# STEEL BUILDING SYSTEMS, INC.

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# **SPECIFICATIONS**

#### 1.0 GENERAL

- 1.1 THE DESIGN OF THE BUILDING SHALL BE A PRIMARY RIGID FRAME WITH TAPERED OR CONSTANT COLUMNS AS SPECIFIED BY THE CUSTOMER.
- **1.2** THE DESIGN OF THE BUILDING SHALL BE A DOUBLE SLOPE, SINGLE SLOPE, OR LEANTO AS SPECIFIED BY THE CUSTOMER.
- **1.3** THE BUILDING WIDTH SHALL BE MEASURED FROM OUTSIDE TO OUTSIDE OF SIDEWALL GIRTS.
- **1.4** THE BUILDING LENGTH SHALL BE MEASURED FROM OUTSIDE TO OUTSIDE OF ENDWALL GIRTS.

#### 1.5 BAY SPACINGS

- 1.5.1 INTERIOR BAY SPACINGS SHALL BE MEASURED FROM CENTERLINE TO CENTER-LINE OF RIGID FRAMES.
- **1.5.2** END BAY SPACINGS SHALL BE MEASURED FROM OUTSIDE OF ENDWALL GIRTS TO CENTERLINE OF FIRST INTERIOR RIGID FRAMES.
- **1.6** ALL COMPONENTS OF THE BUILDING (COLUMNS,RAFTERS,PURLINS,GIRTS,COVERING,TRIM, ACCESSORIES,BRACING,HARDWARE, AND MISCELLANEOUS ITEMS) SHALL BE CLEARLY MARKED ON THE ERECTION DRAWINGS AND/OR THE SHIPPING LIST.
  - **1.6.1** ALL MATERIALS SHALL BE NEW AND SHALL BE FABRICATED IN A WORKMANLIKE MANNER.
  - 1.6.2 ALL COMPONENTS AND ACCESSORIES SHALL BE CLEARLY MARKED ON THE ERECTION DRAWINGS SUPPLIED BY THE MANUFACTURER, WITH THE EXCEPTION OF WALK DOORS, WHICH SHALL BE FIELD LOCATED PER CUSTOMER'S LOCATIONS.
  - 1.6.3 ERECTION DRAWINGS SHALL RECEIVE THE SEAL OF A REGISTERED PROFESSION-AL ENGINEER UPON THE CUSTOMER'S REQUEST TO THE MANUFACTURER. COM-PLETE DESIGN ANALYSIS OF STRUCTURAL COMPONENTS SHALL BE FURNISHED UPON REQUEST.
- **1.7** THERE SHALL BE NO FIELD MODIFICATIONS OF PRIMARY STRUCTURAL MEMBERS UNLESS AUTHORIZED BY THE MANUFACTURER.
- **1.8** FOUNDATION DESIGN SHALL BE PROVIDED BY THE CUSTOMER USING REACTIONS SUPPLIED BY THE BUILDING MANUFACTURER.
  - **1.8.1** ANCHOR BOLT DIAMETERS SHALL BE AS SPECIFIED BY THE ANCHOR BOLT LAYOUT, ANCHOR BOLT DETAILS, AND REACTIONS DRAWINGS.

## 2.0 STRUCTURAL STEEL DESIGN

2.1 STRUCTURAL STEEL DESIGN SHALL CONFIRM TO THE APPLICABLE SECTIONS RELATING TO DESIGN REQUIREMENTS AND ALLOWABLE STRESSES IN ACCORDANCE WITH AISC'S LATEST EDITION OF "SPECIFICATIONS FOR THE DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS".

# SPECIFICATIONS (CONTINUED)

- 2.2 COLD-FORMED STEEL STRUCTURAL MEMBERS SHALL BE DESIGNED TO CONFORM TO THE APPLICABLE SECTIONS RELATING TO DESIGN REQUIREMENTS AND ALLOWABLE STRESSES IN ACCORDANCE WITH AISC'S LATEST EDITION OF "SPECIFICATIONS FOR THE DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS".
- 2.3 ALL STRUCTURAL BOLTS SHALL BE HIGH STRENGTH (A325) BOLTS. ALL BOLTED CONNECTIONS EXCEPT BRACING SHALL CONTAIN AT LEAST TWO(2) BOLTS.
- **2.4** ALL BUILDING COMPONENTS SHALL BE DESIGNED TO RESIST THE CONDITIONS PRODUCED BY COMBINING CONTRIBUTING DEAD LOAD PLUS SPECIFIED LIVE LOAD ON HORIZONTAL PROJECTION OF THE ROOF, OR BY COMBINING DEAD LOAD PLUS SPECIFIED WIND LOAD.
- 2.5 ROOF LIVE LOAD SHALL BE IN ACCORDANCE WITH SPECIFIED BUILDING CODE UNLESS SPECIFIED BY THE CUSTOMER.
- **2.6** WIND LOAD SHALL BE IN ACCORDANCE WITH SPECIFIED BUILDING CODE UNLESS SPECIFIED BY THE CUSTOMER.
- 2.7 BAY SPACINGS SHALL BE SPECIFIED BY THE CUSTOMER.

#### 3.0 STRUCTURAL STEEL FABRICATION

- **3.1** ALL STRUCTURAL STEEL COMPONENTS SHALL BE SHEARED, PUNCHED, WELDED, AND PAINTED IN THE PLANT OF THE MANUFACTURER.
- 3.2 WELDING SHALL CONFORM TO THOSE SECTIONS OF THE AMERICAN WELDING SOCIETY'S "STRUCTURAL WELDING CODE" RELATING TO WELDING PROCEDURE.
- 3.3 STRUCTURAL COMPONENTS FABRICATED OF PLATE AND/OR BAR STOCK SHALL HAVE THE FLANGES WELDED TO THE WEB BY A CONTINUOUS AUTOMATIC SUBMERGED WELDING PROCESS.

### 4.0 PRIMARY FRAMING

- **4.1** RIGID FRAMES SHALL CONSIST OF TAPERED OR CONSTANT COLUMNS AND TAPERED OR CONSTANT RAFTERS COMPLETE WITH NECESSARY SPLICES FOR FIELD BOLTED ASSEMBLY.
- **4.2** PRIMARY BUILDING FRAME SPLICE CONNECTIONS SHALL BE FIELD BOLTED USING HIGH STRENGTH BOLTS (A325).
- **4.3** RIGID FRAMES SHALL BE FABRICATED FROM HOT ROLLED STEEL DESIGNED FOR A MINIMUM YIELD POINT OF 50,000 PSI.

## 5.0 ENDWALL FRAMING

- **5.1** ENDWALL FRAMES SHALL BE HOT ROLLED OR COLDFORMED STRUCTURAL MEMBERS CON-SISTING OF CONSTANT DEPTH COLUMNS AND RAFTERS FABRICATED FOR FIELD BOLTED AS-SEMBLY.
  - **5.1.1** STEEL USED FOR HOT ROLLED FRAMING SHALL BE DESIGNED FOR A MINIMUM YIELD POINT OF 50,000 PSI.
  - 5.1.2 STEEL USED FOR COLDFORMED FRAMING SHALL BE DESIGNED FOR A MINIMUM YIELD POINT OF 55,000 PSI.

# SPECIFICATIONS (CONTINUED)

## 6.0 SECONDARY FRAMING

#### 6.1 PURLINS AND GIRTS

- **6.1.1** PURLINS AND GIRTS SHALL BE A MINIMUM DEPTH OF 8" AND SHALL BE DESIGNED AS CONTINUOUS OR SIMPLE SPAN AS SPECIFIED BY THE CUSTOMER.
- **6.1.2** PURLINS AND GIRTS SHALL BE COLDFORMED IN THE SHAPE OF A STIFFENED FLANGE "Z" OR "C".
- **6.1.3** STEEL USED TO FORM PURLINS AND GIRTS SHALL BE HOT ROLLED STEEL DESIGNED FOR A MINIMUM YIELD POINT OF 55,000 PSI.

#### **6.2 EAVE STRUTS**

- 6.2.1 EAVE STRUTS SHALL BE COLDFORMED IN THE SHAPED OF A STIFFENED FLANGE "C".
- **6.2.2** STEEL USED TO FORM EAVE STRUTS SHALL BE HOT ROLLED STEEL DESIGNED FOR A MINIMUM YIELD POINT OF 55,000 PSI.

## 6.3 BRACING

#### 6.3.1 WIND BRACING

- **6.3.1.1** WIND BRACING OF THE ROOF SHALL BE ACCOMPLISHED BY DIAGONAL CABLE BRACING.
- **6.3.1.2** WIND BRACING OF THE SIDEWALLS SHALL BE ACCOMPLISHED BY DIAGONAL CABLE BRACING, WIND COLUMNS, OR PORTAL FRAMES AS SPECIFIED BY THE CUSTOMER.
- **6.3.1.3** WIND BRACING OF THE ENDWALLS SHALL BE ACCOMPLISHED BY PANEL SHEAR, DIAGONAL CABLE BRACING, WIND COLUMNS, OR PORTAL FRAMES AS SPECIFIED BY THE CUSTOMER.
- **6.3.2** FLANGE BRACING SHALL BE STEEL ANGLES ATTACHED TO PURLINS/GIRTS AND PRIMARY FRAMING. THE NUMBER AND LOCATION OF ALL FLANGE BRACES SHALL BE A PART OF THE PRIMARY FRAME DESIGN.
- 6.4 BASE ANGLE SHALL BE 14 GUAGE STEEL HAVING A MINIMUM YIELD POINT OF 55,000 PSI.

#### 7.0 STRUCTURAL PAINTING

- 7.1 ALL STRUCTURAL STEEL COMPONENTS SHALL BE CLEANED OF OIL, DIRT, LOOSE SCALE, AND FOREIGN SUBSTANCES PRIOR TO PAINTING.
- 7.2 ALL PRIMARY AND SECONDARY COMPONENTS SHALL RECEIVE A ONE SHOP COAT OF RUST INHIBITIVE RED-OXIDE PRIMER. ANALYSIS OF PAINT SHALL BE ON FILE AND FURNISHED UPON REQUEST.