BUILDING SPECIFICATIONS

DRAWINGS AND DESIGN DATA

General
The buildings covered by these specifications shall be of self-framing design utilizing the roof and wall panels as the primary structural supporting members.

Each building shall be supplied with all necessary component parts, including foundation anchors, to form a complete building system. All parts shall be new and free from any defects or imperfections.

The building width and length shall be measured from the outside of the building wall panels, and the height of the building shall be the distance measured from the bottom surface of the base channel to the exterior juncture of the roof and side wall panels.

The building supplier shall furnish a complete set of building assembly drawings illustrating the step-by-step sequence for the assembly of the building.

The assembly drawings shall be prepared specifically for the building covered by these specifications showing the exact location of all roof and wall accessories and the exact anchor bolt locations required for each accessory.

Design Criteria
All buildings shall be designed in accordance with the applicable sections of the latest edition of the AISC “Specification for Structural Steel Buildings” and the AISI “Specification for the Design of Cold-Formed Steel Structural Members.”

Each building shall be designed for the following loads, in addition to the stationary weight (dead load) of the building.

The vertical live load of the building shall be not less than (*) pounds per square foot applied on the horizontal projection of the roof.
2. The design wind load of the building shall not be less than (*) miles per hour and shall be distributed and applied in accordance with Chapter 16 of the "International Building Code."

All combining and distribution of auxiliary equipment loads imposed on the building system shall be done in accordance with "Chapter 16 of the International Building Code." NOTE: The building designer is responsible for advising the building supplier of any auxiliary loads intended to be imposed on any building covered by these specifications.

All standard buildings listed in this manual have been designed in accordance with "Chapter 16 of the International Building Code."

However, it should be pointed out that many areas of the country require the use of state or local building codes which may be different from the "IBC, Building codes such as the "IBC," and the "Uniformed Building Code" are markedly different from each other and are often revised at the local level.

Therefore, it is the responsibility of the specifier to notify Parkline, Inc. of any building code(s) in effect for any particular building or provide Parkline, Inc. with contact information for the building inspector with jurisdiction over the building site.

ROOF AND EXTERIOR WALL PANELS

Roof Panel Design

Roof panels shall be supplied in a single continuous length from eave to ridge line for Gable buildings or from eave to eave on Shed type buildings, and shall be designed to tightly interlock so that no fasteners are required at intermediate points along the panel side laps.

Roof panels shall have a maximum of 16" wide with a flat surface between the interlocking side ribs. The interlocking ribs shall be a minimum 3" high and shall be turned upward. All roof panels shall be factory-punched for connection at the eave of the building.

Roof Panel Finish (standard)

Roof panels shall be a minimum of 24-gauge steel coated on both sides with a coating of corrosion-resistant aluminum zinc alloy applied by a continuous hot dipping process. Coating weight shall be a minimum of 0.32 oz. of aluminum-zinc alloy per square foot of coated sheet (both sides) - equivalent to approximately 0.80 mil. thickness on each side. Minimum yield strength of panel material shall be 50,000 PSI.

(Optional) Painted Roof Panel Finish

Roof panels shall be a minimum of 24-gauge galvanized steel conforming to ASTM A 525 specifications with the galvanized coating conforming to G90 (0.9 oz.) standards. Minimum yield strength of panel materials shall be 50,000 PSI. All exterior surfaces of the galvanized steel roof panels shall receive two factory roller applied paint coats having a combined coating thickness of 0.8 to 1.2 mils of dry film thickness. The finished coat for roof panels shall be a white polyester formulation.

Wall Panel Design

Exterior wall panels of the building shall be a single continuous length from the base channel to the roof line of the building at the sidewalls and end walls of the building except where interrupted by wall openings. Wall panels shall be a maximum of 16" wide with a 3" deep inward-turned interlocking side rib.

Wall panels shall contain two 3/4" deep by 3/4" wide fluted recesses, each starting 2 3/4" from each panel edge. Wall panels shall be fastened internally to the base channel and eave cap of the building with 3/8" diameter electrogalvanized machine bolts placed within the panel interlock.

The fastening system shall be designed so that no wall fasteners are exposed on the exterior surface of the walls. Wall panels shall be a minimum of 24-gauge galvanized steel conforming to ASTM A 525 specifications with the galvanized coating conforming to G90 (0.9 oz.) standards. Minimum yield strength of the panel material shall be 50,000 PSI. Panel material shall be embossed with a random pattern pebble embossure of approximately 0.007, 0.008 depth. The base of the wall panels shall be closed off with polystyrene closures conforming to the panel profile.

Wall Panel Finish

All exterior surfaces of the galvanized steel wall panels and exterior trim shall receive two factory roller applied paint coats having a combined coating thickness of 0.8 to 1.2 mils of dry film thickness. The finished coat for wall panels shall be a siliconized polyester formulation of one of the following Parkline colors: Twilight Blue, Desert Tan, Laurel Green, Arctic White, Harvest Gold, Roman Bronze or Shell Gray.

Exterior color coating shall meet the following performance standards after 10 years continuous exposure in normal vertical atmospheric conditions.

A. Panels shall show no evidence of blistering, peeling or chipping.
B. Panels shall not show surface chalking in excess of the No. 8 rating per ASTM D 4214-89, Method D as established by American Society for testing and Materials (ASTM) D4214.
C. Panels, after cleaning, shall not show color change in excess of five (5) NBS units when measured in accordance with the ASTM D 2244-93 standards.

The above performance standards shall not apply where panels have been damaged by fire, radiation or other physical damage.

* "Normal" atmospheric conditions exclude exposure to corrosives such as chemical fumes or salt spray.
**TYPE 'S' (SINGLE SLOPE)**

Building widths:
5'-4" to 20'-0" wide in 16" increments

**Roof Design**

Each "Type S" building roof shall be pitched, 5'-4" to 16' buildings shall have a 1 1/6" pitch over the building width and buildings from 16' to 20' shall have a 3 1/4" in 12" pitch. Roof panels shall be interlocking and be attached to the wall cap through factory punched holes with #14 corrosion resistant fasteners.

The roof system shall include a gutter and downspout system at the low sidewall and matching rake trim at the building endwalls. All gutters and trim shall be nominal 26-gauge galvanized steel prepainted arctic white or roman bronze.

**Wall Design**

The roof system is supported by a fluted, nominal 24-gauge, embossed, 16" wide x 3" deep interlocking wall panel factory-painted in your choice of seven standard colors. Panels are fastened at the top and bottom to galvanized structural channels and eave caps with 3/8" diameter electrogalvanized machine bolts, through factory punched holes.

**Structural Framing**

Transmission of horizontal wind loads across the building shall be made through the panel roof system and no separate roof or wall diagonal bracing shall be required. Parkline "Type S" buildings are self-supporting structures and will not depend on existing structures for support.

Where required for proper transmission of lateral wind loads, structural frame wind bents shall be installed. Wind bents shall consist of a bolted column and rafter assembly of steel conforming to ASTM A 36 specifications.
**TYPE 'LT' (LEAN-TO)**

Building widths:
5'-4" to 20'-0" wide in 16" increments

**Roof Design**

Each "Type LT" building roof shall be pitched, 5'-4" to 16' buildings shall have a 1/2" pitch over the building width and buildings from 16' to 20' shall have a 1/2" in 12' pitch. Roof panels shall be interlocking and be attached to the wall cap through factory punched holes with #14 corrosion resistant fasteners.

The roof system shall include a gutter and downspout system at the low sidewalk and matching rake trim at the building endwalls. All gutters and trim shall be nominal 26-gauge galvanized steel pre-painted arctic white or roman bronze.

**Wall Design**

The roof system is supported by a fluted, nominal 24-gauge, embossed, 16" wide x 3" deep interlocking wall panel factory painted in your choice of seven standard colors. Panels are fastened at the top and bottom to galvanized structural channels and eave caps with 3/8" diameter electrogalvanized machine bolts, through factory punched holes.

**Structural Framing**

Transmission of horizontal wind loads across the building shall be made through the panel roof system and no separate roof or wall diagonal bracing shall be required. Parkline "LEAN-TO" buildings are self-supporting structures and will not depend on existing structures for support.

Structural support and attachment of roof at existing building shall be the responsibility of others. In snow prone areas, drifting should be considered.
TYPE 'AL' (gable)

Building widths:
8'-0" to 32'-0" wide in 4'-0" increments

Roof Design
Each "Type AL" building shall have a gable roof with a slope of 2" in 12". The 16" wide interlocking roof panels shall vary from a nominal 24- to 18-gauge depending upon the loading conditions. They shall be fastened to an eave cap with ⅜" diameter Type 430 stainless steel bolts through factory-punched holes. The ridge of the roof shall be a welded double channel assembly sealed with a nominal 20-gauge steel ridge cover.

The gable ends shall be trimmed with nominal 26-gauge factory painted rake trim having matching ridge and eave cornices. Color shall be arctic white or roman bronze.

Optional: The eaves of the building shall have nominal 26-gauge gutter and 2" x 3" downspouts factory painted to match the building’s rake trim. The system shall be complete with all required outlet drops, elbows and connecting hardware.

Wall Design
The roof system is supported by a fluted, nominal 24-gauge, embossed, 16" wide x 3" deep interlocking wall panel factory-painted in your choice of seven standard colors. Panels are fastened at the top and bottom to galvanized structural channels and eave caps with ⅜" diameter electrogalvanized machine bolts, through factory punched holes.

Structural Framing
Strap or channel bracing components shall be placed across the building width to allow transmission of horizontal wind loads. All wind bracing components shall be of nominal 14-gauge galvanized steel.

Where required for proper transmission of lateral wind loads, structural frame windbents shall be installed. Windbents shall consist of a prime painted column and rafter bolted assembly of steel conforming to ASTM A 36 specifications.

* Note: #1 - Not required for 8', 12' & 16' wide buildings.
#2 - Not available on 32' wide AL4 buildings.
Skid Design
Each building shall be factory erected in a controlled environment on:

1. A tube skid is to be used if building is to be set on a customer-supplied concrete foundation.

2. An angle skid is to be used if building is to be set on a customer-supplied I-beam skid or concrete foundation.

3. A structural perimeter frame is to be used if a floor system is required.

Building Design
Factory-assembled buildings consist of a self-framing building, using the walls and roof as the structural supporting system. Buildings can be supplied in single slope or gable roof design and shipped in multiple sections. The roof system shall include gutter and rake trim for a finished appearance. Building to include accessories, electrical, HVAC and interior finishes as required by the customer. All assemblies will be completed in a controlled environment to ensure a quality product.

Typical sections of three available skid designs.

Structural Skid w/ Floor
DOOR LEAF

Door leaves shall be 1 3/4" thick flush construction of a nominal 20-gauge galvanized steel, reinforced by lamination to a small cell honeycomb core. Leaves shall be manufactured in accordance with ANSI/SDI-100, Grade 1, Model 1. (STC rating 30 and U value .14).

DOOR FRAME

Door frames shall be 4 3/4" deep, double rabbeted type, of nominal 16-gauge galvanized steel. Frames shall have hinge reinforcement of a nominal 7-gauge and lock reinforcement of a nominal 16-gauge.

DOOR FINISH (STANDARD)

All leaves and frames shall be factory painted with one coat of baked on primer.

DOOR FINISH (OPTIONAL)

Factory painted door and frame.

DOOR ASSEMBLY

All doors shall be provided "assembled" in their frames with all hardware, except door levers, knobs, cross bar or closers installed on door leaf. (Double swing doors will require some field assembly).

DOOR HARDWARE

STANDARD DOOR HARDWARE

a. (3) 4 3/8" x 4 3/8" hinges per ANSI #A5133-630 satin stainless steel finish with non-rising pins.

b. 3 3/4" wide x 3/4" high extruded aluminum threshold.

c. 1/8" x 1/4" aluminum/vinyl weatherstripping.

d. Mortise lock set per ANSI A156.13, Series 1000, Grade 1, Function F13, 626 satin chrome finish (levers both sides).

OPTIONAL DOOR HARDWARE

a. Cylindrical key in lever lock set per ANSI A156.2, Series 4000, Grade 2, Function F81, 626 satin chrome finish.

b. Rim type "cross bar" panic device per ANSI A156.3, Type 1, Grade 1, Function 05, with 630 satin stainless steel finish.

c. Rim type "push pad" panic device per ANSI A156.3, Type 1, Grade 1, Function 08, 689 aluminum lacquer finish interior, 626 satin chrome finish exterior.

d. Passage set per ANSI A156.2, Series 4000, Grade 2, Function F75, 626 satin chrome finish.

e. Door closer is certified to conform to ANSI 156.4, Grade 1 and meets entrance accessibility requirements with 689 aluminum lacquer finish.

f. 23" wide x 20" high adjustable blade louver with mesh insect screen. Free area of approximately 155 square inches.

g. ADA (The Americans With Disabilities Act) Package.

h. Insulated leaf, foamed-in-place polyurethane core, bonded to 18-gauge galvanized steel face sheets, having a .087 U value and STC rating of 26.

NOTE: If swing is not specified RHSO will be furnished.
FRAMED OPENINGS FOR OVERHEAD DOORS

Framed openings for overhead doors shall be constructed from nominal 12-gauge galvanized steel. The 8" wide jamb and 12" tall head shall be provided with a minimum 2½" wide inside surface for field mounting of overhead door track and hardware. Head and jamb covers shall be provided with nominal 24-gauge covers, embossed, painted wall color.

NOTE: See below for head room requirements.

<table>
<thead>
<tr>
<th>Roll-up doors:</th>
<th>Sectional doors (2&quot; track):</th>
</tr>
</thead>
<tbody>
<tr>
<td>manual lift</td>
<td>manual lift</td>
</tr>
<tr>
<td>chain hoist</td>
<td>- 16½&quot;</td>
</tr>
<tr>
<td>motor operator</td>
<td>- 18½&quot;</td>
</tr>
<tr>
<td></td>
<td>motor operator - 19&quot;</td>
</tr>
<tr>
<td></td>
<td>low head room - 6½&quot;</td>
</tr>
<tr>
<td></td>
<td>low hd. rm. w/ motor op. - 9&quot;</td>
</tr>
</tbody>
</table>

Standard Opening Sizes Available

<table>
<thead>
<tr>
<th>Widths</th>
<th>Heights</th>
</tr>
</thead>
<tbody>
<tr>
<td>4'-0&quot; wide</td>
<td>7'-0&quot; high</td>
</tr>
<tr>
<td>6'-8&quot; wide</td>
<td>8'-0&quot; high</td>
</tr>
<tr>
<td>8'-0&quot; wide</td>
<td>9'-0&quot; high</td>
</tr>
<tr>
<td>10'-8&quot; wide</td>
<td>10'-0&quot; high</td>
</tr>
<tr>
<td>12'-5&quot; wide</td>
<td>11'-0&quot; high</td>
</tr>
<tr>
<td>14'-8&quot; wide</td>
<td>12'-0&quot; high</td>
</tr>
<tr>
<td>16'-0&quot; wide</td>
<td>13'-0&quot; high</td>
</tr>
</tbody>
</table>

REMOVABLE WALL SECTIONS

A removable wall section shall consist of a framed opening capable of supporting roof and wall loads when the wall section is removed. The removable section shall consist of the same materials as the permanent wall. Section shall be removable by unbolting from inside the building.

NOTE:
Refer to framed opening details for size availability.

WALL OPENING KIT

All necessary framing and connectors to structurally replace the panels removed by wall opening. All trim and flashings required to make a unit placed in the opening weathertight shall be provided by the supplier of the unit being installed.

Standard Widths: 1'-4", 2'-8", 4'-0", 5'-4", 6'-8" (heights as required)
HORIZONTAL SLIDING WINDOWS

Sliding windows shall be furnished factory-glazed and complete with all attaching hardware and screen. The window unit shall be factory-assembled for single unit installation. All window sash sections shall be of extruded aluminum and shall be color finished in white or bronze baked enamel. All windows, unless otherwise noted, shall be factory glazed with 3/4" minimum insulated glass.

Available Sizes: 2'-6" wide x 3'-0" high
4'-0" wide x 3'-0" high
4'-0" wide x 4'-0" high

Glazing Options: 

- 5/8" Insulated glass
- 3/4" Polished Wire
- 3/4" Acrylic
- 1/2" Obscure Glass
- 1/4" Polycarbonate Glazing

FIXED WINDOWS

Fixed windows shall be furnished factory-glazed and complete with all attaching hardware. The window unit shall be factory-assembled for single unit installation. All window sash sections shall be formed from nominal 18-gauge galvanized G90 steel and factory color finished white or bronze baked on enamel.

ADJUSTABLE WALL LOUVERS

Adjustable louvers shall be of self-framing design. The louver frame shall be of nominal 14-gauge formed aluminum and the louver blades shall be nominal 12-gauge extruded aluminum. Finish shall be natural mill finish and shall not require field painting. Blades shall be pivoted on 3/4" diameter aluminum pivot pins through nylon flanged bearings and operated by means of a pullbar operating handle. All louvers shall be complete with an exterior mounted 18-14 aluminum mesh insect screen.

Available Sizes: 16" wide x 24" high (181 sq. in. free area)
32" wide x 24" high (406 sq. in. free area)
48" wide x 42" high (1160 sq. in. free area)

Options:

1. - Removable filters
2. - Motor operator - Available in -
   a. 12 or 24 volt DC
   b. 110/220 volt AC

NOTE: Designer must specify louver sill height.
Minimum sill or head height is 6"
**GABLE LOUVER**

Gable louvers shall be fixed blade type with blades set on a 45 degree slope. Blades and frames shall be 14-gauge extruded aluminum with natural mill finish. Louvers shall include 18-14 aluminum mesh insect screens.

**Available Sizes:**
- 16" wide x 10" high (48 sq. in. free area)
- 32" wide x 6" high (37 sq. in. free area)
- 32" wide x 12" high (130 sq. in. free area)
- 48" wide x 12" high (198 sq. in. free area)

**NOTE:** Gable louvers are not available for 8'-0" wide buildings.

**FIXED LOUVER**

Fixed louvers shall be nominal 26-gauge, G90 galvanized steel, general purpose type of self-framing design with free area of 75 sq. inches. Finish shall be bright galvanized. All louvers shall be complete with #8 insect screen.

**NOTE:** Designer must specify louver sill height. Minimum sill height is 8'.

**CIRCULAR ROOF VENTILATOR**

Stationary ventilator for 3" or 4" roof shall be gravity type with standard 12" diameter throat, fabricated from aluminum, and shall be furnished complete with bird screen, operable disc type damper with chain, and base.

**NOTE:** Not available for 6" roof

<table>
<thead>
<tr>
<th>VENT SIZE</th>
<th>TEMP. DIFF.</th>
<th>EXHAUST CAP. (CFM)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>° F</td>
<td>3 MPH</td>
</tr>
<tr>
<td>12&quot;</td>
<td>0&quot;</td>
<td>204</td>
</tr>
<tr>
<td></td>
<td>10&quot;</td>
<td>282</td>
</tr>
<tr>
<td></td>
<td>20&quot;</td>
<td>314</td>
</tr>
</tbody>
</table>

**POWER ROOF EXHAUSERT**

Aluminum power roof exhauster for 3" or 4" roof shall have a 12" diameter throat, capable of 280 CFM air movement at 3/4" static pressure and shall be equipped with U.L. listed adjustable thermostats. Power requirements of exhauster shall be .86 amps at 115 volts. An intake louver of 115 square inches minimum free air area shall be required for each exhauster.

**NOTE:** Not available for 6" roof

**TURBINE VENT**

Turbine vent shall be wind-driven rotary type gravity roof ventilator, with 8" or 12" diameter throat, fabricated from galvanized steel, externally braced.

<table>
<thead>
<tr>
<th>VENT SIZE</th>
<th>TEMP. DIFF.</th>
<th>EXHAUST CAP. (CFM)</th>
<th>ROOF</th>
</tr>
</thead>
<tbody>
<tr>
<td>12&quot;</td>
<td>20&quot;</td>
<td>580</td>
<td>3&quot; &amp; 4&quot;</td>
</tr>
<tr>
<td>8&quot;</td>
<td>20&quot;</td>
<td>255</td>
<td>6&quot;</td>
</tr>
</tbody>
</table>
RIDGE VENTILATOR (gable buildings only)

Ridge ventilator shall be of gravity type with 4" throat and chain operated vertical lift dampers. Ventilators shall be made of nominal 24-gauge steel, factory-painted white on all visible exterior galvanized surfaces. Top of the ventilator shall have a bird screen cover.

<table>
<thead>
<tr>
<th>TEMP DIFF</th>
<th>4&quot; THROAT</th>
<th>6&quot; THROAT</th>
<th>8&quot; THROAT</th>
</tr>
</thead>
<tbody>
<tr>
<td>10°</td>
<td>720</td>
<td>920</td>
<td>1080</td>
</tr>
<tr>
<td>30°</td>
<td>420</td>
<td>510</td>
<td>610</td>
</tr>
</tbody>
</table>

NOTE: Interior clear height may be affected.

Standard sizes:
2'-8" x 2'-8"
4'-0" x 4'-0"

ROOF CURB

Roof curbs shall be constructed of minimum 18-gauge Galvalume steel. Minimum height of curb shall be 4" above the roof panel rib. All flashings shall be provided to ensure water tightness. All roof curb support members are constructed of minimum 14-gauge galvanized steel. Optional hatch or cover is available.

NOTE: Single slope building sections shown.

SKYLIGHTS

A skylight panel shall be a flat polycarbonate sheet, factory assembled into a standard 16" wide flush interlocking panel. The polycarbonate sheet shall be ¾" thick, clear with a matte finish, having a light transmission factor of approximately 70%. The panel shall meet ANSI Z97.1 safety glazing standard and UL 94 flammability rating.

NOTE:
1. - Skylight panels are field located as required.
2. - Skylight panels must have a minimum of one solid panel between each skylight for proper roof support.
3. - Skylights for 6" rib roof panels are 8" wide in lieu of 12".

VERTICAL FACADE

The fascia system shall consist of nominal 18-gauge galvanized steel framing and nominal 24-gauge embossed facing panels. Fascia shall be attached to the upstanding legs of the interlocking roof panels with no penetration of the roof surface. The embossed fascia panels are available in flush or fluted profile. Buildings with fascias in heavy snow areas should allow 10 psf additional live load for snow buildup. Fascias are not recommended for 40 psf snow load areas.

NOTE:
Flush fascia panels are available in bronze or white.
Fluted fascia panels are available in seven standard colors. (Gable building details shown.)
**INTERIOR FINISHES**

**FORMED WALL LINER**

Interior liner panels shall have a maximum coverage width of 32" and overlap with the adjoining liner panel. The interior surface shall have 3/4" high x 1" wide ribs on 8" centers. The liner shall be continuous length from base to eave, except where interrupted by wall accessories. The exterior panel void shall have a 16" wide, 3 1/2" thick unfaced R-13 fiberglass insulation.

(OPTIONAL): A one inch wide thermal tape can be applied to the inside of the exterior panel ribs to abate thermal bridging between the joints.

(OPTIONAL): (Acoustical Wall System A29.)
A29 Acoustical Wall System shall be accomplished by the system described above including thermal tape, except the liner panel shall have 1/4" diameter perforations spaced on 3/4" staggered centers. The system shall have an NRC rating of 0.90 and STC rating of 29.

**ROLL-IN 2 LINER**

The interior of the building shall be insulated with 16" wide, 3 1/2" thick R-13 unfaced fiberglass insulation with separate white metalized polypropylene scrimkraft (PSK) facing stretched across the interlocking panel ribs and held in place with a PVC 1 3/4" wide batten strip attached with #12 self-drilling fasteners.

**ACOUSTICAL WALL SYSTEM**

A48 Acoustical Wall System consists of a nominal 24-gauge fluted exterior panel with a minimum 16" wide, 3 1/2" thick, R-13, unfaced fiberglass insulation in panel void. A 1/2" thick sound buffer board shall separate the exterior wall system and a nominal 26-gauge flush metal septum panel. The septum panels shall be installed perpendicular to the exterior wall panels with void filled with a minimum 16" wide, 3" thick, R-13, 4# density fibrous acoustical insulation. A vibration retardant tape will be installed between the septum panel ribs and a perforated formed liner panel. The system shall have an NRC of 1.00 and STC of 48. Wall accessories may affect overall performance.

(For panel profile, see (formed wall liner) above.)

This system has NOT been sound tested

<table>
<thead>
<tr>
<th>Cavity Insulation</th>
<th>R 13</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continuous Insulation</td>
<td>R 0.45</td>
</tr>
<tr>
<td>Cavity Insulation</td>
<td>R 13</td>
</tr>
</tbody>
</table>

Calculated system "U" value 0.07
(ASHRAE zone method)
INTERIOR FINISHES

LOCK-IN WALL LINER

The interior of the building shall be finished with a factory-assembled insulated metal liner panel having no exposed fasteners except at the matching base, ceiling and accessory trim. Liner panels shall be 16" wide, nominal 26-gauge, embossed, galvanized steel, prepainted arctic white. Insulation shall be non-combustible, nominal 1" thick, 2# minimum density fiberglass laminated to the liner panel.

OPTIONAL: The void between the exterior wall panel and the lock-in liner panel shall be insulated with 16" wide, 3½" thick R-13 unfaced fiberglass insulation.

LOCK-IN PLUS WALL LINER

The interior of the building shall be finished with a factory-assembled insulated metal liner panel having no exposed fasteners except at the matching base, ceiling and accessory trim. The liner system shall have a concealed insulating board of 1 1/2" thick polyisocyanurate foam impaled on rib clips, and the void between the exterior wall panel and the lock-in liner panel shall be insulated with 16" wide, 3½" thick R-13 unfaced fiberglass insulation. Liner panels shall be 16" wide, nominal 26 gauge, embossed, galvanized steel, prepainted arctic white. Insulation shall be non-combustible, nominal 1" thick, 2# minimum density fiberglass laminated to the liner panel.

6" STUD WALL

The interior of the building shall be finished with a factory-painted, galvanized steel liner panel having a maximum coverage of 32" and overlap with the adjoining liner panel. The interior surface shall have 1/4" high x 1" wide ribs on 8" centers. The liner shall be continuous in length from base trim to ceiling trim except where interrupted by wall accessories. The interior liner panels shall be attached to 3" thick x 1" wide x 14-gauge steel studs spaced 16" on center and located at the midpoint of each exterior wall panel. The void between the studs shall be filled with 16" wide, 3½" thick R-13 unfaced fiberglass insulation. The exterior panel void shall be filled with 16" wide, 3½" thick R-13 unfaced fiberglass insulation.
PARTITION

Partitions shall be constructed of 3" x 16" interlocking flush-type smooth or embossed surfaced panels in a nominal 24-gauge galvanized steel, factory-painted arctic white. Partitions will be furnished complete with base channel, wall cap and all required fasteners. Partitions will accept all wall accessories such as walk doors, framed openings, louvers, wall opening kits and windows. In addition to wall accessories, partitions can be supplied with all interior liners and insulation for a complete field-assembled system.

OPTIONAL: Partitions can be supplied embossed in nominal 20-gauge and unembossed in nominal 18-gauge galvanized steel factory painted arctic white.

BLANKET ROOF INSULATION

Roof insulations shall consist of 48" wide, 3" thick, 6# density fiberglass faced on its exposed side with a white metalized polypropylene scrimkraft facing. The faced insulation material shall have a UL Flame Spread Rating of 25 when treated in accordance with UL 723 ASTM E 84 procedures. Insulation shall be supported at the roof line by means of mechanical clips spaced on maximum 4'-0" centers and shall be sealed by means of 2" side tab on facing.

<table>
<thead>
<tr>
<th>SYSTEM VALUES</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>3&quot; Thick</td>
<td>10.4</td>
</tr>
<tr>
<td>4&quot; Thick</td>
<td>13.2</td>
</tr>
<tr>
<td>6&quot; Thick</td>
<td>19.3</td>
</tr>
</tbody>
</table>

Calculated system "U" value 0.10, 0.08 & 0.06 respectively
(ASHRAE zone method)
CEILING

The metal ceiling system shall consist of 3" deep, 16" wide interlocking panels of nominal 24-gauge embossed galvanized steel, factory-painted arctic white. The ceiling system shall be supported at its perimeter by concealed angles and self-drilling fasteners. The ceiling system shall be furnished complete with all necessary connectors and fasteners.

OPTION #1: Metal ceiling insulated with 16" wide, 3½" thick, R-13 unfaced fiberglass insulation laid at right angles on top of the panel ribs. (Clear ceiling height is 5½" less than eave height).

OPTION #2: Metal ceiling insulated with 16" wide, 3½" thick, R-13 unfaced fiberglass insulation laid in between the panel ribs with an additional 16" wide, 3½" thick R-13 unfaced fiberglass insulation layer placed perpendicular to the bottom layer. (Clear ceiling height is 5½" less than eave height).

OPTION #3: Metal ceiling insulated with 16" wide, 3½" thick, R-13 unfaced fiberglass insulation laid at right angles on top of the panel ribs with an additional 16" wide, 3½" thick R-13 unfaced fiberglass insulation layer placed perpendicular to the bottom layer. (Clear ceiling height is 8½" less than eave height).

OPTIONAL: Acoustical perforations across 14" of panel width. Perforations shall be ¾" diameter on a patterned spacing of ¾". The ceiling system shall have been certified by an independent testing laboratory for a minimum NRC rating of 0.95 when tested in accordance with ASTM C 423-66 standards (STC-29).

NOTE: Dropped ceilings are available for all eave heights over 8'-0".

3½" unfaced fiberglass (OPT. 1) 7" unfaced fiberglass (OPT. 2) 7" unfaced fiberglass (OPT. 3)

THERMA-ROOF

The Therma-Roof insulation system shall consist of two layers of 1½" thick, 48" wide polystyrene foam board faced with a white embossed foil on the exposed interior surface. The roof insulation system shall include metal supporting tees on 4' centers and all trim required for a finished interior appearance. No metal-to-metal contact between the insulation system and exterior roof or wall covering will be permitted. The insulation shall have a maximum UL flame spread rating of 25, fuel contributed rating of 10 and smoke developed rating of 155-190 when treated in accordance with UL 723 testing methods and shall meet the requirements of the Underwriters Laboratories "Wall-Ceiling" Construction Classification.

NOTE: Insulation thickness shall be 3".
(two layers of 1½" thermax board insulation)
Due to the even distribution of loads developed by Parkline buildings, the foundation designs are usually quite simple when compared to other types of building construction.

The information below is offered only as a general guidance regarding foundation designs commonly used for Parkline buildings. In order to achieve the proper foundation design for a specific building, an engineer should be retained who is familiar with the building codes, soil conditions, etc. in the area where the building is to be constructed.

In many applications, a combined foundation-floor design can be used (see section-1). However, in extreme frost conditions, poor soil, etc. it may necessary to design a separate foundation and floor system (see section-2). Separate pier and footings are required where a wind column assembly is used (see section-2 and 3).

Wire mesh reinforcing is recommended in the floor slab under any condition. Additional reinforcing, such as rods, may be required to satisfy strength requirements and to prevent cracks due to uneven settlement of soil. The tabulation below shows the nominal loads induced into the perimeter wall.

ALLOWABLE FOUNDATION TOLERANCES

The values shown include dead load, live load and wind load. Any other loads supported by the building MUST be added and the foundation designed accordingly.

FOUNDATION LOAD REQUIREMENTS

<table>
<thead>
<tr>
<th>BUILDING WIDTH</th>
<th>COMPRESSION (PLF)</th>
<th>UP-LIFT (PLF)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ROOF LIVE LOAD (PSF)</td>
<td>WIND SPEED (EXPOSURE &quot;B&quot;, MPH)</td>
</tr>
<tr>
<td></td>
<td>20</td>
<td>30</td>
</tr>
<tr>
<td>5'-4&quot; THROUGH 8'-0&quot;</td>
<td>116</td>
<td>156</td>
</tr>
<tr>
<td>10'-8&quot; THROUGH 16'-0&quot;</td>
<td>248</td>
<td>328</td>
</tr>
<tr>
<td>20'-0&quot; THROUGH 24'-0&quot;</td>
<td>396</td>
<td>516</td>
</tr>
<tr>
<td>24'-0&quot; THROUGH 32'-0&quot;</td>
<td>560</td>
<td>720</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>BUILDING HEIGHT</th>
<th>HORIZONTAL SHEAR (PLF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>8'-0&quot;</td>
<td>71</td>
</tr>
<tr>
<td>10'-0&quot;</td>
<td>89</td>
</tr>
<tr>
<td>12'-0&quot;</td>
<td>107</td>
</tr>
<tr>
<td>14'-0&quot;</td>
<td>124</td>
</tr>
</tbody>
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