STANDARD PRODUCT
Specifications

1. GENERAL

1.1. SCOPE…… 3
1.1.1. Intent…… 3
1.1.2. Performance …… 3
1.1.3. Product Change…… 3
1.2. BUILDING DESCRIPTION…… 3
1.2.1. Gable…… 3
1.2.2. Single Slope…… 3
1.2.3. Lean-To…… 3
1.3. BUILDING NOMENCLATURE…… 3
1.3.1. Roof Slope…… 3
1.3.2. Width…… 3
1.3.3. Eave Height…… 3
1.3.4. Length…… 3
1.3.5. Bay Spacing (Standard)…… 3
1.3.6. Bay Spacing (Shadow Panel)…… 3
1.4. DRAWINGS AND CERTIFICATION…… 3
1.4.1. Drawings…… 3
1.4.2. Certifications…… 3

2. STRUCTURAL STEEL DESIGN

2.1. GENERAL…… 3
2.1.1. Structural Mill Sections…… 3
2.1.2. Cold Formed Sections…… 3
2.2. DESIGN LOADS…… 4
2.2.1. Loading Criteria…… 4
2.2.2. Most Severe Conditions…… 4
2.2.3. Load Projections…… 4
2.2.4. Special Loads…… 4
2.3. DESIGN POLICY…… 4
2.3.1. Standard Design Practices…… 4
2.3.2. Rigid Frame Design…… 5

3. BASIC MATERIAL SPECIFICATIONS

3.1. PRIMARY FRAMING STEEL…… 5
3.1.1. Mill-Rolled Sections…… 5
3.1.2. Built-Up Sections…… 5
3.1.3. Endwall "C" Sections…… 5
3.2.SECONDARY FRAMING STEEL…… 5
3.2.1.RolledFormed Sections…… 5
3.2.2.RolledFormed Sections (Galvanized)…… 5
3.3.ROOF AND WALL PANEL MATERIAL …… 5
3.3.1. 26 Gage Material – Aluminum-Zinc Alloy-Coated…… 5
3.3.2. 24 Gage Material – Aluminum-Zinc Alloy-Coated…… 5
3.3.3. 24 Gage Material – Aluminum-Zinc Alloy-Coated…… 6
3.3.4. 22 Gage Material – Aluminum-Zinc Alloy-Coated…… 6
3.3.5. 26 Gage Material – Zinc-Coated (Galvanized)…… 6
3.3.6. 24 Gage Material – Zinc-Coated (Galvanized)…… 6
3.3.7. 22 Gage Material – Zinc-Coated (Galvanized)…… 6
3.3.8. 0.032 Aluminum Material…… 6

4. STRUCTURAL FRAMING

4.1. GENERAL…… 6
4.1.1. Field Bolt Assembly…… 6
4.1.2. Shop Connections…… 6
4.1.3. Identification Mark…… 6
4.1.4. Visual Inspection…… 6
4.2. PRIMARY FRAMING…… 6
4.2.1. Rigid Frame…… 6
4.2.2. Endwall Frames…… 6
4.2.3. Plates, Stiffeners, etc…… 6
4.2.4. Bolt Holes…… 6
4.3. SECONDARY FRAMING…… 6
4.3.1. Purlins and Girts…… 6
4.3.2. Eave Struts…… 6
4.3.3. Base Angle…… 6
4.4. BRACING…… 6
4.4.1. Diagonal Bracing…… 6
4.4.2. Flange Bracing…… 6
4.4.3. Special Bracing…… 6

5. ROOF AND WALL COVERING

5.1. GENERAL…… 7
5.1.1. Wall Panel…… 7
5.1.2. Roof Panel…… 7
5.1.3. Liner and Soffit Panel…… 7
5.1.4. Facade Fascia Panel…… 7
5.1.5. Long Span III Panel…… 7
5.1.6. Architectural III Panel…… 7
5.1.7. Architectural "V" Rib Panel…… 7
5.1.8. Multi-Rib Liner Panel…… 7
5.1.9. Long Span III Liner Panel…… 7
5.1.10. Shadow Panel…… 7
5.1.11. Soffit Liner Panel…… 7
5.1.12. Standing Seam Panel…… 7
5.1.13. Loc Seam Panel…… 7
5.2. PANEL DESCRIPTION…… 7
5.2.1. Long Span III Panel…… 7
5.2.2. Architectural III Panel…… 7
5.2.3. Architectural "V" Rib Panel…… 7
5.2.4. Multi-Rib Panel…… 8
5.2.5. Shadow Panel…… 8
5.2.6. Soffit Liner Panel…… 8
5.2.7. Standing Seam Panel…… 8
5.2.8. Loc Seam Panel…… 8
5.2.10. Panel Length…… 8
5.2.11. Endwall Edge Cuts…… 8
5.2.12. Oilcanning…… 8

6. MISCELLANEOUS MATERIAL SPECIFICATIONS

6.1. FASTENERS……8
6.1.1. Structural Bolts……8
6.1.2. Fasteners for Roof Panels……8
6.1.3. Fasteners for Roof Panel Side Laps……8
6.1.4. Fasteners for Roof Panels and Flashing……8
6.1.5. Fasteners for Roof Panel Clips……8
6.1.6. Fasteners for Wall Panels……8
6.1.7. Fasteners for Wall Panel Side Laps……9
6.1.7. Fasteners for Wall Panel Side Laps……9
6.1.8. Fasteners for Shadow Panels……9
6.1.9. Blind Fasteners (Rivets)……9
6.2. PANEL CLIPS……9
6.2.1. Standing Seam II Panel Clips……9
6.2.2. Loc Seam Panel Clips……9
6.2.3. Standing Seam 360 Panel Clips……9
6.3. CLOSURES AND SEALANTS……9
6.3.1. Closure Strips……9
6.3.2. Metal Closures ……9
6.3.3. Sealer: Long Span and Multi-Rib Panels……9
6.3.4. Sealer: Standing Seam, Loc Seam &……9
6.3.5. Sealer: Standing Seam and Loc Seam Panels……9
6.3.6. Caulk……9
6.4. GUTTER, FLASHINGS AND DOWNSPOUTS……9
6.4.1. Gutters, and Flashings……9
6.4.2. Downspouts……10

7. PAINTING

7.1. STRUCTURAL PAINTING……10
7.1.1. Shop Applied Primers ……10
7.1.2. Pre-painted Cold Formed Materials……10
7.1.3. Abrasions After Handling……10
7.2. SP-COOL™ (SILICONE-POLYESTER) COATED PANELS 10
7.2.1. Base Metal……10
7.2.2. Prime Coat……10
7.2.3. Exterior Coat……10
7.2.4. Interior Finish……10
7.3.SMARTKOTE® COATED PANELS……10
7.3.1. Base Metal……10
7.3.2. Prime Coat……10
7.3.3. Exterior Coat……10
7.3.4. Interior Finish……11
7.4.SMARTKOTE® M COATED PANELS……11
7.4.1. Base Metal……11
7.4.2. Prime Coat……11
7.4.3. Exterior Coat……11
7.4.4. Interior Finish……11

8. ACCESSORIES

8.1. WINDOWS……11
8.1.1. Standard Windows……11
8.1.2. Narrow Light Windows……12
8.1.3. Thermal Barrier Windows……12
8.2. WALKDOORS……12
8.2.1. Doors……12
8.2.2. Door Frames……12
8.2.3. Locksets……12
8.2.4. Panic Devices……12
8.2.5. Threshold ……12
8.4. OVERHEAD DOOR FRAMING……12
8.4.1. Support Framing……12
8.5. GRAVITY VENTILATORS……12
8.5.1. Ridge Ventilator……12
8.5.2. 20" Round Ventilator……13
8.6. LOUVERS……13
8.6.1. Standards……13
8.7. SKYLIGHTS……13
8.7.1. Roof Panels……13
8.7.2. Integrated Prismatic Skylights……13
8.7.3. Wall Panels……13
8.8. INSULATION……13
8.8.1. Standards……13
8.8.2. Facings……13
8.8.3. Thermal Blocks……13
8.8.4. Rigid Foam Insulation……14
8.9. ROOF CURBS……14
8.9.1. Standards……14
8.10. PIPE FLASHING……14
8.10.1. Standards……14

9. ERECTION AND INSTALLATION……14

10. BUILDING ANCHORAGE AND FOUNDATION……

11. WARRANTIES……14

GENERAL

1.1 SCOPE

1.1.1 The attached specifications cover the standard materials and components used in the design and fabrication of American Buildings Company's metal building systems.

1.1.2 These specifications are an outline of performance to insure that the architect, engineer, builder and/or owner understand the basis for design, manufacture and application of all American Buildings Company's metal building systems.

1.1.3 Due to a continuing program of research and development, specifications in this manual are subject to change without notice.

1.2 BUILDING DESCRIPTION

1.2.1 Gable (LRF, RF, LRF-M, RF-M, GC, GC-M) is a continuous frame building. The primary frames have tapered columns and rafters with continuous sidewall girts bypassing the column or uniform depth columns and tapered rafters with Simple span sidewall girts inset into the column line. Also it may have one or more interior columns. The bottom flange of the tapered rafter is horizontal for buildings with uniform depth columns and no interior columns.

1.2.2 Single Slope (LSS, LSS-M, SSF) is a continuous frame building. The primary frames have tapered columns and rafters with continuous sidewall girts bypassing the column or uniform depth columns and uniform depth or tapered rafters with Simple span sidewall girts inset into the column line. Also it may have one or more interior columns.

1.2.3 Lean-To (LT) is a single slope extension to a primary structure which provides structural support. These units usually have the same standard roof slope and girt design as the building to which they are attached.

1.3 BUILDING NOMENCLATURE

1.3.1 Standard Roof Slope

a) 1" of rise for each 12" of horizontal run (Gable, Lean-To).

b) 4" of rise for each 12" of horizontal run (Gable, Lean-To).

c) 1/2" of rise for each 12" of horizontal run (Gable, Lean-To).

d) 1/4" of rise for each 12" of horizontal run (Single Slope, Gable, Lean-To)

1.3.2 Building "Width" is measured from outside to outside of sidewall girts except Shadow Panel which is outside to outside of panels.

1.3.3 Building "Eave Height" is measured from the bottom of the base plate on the column to the intersection of the roof and sidewall sheets.

1.3.4 Building "Length" is measured from outside to outside of endwall girts except Shadow Panel which is outside to outside of panels.

1.3.5 Standard "Bay Spacing" shall be 20', 25' or 30' between frame centerlines (except at end bays), unless otherwise specified, for buildings with Architectural III (A3P) or Long Span III (L3P) walls panels.

1.3.6 Standard "Bay Spacing" shall be 20', 24' or 28' between frame centerlines (except at end bays) for buildings with Shadow Panel (HFP) walls.

1.4 DRAWINGS AND CERTIFICATION

1.4.1 Drawings: American Buildings Company shall furnish complete erection drawings for the proper identification and assembly of all building components. These drawings will show anchor bolt settings, transverse cross sections, sidewall, endwall and roof framing, flashing, and sheeting and accessory installation details.

1.4.2 Certifications: Standard drawings and design analysis shall bear the seal of a registered professional engineer upon request.

2 STRUCTURAL STEEL DESIGN

2.1 GENERAL

2.1.1 All structural mill sections or welded built-up plate sections shall be designed in accordance with the AISC "Specification for Structural Steel Buildings" Allowable Stress Design and Plastic Design, June 1, 1989 with supplement No. 1 or the March 9, 2005 "Specification for Structural Steel Buildings".

2.1.2 All Cold-Formed steel structural members shall be designed in accordance with the "North American Specification for the Design of Cold-Formed Steel Structural Members", 2001 edition or 2001 edition with Supplement 2004.

2.2 DESIGN LOADS

2.2.1 The design loads for the building shall be, in addition to their own dead load, the live, wind, snow and seismic loads required of the following as specified:

a) Standard Building Code, by the Southern Building Code Congress International, Inc.

b) The BOCA National Building Code, by the Building Officials and Code Administrators, Inc.

c) Uniform Building Code, by the International Conference of Building Officials.

d) International Building Code, by the International Code Council.

e) National Building Code of Canada, by the National Research Council of Canada.

f) Metal Building Systems Manual, by the Metal Building Manufacturers Association.

2.2.2 The building components shall be designed to meet the most severe conditions of load combinations set by the specified building code, but in no case be less than that produced by the following load combinations:

A. Building dead load plus roof live load (or snow)

B. Building dead load plus wind load

2.2.3 Roof live and snow loads shall be applied on the horizontal roof projection. Wind loads shall be assumed to act horizontally and shall be applied as pressure and suction perpendicular to the building surfaces.

2.2.4 Where local jurisdiction dictates, designs based on other than above listed loads, combinations of loads, or method of load application may be obtained upon request.

2.3 DESIGN POLICY

2.3.1 American Buildings Company's standard design practices incorporate Serviceability Limits from the Metal Building Systems Manual, 2006 edition, (reprinted from AISC Steel Design Guide Series #3, "Serviceability Design Considerations for Low-Rise Buildings") with 2010 Supplement. Owner requirements that exceed these considerations must be included in the building order documents. The applicable building code may also provide deflection limitations.

<u>Vertical Deflection Limits:</u>

Metal Roof Panels	
Roof Live or Snow[a] Load	L/60
Purlins	
Roof Live Load	
Roof Snow[a] Load	
supporting metal roof only	L/180
Roof Live or Snow[a] Load	
supporting non-plaster ceiling	L/240
supporting plaster/drywall ceiling	L/360
Rafters	
Roof Live or Snow[a] Load	
supporting roof only	L/180
supporting non-plaster ceiling	L/240
supporting plaster/drywall ceiling	L/360
Floor Joists/Beams	
Floor Live Load	
supporting concrete slabs/plywood deck	L/360
Dead Load + Floor Live Load	
supporting concrete slabs/plywood deck	L/240
Crane Runway	
Crane Vertical Static Load	
top running cranes	
CMAA Classes A, B, C	L/600
CMAA Class D	L/800
CMAA Classes E, F	L/1000
underhung and monorail cranes	
CMAA Classes A, B, C	L/450
Jib Crane	
Crane Vertical Load	L/225
Lintel Beams	
Total Load	L/600 $\leq$ 0.3"

<u>Horizontal Deflection Limits:</u>

Metal Wall Panels	
Lateral Wind Load[b]	L/60

Girts
Lateral Wind Load[b]
supporting metal wall panels L/90
supporting masonry/tilt/stucco/EIFS walls[d] L/240 ≤ 1½"

Spandrel Beams
Lateral Wind Load[b]
supporting masonry/tilt walls[d] L/240 ≤1½"

Wind Columns
Lateral Wind Load[b]
supporting metal wall panels L/120
supporting masonry/tilt/stucco/EIFS walls[d] L/240 ≤ 1½"

Frames
Lateral Wind Load[c]
supporting metal H/60 @Eave Ht.
supporting masonry/tilt/stucco/EIFS walls[d] H/100 @Eave Ht.

Seismic Story Drifts
supporting metal *
supporting masonry/tilt/stucco/EIFS walls[d] **

Frames Supporting Cranes
Lateral Wind Load[c] or Crane Lateral Load
pendant operated crane H/100 @Runway
cab operated crane H/240 ≤ 2" @ Runway

Crane Runways
Crane Lateral Load L/400

NOTES:

[a] Roof Snow = Factored 50 Yr. Ground Snow.
[b] Wind load is permitted to be taken as 0.7 times the Component and Cladding load.
[c] 10 Yr. Design Wind Load = 70% x 50 Yr. Wind Load
[d] Drift limits shown assume pinned base masonry.
* No drift limit for single story structures per ASCE Table 12.12-1 or per applicable building code.
** Drift limit shall be per ASCE Table 12.12-1 or per applicable building code.

The following serviceability limits of American Buildings Company are also used for project design.

Expansion and Contraction:

Longitudinal Expansion Joint	every 1000 feet
Transverse Expansion Joint	every 200 feet

2.3.2 It is the policy of American Buildings Company to design rigid frames for the increased loading associated with two-span continuous purlins and girts. This applies to all loads with a load path through a purlin or girt. An increase of 25% is normally associated with two equal bays.

This is not applicable to the frame loading when purlins or girts are designed as "single-span"

3 BASIC MATERIAL SPECIFICATIONS

3.1 PRIMARY FRAMING STEEL

3.1.1 Steel for mill-rolled structural sections shall conform to the requirements of ASTM specification A 36 or ASTM A 572 Grade 50 or 55 as applicable.

3.1.2 Steel for all built-up sections shall meet as applicable the physical and chemical properties of:

A. ASTM A 1011, Grade 55.

B. ASTM A 572, Grade 55.

C. ASTM A 529, Grade 55.

3.1.3 Steel used for endwall "C" sections shall meet the physical and chemical properties of ASTM A 1011, Grade 55.

3.2 SECONDARY FRAMING STEEL

3.2.1 Steel used to form purlins, girts, eave struts and "C" sections shall meet the physical and chemical properties of ASTM A 1011, Grade 55.

3.2.2 Steel used to form zinc-coated (galvanized) purlins and girts shall meet the physical and chemical properties of ASTM A 653, Grade 50, 55 ksi minimum yield and G90 Coating designation as described in ASTM A 924.

3.3 ROOF AND WALL PANEL MATERIAL

Exterior panels shall conform to one of the following:

3.3.1 Panel material as specified shall be 26 gage AZ50 or AZ55 aluminum-zinc alloy-coated steel, conforming to the requirements of ASTM A 792, Grade 80. Minimum yield strength shall be 80,000 psi.

3.3.2 Panel material as specified shall be 24 gage AZ50 or AZ55 aluminum-zinc alloy-coated steel, conforming to the requirements of ASTM A 792, Grade 80. Minimum yield strength shall be 80,000 psi.

3.3.3 Panel material as specified shall be 24 gage AZ50 or AZ55 aluminum-zinc alloy-coated steel, conforming to the requirements of ASTM A 792, Grade 50, Class 2. Minimum yield strength shall be 50,000 psi.

3.3.4 Panel material as specified shall be 22 gage AZ50 or AZ55 aluminum-zinc alloy-coated steel, conforming to the requirements of ASTM A 792, Grade 50, Class 2. Minimum yield strength shall be 50,000 psi.

3.3.5 Panel material as specified shall be 26 gage zinc-coated (galvanized) steel, coating designation G90, conforming to the requirements of ASTM A 653, Grade 80. Minimum yield strength shall be 80,000 psi.

3.3.6 Panel material as specified shall be 24 gage zinc-coated (galvanized) steel, coating designation G90, conforming to the requirements of ASTM A 653, Grade 80. Minimum yield strength shall be 80,000 psi.

3.3.7 Panel material as specified shall be 22 gage zinc-coated (galvanized) steel, coating designation G90, conforming to the requirements of ASTM A 653, Grade 50, Class 3. Minimum yield strength shall be 50,000 psi.

3.3.8 Panel material as specified shall be 0.032", 3105-H14 or equivalent aluminum alloy conforming to ASTM B 209. Minimum yield strength shall be 20,000 psi.

4 STRUCTURAL FRAMING

4.1 GENERAL

4.1.1 Framing members shall be shop fabricated for field bolted assembly. The surfaces of the bolted connections shall be smooth and free from burrs or distortions.

4.1.2 All shop connections shall be in accordance with the American Welding Society (AWS) Code for Building Construction or the Canadian Welding Bureau (CWB), as applicable. Certification of welder qualification will be furnished when required and specified at order entry.

4.1.3 All framing members where necessary shall carry an easily visible identifying mark.

4.1.4 Visual inspection methods will be used for verification of weld quality as outlined by the AWS Structural Steel Welding Code, Visual Inspection Acceptance Criteria, Table 6.1.

4.2 PRIMARY FRAMING

4.2.1 Rigid Frame: All rigid frames shall be welded, built-up "I" sections or mill-rolled structural sections. The columns and the rafters may be either uniform depth or tapered.

4.2.2 Endwall Frames: All endwall roof beams and endwall columns shall be cold-formed "C" sections, mill-rolled structural sections, or built-up "I" sections as required by design.

4.2.3 Plates, Stiffeners, etc.: All base plates, splice plates, cap plates, and stiffeners shall be factory welded into place on the structural members.

4.2.4 Bolt Holes, etc.: All base plates and flanges shall be shop fabricated to include bolt connections holes. Webs shall be shop fabricated to include cable brace or rod brace holes and flange brace holes.

4.3 SECONDARY FRAMING

4.3.1 Purlins and Girts: Purlins and girts shall be cold-formed "Z" or "C" sections with stiffened flanges. They shall be pre-punched at the factory to provide for field bolting to the primary framing. They shall be simple or continuous span as required by design.

4.3.2 Eave Struts: Eave Struts shall be unequal flange, cold-formed "C" sections.

4.3.3 Base Angle: A base member will be supplied by which the base of the wall covering may be attached to the perimeter of the slab. This member shall be secured to the concrete slab with concrete anchors as shown on the drawings.

4.4 BRACING

4.4.1 Diagonal Bracing: Diagonal bracing in the roof and sidewall shall be used to remove longitudinal loads (wind, crane, etc.) from the structure. This bracing will be furnished to length and equipped with hillside washers, cut washers and nuts at each end. It may consist of rods threaded at each end or galvanized cable with suitable threaded end anchors.

4.4.2 Flange Braces: The compression flange of all primary framing shall be braced laterally with angles connecting to the webs of purlins or girts so that the flange compressive stress is within allowable limits for any combination of loadings.

4.4.3 Special Bracing: When diagonal bracing is not permitted in the sidewall, a rigid frame type portal, fixed

base columns, or wall diaphragm must be used. Wind bracing in the roof and/or walls need not be furnished where it can be shown that the diaphragm strength of the roof and/or wall covering is adequate to resist the applied wind forces.

5 ROOF AND WALL COVERING

5.1 GENERAL

5.1.1 Wall panels shall be either American Buildings Company's Long Span III Panel (L3P), Architectural III Panel (A3P), Architectural "V" Rib (AVP) or Shadow Panel (HFP).

5.1.2 Roof panels shall be either American Buildings Company's Long Span III Panel (L3P), Standing Seam II Panel (S2P), Standing Seam 360 Panel (S3P), Loc Seam Panel (LOC) Panel (SLC).

5.1.3 Liner and soffit panels shall be either American

Buildings Company's Multi-Rib Panel (MRP), Long Span III Panel (L3P), Architectural III Panel (A3P) or Soffit-Liner Panel (SLP).

5.1.4 Facade fascia panels shall be either American Buildings Company's Long Span III Panel (L3P), Architectural III Panel (A3P) or Shadow Panel (HFP).

5.1.5 American Buildings Company's Long Span III (L3P) roof and wall panels as specified shall be 29, 26, 24 gage 80,000 psi or 22 gage 50,000 psi. Pre-painted panels shall have American Buildings Company's SmartKote® (PVDF) or SP-COOL™ (Silicone-Polyester) Finish. An embossed finish is available as an option.

5.1.6 American Buildings Company's Architectural III (A3P) wall panels as specified shall be 29, 26, 24 gage 80,000 psi or 22 gage 50,000 psi. Panels shall have American Buildings Company's SmartKote® (PVDF) or SP-COOL™ (Silicone-Polyester) Finish. An embossed finish is available as an option.

5.1.7 American Buildings Company's Architectural "V" (AVP) wall panels as specified shall be 29, 26, 24 gage 80,000 psi or 22 gage 50,000 psi. Panels shall have American Buildings Company's SmartKote® (PVDF) or SP-COOL™ (Silicone-Polyester) Finish. An embossed finish is available as an option.

5.1.8 American Buildings Company's Multi-Rib (MRP) liner panels as specified shall be 29, 26 or 24 gage (nominal) pre-painted steel. Panels shall have American Buildings Company's SmartKote® (PVDF) or SP-COOL™ (Silicone-Polyester) Finish.

5.1.9 American Buildings Company's Long Span III (L3P) liner panels as specified shall be 29 gage 80,000 psi. Panels shall have American Buildings Company's Polar White SP-COOL™ (Silicone-Polyester) Finish.

5.1.10 American Buildings Company's Shadow Panels (HFP) shall be embossed 24 gage 50,000 psi. Panels shall have American Buildings Company's SmartKote® (PVDF) Finish.

5.1.11 American Buildings Company's Soffit Liner Panels (SLP) shall be 24 gage 50,000 psi. or 0.032" aluminum. Panels shall have American Buildings Company's SmartKote® (PVDF) Finish.

5.1.12 American Buildings Company's Standing Seam II (S2P) and Standing Seam 360 (S3P) Roof Panels as specified shall be 24 or 22 gage 50,000 psi. Pre-painted panels shall have American Buildings Company's SmartKote® (PVDF) or SP-COOL™ (Silicone-Polyester) Finish.

5.1.13 American Buildings Company's Loc Seam Panels (LOC) as specified shall be 24 or 22 gage 50,000 psi. Pre-painted panels shall have American Buildings Company's SmartKote® (PVDF) Finish.

5.2 PANEL DESCRIPTION

5.2.1 American Buildings Company's Long Span III Panel (L3P) shall have major ribs 1 1/4" high, spaced 12" on center for an even shadowed appearance. The panels are reinforced between the ribs for added strength. Each panel shall provide 36" net coverage in width. A minimum 1/2:12 roof slope is required. All roof panel side laps shall be at least one major rib and shall have a purlin bearing leg on the bottom section of the lap.

5.2.2 American Buildings Company's Architectural III Panel (A3P) shall have a configuration consisting of ribs 1 1/4" deep spaced 12" on center producing a decorative smooth shadow-line with semi-concealed fasteners. Architectural III panels shall provide a 36" net coverage in width.

5.2.3 American Buildings Company's Architectural "V" Panel (AVP) shall have a configuration consisting of ribs 1 5/16" deep spaced 12" on center producing a sculptured appearance with semi-concealed fasteners. Architectural "V" rib panels shall provide a 36" net coverage in width.

5.2.4 American Buildings Company's Multi-Rib Panel (MRP) shall have a configuration consisting of ribs 3/4" deep. spaced 6" on center. Each panel shall provide 36" net coverage in width.

5.2.5 American Buildings Company's Shadow Panel (HFP) shall have a configuration 16" wide and 3" deep with a center rib 6" wide and 1 1/2" deep producing contrasting shadow patterns with concealed fasteners. Each panel shall provide 16" net coverage in width.

5.2.6 American Buildings Company's Soffit Liner Panel (SLP) shall have a configuration consisting of 1" interlocking ribs. The interlocking ribs are designed to conceal the panel fasteners. The Soffit Liner Panel shall provide a net coverage of 12" in width.

5.2.7 American Buildings Company's Standing Seam II (S2P) and Standing Seam 360 (S3P) Roof Panel shall have a configuration consisting of 2" high (3" including seam) by 4 3/4" wide rib, spaced on 24" centers. Panels shall be joined at the side laps with an interlocking seam standing 1" above the major rib. Each panel shall provide 24" net coverage in width. The female panel seam shall have factory applied sealant.

5.2.8 American Buildings Company's Loc Seam Panel (LOC) shall have a configuration 16" or 12" wide with 2" high vertical male and female ribs offering a flat profile with optional pencil ribs. The female seam shall have factory applied sealant. The panel seam shall be interlocked by a specially designed electric seaming machine.

5.2.10 Panel Length: All wall panels shall be continuous from sill to roof line and all roof panels shall be continuous from eave to ridge except where length becomes prohibitive for handling purposes. Roof panel end laps shall be a minimum 6" for Standing Seam and Loc Seam panels and a minimum 4" for Long Span III panels. Wall panel end laps shall be a minimum 3".

5.2.11 Endwall Edge Cuts: All endwall panels for buildings with less than 1 ½ to 12 roof slopes shall be square cut. All endwall panels (excluding Shadow panels) for buildings with a roof slope over 1 1/2:12 shall be bevel cut.

5.2.12 A certain amount of waviness called "oilcanning" may exist in the flat portion of the panel. Minor waviness of the panel is not sufficient cause for rejection. Oilcanning does not affect the structural integrity of the panel.

6 MISCELLANEOUS MATERIAL SPECIFICATIONS

6.1 FASTENERS

6.1.1 Structural Bolts: All bolts used in primary splices and secondary framing connections shall be ASTM A325 as required by design.

6.1.2 Fasteners for Roof Panels: All roof panels shall be attached to secondary framing members by No. 12 X 1 1/4" or No. 14 X 1" self-drilling carbon steel screws with a molded zinc alloy hex washer head. Roof fasteners shall be assembled with an EPDM washer.

6.1.3 Fasteners for roof panel side laps and flashing connections: Long Span III Roof Panel side laps and flashing connections shall be stitched by No. 14 X 3/4" self-drilling carbon steel screws with a molded zinc alloy hex washer head. Roof fasteners shall be assembled with an EPDM washer.

6.1.4 Fasteners for roof panel to flashing connections: Loc Seam and Standing Seam roof systems shall be No. 14 X 1" self- drilling carbon steel screws with a molded zinc alloy hex washer head. Roof fasteners shall be assembled with an EPDM washer.

6.1.5 Fasteners for the Roof Panel Clips: All Standing Seam and Loc Seam Panel Clips shall be attached to the purlins by the following:

A. Self-drilling screws for attaching expansion clips shall be carbon steel No. 12 X 1 1/4" hex-head, cadmium or zinc plated. The fasteners are applicable for use with fiberglass blanket insulation with thicknesses up to and including 6 inches.

B. Self-drilling screws for attaching expansion clips on bar joists shall be carbon steel No. 12 X 1 1/4" Tek 4 or No. 12 X 1 1/2" Tek 5 hex-head, cadmium or zinc plated. The fasteners are applicable for use with fiberglass blanket insulation with thicknesses up to and including 6 inches.

6.1.6 Fasteners for Wall Panels and Liner Panels: All Long Span III, Architectural III, Architectural "V" or Multi-Rib Panels shall be attached to the secondary framing members by means of self-drilling carbon steel screws, No. 12 X 1 1/4" hex washer head, cadmium or zinc plated. The fasteners shall be color coordinated with a premium coating system which protects against corrosion and weathering. The fasteners are

applicable for use with fiberglass blanket insulation up to 4" (6" for Architectural III and Architectural "V" Panels) in thickness.

6.1.7 Fasteners for Wall Panel side laps and Liner Panel side laps: All Long Span III, Architectural III, Architectural "V" or Multi-Rib Panel side laps shall be stitched by means of self-drilling carbon steel screws, No. 14 X 3/4" cadmium or zinc plated. The fasteners shall be color coordinated with a premium coating system which protects against corrosion and weathering.

6.1.8 Fasteners for Shadow Panels: These fasteners shall be cadmium or zinc plated No. 12 X 1" self-drilling hex-head screws with a special 1/2" X 1" rectangular locking nut.

6.1.9 Blind Fasteners: All blind fasteners shall be 1/8" diameter, high strength 6052 painted aluminum rivets as manufactured by USM POP or equal.

6.2 PANEL CLIPS

6.2.1 Panel clips (SSPC series) for the Standing Seam II Roof Panel shall be of a two part assembly. The tab portions are 2 1/2" wide, die formed SAE 1050 high carbon spring steel and heat treated to Rockwell 45C to 50C, with fluorocarbon coating for corrosion resistance, or 301 stainless steel. The base portion of the clip shall be 2 1/4" or 3 1/2" (for thermal blocks) in height. The base shall be die formed from 12 gage, zinc-coated (galvanized) steel. Total expansion capability of the clip assembly shall be 2 1/2".

6.2.2 Panel clips (LSEC series) for the Loc Seam Panel shall be of a two part assembly. The tab portion shall be a nominal 2 3/8" or 3 1/2" (for thermal blocks) in height and 3" in width, die formed from 24 gage aluminum coated steel. The base shall be die formed from 18 gage, zinc-coated (galvanized) steel. Total expansion capability of the clip assembly shall be 1 1/4".

6.2.3 Panel clips (S3PC series) for the Standing Seam 360 panel is a two part assembly. The tab portion is die formed .031 thick aluminum-zinc alloy-coated steel. The base shall be die formed from 12 gage, zinc-coated (galvanized) material 2 1/4" or 3 1/2" (for thermal blocks) high and 6" long. The expansion capability is 2 1/2". For higher uplift values requirements, optional panel clips (S3PC-_R) consists of panel clip (S3PC-_) with an additional panel to clip fastening base which is 16 gage, zinc-coated (galvanized) material.

6.3 CLOSURES AND SEALANTS

6.3.1 Closure Strips: The corrugations of the roof and wall panels shall be filled with pre-formed closed cell non-shrinking, laminated polyethylene closures along the eave, ridge and rake when required for weathertightness.

6.3.2 Metal Closures: The corrugations and pan area of the Standing Seam II and Standing Seam 360 Roof Panel shall be filled with formed metal closures. The closures shall be formed from 20 gage steel to the shape of the configuration. The closure exterior finish shall be AZ55 aluminum-zinc alloy-coated.

6.3.3 Sealant: Long Span Panel roof side laps, end laps, roof flashing laps, ridges and eave shall be sealed with 1/2" X 1/8" tape mastic, Sika Sika-Tape TC-95 or equal. The material shall be non-staining, non-corrosive, non-toxic, and non-volatile. Composition shall be 100% solid isobutylene tripolymer tape. Service temperature shall be from -60°F to +212°F.

6.3.4 Sealant: American Buildings Company's Standing Seam, and Loc Seam Roof Panels side laps shall have factory applied mastic, SikaLastomer-511 or equal. Its composition shall be 85% solids by weight. Service temperature range shall be from -60°F to +220°F.

6.3.5 Sealant: All American Buildings Company's Standing Seam and Loc Seam Roof end laps, roof flashing laps, ridges and eave shall be sealed with tape mastic, Sika Sika-Tape TC-95 or equal. The material shall be non-staining, non-corrosive, non-toxic, and non-volatile. Composition shall be 100% solid isobutylene tripolymer tape. Service temperature shall be from -60°F to +212°F

6.3.6 Caulk: Eaves, endlaps, ridge and eave closures are sealed with non-skinning butyl caulk, SikaLastomer-511 or equal. Its composition is 85% solids by weight. Service temperature range is -60°F to +220°F. All gutter and downspout joints, roof accessories, doors, windows, and louvers shall be sealed with polyurethane caulk, Sika, SikaFlex 219LM or approved equal. It shall meet or exceed the requirements of Federal Specification TT-S-00230C, Type II, Class A.

6.4 GUTTER, FLASHING AND DOWNSPOUT

6.4.1 Gutters and Flashings: All standard exterior gutters are 26 gage G90 zinc-coated (Galvanized) or AZ50 aluminum-zinc alloy-coated steel with a pre-painted finish. Standard rake flashing is 26 gage G90 zinc-coated (galvanized) or AZ50 aluminum-zinc alloy-

coated steel with a pre-painted finish. All other gutter and flashings shall be a minimum 26 gage steel.

6.4.2 Downspouts: All downspouts shall be 29 gage zinc-coated (galvanized) or aluminum-zinc alloy-coated steel with color coordinated, pre-painted finish, rectangular in shape.

7 PAINTING

ASTM testing is performed on specifically and carefully prepared test coupons. These tests are designed to accurately compare varying products in a controlled environment and may or may not be indicative of actual field results.

7.1 STRUCTURAL PAINTING

Primer systems are not intended as finish coat paint systems and do not offer the uniformity of appearance, durability or corrosion resistance of a top coat applied over a primer. Primers are designed to promote the wetting action and adhesion of a top coat and offer only short-term corrosion protection from ordinary atmospheric exposure.

7.1.1 Shop Applied Primers – All uncoated structural steel members shall be cleaned of all foreign matter and loose mill scale as per requirements of the Structural Steel Painting Council cleaning specification SSPC-SP2 and SSPC-SP1 as required. Structural steel members will then receive a one mil coat of American Buildings Company's red oxide primer. Primer meets or exceeds the performance requirements of the specification SSPC-15, for Type 1 Red Oxide Paint. Primer is not intended as a finish coat and is compatible only for top coating with aliphatic solvent based alkyd enamels.

7.1.2 Pre-painted Cold Formed Materials – At American's option, cold formed secondary structural framing may use pre-painted coil stock which eliminates the need for shop applied primer. Primer will be applied in a thickness of 0.45 – 0.55 mils. Primer is not intended as a finish coat. Due to lubricants used to aid the roll forming process, the application of a tie coat must be used prior to application of a topcoat.

7.1.3 Abrasions caused by handling after painting as well as the flaking of tight mill scale are to be expected. American Buildings shall furnish primer to allow for touch-up of these areas by the contractor.

7.2 SP-COOL™ (SILICONE-POLYESTER) COATED PANELS

7.2.1 Base Metal shall be 29, 26 or 24 gage G90 zinc-coated (galvanized) or AZ50 aluminum-zinc alloy-coated steel.

7.2.2 Prime Coat: The base shall be pretreated and then primed with an epoxy or urethane type primer for superior adhesion and superior resistance to corrosion. The dry film thickness shall be 0.2 mils.

7.2.3 Exterior Coat: After priming, the exterior side shall be given a Long Life coating, baked in excess of 500°F to a controlled dry film thickness of 0.7 to 0.8 mils. Excellent weatherability and resistance to coating deterioration shall be evident when subject to the following tests:

Test	Test Method	Performance
Accelerated Weathering	ASTM1 G-153	Passes 3000 Hours
	ASTM D-4214	#8 Chalk Rtg. Passes
	ASTM 4587	Passes 1000 Hours
Humidity Resistance	ASTM D 2247	Passes 1000 Hours
Salt Spray Resistance	ASTM B 117	Passes 1000 Hours
Condensing Humidity	ASTM D-4586-86	Passes 1000 Hours

7.2.4 Interior Finish: The interior finish shall have a Universal White polyester topcoat or backer over an epoxy or urethane primer. The dry film thickness shall be 0.3 mils.

7.3 SMARTKOTE® COATED PANELS

7.3.1 Base Metal shall be 29, 26, 24 or 22 gage G90 zinc-coated (galvanized) or AZ50 aluminum-zinc alloy-coated steel or 0.032 aluminum.

7.3.2 Prime Coat: The base metal shall be pretreated and then primed with an approved epoxy, urethane, or water base primer. The dry film thickness of the primers shall be 0.25 mils minimum.

7.3.3 Exterior Coat: After priming, the exterior side shall be given a finish coat of a 70% minimum (PVDF) formulation. The dry film thickness of the topcoat shall be 0.70 mils minimum. The total dry film thickness shall be 0.95 mils minimum. Excellent weatherability and resistance to coating deterioration shall be evident when subject to the following tests:

Test	Test Method	Performance
Specular Gloss	ASTM D 523	Low Gloss, 5-10 at 60 Degrees
Dry Film Hardness	ASTM D 3363	HB minimum
Film Adhesion	ASTM D 3359	Excellent/No Removal
Direct Impact	ASTM D 2794	Excellent/No Removal
Reverse Impact	ASTM D 2794	Excellent/No Removal
Abrasion Resistance	ASTM D 968	Exceeds 60 liters
Chemical Resistance	ASTM D 1308	Excellent/No Removal
Salt Spray Resistance	ASTM B 117	Passes 1000 hours
Humidity Resistance	ASTM D 2247	Passes 1000 hours
Color Retention	ASTM D 2244	No objectionable change. Max. 4 Delta E units (Hunter) Color Change
Chalk Resistance	ASTM D 659	No objectionable change. Minimum rating of 9

Roof panels with the Smartkote® finish must have a minimum 1/2:12 roof slope to qualify for Material Warranty.

7.3.4 Interior Finish: The interior finish shall have a Universal White polyester topcoat or backer over an epoxy, urethane, or water base primer. The dry film thickness shall be 0.50 mils.

7.4 SMARTKOTE® M COATED PANELS

7.4.1 Base metal shall be 29, 26, 24, or 22 gage G90 zinc-coated (galvanized) or AZ50 aluminum-zinc alloy-coated steel.

7.4.2 Prime Coat: The base metal shall be pretreated and then primed with an approved epoxy, urethane, or water base primer. The dry film thickness of the primers shall be 0.4 mils minimum.

7.4.3 Exterior Coat: After priming, the exterior side shall be given a finish coat of a 70% minimum

7.4.4 (PVDF) formulation. The dry film thickness of the topcoat shall be 1.0 mils minimum. The total dry film thickness shall be 1.4 mils minimum. Excellent weatherability and resistance to coating deterioration shall be evident when subject to the following tests:

Test	Test Method	Performance
Specular Gloss	ASTM D 523	Low Gloss, 5-10 at 60 Degrees
Dry Film Hardness	ASTM D 3363	HB minimum
Film Adhesion	ASTM D 3359	Excellent/No Removal
Direct Impact	ASTM D 2794	Excellent/No Removal
Reverse Impact	ASTM D 2794	Excellent/No Removal
Abrasion Resistance	ASTM D 968	Exceeds 100 liters
Chemical Resistance	ASTM D 1308	Excellent/No Removal
Salt Spray Resistance	ASTM B 117	Passes 1000 hours
Humidity Resistance	ASTM D 2247	Passes 2000 hours
Color Retention	ASTM D 2244	No objectionable change. Max. 4 Delta E units (Hunter) Color Change
Chalk Resistance	ASTM D 659	No objectionable change. Minimum rating of 9

Roof Panels with the SmartKote® M finish must have a minimum 1/2:12 roof slope to qualify for Material Warranty.

7.4.5 Interior Finish: The interior finish shall have a Universal White polyester topcoat or backer over an epoxy, urethane or water base primer. The dry film thickness of the backer shall be 0.50 mils minimum.

8 ACCESSORIES

8.1 WINDOWS

8.1.1 Standard windows shall be horizontal slide units with a bronze finish, 3'-0" X 3'-0" and 4'-0" X 3'-0" in Architectural III, Architectural "V" Rib and Long Span III Panel Walls and 4'-0" X 3'-0" in Shadow Panel Walls. They shall be furnished complete with 7/16" hermetically sealed double glass, hardware and half screen. Windows shall be self-flashing to American Buildings Company's wall panels. They shall comply with the performance requirements of AAMA / NWWDA 101/I.S. 2-97 for a Performance Class of HS-R25.

8.1.2 Narrow light Windows shall be wall units 2'-0" X 7' having dark bronze aluminum frames 1 3/4" X 4" and 1"

solar bronze annealed insulated glass. The glazing stop shall snap on using stainless steel spring clips. There shall be no exposed screws on the Glazing Bead. The glass shall be set against the fin using Butyl Tape and sealed on interior and exterior with silicone to insure a watertight seal and to enable truck shipment without damage or glass slippage.

8.1.3 The Thermal Barrier Windows shall be horizontal slide units with a bronze finish. They are available in 3'-0" X 3'-0", 4'-0" X 3'-0", 4'-0" X 4'-0" and 6'-0" X 3'-0" size that are self flashing to American Buildings Company's Architectural III, Architectural "V" Rib and Long Span III wall panels. A 2'-0" X 6'-0" fixed glass unit is available. They shall be furnished with a 5/8" insulated glass and a polyurethane thermal barrier.

8.2 WALKDOORS

8.2.1 Walkdoors shall be 3'-0" X 7'-0" and 1 3/4" manufactured from 18 or 20 gauge zinc-coated (galvanized) steel. Doors shall have a textured finish and shall be painted white or bronze. Doors shall meet ADA compliance:

A. Dominion Building Products, "Premium" Knock-down or Pre-Assembled, (polyurethane core) urethane finish painted or equal.

B. Dominion Building Products, "Standard", Knock-down or Pre-Assembled, (polystyrene core) primer painted or equal.

1. Doors shall be flush and have vertical seams reinforced with continuous 16 gage channels.
2. Doors shall be provided with top and bottom inverted 16 gage galvanized steel channels spot-welded within the door.
3. Doors "A" and "B" shall be reinforced, stiffened, and sound deadened with impregnated kraft honeycomb core completely filling the inside faces of the door and laminated to the inside faces of the panels.
4. Doors shall be reinforced for applicable hardware.

8.2.2 Door frames shall be 16 gage zinc-coated (galvanized) steel, painted white or bronze and shall be one of the following:

A. Dominion Building Products, "Premium" Knock-down or Pre-Assembled, urethane finish painted having a jamb depth of 5 3/4" with a 14 gauge sub jamb.
B. Dominion Building Products, "Standard" Knock-down or Pre-Assembled, primer painted having a jamb depth of 5 3/4" with a 14 gauge sub jamb.

1. Door frames "A" and "B" shall have factory applied Kerf weather-stripping.
2. Door frames shall be shipped as a package, one pair of jambs (hinge and strike for single openings or 2 hinge jambs for double openings), heads, sill plate, sub jambs, girt clips, weather-strip, threshold, hinges and fasteners.

8.2.3 Available Locksets shall be one of the following:

A. Standard Duty, Grade II Lever Lock.
B. Standard Duty, Grade II Lever Lock with separate deadbolt.
C. Heavy Duty, Grade I Level Lock.
D. Heavy Duty, Grade I Lever Lock with separate deadbolt.
E. Heavy Duty, Grade I Mortise Lever Lock.
F. Deadbolt cylinder.

8.2.4 Exit devices shall be one of the following:

A. Economy Rim Panic, exit only.
B. Economy Rim Panic, Lever and Trim.
C. Standard Rim Panic, exit only.
D. Standard Rim Panic, Lever and Trim.
E. Premium Rim Panic, exit only.
F. Premium Rim Panic, Lever and Trim.

8.2.5 Door threshold shall be aluminum, supplied with flat head screws and expansion shields for attachment to masonry floor.

8.4 OVERHEAD DOOR FRAMING

8.4.3 Overhead door support framing shall be designed to resist applicable horizontal wind loads and shall consist of channel jambs with a channel header at the top of the opening. 26 gage steel, color coordinated flashing shall be provided to conceal panel edges at the opening unless otherwise specified.

8.5 GRAVITY VENTILATORS

8.5.1 Gravity ridge ventilators shall be manufactured from galvanized steel and painted white. The ventilator body shall be 24 gage and the skirt shall be adjustable to match the roof slope. Chain operated damper will be furnished.
Ventilators shall be equipped with standard bird screens and riveted end caps. Ventilators shall be 10' long and have a 9" or 12" throat.

8.5.2 20" round ventilators shall be 24 gage and shall have an adjustable base for ridge mounting or a pitched base for on-slope mounting.

8.6 LOUVERS

8.6.1 Louvers shall be manufactured from 20 gage zinc-coated (galvanized) steel, painted white, and shall be self-framing and self-flashing. They shall be equipped with adjustable dampers unless otherwise specified. Nominal size shall be 3'-0" X 4'-0" for Long Span III (L3P), Architectural III (A3P) and Architectural "V" (AVP) walls and 4'-0" X 4'-0" for Shadow Panel (HFP) walls.

8.7 SKYLIGHTS

8.7.1 Roof skylight panels shall be translucent fiberglass reinforced, gel coated, polyester panels made in the same configuration as the metal panels. They shall be manufactured with a 2 ounce woven fiberglass cloth reinforcement in addition to random strand mat or cut glass fibers (40% min. glass percent by weight) for structural strength. They shall meet or exceed applicable requirements of ASTM D3841-80 Type 1, and ICBO Research Report No. 1412. Material weight shall not be less than 8 ounces per square foot. Impact Test: Skylights shall resist penetration when subject to a 100 pound cylindrical weight with a 5 3/4" diameter (26 square inches) dropped from a height of 70". Flammability rate of material shall be no greater than 2 in/min when tested under ASTM D635. Coefficient of heat transmission (U-factors) shall be no greater than 0.8 BTU/Hr/Sq. ft. degree F. Available insulated skylights shall have a light transmitting foam sandwiched between a standard weight exterior panel and a 4 ounce nominal weight interior panel. Skylight panels shall be equivalent to STRONGLIGHT panels as manufactured by Crane Composities or equal.

ENGINEERING PROPERTIES
(STRONGLIGHT Skylight)

Property	Test Method	Nominal Value
Shear Strength	ASTM D 732	11,000 psi
Bearing Strength	ASTM D 953 A	13,400 psi
Tensile Strength	ASTM D 638	19,000 psi

8.7.2 Integrated Prismatic Skylight shall be double glazed polycarbonate lens mechanically attached to Standing Seam trapezoidal panels. The Integrated Prismatic Skylight has a Solar Heat Gain Coefficient (SHCG) of 0.42, a Variable Light Transmission (VLT) of 0.64 and a U Factor of 0.74. The Integrated Prismatic Skylight also achieves a Class 4 Impact Rating and a CC1 Fire rating.

8.7.3 Wall sidelight panels shall be translucent fiberglass panels made in the same configuration as the wall panels. They shall meet or exceed applicable requirements of ASTM D3841-80 Type 1, and ICBO Research Report No. 1412. Material weight shall not be less than 6 ounces per square foot.

8.8 INSULATION

8.8.1 Fiberglass Blanket Insulation shall be available in 2", 3", 4", 6" and 8" thicknesses. (Other roof insulation systems are available with thickness up to 12 inches). Maximum application thicknesses are as follows:

Panel Type	Maximum Insulation Thickness	Panel Clip	Thermal Block
Standing Seam II / 360	4"	Short	No
Standing Seam II / 360	8"	Tall	Yes
Loc Seam / Loc Seam 360	4"	Short	No
Loc Seam / Loc Seam 360	8"	Tall	Yes
Architectural III	6"	n/a	n/a
Architectural "V" Rib	6"	n/a	n/a
Long Span III (Walls)	6"	n/a	n/a
Long Span III (Roofs)	6"	n/a	n/a

8.8.2 Fiberglass Insulation Facings shall be laminated on one side with one of the facings as shown in chart below. Facings other than those shown in the chart below are available upon request.

FACINGS

Color	White Vinyl	WMP-VR	WMP-10	FSK	WMP-F
Flame Spread *	25	10 *	10 *	5 *	10 *
Perm Rating	1.00	0.09	0.02	0.02	0.02
Service Temperature Min.	0°	-40°	-40°	-40°	-40°

*All laminated or composite flame spreads are 25. The white vinyl flame spread rating is only available based on composite testing.

8.8.3 Rigid Foam Thermal Blocks shall be cut from high density extruded polystyrene board stock, having a UL 25 flame spread rating. Thermal Blocks shall have a minimum thickness of 1 inch and shall be a minimum of 3 inches in width. Thermal Block material shall be Dow Styrofoam (Blue Board) or equal.

8.8.4 Foil-faced rigid insulation (Thermax®) has a glass fiber reinforced polyisocyanurate foam core. The foam core

has a uniform, closed-cell structure which is resistant to the flow of heat. Aluminum foil facers laminated to each side of the product provide an effective moisture barrier. Rigid insulation products are available in thicknesses from 1/2" to 4". Rigid insulation shall be Thermax by Celotex or approved equal.

8.9 ROOF CURBS

8.9.1 Roof curbs shall be manufactured from minimum 18 gage AZ55 aluminum-zinc alloy-coated steel. Curbs shall have an integral cricket type water diverter. The minimum curb height shall be 8".

8.10 PIPE FLASHING

8.10.1 Pipe flashing shall be of a one piece construction and fabricated from an EPDM membrane and shall have an aluminum base that can be field conformed to any panel configuration. Pipe flashings shall be flexible for mounting on any roof slope. Service temperature ranges shall be from -30°F to +250°F. Three standard flashing sizes shall accommodate pipe sizes from 1/4" diameter up to 13" diameter.

9 ERECTION AND INSTALLATION

The erection of the metal building and the installation of accessories shall be performed in accordance with the American Buildings Company's erection manuals and the building erection drawings. The erection shall be performed by a qualified erector using proper tools and equipment. In addition, erection practices shall conform to Section 4, Common Industry Practices found in the Metal Building Systems Manual, 2006 edition. There shall be no field modifications to primary structural members except as authorized and specified by American Buildings Company.

SAFETY DURING ERECTION CANNOT BE OVER-EMPHASIZED!

10 BUILDING ANCHORAGE AND FOUNDATION

The building anchor rods shall resist the maximum column reactions resulting from the specified combinations of loadings. The quantities and diameters shall be specified by American Buildings Company. Anchor rod embedment designs and the anchor rods are to be supplied by others, NOT by American Buildings Company. Anchor rod embedment and foundations shall be adequately designed by a qualified foundation engineer to support the building reactions and other loads which may be imposed by the building use. The design shall be based on the specific soil conditions of the building site. The foundation engineer shall be retained by other than American Buildings Company. American Buildings Company assumes no responsibility of the integrity of the foundation.

11 WARRANTIES

American Buildings Company offers a variety of warranties for panel coatings, roof systems weathertightness, purchased products, and manufactured material. For specific warranty details and costs contact American Buildings Company at 334-687-2032.