

FOREWORD

As housing construction grows more complex, and the building business becomes more involved, SMACNA recognizes the need for a reference on the proper fabrication and installation of exterior sheet metals in residential buildings. The first edition of the Residential Sheet Metal Manual is intended to compile the details commonly used in residential sheet metal work throughout the industry as a guide for contractors, designers, builders, and homeowners.

The details compiled in these chapters are based on, and designed for, low-rise residential building up to three stories in height, and used as single family and multifamily dwellings. Though they may also apply to certain commercial and industrial installations, SMACNA recommends consulting the *Architectural Sheet Metal Manual* for details specific to the needs of these types of buildings.

The detail drawings presented here are generic in nature. Manual users are urged to note the additional design data offered in certain sections and in the appendices when adapting them to local climate and project conditions. Carefully examining this information along with the local climate conditions will enable Manual users to select the proper detail for practically any residential architectural sheet metal requirement.

Many details are shown with alternate methods of design or installation to reflect the varying building practices and climate conditions across the country and to offer manual users a choice. However, it is impossible to document every local practice. Deviations from these recommendations may be permissible, but will depend upon verified satisfactory service beyond conditions covered in the Manual.

SMACNA highly recommends that the Manual be used as a guide for determining the specifications to be included in the architectural sheet metal sections of contract documents. The Association encourages direct reference to the Manual by figure or detail number. In addition, Manual users are encouraged to consult sheet metal contractors in their area about any architectural sheet metal applications. Local contractors can share their experience with designers regarding the choice of metals, relative expense of different techniques, and other features proven practical for building in their region.

Throughout the details and applications cited in this Manual SMACNA recommends the use of two-piece flashing systems wherever possible. The exact details of this approach will vary from application to application, and job to job, but the general goal is an assembly of two mating pieces of sheet metal—one anchored on each surface—rather than one continuous length. The purpose here is to create a system that can be renewed effectively and simply at regular maintenance intervals without completely recreating the installation.

Sheet metal flashings and features are parts of the total water-protection system of the building. As such, sheet metal often performs a critical transition role between other types of materials and components. When these materials and components are proprietary products, it is important to consult the manufacturers' instructions and recommendations regarding installation.

In terms of the construction process itself, sheet metal installations regularly occur during, or in between, the installation of roofing, siding, and other building features. Project managers should recognize that careful planning and coordination between the various contractors and trades will help obtain optimal performance from all these systems.

SHEET METAL AND AIR CONDITIONING CONTRACTORS'
NATIONAL ASSOCIATION, INC.

