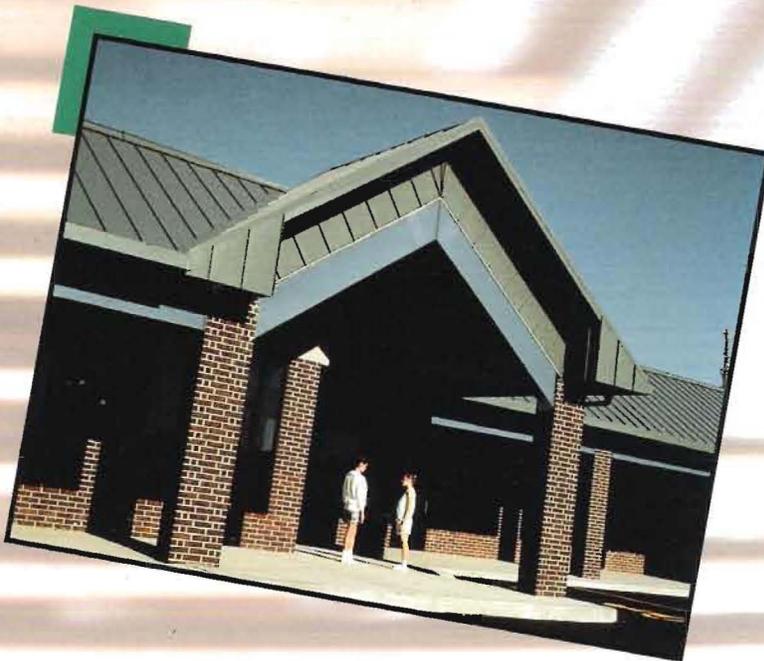
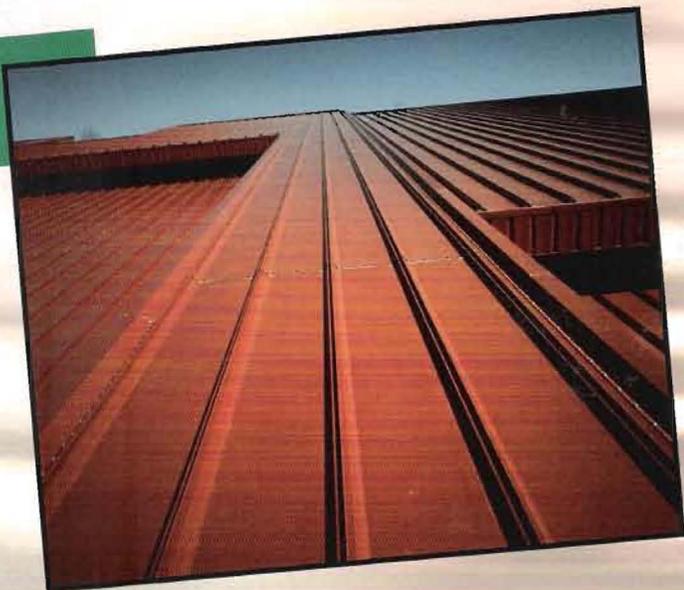
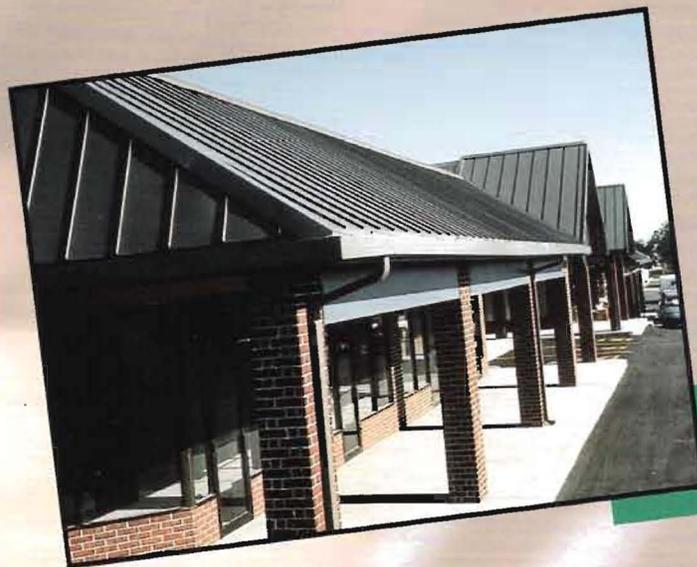


# Solutions

Standing Seam Metal Roofing



Metal Building  
Manufacturers  
Association

# Applications

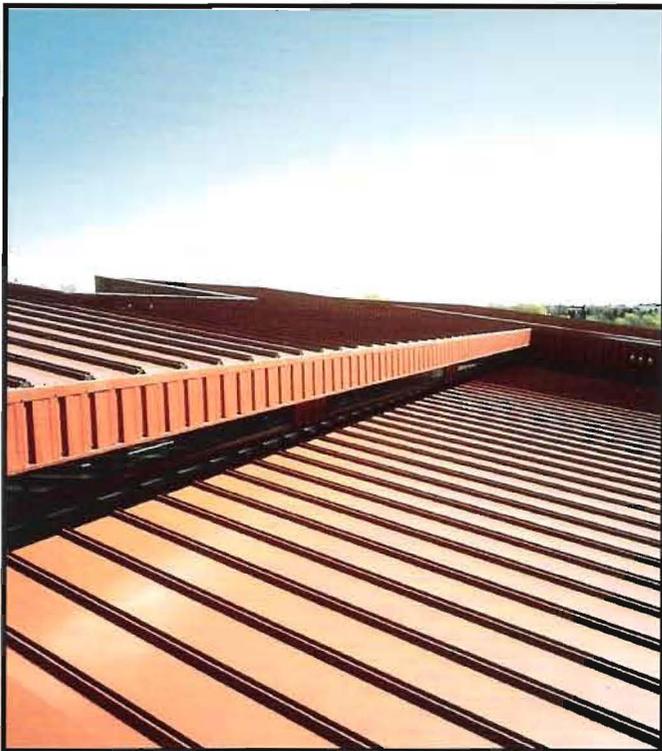
- Metal Building Systems
- Conventional Buildings
- Retrofit Roofing Projects



## The Perfect Cover

One of the most important technological advances in building construction is the standing seam metal roof. This state-of-the-art system, which is used on virtually all metal buildings, provides a weathertight seal and accommodates expansion and contraction. It can also be used successfully on conventional buildings.

Utilizing formed, interlocking seams, the standing seam roof can literally cover an entire building with minimal penetration by structural fasteners. As a result, the standing seam metal roof fulfills the building owner's need for durable, long-term protection against virtually any type of weather, while working in tandem with the forces of nature.





## Versatile Performer

The standing seam system is an ideal option for both new roofs and reroofing projects. In fact, more than 2 billion square feet of standing seam metal roofing is installed annually, underscoring the system's versatility and proven performance. Life-cycle cost studies confirm the fact that standing seam metal roofs are among the most cost-effective roofing systems available.



Metal roofing has an outstanding track record in new construction, where it is used in about two-thirds of all low rise commercial and industrial buildings. The standing seam roof's light weight and durability also make it an excellent retrofit option for existing built-up and single-ply systems.

Leading applications for the standing seam roof include industrial plants, warehouses, distribution centers, shopping centers, offices, schools and military centers.





## Durable and Lightweight

The standing seam roof is both durable and lightweight. Each metal roof panel weighs only 1-1/2 lbs. per square foot.

The standing seam system provides outstanding drainage from rain and snow, effectively solving ponded water problems, leaks and other related troubles associated with flat roof systems.

Designed as a water barrier, the raised seam assists drainage. The panels are joined together by a weathertight seam raised above the roof's drainage plane. Special sealants are factory-applied inside the seams during roll forming of the panel. Automatic field seaming machines produce weathertight connections between the metal roof panels.

The system's concealed clip assembly is roll formed or crimped into the panel seams without penetrating the steel weathering membrane. These clips perform two functions — they secure the panels to the structural system, reducing the need for structural fasteners, and they enable the roof to expand and contract as the outside temperature changes.

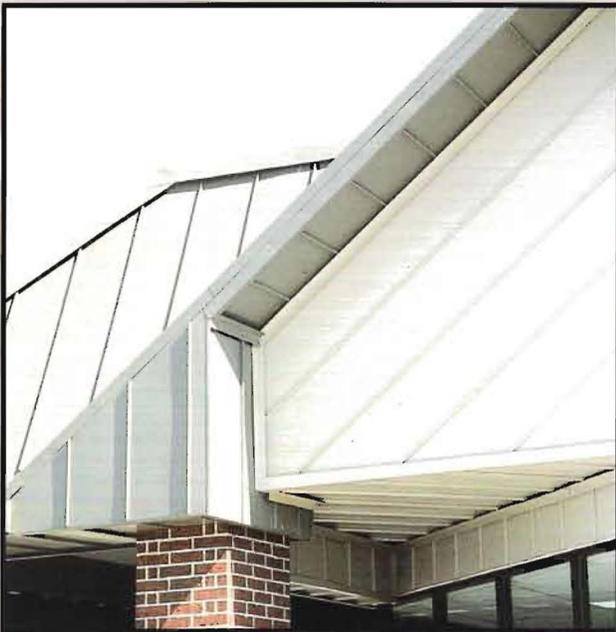
## Slope Options

Standing seam metal roofs can be designed with a low slope or be highly visible with a steep slope — adding distinctive aesthetic appeal to any type of building. The roof panel can also be used for mansards, fasciae and similar applications.

## Energy Efficiency

The structural standing seam roof is the industry's alternative to flat built-up and single-ply systems. It spans from structural support to structural support in new and retrofit construction with slopes of 1/4:12 or more.

Non-structural (architectural) standing seam roofs are used for visually exposed roofs, mansards, fasciae and similar applications. These systems require slopes of 3:12 or greater to shed water. Like wood shakes, tile and slate, this application needs some form of decking for support and a base material for added protection against moisture penetration.



Fiberglass blanket insulation is the most common material used in new standing seam metal roofs and reroofing projects. On some retrofit projects, unfaced fiberglass insulation is simply laid directly on the existing roof surface before the new standing seam roof is installed. In other projects, the insulation blankets are installed directly under the panels and stretched over the supporting structural members.

In most retrofit projects, the standing seam roof can be installed over an existing built-up roof, eliminating costly and time-consuming tear-offs. Leaving the old roof in place also avoids the release of potentially hazardous materials into the environment and eliminates the disposal cost of the existing roof.





The 66 percent recycling rate of steel products is the highest for any building product. Many building professionals recognize the importance of using recyclable metal roofing materials for retrofit applications over old non-metallic roofs.

## Metallic and Painted Coatings

Metal roof panels resist corrosion with the help of a zinc, aluminum, or aluminum-zinc alloy metallic coating applied to the base steel. Additional protection is available from attrac-

tive, specially pigmented fluoropolymer paints that harmonize the roof with conventional brick, concrete and wood side wall materials, providing added aesthetic appeal. A wide range of standard and custom colors is available, enabling architects to coordinate the roof attractively with other design elements of the building.

## Easy Installation

Metal roofs can be installed year-round. The metal panels are attached to a steel sub-assembly, providing the necessary slope for ice and water to drain.



When installed over an existing roof, a standing seam metal roof can often be applied with minimal structural modification to the existing building. Most importantly, a new metal roof can be installed with little or no interruption of operations or inconvenience to the building's occupants.



## Meets Key Specifications

The standing seam metal roof excels in high winds and has an outstanding performance record. It can be designed to meet both UL 580 wind uplift ratings and ASTM E-1592 wind uplift tests. In addition, standing seam metal roofs can be designed to carry a Factory Mutual Class A fire rating, reducing the building owner's insurance rates substantially.

Installed properly, a standing seam metal roofing system should reward the building owner by providing dependable and economical service for many years.



## Certification Program

Metal building systems manufacturers displaying the AISC Category MB logo are now covered by a comprehensive Quality Certification program developed by the prestigious American Institute of Steel Construction (AISC).

These are just some of the benefits that owners, architects, specifiers and building code officials achieve through this extensive program:

- Certified manufacturers have undergone rigorous third-party examination of their professional engineering and manufacturing policies, procedures and practices.
- Quality assurance standards and controls have been found to meet the requirements established in the certification program.
- Annual on-site audits ensure continued compliance with the program requirements.

■ Certified manufacturers have proved under the program that they can meet the public safety requirements imposed by the applicable building codes because their basic design and quality assurance procedures and practices used to produce metal building systems meet the needs of predictable structural integrity and quality.

This program also enables local, national and international code groups to utilize an already established and nationally recognized certification agency to verify compliance with their standards.

The AISC Category MB logo verifies that the metal building systems manufacturer has met rigorous quality certification standards.



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