

Evaluation of Country Craft Steel Soffits - 23-DrJ-0290
October 16, 2023

Mr. Brian Long
Morton Buildings, Inc.
252 W Adams St
PO Box 399
Morton, IL 61550

Re: Evaluation of Country Craft Steel Soffits

Dear Mr. Long:

DrJ Engineering, LLC (DrJ) has been asked to provide a Florida professional engineering accepted engineering practice review with respect to Country Craft Steel Soffits. This work has been performed pursuant to our areas of expertise. The purpose of the DrJ review is to provide an engineering assessment of the conformance of the Country Craft Steel Soffits with the 2023 Florida Building Code (FBC)

Country Craft Solid and Perforated Steel Soffits conform to Section 1405.2 and Section 1609 of the 2023 FBC. Both versions of the Country Craft Steel Soffits were tested via ASTM E330: Test Method for Structural Performance of Exterior Windows, Curtain Walls and Doors by Uniform Static Air Pressure Difference by Architectural Testing, Inc. These soffits are made from ASTM A792 Type B commercial steel with a yield strength of 50,000 psi and specific ultimate strength. Both soffit types are configured with a $10\frac{7}{8}$ " or 11" wide face and a bent $1\frac{3}{4}$ " central ridge. They have a minimum thickness of 0.017" and an effective span of 11" loaded in one way bending. The perforated version of the soffits have $\frac{3}{32}$ " diameter holes placed in staggered rows.

Soffits must be able to resist the same design pressures specified for components and cladding per FBC Section 1609.1. Based on results from the ASTM E330 testing, the allowable design wind pressure for these soffits is 155 psf. Soffits shall be installed to the wall board through the 2" flange via #9 x 2" Torx pan head screws. #9 x 1" Torx pan head screws shall be used to complete the installation into the wall panel rib and into the fascia board through a $5\frac{1}{2}$ " flange. Screw spacing along the soffit shall be 12" o.c.

These soffits may be used on Risk Category I, II, III and IV buildings. The soffits are not available for use in High-Velocity Hurricane Zones (HVHZ).

DrJ's procedures are fully compliant with the ISO/IEC 17065 certification process and DrJ's scope of expertise.

If there are any additional questions or concerns, we will gladly provide a Florida professional engineering¹ and ANAB ISO/IEC 17065 accredited² approved agency response. Pursuant to the 2023 FBC Section 1707.1³ we would sincerely appreciate knowing the specific sections of the adopted building code and/or professional engineering law that this engineering evaluation does not comply with so that we can cure any non-compliance. From specifics, we can then delineate a path forward for everyone involved to cure any violations, as this will serve everyone's free and fair market competition's best interests.

¹ APPROVED SOURCE. An independent person, firm or corporation, approved by the building official, who is competent and experienced in the application of engineering principles to materials, methods or systems analyses. https://up.codes/viewer/florida/fl-building-code-2023/chapter/2/definitions#approved_source

² APPROVED AGENCY. An established and recognized agency that is regularly engaged in conducting tests, furnishing inspection services or furnishing product certification where such agency has been approved by the building official. https://up.codes/viewer/florida/fl-building-code-2023/chapter/2/definitions#approved_agency

³ In the absence of approved rules or other approved standards, the building official shall make, or cause to be made, the necessary tests and investigations; or the building official shall accept duly authenticated reports from approved agencies in respect to the quality and manner of use of new materials or assemblies. The cost of all tests and other investigations required under the provisions of this code shall be borne by the owner or the owner's authorized agent.

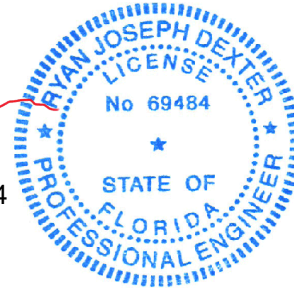


Our goal with the foregoing analysis is to provide both the accepted engineering analysis and regulatory compliance substance to support a systematic path to approval. Please contact us if we can help further in any way. If your request is time-sensitive, please contact Jill Zimmerman at (920) 988-7165. Thank you very much.

Respectfully yours,

Larry Wainright
Vice President Product Certification
608-310-6742

Ryan Dexter, P.E.
Florida P.E. No. 69484
Vice President
608-310-6744



DrJ Engineering, LLC
Certificate of Authorization #29766

RYAN J
DEXTER

Digitally signed by RYAN J DEXTER
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