



CFR FOR 1/4" TO 1/2" ON 12" SLOPES

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Only buildings with square or rectangular geometry and minimal penetrations shall be approved. When roof slopes are below 1/2" in 12", the execution of details becomes critical and only the most qualified contractors should be utilized. Some details must be avoided such as internal gutters, valleys and large roof curbs.

These guidelines consist of three categories, General Approval, Conditional Approval, and Not Approved. General Approval does not require specific job approval from Metl-Span. Conditional Approval requires approval by Metl-Span's Engineering Department before bidding or acceptance of the order. Not Approved means the roof details or conditions are not acceptable. The General Notes apply to both General and Conditional Approvals. If you have questions call Metl-Span's Engineering Department.

### 1) General Approval

- a) Single and multi course panel runs with snow loads\* of 30 PSF or less. *Panel runs are defined as the distance from the eave to the ridge or high eave.*
- b) Maximum panel runs of 150'.
- c) Maximum purlin spacing 5'-0".
- d) Light colors or Galvalume exterior finish.

### 2) Conditional Approval (must be approved by Metl-Span)

- a) Weather-tightness warranty must be approved before bidding
- b) Single and multi course panel runs with snow loads\* of 30 PSF or greater. *Panel runs are defined as the distance from the eave to the ridge or high eave.*
- c) Panel runs greater than 150'.
- d) Purlin spacing greater than 5'-0".
- e) Medium to Dark exterior colors.

### 3) Not Approved:

- a) Hips and Valleys.
- b) Internal drainage or gutters located inside of the exterior walls.
- c) Parapets at the low eave of the building.
- d) Large roof curbs.
- e) High profile gutters with snow loads\* of 20 PFS or greater.
- f) Any condition that causes ice damming or water ponding is not acceptable

\* The snow loads are determined by local building codes.

### 4) General Notes:

- a) The building's designer is responsible to assure that the specified roof configuration and roof drainage design is suitable for the building's specific climatic and operational conditions.
- b) Roof curb design and performance are the responsibility of the contractor or designer. Roof penetrations should be minimized.
- c) An experienced, well-qualified erector must be utilized in the installation of roof systems with slopes less than 1/2" in 12".
- d) At all times the roof must maintain positive drainage. Any condition that creates areas of ice damming or water ponding is unacceptable.
- e) Maximum in-plane steel tolerances must be enforced. Any condition of framing misalignment or frame deflection resulting in more than 3/8" panel deflection between adjacent supports may be a cause of ponding and is not acceptable. This may require tighter tolerances than is allowed by MBMA, SJI, AISC, etc. Refer to the CFR Architectural Design Guide and Installation Guide.
- f) Run off from upper roofs onto lower roofs must be controlled. Downspouts must discharge a minimum of 3' from pitch break detail. Additional downspouts may be required to evenly distribute the water discharge.
- g) If gutters are used, the low profile gutter should be utilized. Refer to the Gutter Profile Considerations, Technical Bulletin Volume 2, Number 4.



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