

First Edition

Guide for Inspecting Metal Building Systems



GUIDE FOR INSPECTING METAL BUILDING SYSTEMS

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Scope of Publication

The MBMA *Guide for Inspecting Metal Building Systems* is a guide intended for use by individuals who are responsible for contracting, performing, and reporting the various inspection tasks related to the construction of a metal building project. These individuals may be representatives of the owner, design professional, general contractor, erector, or building officials. Depending on the project and jurisdiction, there may be building code and contractually required inspections, as well as other optional inspections such as owner acceptance and insurance evaluation. This Guide should provide a useful resource for when inspecting a metal building project.

The scope of this Guide will primarily focus on inspecting newly constructed metal building systems. This includes the primary framing, secondary framing, and metal roof and wall cladding. Additional materials commonly included on the building envelope, such as windows, doors, skylights, and insulation materials, are briefly addressed in this Guide.

This Guide does not address the erection of a metal building framing system, nor does this resource provide guidance on how to inspect for lighting and mechanical systems. Furthermore, inspecting soil conditions, foundation work, and veneers other than metal roof and wall cladding is beyond the scope of this Guide. Due to the widely variable conditions encountered when modifying existing buildings, a thorough discussion of inspection procedures for existing buildings is beyond the scope of this Guide.

The applicable standards and codes that may be referred to by this Guide are numerous and they will be identified and discussed in the appropriate chapters, however, two essential documents form the basis of this Guide as noted below:

International Building Code, 2012 Edition, published by the International Code Council, Washington, DC.

Metal Building Systems Manual, 2012 Edition, published by the Metal Building Manufacturers Association, Cleveland, Ohio.

While both the 2015 and 2018 *International Building Code* (IBC) have been published, this Guide is based on the 2012 IBC, since it is the primary reference document to the 2012 edition of the *Metal Building Systems Manual*. Topics presented in this Guide are common to other editions of the IBC, and the user should be able to adapt the content of the discussion to situations where the provisions of other editions apply. However, it is the responsibility of the reader to determine which Code applies to any given project.

The *Metal Building Systems Manual*, referred to henceforth as the MBSM, contains two chapters which are applicable to this Guide. They are Chapter IV, Common Industry Practices, and Chapter V, Performance Guide Specifications, and these will be referred to by their chapter title. These chapters provide common understandings of the role and responsibilities of the metal building manufacturer with respect to the purchaser, and the other involved parties, such as architects, engineers, and contractors (general and other). Contractual documents for any project can supersede these documents.

GUIDE FOR INSPECTING METAL BUILDING SYSTEMS

The use of this Guide is totally voluntary. Each building manufacturer or designer retains the prerogative to choose their own design, commercial practices, and the responsibility to design its building systems to comply with applicable codes, specifications and approved construction documents.

Although every effort has been made to present accurate and sound engineering information, the responsibility for an individual project rests with the design professional and contract parties. MBMA assumes no responsibility whatsoever for the application of this information to the design or construction of any specific building system.

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Abbreviations and Acronyms

ACI	American Concrete Institute	NFRC	National Fenestration Rating Council
AHJ	Authority Having Jurisdiction	OSHA	Occupational Safety & Health Administration
AISC	American Institute of Steel Construction	QA	Quality Assurance
AISI	American Iron and Steel Institute	QAI	Quality Assurance Inspector
ANSI	American National Standards Institute	QC	Quality Control
ASHRAE	American Society of Heating, Refrigerating and Air-conditioning Engineers	QCI	Quality Control Inspector
ASTM	American Society for Testing and Materials	RCSC	Research Council on Structural Connections
AWS	American Welding Society	SJI	Steel Joist Institute
EIFS	Exterior insulation finishing system	SSPC	The Society for Protective Coatings
HVAC	Heating, Ventilation and Air-Conditioning	SSR	Standing Seam Roof
IAS	International Accreditation Service	TFR	Through Fastened Roof
IBC	International Building Code		
ICC	International Code Council		
IECC	International Energy Conservation Code		
MBMA	Metal Building Manufacturers Association		
MBS	Metal Building Systems		
MBSM	Metal Building Systems Manual		
MCA	Metal Construction Association		
NAIMA	North American Insulation Manufacturers Association		
NCMA	National Concrete Masonry Association		