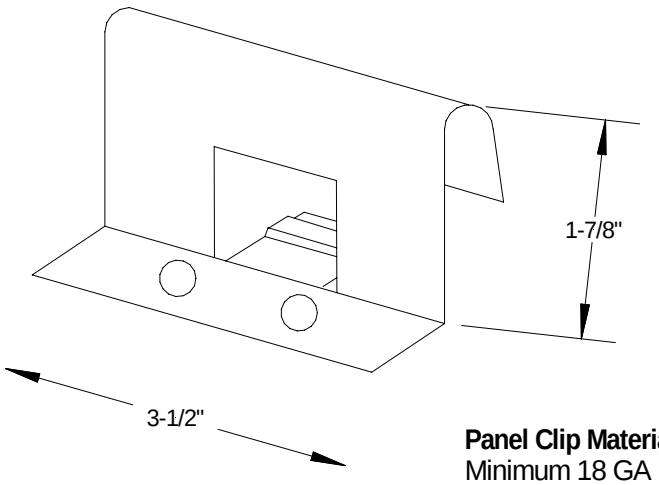
Installation Method

Streamline Roofing & Construction, Inc.

"175 SL" (.032 Aluminum) Roof Panel Attached to Wood Deck



Panel Profile View



Panel Clip Material -
Minimum 18 GA
Stainless Steel

Panel Clip

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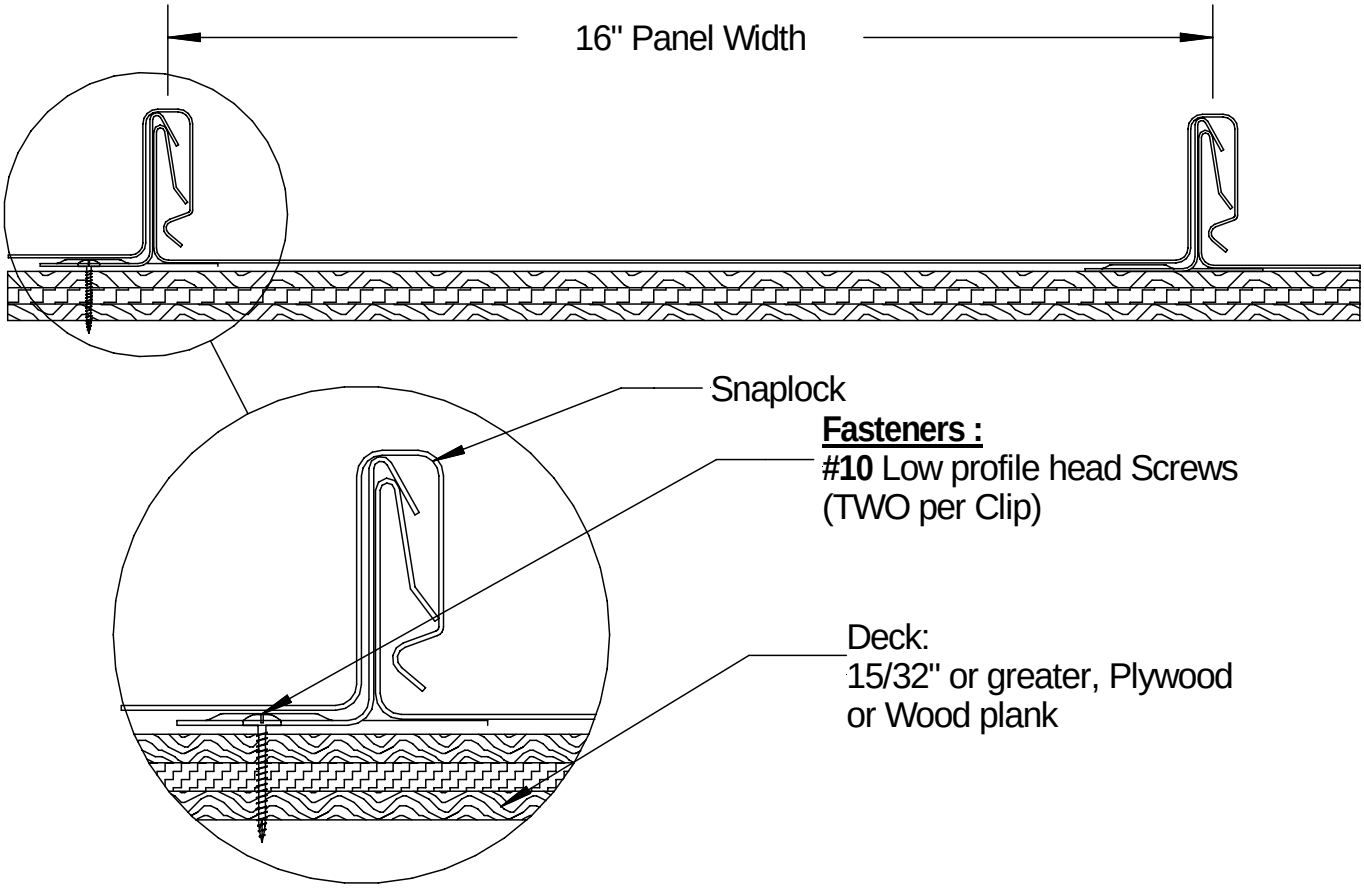

Typical Assembly Profile View

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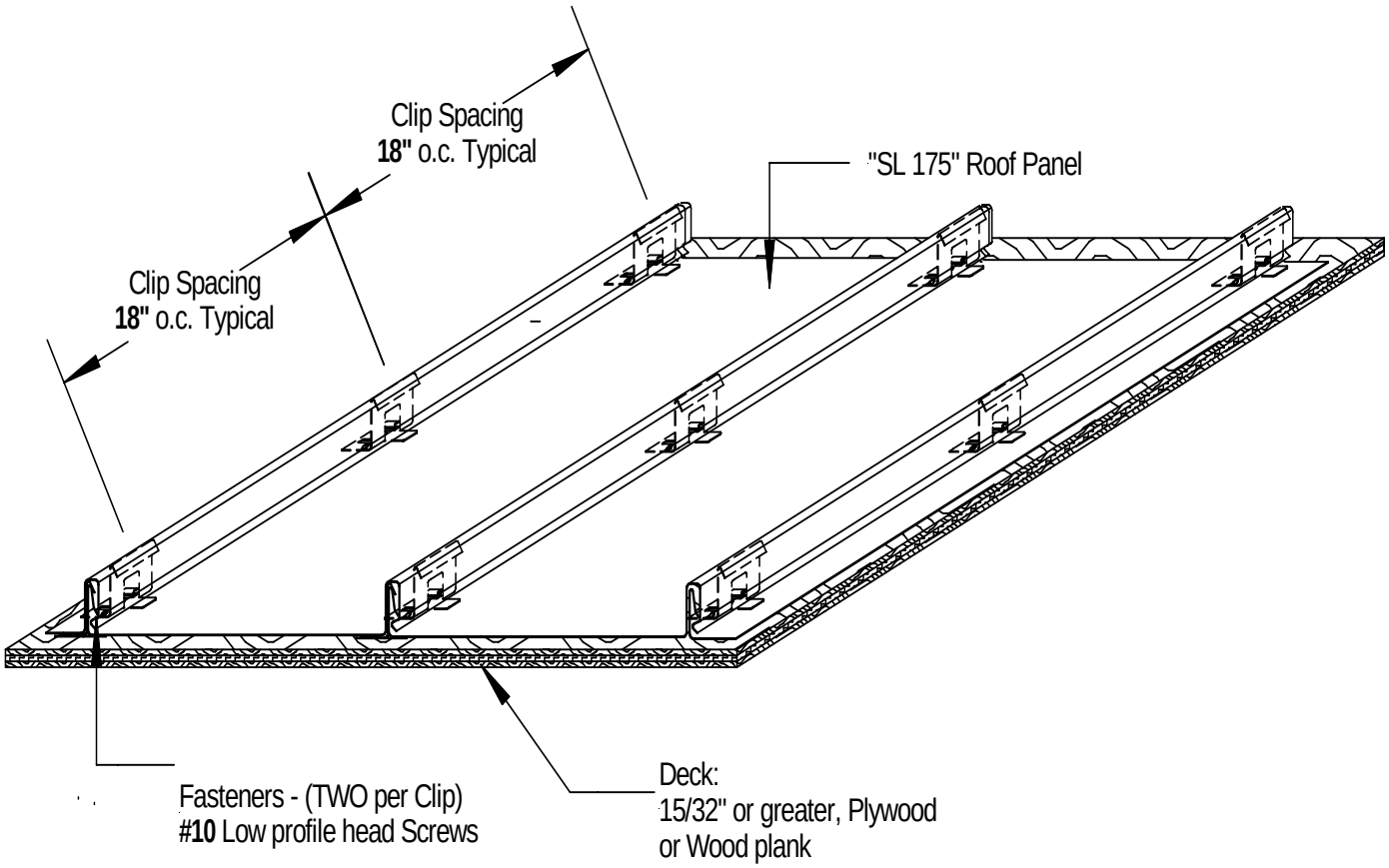

Typical Assembly Isometric View

Optional Insulation:

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