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Revision Date: 10-20-2026
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DIVISION: 05 00 00 - METALS

Section: 05 40 00 – Cold-Formed Metal Framing

REPORT HOLDER:

William Scotsman, Inc
4646 E. Van Buren Street
Suite 400
Phoenix, Arizona 85008
<https://www.willscot.com/FLEX>

REPORT SUBJECT:

Global Module Flex (GMF) floor, roof and column components

1.0 SCOPE OF EVALUATION

1.1 This Research Report addresses compliance with the following Codes:

- 2024, 2021, 2018 and 2015 *International Building Code*® (IBC)

NOTE: This Report references the most recent Code editions noted. Section numbers in earlier editions may differ (see Table 2).

1.2 Global Module Flex floor, roof and column components have been evaluated for the following properties (see Table 1):

- Structural

1.3 Global Module Flex floor, roof and column components have been evaluated for use as the floor assembly, roof assembly and column components of the Global Module Flex building module. The Global Module Flex building module can be an individual single-module building or multiple modules combined to make a larger structure.

2.0 STATEMENT OF COMPLIANCE

Global Module Flex floor, roof and column components comply with the Codes listed in Section 1.1, for the properties stated in Section 1.2 and uses stated in Section 1.3, when installed as described in this report, including the Conditions of Use stated in Section 6.

2.1 2024 IBC and IRC Evaluation Reports

The Intertek CCRR is an *Evaluation Report* for approval of an alternate material, design, or method of construction in accordance with Section 104.2.3.6.1 of the 2024 IBC and Section R104.2.2.6.1 of the 2024 IRC.

3.0 DESCRIPTION

3.1 Global Module Flex: GMF (Global Module Flex) is a structural building module using factory assembled steel framing components, intended for commercial modular building construction. The modular unit may be installed as a single module or multiple modules in a variety of configurations on site. The module is comprised of a preassembled floor and roof panels, structural steel columns and exterior non-load bearing wall panels. The walls of the building module are insulated metal panels by others and are not within the scope of this evaluation. The building modules may be installed up to 3-stories and a variety of footprints based on specific building designs.

3.2 Prefabricated floor panels: The GMF prefabricated floor component is a 19' – 10 1/2" long by 8' wide by 6-3/8" (163 mm) tall. They are a prefabricated floor system that is the base of the GMF unit. The pre-assembled floor panels are comprised of floor beams, floor joists, forklift pockets, corner boxes and a floor deck. The floor beams are at the perimeter of the assembly; connected to the corner boxes. The floor joist spans the short direction to support the floor deck. The forklift pockets span the short direction and allow for lifting of the complete GMF single module. The corner boxes are for column connection of one module and to connect assembled modules vertically and horizontally.



Floor beams, joists and forklift pockets are manufactured with minimum ASTM A653 SS Grade 37 G60/Z180 galvanized steel cold formed steel in accordance with AISI S240 [AISI S200-12 for 2015 IBC] see drawings in appendix. Corner boxes are manufactured with A36 hot rolled plate steel.

3.3 Prefabricated roof panels: The GMF prefabricated roof component is a 19' – 10 1/2" long by 8' wide by 9" (229 mm) tall. They are a prefabricated roof system that is the roof of the GMF unit. The prefabricated roof component is comprised of long and short roof beams, roof purlins, corner boxes, roof sheet side brackets and roof sheets. The roof beams are at the perimeter of the assembly connected to the corner boxes. The roof joists span the short direction to support the roof deck. The corner boxes are for column connection of one module and to connect assembled modules vertically and horizontally. Roof beams, purlins and roof sheet are manufactured with minimum ASTM A653 SS Grade 37 galvanized cold formed steel in accordance with AISI S240 [AISI S200-12 for 2015 IBC] see drawings in appendix. Corner boxes are manufactured with A36 hot rolled plate steel.

3.4 Structural steel column: Columns are 7-1/8" x 7-1/8" x 99.5" (180 mm x 180 mm x 2526 mm) tall. Columns are fixed end connections that work with the prefabricated floor component and prefabricated roof component to create a moment frame for supporting vertical loads and, lateral wind and seismic loads. Structural steel columns are manufactured with minimum ASTM A653 SS Grade 37 galvanized cold formed steel in accordance with AISI S240 [AISI S200-12 for IBC 2015] for the column and A36 hot rolled steel plate for the base plate. See drawings in the appendix.

3.5 See drawings at the end of this report for the prefabricated floor panels, prefabricated roof panels and structural steel columns.

4.0 PERFORMANCE CHARACTERISTICS

4.1 Each individual module or groups of modules support loads and imposed forces from all load cases specific to the assembled building and location in accordance with IBC Chapter 16. This includes live loads, dead loads, snow loads, rain loads, ice loads, wind loads and seismic loads.

4.2 Prefabricated Floor and Roof System: The prefabricated floor and roof systems are part of a rigid frame to support vertical and lateral loads. Maximum floor live load is 100 psf. Maximum roof snow load is 60 psf.

4.3 Structural Column: The structural column supports the prefabricated roof and floor system and are part of a rigid frame when connected to the prefabricated floor system and the prefabricated roof system to support vertical loads and resist lateral loads. Structural analysis by a qualified engineer is required for all loads and load combinations applicable to the final building design and configuration of building modules.

5.0 INSTALLATION

5.1 General:

Global Module Flex prefabricated floor systems, prefabricated roof systems and structural columns must be installed in accordance with the manufacturer's published installation instructions, the applicable Code, and this Research Report. A copy of the manufacturer's instructions must be available on the jobsite during installation.

5.2 Application:

Each installation shall have construction documents and a site-specific loading evaluation by a licensed professional engineer for the fully assembled building modules. Connection of module components, connections between modules and anchorage to foundation shall be included in the site-specific loading evaluation.

6.0 CONDITIONS OF USE

6.1 Installation must comply with this Research Report, the manufacturer's published installation instructions, and the applicable Code. In the event of a conflict, this report governs.

6.2 Installation and use shall be in accordance with William Scotsman installation instructions and construction documents signed and sealed by a licensed design professional. No total assemblies will be over three stories high.





6.3 Evaluation of properties other than structural are not included in this Evaluation Report.

6.4 The Global Module Flex prefabricated floor components, prefabricated roof components and structural columns are manufactured under a quality control program with inspections by Intertek Testing Services NA, Inc.

7.0 SUPPORTING EVIDENCE

7.1 Engineering calculations in accordance with International Building Code, ASCE 7, AISI S100, AISC Steel Construction Manual.

7.2 William Scotsman Production Drawings.

8.0 IDENTIFICATION

The Global Module Flex Floor, Roof and Column Components are identified with the manufacturer's name (William Scotsman), the product name (Global Module Flex Floor, Roof and Column Components), the Intertek Mark as shown below, the Intertek Control Number and the Code Compliance Research Report number (CCRR-0438).



9.0 OTHER CODES

This section is not applicable.

10.0 CODE COMPLIANCE RESEARCH REPORT USE

10.1 Approval of building products and/or materials can only be granted by a building official having legal authority in the specific jurisdiction where approval is sought.

10.2 Code Compliance Research Reports shall not be used in any manner that implies an endorsement of the product by Intertek.

10.3 Reference to the <https://bpdirectory.intertek.com> is recommended to ascertain the current version and status of this report.





TABLE 1 - PROPERTIES EVALUATED

PROPERTY	APPLICABLE CODE SECTIONS ¹
	IBC CHAPTER
Roof Assemblies	15
Structural Design	16

TABLE 2 - BUILDING CODE REFERENCE STANDARDS

Standard	Code Reference Standard Version			
	2024	2021	2018	2015
ASCE 7	ASCE 7-22	ASCE 7-16	ASCE 7-16	ASCE 7-10
AISI S100	AISI S100-16(2020)	AISI S100-16(2020)	AISI S100-16	AISI S100-12
AISC 360	AISC 360-22	AISC 360-16	AISC 360-16	AISC 360-10
AISI S240	AISI S240-20	AISI S240-20	AISI S240-15	AISI S200-12

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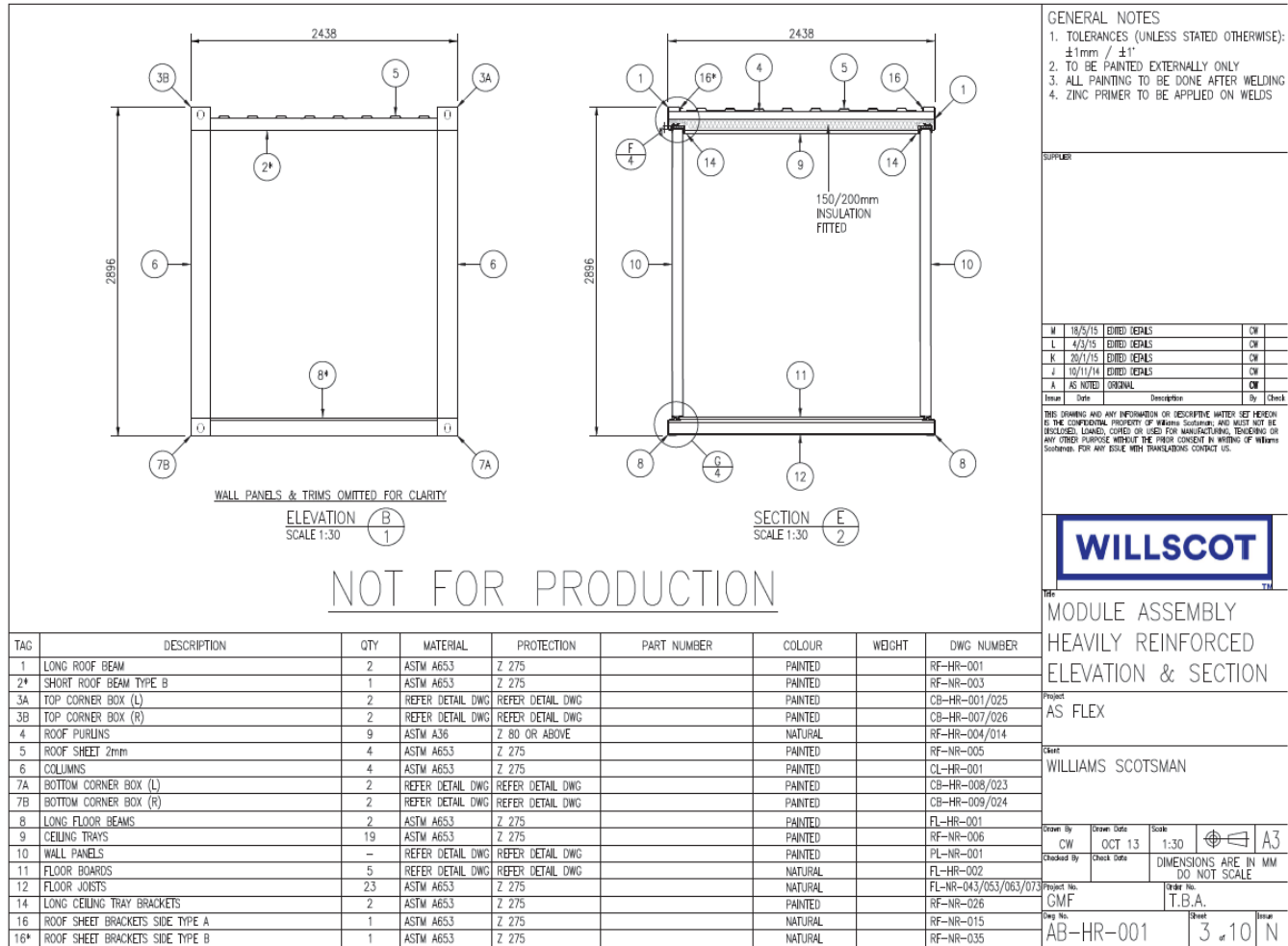
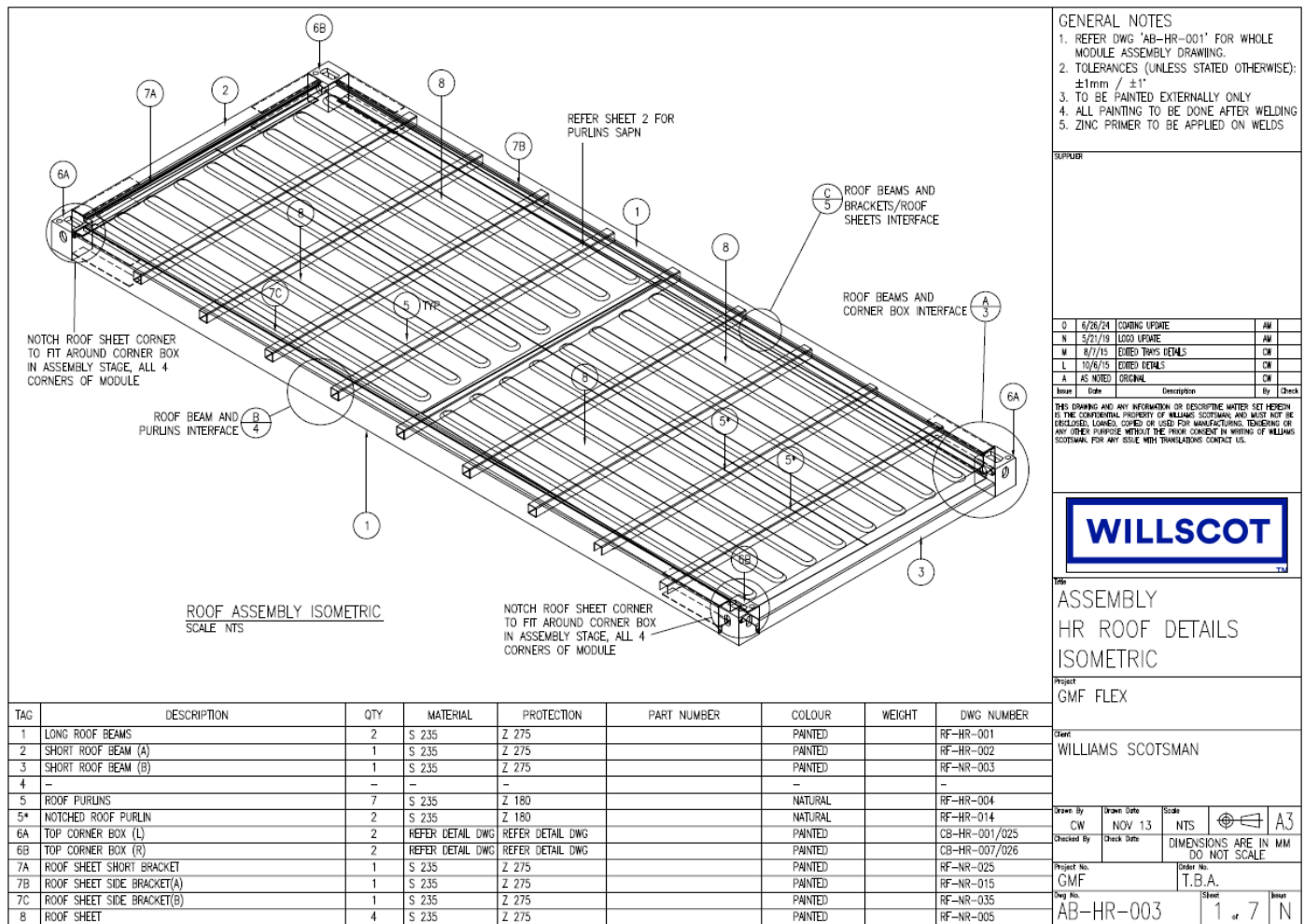


FIGURE 1 - GMF ELEVATION AND SECTION



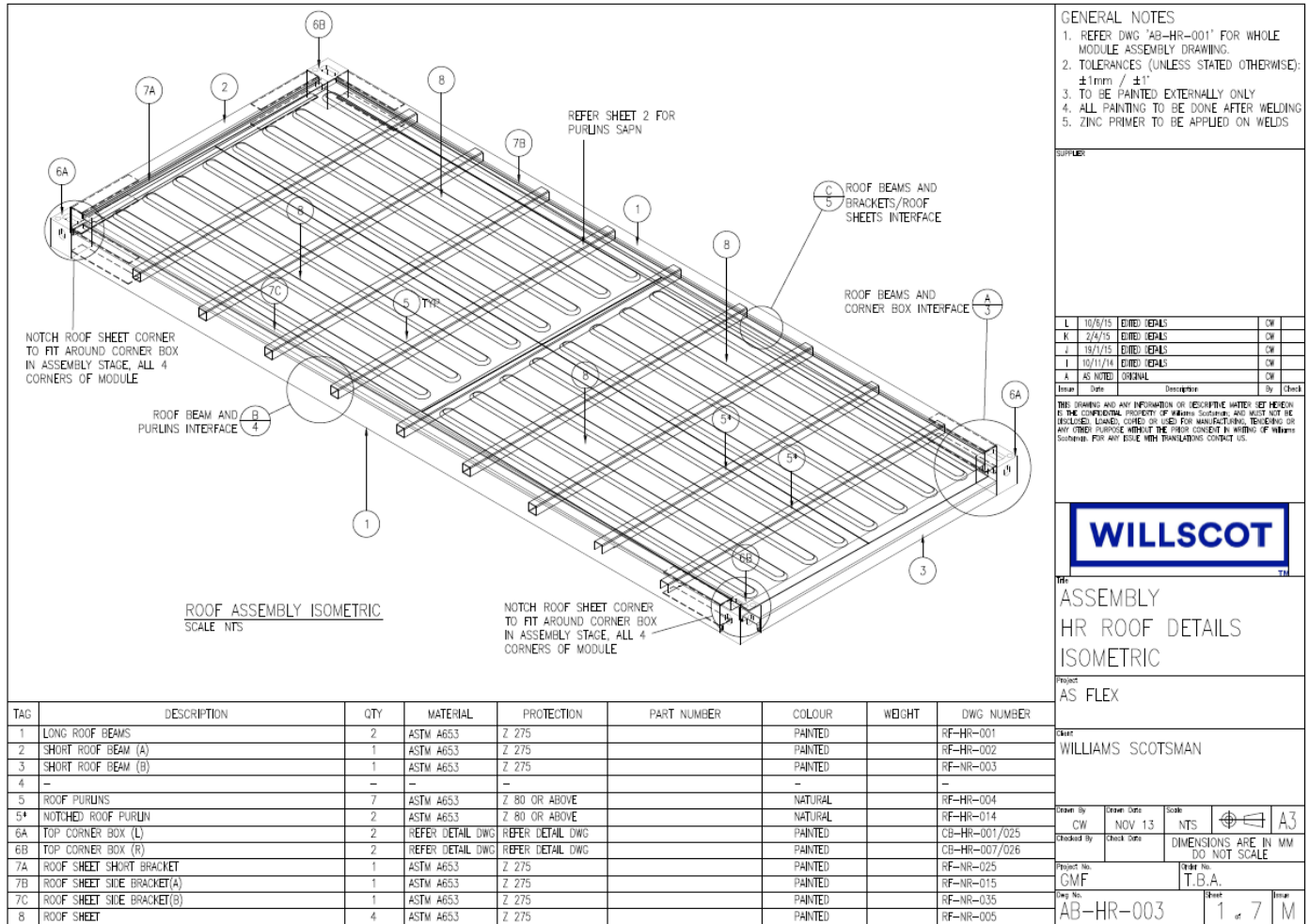


FIGURE 3 - GMF PRE-ASSEMBLED ROOF PANELS



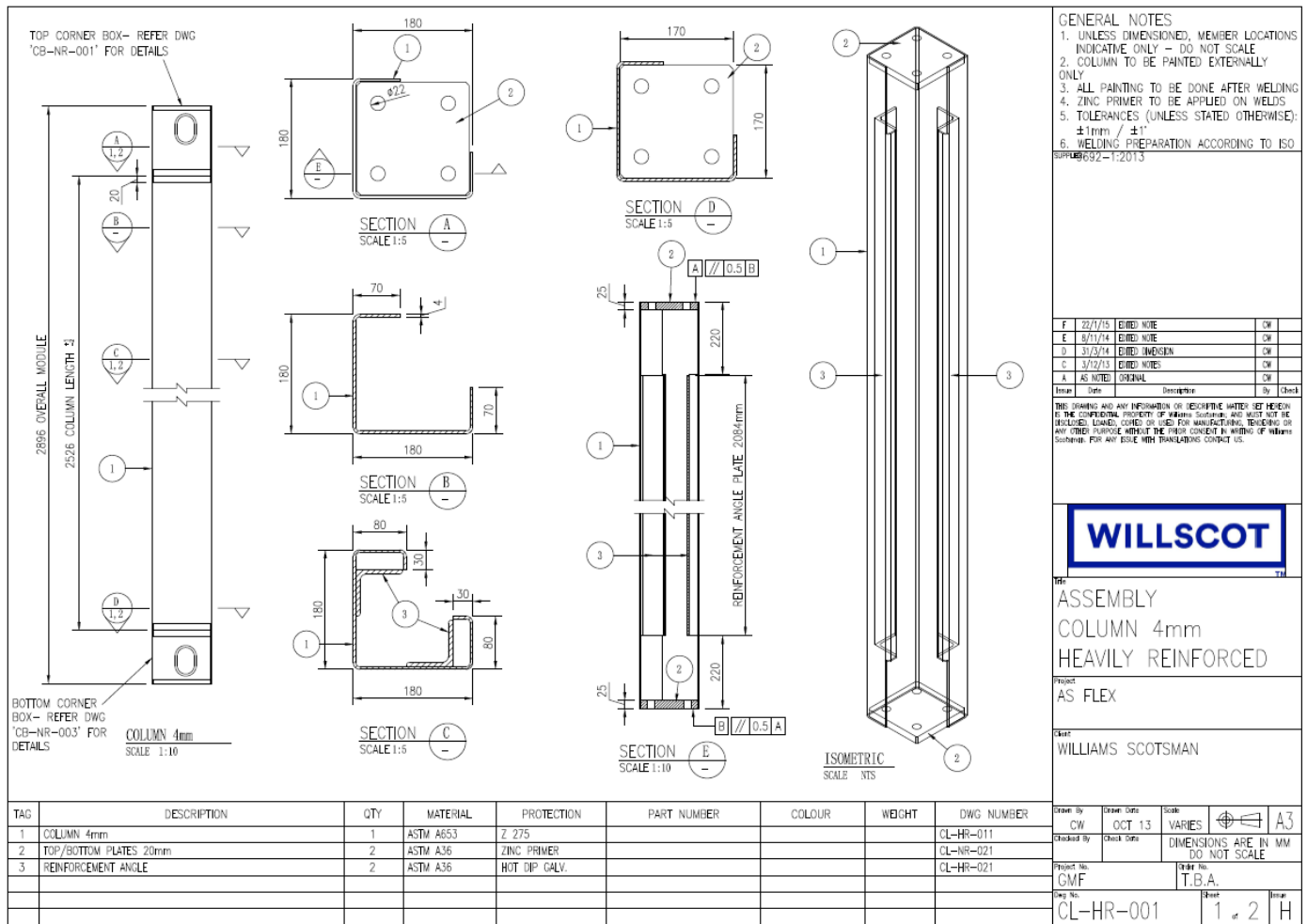


FIGURE 4 - GMF STRUCTURAL STEEL COLUMNS