

WIDESPAN™ STRUCTURAL SYSTEM



Proven Practicality of a Rigid Frame System with Maximum Flexibility.

ATTRACTIVE, FUNCTIONAL AND FLEXIBLE

Widespan™ structural systems allow for maximum use of interior space which is particularly important in manufacturing plants, warehouses, offices and retail stores where uninterrupted space is required.

Your framing options for your Widespan building include LRF, MRF and WX framing systems.

The LRF framing system provides a variable roof slope of 1/4:12 to 4:12 for a contemporary exterior profile and large clearspan interiors for maximum use of interior space.

The MRF framing system, which is just as flexible as the LRF is specially designed for wide buildings using a minimum of interior columns.

The WX framing system provides additional space for extensions or expansions. It accommodates all eave heights and roof slopes of the LRF and MRF systems. WX frames are available in widths up to 60'.

A variety of roof and wall systems are also available, allowing you to find the perfect fit for your new building as well as your budget.

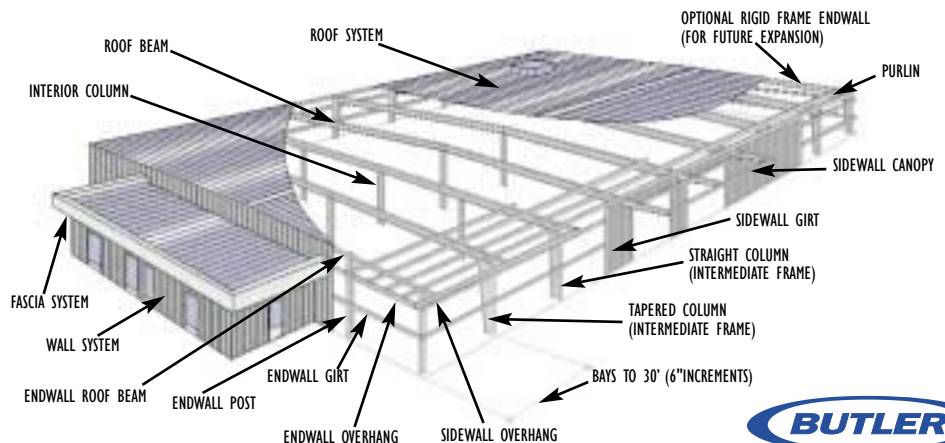
YOU'LL SAVE TIME & MONEY

Each and every frame will be engineered to meet the current design practices of your load and local code. Because the structural frame, the roof and perhaps even the walls of your new building have already been designed by Butler engineers, you won't have to "reinvent the wheel" when you plan your new building.

PRODUCT PERFORMANCE FROM THE LEADER



When you buy a Butler building you also buy the design integrity, warranties and reputation of the industry leader. Take a close look at our design "Letter of Certification" brochure available from your local Butler Builder®, where the details of the design practices used are specifically cited. The Widespan system is designed in accordance with AISC and AISI standards, and for your local code requirements.



WIDESPAN™ STRUCTURAL SYSTEM SPECIFICATIONS

1. GENERAL

- 1.1 The design of the structural system shall be a clear or multi-span rigid frame with tapered or straight columns and roof beams; with a gable or monoslope roof.
- 1.2 Actual building length shall be structural line to structural line and shall be the same as nominal - i.e., the number of bays times length of bays.
- 1.3 Actual building width shall be structural line to structural line and shall be the nominal building width.
- 1.4 The roof shall have a minimum slope of 1/4:12 slope to a maximum of 4:12 in 0.001" increments.
- 1.5 All components and parts of the structural system shall be as indicated on the drawings and/or specifications.
 - 1.5.1 All components and parts shall be clearly marked and erection drawings shall be supplied for identification and assembly of the parts.
 - 1.5.2 All drawings shall carry the stamp of a registered professional engineer.
- 1.6 Field modification of parts shall be in accordance with the best standard procedures, require the approval of the manufacturer, and shall be the responsibility of the building erector.
- 1.7 Foundations
 - 1.7.1 Foundations including anchor bolt embedment length shall be adequately designed by a competent engineer, retained by other than the building manufacturer, in accordance with the best recommended practices for the specific soil conditions of the building site.
 - a. All reactions for the proper design of foundations shall be supplied by Butler Manufacturing Company.
 - 1.7.2 Anchor bolt diameter shall be as specified by Butler Manufacturing Company's standard anchor bolt layout drawings.
 - a. Anchor bolts shall be supplied by the contractor, not the building manufacturer.
- 1.8 Building shall be produced in a manufacturing facility that is certified by the American Institute of Steel Construction - Category MB.

2. STRUCTURAL STEEL DESIGN

- 2.1 All structural mill sections or welded-up plate sections shall be designed in accordance with the 1989 AISI "Specification for the Design, Fabrication and Erection of Structural Steel for Buildings," and all cold-formed steel structural members shall be designed in accordance with the 1986 AISI "Specification for the Design of Cold-Formed Steel Structural Members."
- 2.2 The structural system will be designed in accordance with a specified building code. (Refer to Design Loads and Building Codes.)

3. PRIMARY FRAMING

- 3.1 Rigid Frames
 - 3.1.1 Frames shall consist of welded-up plate section columns and roof beams complete with necessary splice plates for bolted field assembly.
 - a. All base plates, cap plates, compression splice plates and stiffener plates shall be factory welded into place and have the connection holes shop fabricated.
 - b. Columns and roof beams shall be fabricated complete with holes in webs and flanges for the attachment of secondary structural members and bracing except for field work as noted on manufacturer's erection drawings.
 - 3.1.2 All bolts for field assembly of frame members shall be A-325 high strength bolts as indicated on erection drawings.
- 3.2 Endwall Structurals
 - 3.2.1 The endwall structurals shall be cold-formed channel members designed in accordance with the 1986 AISI Specification or welded-up plate sections designed in accordance with the 1989 AISI Specification.

- 3.2.2 Endwall frames shall consist of endwall corner posts, endwall roof beams and endwall posts as required by design criteria.
 - a. All splice plates and base clips shall be shop fabricated complete with bolt connection holes. All base plates, cap plates, compression splice plates and stiffener plates shall be factory welded into place and have the connection holes shop fabricated.
 - b. Beams and posts shall be shop fabricated complete with holes for the attachment of secondary structural members except for field work as noted on manufacturer's erection drawings.
- 3.2.3 Intermediate frames shall be substituted for endwall roof beams when specified.
 - a. Necessary endwall posts and holes for connection to the intermediate frame used in the endwall shall be shop fabricated.

4. SECONDARY STRUCTURAL MEMBERS

- 4.1 Roof Purlins and Wall Girts
 - 4.1.1 Purlins and girts shall be "Z" shaped, precision roll formed.
 - 4.1.2 Girts shall be 8" or 9-1/2" "Z" shaped sections.
 - 4.1.3 Purlins shall be 8" or 9-1/2" deep "Z" shaped sections.
 - 4.1.4 Outer flange of all girts shall contain factory-punched holes for panel connections. Optional girts are also acceptable without factory punched holes for panel connections.
 - 4.1.5 Outer flange of purlins shall contain factory-punched holes for panel connections. Optional purlins are also available without factory punched holes for panel connections on ribbed roof systems only.

5. WELDING

- 5.1 Welding procedure, operator qualifications and welding quality standards shall be in accordance with the American Welding Society structural welding code. Inspection other than visual inspection as defined by AWS paragraph 6.9, shall be identified and negotiated prior to bidding.
- 5.2 Certification of welder qualification shall be supplied when requested.
- 5.3 Welding procedure, operator qualifications and welding quality standards shall be in accordance with the Canadian Welding Bureau CSA Standards when required.

6. STRUCTURAL PAINTING

- 6.1 General
 - 6.1.1 All structural steel shall be prime painted as temporary protection against ordinary atmospheric conditions. Subsequent finish, painting, if required, shall be performed in the field by others.
 - 6.1.2 Prior to painting all steel shall be cleaned of loose rust, loose mill scale, dirt and other foreign material. Unless otherwise specified, the fabricator shall not sand blast, flame clean or pickle prior to painting.
 - 6.1.3 Factory cover all steel with one coat of Butler Gray paint formulated to equal or exceed the performance requirements of Federal Specification TT-P-664D and SSPC Paint-25.
- 6.2 Primary Frames
 - 6.2.1 Clean all steel per SSPC-SP2.
 - 6.2.2 Apply one coat of water reducible alkyd primer by spray or dip method to a minimum coating thickness of 1.0 mil.
- 6.3 Secondary Structurals
 - 6.3.1 Clean all steel per SSPC-SP8 or SSPC-SP6.
 - 6.3.2 Apply one coat of coil applied polyester primer to a minimum coating thickness of 0.5 mil. (purlins and girts).

Butler® Building products are constantly being improved; therefore, the information contained herein is subject to change without notice. Before finalizing project details, contact your nearest Butler Builder® or Butler Manufacturing Company for the latest information.

QUALITY COMMITMENT - GUARANTEED

Every material, coating part and process that is used in your new building is tested to ensure strict compliance with exacting standards. Every supplier to Butler is rigorously tested on an on-going basis. Butler is the only manufacturer in the industry with that kind of commitment to quality.



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