

GENERAL NOTES

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This drawing including information herein, remains the property of Tarpon Structures. It is provided solely for erecting the building described in the purchase order and shall not be modified, reproduced, or used for any other purpose without prior written approval of Tarpon Structures.

The General Contractor and/or the Erector is solely responsible for accurate, good quality workmanship in erecting the building in conformance with this drawing, and adhering to details referenced in this drawing and industry standards pertaining to proper erection including the proper use of temporary bracing. Tarpon Structures is not responsible for errors, omissions or damages incurred in the erection of the components shown on this drawing, nor for the inspection of erected components to determine correct and complete installation.

The certification and engineering seal applies only to products designed and fabricated by Tarpon Structures for the loading conditions designated on these drawings. Concrete foundations, steel components by others and erection supervision are not the responsibility Tarpon Structures or the certifying engineer.

SITE DIMENSIONS AND DATA
The Building Contractor shall verify all dimensions and data shown on these drawings with the conditions at the construction site, and must report any discrepancies to Tarpon Structures before proceeding.

APPROVALS AND PERMITS
It is the responsibility of the Owner/Builder/Contractor to obtain appropriate approvals and permits from Municipal, County, or Provincial Agencies as required. Delay in returning approval drawings may delay project start date.

GRID LINE DIMENSIONS
Overall dimensions are from gridline to gridline only. Edge of concrete equals gridline unless noted otherwise.

ANCHOR BOLTS
All anchor bolts and anchors are to be supplied by Others unless otherwise noted. Anchor bolts should only be placed using "Issued For Construction" drawings. The Builder assumes sole risk and responsibility when placing anchor bolts to "Not For Construction" drawings and must inform Tarpon Structures immediately. All base angles/girts to be secured with 1/2" ϕ Wedge Anchors at the ends and at 1/3 points (maximum 6'-0" C/C), or with Shot Pins At 2'-0" C/C. All Man door jambs are to be secured with 1/2" ϕ Wedge Anchors and field located. Anchor bolts to have a minimum 3" projection from Under Side of base plate. Design of anchor bolt embedment lengths in concrete is the responsibility of the Foundation Designer.

MODIFICATIONS, SUBSTITUTIONS OR ALTERATIONS
No modifications, substitutions or alterations may be made in the field without prior authorization from Tarpon Structures. Any unauthorized modifications, substitutions or alterations made to the construction of this building are not the responsibility of Tarpon Structures.

MATERIAL STORAGE
Galvanized, Aluminized, and Coloured materials are subject to corrosion and discoloration if they are improperly stored. Short term job site storage of Purlins, roof and wall covering may be tolerated, provided care is taken to keep these materials dry at all times. When materials are to be stored outdoors they should be placed at an angle sufficient to promote good drainage. In addition, several inches of clearance must be provided between the lower end and the ground to allow ventilation. Long panels should be blocked at intermediate points to prevent center sag and resultant water accumulation.
Tarpon Structures will not be held responsible for materials which are improperly protected after delivery.

ERECTION

GENERAL
The steel framework shall be erected true and plumb within the specified tolerances. Temporary bracing shall be employed wherever necessary to withstand all loads to which the structure may be subject during erection and subsequent construction, including loads due to wind, equipment, and equipment operation. Temporary bracing shall be left in place undisturbed as long as required for the safety and integrity of the structure. The erector shall ensure during erection that an adequate margin of safety exists in the uncompleted structure and members. The design and installation of adequate temporary supports and bracing is the Erector's responsibility.

ERECTION
Member marks on steel are marked as directional marks. Marks shown on drawings indicate where the marked end of the steel is to be connected. Erection should start at a braced bay. Erect and temporarily support frames. Use temporary bracing as required to ensure stability of the frames. Install purlins and girt's & permanent roof & wall bracing. Ensure purlins and girt's remain parallel. Plumb columns and square frames in accordance with CAN/CSA-S16-01. Install flange braces to purlins and girt's prior to installing cladding.
Install roof and wall cladding, fasteners, and sealants as specified in the erection drawing and technical manual.

Do not use panels for walking platforms. Temporary loads on roof panels should be directly over purlins.

Wall sheets are an integral part of the structural system. Removal or alteration without prior authorization is prohibited.

Base angles/girts to be located and cut to length in the field. Outside flange of base angles/girts must be plumb with outside flange of wall girt's above.

PERMANENT BRACING
Permanent bracing (building bracing and flange bracing) shown on the "Issued For Construction" drawings is an integral part of the Structural System and must be installed (and tightened) prior to erection of wall and roof cladding. Removal or alteration of braces is prohibited.

TEMPORARY LOADS
Wherever piles of material, erection equipment, or other loads are carried during erection, suitable provision shall be made to ensure that the loads can be safely sustained for their duration and without permanent deformation or other damage to any member of the steel frame and other building components supported thereby. Purlins and girt's must not have load applied until all permanent connections and bracing are completed and cladding is installed or the members are prevented from rolling or buckling by adequately designed temporary restraint.

BRIDGING
Hot section bridging to underside of purlins (if required) must be installed before any bundles of cladding are placed on the roof. It is very important that the purlins are straight and free of any loading when hot section bridging is installed.

ADEQUACY of TEMPORARY CONNECTIONS
As erection progresses, the work shall be securely bolted or welded to resist safely all dead, wind, and erection loads and to provide structural integrity as required.

ALIGNMENT
No permanent welding or bolting shall be done until as much of the structure as will be stiffened thereby has been suitably aligned.

FIELD WELDING
The portion of surfaces that are to receive welds shall be thoroughly cleaned of all foreign matter, including paint film. Field welding to be performed by companies certified to CSA W47.

HORIZONTAL ALIGNMENT of MEMBERS
Unless otherwise specified, spandrel perimeter beams shall be considered aligned when the offset of one end relative to the other from the alignment shown on the drawings does not exceed L/1000; however, the offset need not be less than 3 mm and shall not exceed 6 mm. For all other members, the corresponding offsets shall be L/500, 3mm, and 12mm.

ELEVATIONS of MEMBERS
Elevations of the ends of members shall be within 10mm of the specified member elevation. Allowances shall be made for initial base elevation, column shortening, differential deflections, temperature effects, and other special conditions, but the maximum deviation from the specified slope shall not exceed L/500. The difference from the specified elevation between member ends that meet at a joint shall not exceed 6mm.

CRANE GIRDERS
Unless otherwise required by operational characteristics of the crane, crane girders and monorail beams shall be erected within the following tolerances:
(a) The slope of a member shall not exceed L/1000. The difference in elevation of the ends need not be less than 3mm and shall not exceed 6mm. The difference in elevation of opposite points on two parallel girders shall not exceed 1/1000 of the distance between the girders and shall not exceed 6mm.
(b) The offset of one end of the member relative to the other from the horizontal alignment shown on the drawings shall not exceed L/500. However, the offset need not be less than 3mm and shall not exceed 6mm.
(c) The distance between the ends of two parallel girders shall not deviate by more than 1/500 of the span of the girder. However, the difference in the distance between the girder ends need not be less than 3mm and shall not exceed 10mm.

ALIGNMENT of BRACED MEMBERS
Members such as columns, beams, trusses, and open web steel joists that are braced between their supports shall be erected in such a way that the fabrication tolerances specified in CAN/CSA-S16-01 are maintained during and after erection.

WELDED JOINT FIT-UP
The Fit-Up of joints that are to be field-welded shall be within the tolerances shown on the erection diagrams and shall be in no case, before welding is begun, exceed the tolerances specified in CSA Standard W59.

BOLTED JOINT FIT-UP
Holes, except oversize or slotted holes, may be enlarged to admit bolts by a moderate amount of reaming. However in the case of gross mismatch of holes, Tarpon Structures shall be contacted for instructions or approval of remedial field work.

COLUMN BASE PLATE ELEVATIONS
Column base plates shall be installed to an elevation no more than +/- 1/8" from the specified elevation.

PLUMBNESS of COLUMNS
Columns shall be installed within a limit for Out-of-Plumb of L/500, U.N.O.. The measurement shall be taken from the installed column centerline at the base. The column centerline shall be within 3/8" from the specified location.

STRUCTURAL BOLTS

STRUCTURAL BOLTS
Bolts in connections not subject to tension loads, or where loosening due to vibration or load fluctuations are not design considerations, need only be snug tightened (including all A307). Which is defined as the tightness that exists when all plies in a joint are in firm contact.
Inspection of the sides of bolts or nuts Snug-Tightened using an impact wrench will appear slightly peened as a result of the tightening process. No further inspection is necessary for bolts in "Bearing-Type" connections as performance is independent of initial pretension.
BOLTS SUBJECT TO TENSION LOADS
Bolts in connections subject to tension loads require pretensioning to minimum tension, values as shown in Table A below

| TABLE A | | BOLT TENSION | | | |
|---------|----|--------------|-----|------|-----|
| SIZE | | A325 | | A490 | |
| In. | mm | kips | kN | kips | kN |
| 3/4 | 19 | 28 | 125 | 35 | 157 |
| 7/8 | 22 | 39 | 174 | 49 | 218 |
| 1 | 25 | 51 | 227 | 64 | 285 |
| 1 1/8 | 29 | 56 | 249 | 80 | 356 |
| 1 1/4 | 32 | 71 | 316 | 102 | 454 |
| 1 1/2 | 38 | 103 | 458 | 148 | 658 |

The only method of pretensioning is Turn-of-Nut tightening as specified in CAN/CSA-S16-01. In Turn-of-Nut tightening, all bolts shall be brought to a "Snug-Tight" condition ensuring that all plies are in firm contact with each other. "Snug-Tight" condition is attained by a few impacts of an impact wrench or the full effort of a person using a spud wrench. When all bolts are "Snug-Tight", each bolt shall then be tightened additionally by the applicable nut rotation given in Table B. Tightening should progress systematically from the most rigid part of the connection to the free edges.

During the operation there shall be no rotation of the part not turned by the wrench.

Nut Rotation From "Snug-Tight" Condition.

| TABLE B | | |
|--|--|------|
| BOLT LENGTH (Measured from underside of the head to the extreme end of the point) | | TURN |
| Up to and including 4 diameters | | 1/3 |
| Over 4 diameters and not exceeding 8 diameters or 8 inches (200mm) | | 1/2 |
| Exceeding 8 diameters or 8 inches (200mm) | | 2/3 |

Note: Nut rotation is relative to bolt regardless of whether the nut or bolt is being turned. Tolerance on rotation: 30° over or under

Bolts tightened by Turn-of-Nut method should have the outer face of the nut "Match-Marked" with the protruding bolt point before final tightening. Marking permits visual inspection that actual nut rotation has been achieved. Such marks can be made using a crayon or dab of paint after bolts have been brought to "Snug-Tight".

Torque is not a reliable means to pretension bolts. In cases of dispute as to installed bolt tension an arbitration method is provided in CAN/CSA-S16-01. This provides a means to calibrate a torque wrench with a direct tension indicator.

DRAWING INDEX

| DWG | DRAWING TITLE | ISSUE | DATE | REMARK |
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| S0 | COVER SHEET (General Notes - Tables - Data) | A | AUG 12/09 | ISSUED FOR BUILDING PERMIT |
| S1 | REACTIONS AND NOTES | A | AUG 12/09 | ISSUED FOR BUILDING PERMIT |
| S2 | ANCHOR BOLT LAYOUT | B | AUG 12/09 | ISSUED FOR BUILDING PERMIT |
| S2A | ANCHOR BOLT DETAILS | B | AUG 12/09 | ISSUED FOR BUILDING PERMIT |
| S3 | BUILDING SECTIONS & ELEVATIONS | A | AUG 12/09 | ISSUED FOR BUILDING PERMIT |
| S4 | ROOF FRAMING PLAN | A | AUG 12/09 | ISSUED FOR BUILDING PERMIT |
| S5 | ELEVATION @ LINE A | A | AUG 12/09 | ISSUED FOR BUILDING PERMIT |
| S6 | ELEVATION @ LINE C | A | AUG 12/09 | ISSUED FOR BUILDING PERMIT |
| S7 | MEZZANINE FRAMING PLAN | A | AUG 12/09 | ISSUED FOR BUILDING PERMIT |

| FRAMED OPENING SCHEDULE | | |
|-------------------------|-------------------------------|---------------------|
| QTY | DESCRIPTION | R.O. WIDTH x HEIGHT |
| 88 | 4'-0" x 3'-6" WINDOW | 4'-0" x 3'-6" |
| 16 | 3'x7' MAN DOOR C/W SIDE LIGHT | 5'-0" x 7'-2" |
| 17 | 3' x 7" MAN DOOR | 3'-4" x 7'-2" |
| 16 | 16' x 16' OVER HEAD DOOR | 16'-0" x 16'-0" |

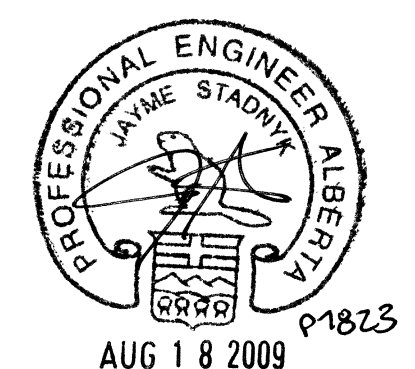
| APPLIED DESIGN STANDARDS | |
|--|--|
| 2005 National Building Code of Canada. | |
| 2006 Alberta Building Code. | |
| CAN/CSA S16-01, Limit States Design of Steel Structures. | |
| CSA S136-07, Cold Formed Steel Structural Members. | |
| CSA W59-03, Welded Steel Construction (Metal Arc Welding). | |

| MATERIAL | SPECIFICATION | (SI) | GRADE (Imp.) |
|---|--|--------------|--------------|
| Structural Steel Plate | CSA G40.20/G40.21-04 | 300W | 44W |
| Checker Plate | CSA G40.20/G40.21-04 | 300W | 44W |
| Hot Rolled Angle, Channel, Bar & Rod | CSA G40.20/G40.21-04 | 300W | 44W |
| Hot Rolled Wide Flange Shapes | CSA G40.20/G40.21-04 | 350W | 50W |
| Square Hollow Structural Sections | CSA G40.20/G40.21-04 Class C | 350W | 50W |
| Round Hollow Structural Sections (not pipe) | CSA G40.20/G40.21-04 Class C | 350W | 50W |
| Primary Structural Bolts (> 1/2" ϕ) | ASTM A325 (Black) | A325M | A325 |
| 1/2" ϕ Bolts | SAE J429 Zinc Electroplated | | 8.2 |
| Secondary Structural Bolts | ASTM A 307 (Plated) | A307M | A307 |
| Sheet Steel for Cold Formed Girt's & Purlins (Galvanized) | CSA G40.20/G40.21-04/ASTM A653 SS (G90)/A653M SS (Z275) | 350 CL 1,3 | 50 CL 1,8&4 |
| Sheet Steel for Cold Formed Girt's & Purlins (Black) | CSA G40.20/G40.21-04 | 350W | 50W |
| Roll Formed Roof and Wall Panel (Galvalume) | CSA G40.20/G40.21-04/ASTM A792 SS (AZ55)/A792M SS (Z165) | 350 CL 1 | 50 CL 1&4 |
| Roll Formed Roof and Wall Panel (Galvanized) | CSA G40.20/G40.21-04/ASTM A653 SS (G90)/A653M SS (Z275) | 350 CL 1,3 | 50 CL 1,3&4 |
| Roll formed Roof and Wall Panel (Pre-Painted Panels) | CSSBI SB-2001 (Base Metal as for Galvalume/Galvanized above) | 350 CL 1,(3) | 50 CL 1,3&4 |
| Screws | ITW-Buildex TEKS | Minimum 3 | |
| Caulking | CAN/CGSB 19-GP-14M | | |
| Primer | CAN/CGSB 1-GP-40M | | |


| PANELS AND TRIMS | | | |
|--|-----------------|--------------------|--|
| ROOF Profile | Gauge | Colour | |
| CANSPAN 36 | 26 | GALVALUME | |
| WALL Profile | Gauge | Colour | |
| CANSPAN 36R | 24 | QC-730 REGENT GRAY | |
| CANSPAN 36R | 24 | QC-306 CHARCOAL | |
| TRIMS | Colour | | |
| Gable | QC-306 CHARCOAL | | |
| Corner | QC-306 CHARCOAL | | |
| Eave | QC-306 CHARCOAL | | |
| Framed Openings | QC-306 CHARCOAL | | |
| LINER Profile | Gauge | Colour | |
| N/A | N/A | N/A | |
| LINER TRIM | Colour | | |
| N/A | N/A | | |
| Refer to plans and/or additional sheets for items and colours not listed above | | | |

| BUILDING PARAMETERS | | | | Nominal, Refer to Plans |
|---------------------|--------|-------------|--------------|-------------------------|
| Length | Width | Eave Height | Roof Slope | |
| 495'-0" | 90'-0" | 22'-3" | 1/2:12 | |
| Nominal Footprint | | | 44550 SQ. FT | |

| DESIGN DATA | |
|--|----------|
| Human Occupancy | Standard |
| Snow Load Importance Factor | 1.00 |
| Wind Load Importance Factor | 1.00 |
| Ground Snow Load (Ss) | 1.10 kPa |
| Associated Rain Load (Sr) | 0.1 kPa |
| Hourly Wind Pressure (q) 1/50 | 0.50 kPa |
| Hourly Wind Pressure (q) 1/10 | 0.40 kPa |
| SFRS CONVENTIONAL CONSTRUCTION | |
| Spectral Response Acceleration Sa(0.2) | 0.15 |
| Spectral Response Acceleration Sa(0.5) | 0.08 |
| Spectral Response Acceleration Sa(1.0) | 0.04 |
| Spectral Response Acceleration Sa(2.0) | 0.02 |
| Seismic Importance Factors (IE) | 1.00 |
| Acceleration Site Coefficient, Fa | 1.30 |
| Velocity Site Coefficient, Fv | 1.40 |
| Site Class | D |
| Force Modification Factor (Rd, Ro) | |
| Ductility | 1.50 |
| Overstrength | 1.30 |
| Roof Collateral Load | 0.14 kPa |
| Mezzanine Live Load | 2.40 kPa |
| Mezzanine Dead Load | 3.35 kPa |



PROFESSIONAL ENGINEER ALBERTA
AUG 1 8 2009 P1823

| | | | |
|---|----------------|-------------|-------------|
| ISSUED FOR BUILDING PERMIT | | | |
| A | TT | 165 | AUG 12/09 |
| ISSUE | DRAWN | CHECK | REVIEW DATE |
| TT | JAS | JAS | AUG 18/09 |
| BUILDING LOCATION LEGAL DESCRIPTION | | | |
| S.E. 0814268, BLOCK 2, LOT 8 | | | |
| BUILDING LOCATION MUNICIPAL ADDRESS | | | |
| 240040 FRONTIER PLACE S.E. ROCKYVIEW CALGARY ALBERTA | | | |
| END USER | | | |
| 1472482 ALBERTA LTD | | | |
| CUSTOMER | | | |
| ACRE PROPERTIES LTD | | | |
| SALES | | COORDINATOR | |
| DESIGNED | DATE | DRAWN | DATE |
| JAS | AUG 6/09 | TT | AUG 12/09 |
| CHECKED | DATE | REVIEWED | DATE |
| TT | AUG 12/09 | JAS | AUG 18/09 |
|  | | | |
| PROJECT | | | |
| WRANGLER SHOP AND OFFICE COMPLEX | | | |
| DRAWING TITLE | | | |
| COVER SHEET | | | |
| PROJECT NUMBER | DRAWING NUMBER | ISSUE | |
| 09S1-0312 | SO | A | |