

**Builder/Contractor Responsibilities**

**Drawing Validity** – These drawings, supporting structural calculations and design certification are based on the order documents as of the date of these drawings. These documents describe the material supplied by the manufacturer as of the date of these drawings. Any changes to the order documents after the date on these drawings may void these drawings, supporting structural calculations and design certification. The Builder/Contractor is responsible for notifying the building authority of all changes to the order documents which result in changes to the drawings, supporting structural calculations and design certification.

**Builder Acceptance of Drawings** – Approval of the manufacturer's drawings and design data affirms that the manufacturer has correctly interpreted and applied the requirements of the order documents and constitutes Builder/Contractor acceptance of the manufacturer's interpretations of the order documents and standard product specifications, including its design, fabrication and quality criteria standards and tolerances. (AISC code of standard practice Sept 86 Section 4.2.1)(Mar 05 Section 4.4.1)

**Code Official Approval** – It is the responsibility of the Builder/Contractor to ensure that all project plans and specifications comply with the applicable requirements of any governing building authority. The Builder/Contractor is responsible for securing all required approvals and permits from the appropriate agency as required.

**Building Erection** – The Builder/Contractor is responsible for all erection of the steel and associated work in compliance with the Metal Building Manufacturers drawings. Temporary supports, such as temporary guys, braces, false work or other elements required for erection will be determined, furnished and installed by the erector (AISC Code of Standard Practice Sept 86 Section 7.9.1) (Mar 05 Section 7.10.3) (CSA/S16–09 Section 29).

**Discrepancies** – Where discrepancies exist between the Metal Building plans and plans for other trades, the Metal Building plans will govern. (AISC Code of Standard Practice Sept 86 Section 3.3) (Mar 05 Section 3.3)

**Materials by Others** – All interface and compatibility of any materials not furnished by the manufacturer are the responsibility of and to be coordinated by the Builder/Contractor or A/E firm. Unless specific design criteria concerning any interface between materials if furnished as a part of the order documents, the manufacturers assumptions will govern.

**Modification of the Metal Building from Plans** – The Metal Building supplied by the manufacturer has been designed according to the Building Code and specifications and the loads shown on this drawing. Modification of the building configuration, such as removing wall panels or braces, from that shown on these plans could affect the structural integrity of the building. The Metal Building Manufacturer or a Licensed Structural Engineer should be consulted prior to making any changes to the building configuration shown on these drawings. The Metal Building Manufacturer will assume no responsibility for any loads applied to the building not indicated on these drawings.

**Foundation Design**  
The Metal Building Manufacturer is not responsible for the design, materials and workmanship of the foundation. Anchor rod plans prepared by the manufacturer are intended to show only location, diameter and projection of the anchor rods required to attach the Metal Building System to the foundation. It is the responsibility of the end customer to ensure that adequate provisions are made for specifying rod embedment, bearing values, tie rods and or other associated items embedded in the concrete foundation, as well as foundation design for the loads imposed by the Metal Building System, other imposed loads, and the bearing capacity of the soil and other conditions of the building site. (MBMA 06 Sections 3.2.2 and A3)

# FERRO BUILDING SYSTEMS

103-19292 60TH AVENUE  
SURREY, BRITISH COLUMBIA, V3S 3M2

PHONE # 604-530-3224 – FAX # 604-530-9851

**ENGINEERING DESIGN CRITERIA**

Building Code	2006 Alberta Building Code
Building Importance Category	Normal
Roof Dead Load Superimposed	0.11 kPa // 2.27 psf
Roof Collateral Load	0.05 kPa // 1.00 psf
(Ceiling) 0.00 kPa // 0.00 psf other	0.05 kPa // 1.00 psf
Roof Live Load	1.00 kPa // 20.89 psf
Ground Snow Load (Ss)	1.90 kPa // 39.68 psf
Rain Load (Sr)	0.10 kPa // 2.08 psf
Basic Roof Snow Load Factor (Cb)	0.8
Roof Slope Factor (Cs)	1.0
Importance Factor (Is)	1.0
Shape Factor (Ca)	1.0
Snow Exposure Factor (Cw)	1.0
Roof Snow Load	1.62 kPa // 33.82 psf
Wind Load / 1/50	0.42 kPa // 8.77 psf
Wind Exposure (Ce)	Open Terrain
Building Internal Pressure	Category 2
Wind Importance Factor (Iw)	1.0
Seismic Data	Sa(0.2) = 0.12 Sa(0.5) = 0.06 Sa(1.0) = 0.03 Sa(2.0) = 0.02 Fa = 1.3 Fv = 1.4 Soils Site Class: D
Importance Factor (Ie)	1.0
Transverse Response Modification Rd	1.5
Longitudinal Response Modification Rd	1.5
Overstrength Factor Ro	1.3

**PROJECT NOTES**

**BOLT TIGHTENING** – Bolted joints with A325-09 Type 1 bolts greater than 1/2" diameter are specified as pretensioned joints in accordance with the Specification for Structural Joints Using ASTM A325 or A490 Bolts, June 30, 2004. Pre-Tensioning can be accomplished by using the turn-of-nut method of tightening, calibrated wrench, twist off type tension control bolts or direct tension indicator as acceptable to the Inspecting Agency and Building Official. Installation Inspection requirements for Pre-Tensioned Joints (Specification for Structural Joints Section 9.2) using turn-of-nut method is suggested. The connections on this project are not slip critical.

Material properties of steel bar, plate, and sheet used in the fabrication of built-up structural framing members conform to ASTM A529, ASTM A572, ASTM A1011 SS, or ASTM A1011 HSLAS with a minimum yield point of 50 ksi. Material properties of hot rolled structural shapes conform to ASTM A992, ASTM A529, or ASTM A572 with a minimum specified yield point of 50 ksi. Hot rolled angles, other than flange braces, conform to ASTM 36 minimum. Hollow structural shapes conform to ASTM A500 grade B, minimum yield point is 42 ksi for round HSS and 46 ksi for rectangular HSS. Material properties of cold-formed light gage steel members conform to the requirements of ASTM A1011 SS Grade 55, or ASTM A1011 HSLAS Class 1 grade 55, with a minimum yield point of 55 ksi. For Canada, material properties conform to CAN/CSA G40.20/G40.21 or equivalent.

Using Northern gutter with 4 x 5 downspouts, the roof drainage system has been designed using the method outlined in the MBMA Metal Building Systems Manual. Downspout locations have not been located on these drawings. The downspouts are to be placed on the building sidewalls at a spacing not to exceed 80 feet with the first downspout from both ends of the gutter run within 72 feet of the end. Downspout spacing that does not exceed the maximum spacing will be in compliance with the building code. The gutter and downspout system as provided by the manufacturer is designed to accommodate 2.8 in/hr rainfall intensity as it corresponds to a 10 year recurrence interval for Canadian projects.

Framed openings, walk doors, and open areas shall be located in the bay and elevation as shown in the erection drawings. The cutting or removal of girts shown on the erection drawings due to the addition of framed openings, walk doors, or open areas not shown may void the design certifications supplied by the metal building manufacturer.

The design collateral load has been uniformly applied to the design of the building. Hanging loads are to be attached to the purlin web. This may not be appropriate for heavily concentrated loads. Any attached load in excess of 150 pounds shall be accounted for by special design performed by a licensed engineer using concentrated loads and may require separate support members within the roof system.

The metal building manufacturer has not designed the structure for snow accumulation loads at the ground level which may impose snow loads on the wall framing provided by the manufacturer.

Drawing Index	
Page	Description
E1	Cover Sheet
E2	Roof Framing BLDGA
E3	Roof Sheeting
E4	Sidewall BLDGA WALLSWA
E5	Sidewall BLDGA WALLSWC
E6	Endwall BLDGA WALLEWB
E7	Endwall BLDGA WALLEWD
E8-E9	Main Frame Cross Sections
E10	Connection Detail
R1-R12	Construction Drawings

Check'd	By	Description	Date	Revision

**FERRO BUILDING SYSTEMS**  
103-19292 60TH AVENUE, SUITE 302  
SURREY, BRITISH COLUMBIA, V3S 3M2  
PHONE # 604-530-3224 – FAX # 604-530-9851

**Customer:** FERRO BUILDING SYSTEMS LTD  
C/O ROYAL CANADIAN MOUNTED POLICE  
5600 11TH AVE  
REGINA, SK S4P 3J7, CN

**Project Name & Location:** RCMP STEEL BUILDING, INNISFAIL AB  
HIGHWAY 2, EXIT 365 EAST  
INNISFAIL, AB T4G, 1S8, CN

**Drawing Status:**  Preliminary (Not For Construction)  For Construction Permit  For Erector Installation

Scale: NOT TO SCALE

Drawn by: RJA 3/7/13

Checked by: 2207 3/7/13

Project Engineer: WWL

Job Number: 12-B-93855

Sheet Number: E1 of 10

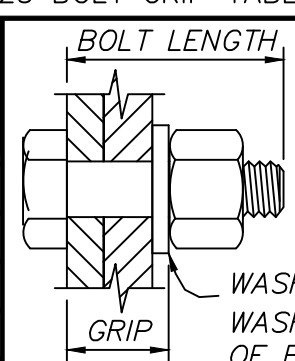
The engineer whose seal appears hereon is an employee for the manufacturer for the materials described herein. Said seal or certification is limited to the products designed and manufactured by manufacturer only. The undersigned engineer is not the overall engineer of record for this project.

Dustin L. Cole, P.ENG  
Alberta P.ENG M86692

DRS11D ENST1B

3/8" A325 BOLT GRIP TABLE	
GRIP	LENGTH
0 TO 9/16"	1 1/4" F.T.
Over 9/16" TO 1 1/16"	1 3/4" F.T.
Over 1 1/16" TO 1 5/16"	2"
Over 1 5/16" TO 1 9/16"	2 1/4"
Over 1 9/16" TO 1 13/16"	2 1/2"
Over 1 13/16" TO 2 1/16"	2 3/4"

LOCATIONS OF BOLTS LONGER THAN 2 3/4" NOTED ON ERECTION DRAWINGS  
F.T. DENOTES FULLY THREADED



**NOTE:**  
FULL THREAD ENGAGEMENT IS DEEMED TO HAVE BEEN MET WHEN THE END OF THE BOLT IS FLUSH WITH THE FACE OF THE NUT.

WASHER REQUIRED ONLY WHEN SPECIFIED. WASHER MAY BE LOCATED UNDER HEAD OF BOLT, UNDER NUT, OR AT BOTH AT LOCATIONS NOTED ON ERECTION DRAWINGS. ADD 5/32" FOR EACH WASHER TO MATERIAL THICKNESS TO DETERMINE GRIP.

BUILDING DESCRIPTIONS				
Building ID	Width	Length	Height	Slope
Building A	50'-0	80'-0	13'-0	1:12

