



Reaching New Heights, Together



METAL BUILDING  
CONTRACTORS & ERECTORS  
ASSOCIATION

# Association Collaboration Optimization

# 38 Building Systems Manufacturers

**MBMA**  
METAL BUILDING MANUFACTURERS ASSOCIATION®  
Research | Leadership | Education



# 70 Associate Members



- ABIS
- Akzo Nobel
- All Weather
- Applied Testing
- Atlas Bolt & Screw
- AZZ Precoat Metals
- Barndominium Co.
- Bay Insulation
- Benchmark Consulting
- Birmingham Fastener
- Building Env. Cons.
- Building Products Dev.
- Building Research Sys.
- CertainTeed
- CIDAN
- Commercial Metals
- Crane Composites
- Curbs Plus
- Diamond Door
- D.I. Roof Seamers
- Donovan Group
- DuPont
- Dynamic Fastener
- Expi-Door
- Glasteel/Stabilt
- Global Building Prod.
- Holcim
- IDEAS CONNX
- Innovative Clean Energy
- Int Accreditation Service
- Intertape
- Intertek
- ITW CCNA
- Kenilworth Media
- Kingspan
- Konecranes
- Lamtec
- Lincoln Electric
- Metal Building Software
- Metl-Span
- Metallic Products
- New Millennium
- Nucor Sheet Mill
- Owens Corning
- Palram Americas
- PowerLift
- PPG
- Preferred Solutions
- Preformed Line Prod.
- Premier Steel Doors
- RMG Erectors
- Robert Sage Careers
- Roof Hugger
- R-Seal
- S-5!
- Sealed "N" Safe
- SFS Intec
- Sherwin-Williams
- Silvercote
- Simpson Strong-Tie
- Steel Dynamics
- SWD Urethane
- Telling Industries
- Tell Manufacturing
- Therm-All
- Thornton Tomasetti
- TopHat
- Triangle Fastener
- US Steel
- Wurth



The Following Are Additional Associations Managed by Thomas Associates, Inc.





**Air Duct Council**



**American Association of Automatic Door Manufacturers**



**American Association of Cleaning Manufacturers**



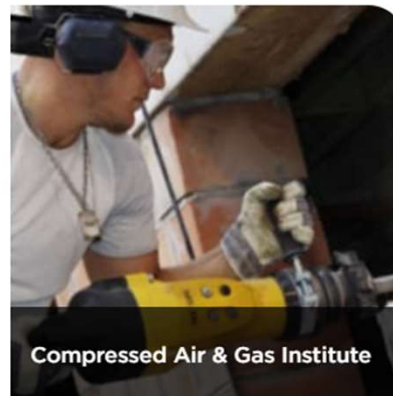
**American Ladder Institute**



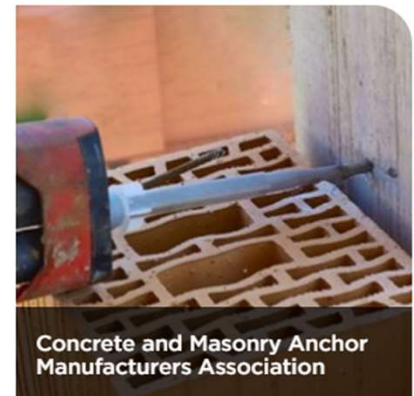
**Association of Ingersoll Rand Distributors**



**Chemical Fabrics & Film Association**



**Compressed Air & Gas Institute**



**Concrete and Masonry Anchor Manufacturers Association**



**Door & Access Systems  
Manufacturers Association**



**Fire Equipment Manufacturers  
Association**



**Fluid Controls Institute**



**Gypsum Association**



**Heat Exchange Institute**



**Ingersoll-Rand Specialty  
Distributor Association**



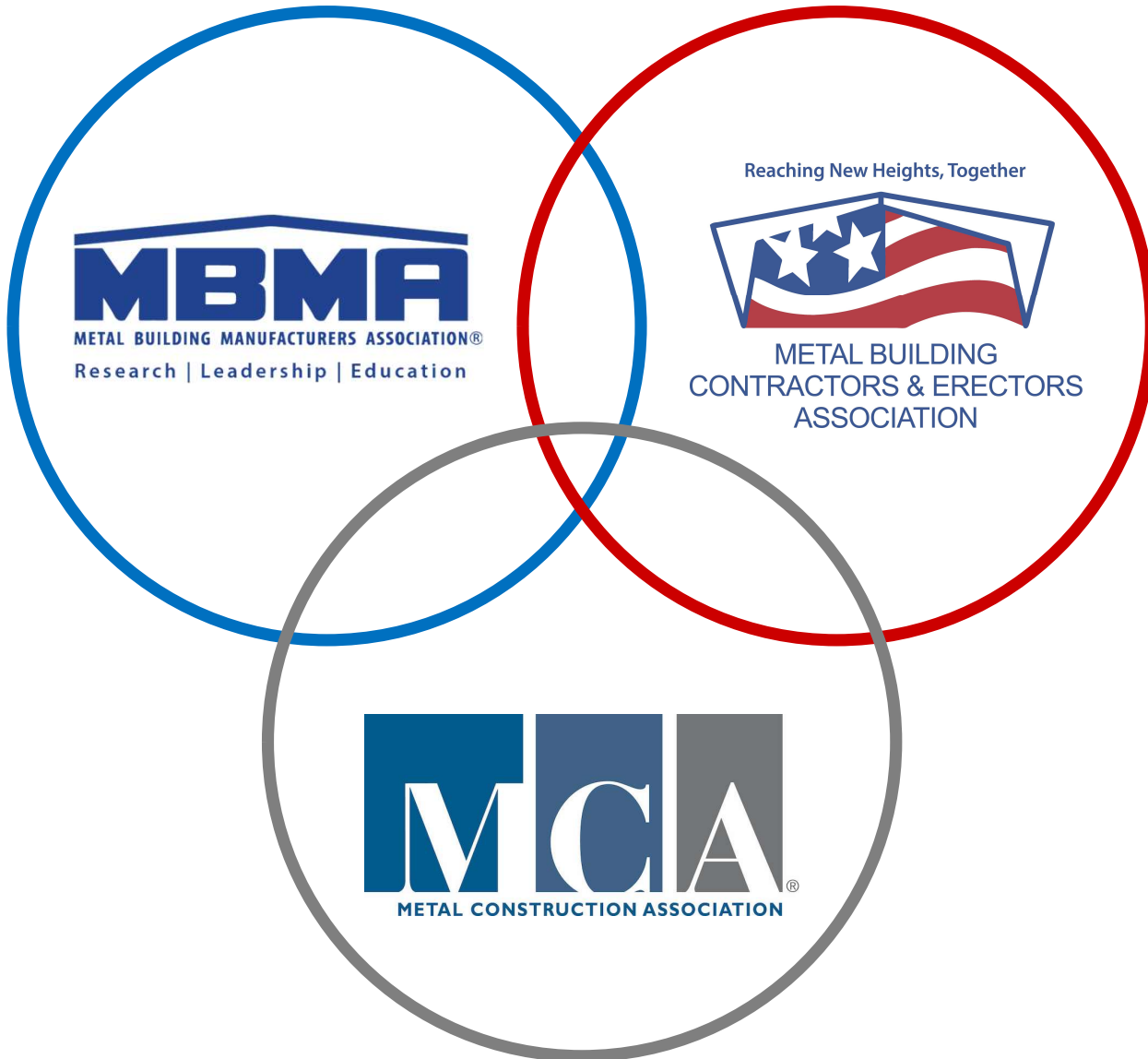
**Metal Building Manufacturers  
Association**



**National Coil Coating  
Association**







# Metal Building Contractors and Erectors Association (MBCEA)

Founded: **1968**

Mission: **To Support the Professional Advancement of the Metal Buildings Industry**

**Robert Tiffin**

Silvercote

**President**

**David Leinbach**

Kaiser-Martin Group

**Vice President**

**Justin Beall**

DD Construction

**Secretary**

**Dave Tomchak**

Bay Insulation

**Treasurer**



**Jennifer Heimburger**  
Past President





## AC478 Accredited Member Companies



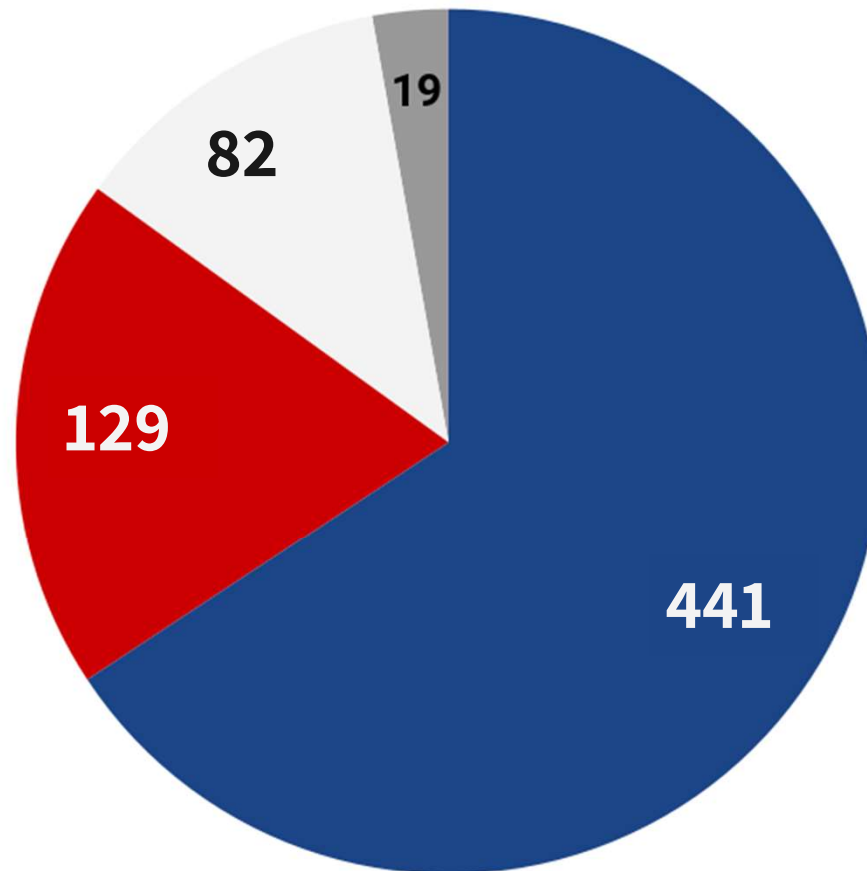
We Build As One.





## MBCEA Members

● Contractor ● Industry ○ Regional Reps ● Lifetime







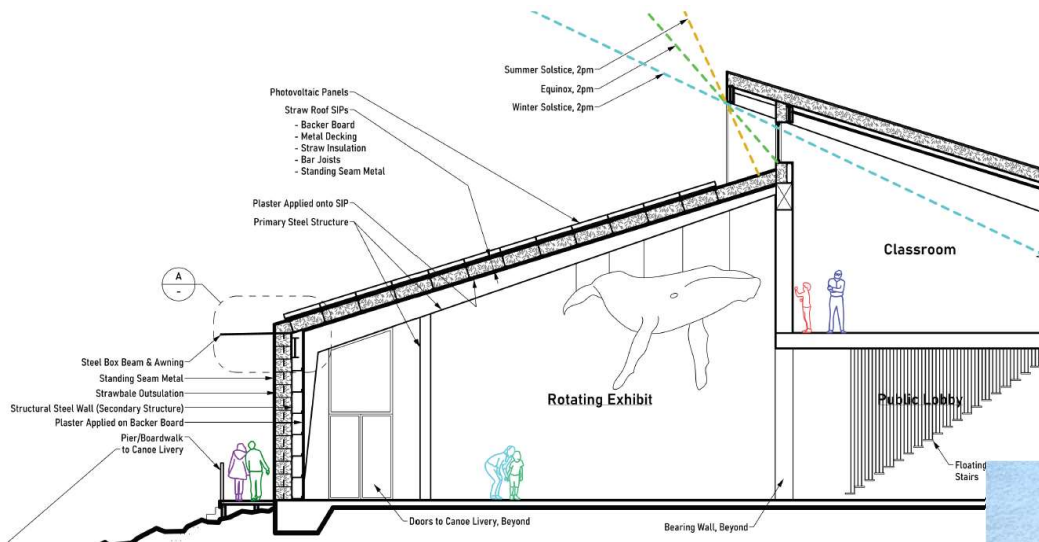


# Educational Initiatives



Architectural Faculty Workshop





JAMIE JANG  
UNIVERSITY OF MASSACHUSETTS - AMHERST  
FACULTY ADVISOR – STEPHEN SCHREIBER



## PROJECT DESCRIPTION



Photo by Ralph Cole Photography



"Having danced and taught all over the world, I can truly say this is a state-of-the-art facility. For the level of instruction these students will receive to the amenities, you can't help but fall in love with dance by being here."

—Andre Reyes, Former Co-principal,  
Hardesty Center for Dance Education

Completed in July 2016, the Hardesty Center for Dance Education extends the reach of the Tulsa Ballet, one of the top ballet companies in North America. The center provides ballet training, education and outreach programs in Broken Arrow, OK, Tulsa's largest suburb. (1) The 21,000-square-foot center sits on four acres and features four dance studios—two large studios, a smaller studio for younger students and the Anne & Henry Zarrow Performance Studio,

which doubles as a performance space for students and the Tulsa Ballet II, the second company of the Tulsa Ballet. (2,3,4) Additionally, the center houses a spacious lobby, dance store and waiting area for parents, boys' and girls' dressing areas, administrative offices and 4,000 square feet of warehouse storage space for sets and costumes. (5)

# MbmaEducation.org

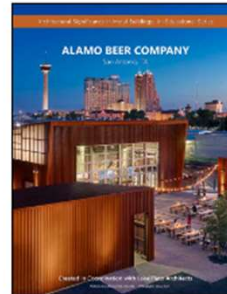


## ARCHITECTURAL FOLIOS

The following architectural folios feature an in depth look at a particular metal building project and its architectural design.



Michelle and Barack Obama Sports Complex



Alamo Beer Company



Boston Sports Institute



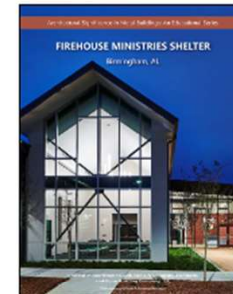
Jacksonville University Basketball Performance Center



Haulover Marine Center



Arbogast Performing Arts Center



Firehouse Ministries Shelter




St. David's Performance Center



Hardesty Center for Dance Education

# Architectural Record

New Search:  

Courses/Webinars <sup>1</sup>

**Search Results: Found 1 course(s)/webinar(s) with that s**

## Evaluating Metal Building Systems Using COMcheck™



High-performance results are readily achievable

[Read more...](#)

Sponsored by Metal Building Manufacturers Association (MBMA)

## Creative Design Alternatives Using Metal Building Systems

Explore the perceptions and realities of metal building design.

Sponsored by the Metal Building Manufacturers Association (MBMA)  
Adapted from the article course by Peter J. Arseneault, FAIA, NCARB, LEED AP



## Metal Building Systems 101

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METAL BUILDING MANUFACTURERS ASSOCIATION  
Research | Leadership | Education





# The Value of AIA Presentations in Architectural Practice: **Promoting Metal Building Systems**

Importance of Educating Architects in Metal Building Systems  
for Product Diversification

**Darrell Geisendorff | Red Dot Buildings**





# Introduction



## AIA Accreditation

AIA accreditation refers to the recognition and endorsement provided by the American Institute of Architects (AIA) to individuals, educational programs, and firms that meet specific standards of excellence within the architectural profession. This accreditation signifies adherence to rigorous standards of professional practice, continuing education, and ethical conduct set forth by the AIA. It serves as a mark of distinction and quality assurance within the architecture industry.

## Continuing Education Units (CEUs)

CEUs are an integral part of AIA accreditation, emphasizing the importance of ongoing professional development for architects. AIA-accredited presentations often offer CEUs, providing architects with opportunities to earn credits necessary for maintaining their licensure and staying abreast of industry advancements. CEU participation underscores architects' commitment to lifelong learning and enhances their knowledge and skills in various aspects of architecture and design.

## Overview of AIA

**Introduction to the topic:** Why AIA presentations matter in architectural practice, with a focus on promoting Metal Building Systems.

# Professional Development and Networking Opportunities



- Presenting at AIA events provides opportunities for professional growth and networking
- There are 98,000+ members of AIA
- Educating architects about Metal Building Systems broadens their understanding of construction methods and materials
- Connecting with Metal Building Systems manufacturers, suppliers, and experts

**2024 MBMA SPRING MEETING**

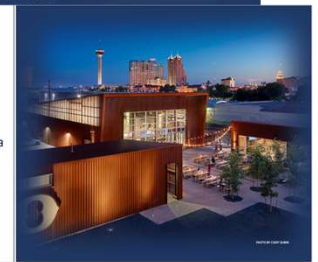
# Showcasing Expertise and Thought Leadership



- Presenting Metal Building Systems-related topics at AIA events demonstrates expertise and thought leadership
- Sharing innovative design approaches, case studies, and success stories
- Promoting the versatility, sustainability, and cost-effectiveness of Metal Building Systems
- “Evaluating Metal Building Systems Using COMcheck”
- “Metal Buildings 101”
- “Creative Design Alternatives Using Metal Buildings”



**Architects** are typically the primary decision makers when it comes to choosing a metal building concept.



# Promoting Projects and Services



- AIA presentations offer a platform to showcase Metal Building Systems projects and services
- Highlighting the flexibility, efficiency, and aesthetic potential of Metal Building Systems

**2024 MBMA SPRING MEETING**



# Contributing to Product Diversification and Industry Use



- Educating architects about Metal Building Systems enhances product diversification and industry use
- Increasing awareness and knowledge leads to greater integration in building design
- Metal Building Systems solutions for sustainable design, rapid construction, and adaptive reuse

# Conclusion

- Summarize key points on the importance of AIA presentations on Metal Building Systems
- Encourage engagement with Metal Building Systems education and advocacy efforts within the AIA community
- Drive innovation and sustainability in architectural design and construction



# References



AIA.org

<https://continuingeducation.bnppmedia.com/search.php?keywords=mbma>

# Metal Building Contractors and Erectors Association (MBCEA)



MBCEA App



ACCREDITED  
Metal Building Assemblers  
AC478 Roundtable

**May 16**

**12:00 – 1:00 PM**

MBCEA Presents  
**Sustainable Design in Metal Buildings**

By Clifton Reasor – Roof Curb Systems

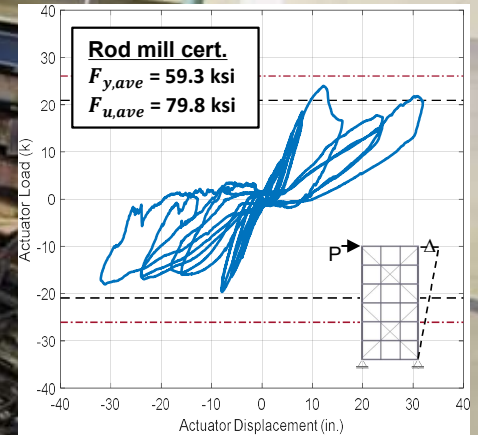







METAL BUILDING MANUFACTURERS ASSOCIATION®

Research | Leadership | Education



# Research & Resources






# COMcheck™ FAQ

Research | Leadership | Education

## COMcheck™ Frequently Asked Questions for Metal Building Systems



### U-Factors

**Q: Why didn't anything change for the U-factor when I increased the R-value?**

**A:** For pre-approved assemblies, COMcheck™ doesn't give additional credit for R-values above certain limits. You should have seen a "pop-up" alert that notified you of this situation. The message might have been something like, "For Metal Building, Standing Seam: Liner System with Thermal Blocks assemblies, ASHRAE Standard 90.1-2019 does not give additional credit for cavity R-values above R-47." U-factors for metal building roof and wall assemblies can be found in ASHRAE Standard 90.1-2019 Tables A2.3.3 (roofs) and A3.2.3 (walls).

**Q: Where can I get U-factors for pre-approved assemblies?**

**A:** Normative Appendix A in ASHRAE Standard 90.1-2019 has tables and other information regarding R-values and equivalent assembly U-factors for a wide variety of metal building roof and wall assemblies. Metal building assemblies are found in Tables A2.3.3 and A3.2.3. Other construction types' roof and wall assemblies, found in other Normative Appendix A tables, can also be used. A proprietary system that is tested in accordance with ASTM C1363 (Hot Box Test) or thermally modeled can be used. Refer to ASHRAE Standard 90.1-2019 Normative Appendix A9 for requirements for all "alternative U-factors." When using such a system, use the "Other U-Factor Option" tab in COMcheck™ and insert the U-factor. A pop-up will advise you to supply the data of the U-factor used.

**Q: If I enter the U-factors from Normative Appendix A from ASHRAE Standard 90.1, do I need anything more for the building official?**

**A:** Normative Appendix A is part of the standard and therefore does not require a request for alternative means and methods to use the contents to demonstrate compliance. It will be helpful for the code official to reference the particular table or section and the specific year edition of ASHRAE Standard 90.1 as the source of the U-factors. Another option is to select an applicable system type from the drop-down menu and enter the nominal R-value for the assembly, then the building official knows that it came from

[www.mbma.com](http://www.mbma.com)

EDUCATIONAL ADVERTISEMENT



Metal building systems can be readily designed to meet energy codes, as is easily proven by using COMcheck™ software.

## Evaluating Metal Building Systems Using COMcheck™

High-performance results are readily achievable

Sponsored by Metal Building Manufacturers Association (MBMA)

By Peter J. Arcinudi, FAIA, NCARB, LEED AP

### CONTINUING EDUCATION

1 AIA LU/HSW 0.1 ICC CEU

1 GBCI CE HOUR

**Learning Objectives**  
After reading this article, you should be able to:

1. Identify and recognize the basic characteristics and components of metal building systems that meet or exceed requirements for energy codes.
2. Investigate the design options allowed in the current energy codes including the IECC and ASHRAE 90.1.
3. Use COMcheck™ software as a well-known tool to demonstrate energy code compliance in metal building systems.
4. Eliminate confusion over misperceptions or questions related to metal building systems and energy performance, particularly when COMcheck™ is used.

To receive AIA credit, you are required to read the entire article and pass the quiz. Visit [ce.architecturalrecord.com](http://ce.architecturalrecord.com) for the complete text and to take the quiz for free.

AIA COURSE #2020K


### METAL BUILDING SYSTEMS OVERVIEW

Metal building systems are offered by manufacturers who generally provide a complete package of products and services for a custom-engineered structure, which can take one of two forms. First, they can be the single source for a metal building system, which is a complete package of products, and services for both the structural system and the primary building envelope

calculates the overall energy performance of the building envelope to determine if the design meets the code requirements or not by using the envelope trade-off method. This course looks specifically at the benefits of using COMcheck™ for metal building system designs and addresses some of the most common questions and uncertainties that architects may have related to metal buildings and energy performance.

Metal building systems typically account for about one-quarter of all the low-rise commercial construction in the United States each year. These systems have evolved in the past few decades and are now fully capable of meeting and exceeding energy code requirements in all climate zones of the United States. However, there is often some confusion about the make-up of the wall and roof assemblies, what the options are, and how they impact energy code compliance. COMcheck™ is a widely used software tool to demonstrate energy code compliance that is fully customizable to suit different project requirements, including metal buildings. The software is available for free from the U.S. Department of Energy and includes all of the options in the codes, relying on the building designer to input the appropriate information. It then


2 ARCHITECTURAL RECORD JANUARY 2024



# BIM FAQ

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## Building Information Modeling Frequently Asked Questions



**Q: What does BIM mean? What are some other terms I might need to know when working with BIM?**

**A:** BIM stands for "building information modeling." Some other terms that are good to know:

LOD - level of development, used to refer to the maturity of the model elements. LOD explanations, as well as other terms and their definitions, such as digital twins, can be found on pages 29 and 30 of the 2022 AIA Digital Practice Guide. Additional information can be found in the LOD Specification, available at <https://bimforum.global>.

VDC - virtual design construction, used to refer to the use of BIM and 3D modeling elements in the construction process.

**Q: What does my metal building manufacturer need to know about my BIM project?**

**A:** In general, the manufacturer will need to know how accurate or complete of a model to provide and the schedule for providing the model. The manufacturer may or may not be aware of the terms listed above. If BIM work has been agreed upon as part of the contract, ensure the manufacturer can meet whatever was agreed upon. Some examples of the information your manufacturer may need to know:

- The LOD expectation. As soon as possible, preferably in the bid process, as increasing LOD later in the process could have additional cost.
- Schedule
- How will the builder and manufacturer be updated about future clashes?
- File type format
- What are the coordination expectations?

**Q: What do I need to know when bidding a job with BIM requirements?**

**A:** If a bid requires BIM for the project, discuss the requirements with your manufacturer. The manufacturer may or may not be able to meet the requirements as written. Also make sure all roles and responsibilities are defined, such as who is responsible for attending coordination meetings and resolving issues arising from those meetings.

[www.mbma.com](http://www.mbma.com)

[MBMA.com](http://MBMA.com)

<https://continuingeducation.bnppmedia.com/>

**Best Practices to Comply With Whole-Building  
Air Leakage Testing Requirements  
For Metal Building Systems**



**MBMA.com**



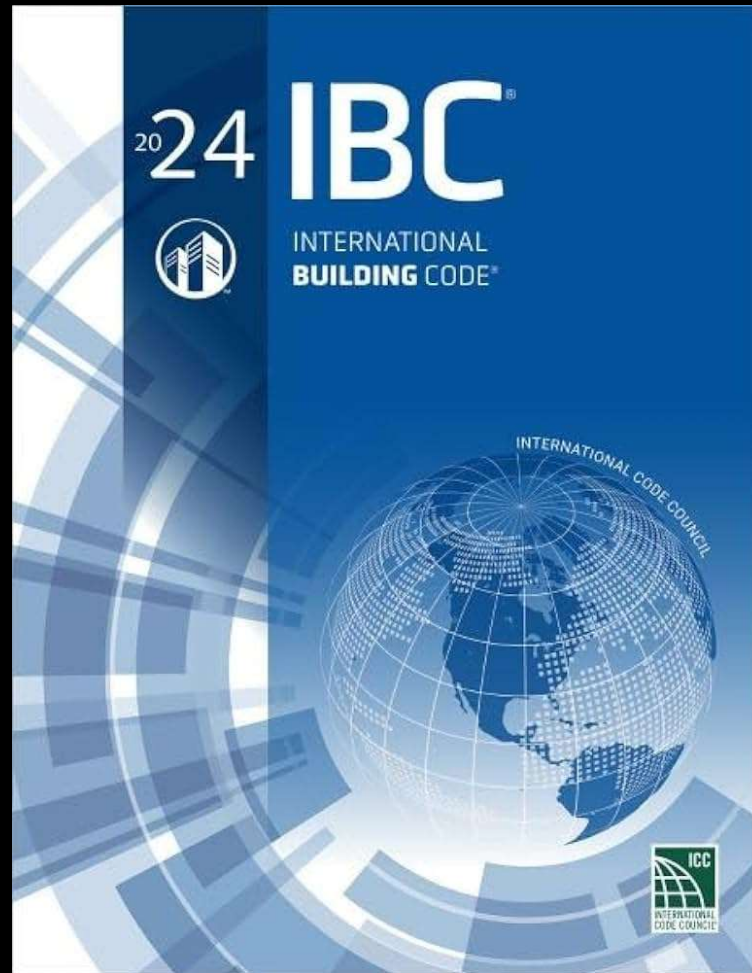


## Schedule

The following represents the schedule for this cycle and group.

Sunday 4/7/24	Monday 4/8/24	Tuesday 4/9/24	Wednesday 4/10/24	Thursday 4/11/24	Friday 4/12/24
<b>Track 1</b>					
Start Time 12 PM Panel Discussion w/ Lunch IWUIC/IFC End Time 7:00 PM	Start Time 8 AM End Time 7:00 PM	Start Time 8 AM End Time 7:00 PM	Start Time 8 AM End Time 7:00 PM	Start Time 8 AM End Time 7:00 PM	Start Time 8 AM End Time 7:00 PM <small>IBC FS Starts no earlier than 12:00 PM</small>
<b>Track 2</b>					
Start Time 12 PM Panel Discussion w/ Lunch ISPSC End Time 7:00 PM	Start Time 8 AM IPC End Time 7:00 PM	Start Time 8 AM IFGC End Time 7:00 PM	Start Time 8 AM IRC-P / IRC-M End Time 7:00 PM	Start Time 8 AM End Time 7:00 PM	Start Time 8 AM IMC End Time 7:00 PM

Saturday 4/13/24	Sunday 4/14/24	Monday 4/15/24	Tuesday 4/16/24
<b>Track 1</b>			
Start Time 8 AM IBC-FS End Time 7:00 PM	Start Time 10 AM End Time 7:00 PM	Start Time 8 AM Finish Time 7:00 PM	Start Time 8 AM Will be used if programmed schedule runs late End Time 7:00 PM
<b>Track 2</b>			
Start Time 8 AM IMC End Time 7:00 PM	Start Time 10 AM End Time 7:00 PM	Start Time 8 AM Finish Time 7:00 PM	Start Time 8 AM Will be used if programmed schedule runs late End Time 7:00 PM



Vincent E. Sagan, P.E.  
Senior Staff Engineer



AISI S100-16 (2020)



## AISI STANDARD

### North American Specification for the Design of Cold-Formed Steel Structural Members

2016 Edition (Reaffirmed 2020)

Approved in Canada by CSA Group  
Endorsed in Mexico by CANACERO



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[www.steel.org](http://www.steel.org)

**Kevin Dempsey**  
President and Chief Executive Officer

October 6, 2023

Dear AISI Steel Industry Code Forum Members:

After a review of existing program priorities with its current member companies, the American Iron and Steel Institute (AISI) has determined that the Institute will no longer fund activities related to building construction code advocacy as of the end of this year.

AISI understands that this decision has implications for those who have collaborated with the Institute on code advocacy-related activities over the years. Accordingly, AISI plans to work with partner organizations to appropriately conclude all AISI activities associated with building code advocacy in a manner that minimizes disruption to others working on these and related activities on behalf of the American steel industry.

If you have any questions, please feel free to contact me at (202) 452-7118 or at [kdempsey@steel.org](mailto:kdempsey@steel.org).

Sincerely,

Kevin M. Dempsey  
President and Chief Executive Officer

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W. Lee Shoemaker, Ph.D., P.E.

Director of Research and Engineering



## Metal Building Assembly Training Fundraising

**Benefactors \$150,000**

Innovators \$ 75,000

Leaders \$ 50,000

\$ 30,000

Believers \$ 25,000

Friends \$ 15,000

All \$ 5,000 – less



**MBCEA**

**AC1, Alliance Steel Buildings, Chief Buildings**

**Bay, Kingspan, S5!**

**Fleming Steel Erectors, MBMA, Rainwater Construction**

*Pledges may be spread over three years. For additional information or to pledge your support, see a member of leadership.  
The Metal Buildings Institute (MBI) is a 501C(3) tax exempt organization IRS section 170(b)(2)(iii) for both federal and state tax purposes*





## Curriculum for Metal Building Assembly

### PROGRAMS

1. Intro to Metal Building Assembly
2. Crane and Forklift Rigging and Signalin
3. Unloading, Material Handling & Staging
4. Temporary Bracing
5. Framing
6. Windows & Doors & Framed Openings for Exposed Fastener Wall Systems
7. Insulation
8. Exposed Fastener Wall Sheeting
9. Exposed Fastener (Screw down) Roofs
10. Standing Seam Roof Trapezoidal
11. Roof Penetrations and Curbs
12. Flashing Trim & Gutter
13. Internal Gutter & Transitions

Advanced Metal Building Assembler Training

\$860,000

Goal

**\$1,000,000** □





# *AIA Conference*

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Reaching New Heights, Together



METAL BUILDING  
CONTRACTORS & ERECTORS  
ASSOCIATION

Thank You