



**METAL BUILDING  
CONTRACTORS & ERECTORS  
ASSOCIATION**

**THE MISSION of the MBCEA IS TO SUPPORT  
THE PROFESSIONAL ADVANCEMENT OF  
METAL BUILDING CONTRACTORS, ERECTORS,  
AND OUR INDUSTRY.**

# ***ACCREDITATION: WHAT IS IT AND HOW TO PREPARE***

- ✓ ***Background***
- ✓ ***Definition***
- ✓ ***Overview of Process***
- ✓ ***Tools***

# AC478

- ▣ **A standard to recognize Metal Building System Assemblers that are committed to excellence.**
- ▣ **A standard to level the playing field and improve the end product.**
- ▣ **Proof that you have the personnel, organization, experience, knowledge, management procedures and commitment to assemble metal building systems.**
- ▣ **A standard to which we can aspire, be measured and held accountable.**

# Background to AC478

- ▣ **The Metal Building Industry constructs more than 300 million Square Feet of space annually**
- ▣ **This represents over 50% of the total low rise United States business construction and over \$2 Billion in Steel Shipments.**
- ▣ **90% of this volume was produced by manufacturers that belong to the Metal Building Manufacturers Association (MBMA).**

# Background, cont.

- ▣ **The MBMA mandates that member companies achieve and maintain International Accreditation Service, Inc. (IAS), accreditation (AC472 Inspection Programs for Manufacturers of Metal Building Systems.)**
- ▣ **This accreditation works to establish criteria toward which each firm demonstrates that they have the personnel, organization, experience, knowledge, quality procedures and commitment to fabricate in accordance with specified procedures**



# Background, cont.

- ▣ **Currently materials fabricated by these manufacturers are shipped to project sites and assembled by a largely unregulated market of Contractors and Erectors.**
- ▣ **There is not, currently, a single Certifying or Accreditation process by which these Contractors and Erectors of Metal Building Systems can pursue, or be held accountable.**

# Accreditation

- ▣ Accreditation is used worldwide to verify the competence of companies and organizations.
- ▣ Accreditation involves a formal assessment performed by a third-party (accrediting organization) to determine if a company or entity has demonstrated competence and meets specified requirements to perform specific tasks.
- ▣ The MBCEA recognized that Accreditation was desired for our members and our industry

# MBCEA Project

- ▣ **At Conference 2013, the Round Table expressed a desire to somehow recognize the “better” erectors.**
- ▣ **Erin Sullivan and Tula Thompson formed a team that updated the Board in October and was ready with a recommendation by January.**
- ▣ **That initial project team recommended the MBCEA partner with the IAS to create an accreditation program for our members.**



# MBCEA Project

- ▣ The MBCEA then assembled a cross-functional team to craft a program.
- ▣ Technical and Review Committees were formed with representatives from all facets of industry
- ▣ The team met weekly to craft a program and criterion that was meaningful and relevant.
- ▣ The criteria was been developed in concert with industry to ensure a program that is meaningful and relevant to industry.

# Intent

- ▣ It was our specific intent to not set the bar so high that only the elite, large firms could apply nor so low that the program was meaningless.
- ▣ Although accredited entities will be evaluated on the quality of their safety and training programs, the criteria will not cover the assembled products or the design or performance characteristics of the products.

# Ultimate Goal

- ▣ **The MBCEA, with the support of metal building manufacturers, will seek to educate the industry and its influencers regarding the importance of accreditation as a quality standard in the construction of metal buildings.**
- ▣ **This accreditation will provide a benefit to the public by helping to identify contractors who are committed to quality workmanship.**
- ▣ **Accredited Assemblers will be able to market themselves as having achieved the qualifications of a contractor specialist in the metal buildings industry.**

# Disclaimer

- ▣ **We know this program is not for everyone; but the standards are written such that most can and should participate**
- ▣ **Some may choose not to participate; this does not mean they are not a quality erector**
- ▣ **Accreditation is a tool; tangible proof that you are performing to a certain standard.**

# Marketing Advantage

- ▣ Because IAS accreditation is highly respected and recognized as a reliable indicator of technical competence, accredited clientele use it to effectively market their services.
- ▣ IAS accreditation can be used by companies or organizations to improve the quality of their services or products thereby improving their public image and marketability.
- ▣ Most industries routinely specify that companies maintain accreditation by a nationally recognized accreditation body such as IAS.

# More Advantages

- ▣ Accreditation builds an internal system that is empowering; companies that embrace this will always be looking to improve.
- ▣ Achieving and maintaining accreditation should improve operational efficiency and quality of end state product.
- ▣ As metal building systems become more finely and highly engineered, our assemblers need to keep up; to stay ahead of regulations. This accreditation program is designed to ensure our long term viability.

**Why seek  
accreditation?**

**TO WIN PROJECTS.**



# Who can apply?

**Assembler of Metal Building Systems** is defined and limited to Erectors and Contractors who are substantially engaged in the Assembly of Metal Buildings and further described as companies that erect prefabricated metal buildings according to blueprint specifications and engineering drawings, using hand tools, power tools, and hoisting equipment; erect frames of buildings using a hoist; bolts steel frame members together; attaches bracing and insulating materials to framework; screws sheet metal roof and siding panels to framework; reads blueprints to determine location of items such as doors, windows, ventilators, and skylights and installs items using, wrenches and power drill; trims excess sheet metal using power saws, power shears and tin snips; installs corner, gable, rake, door and window trims; installs gutters and downs; and is responsible for related clean-up and waste management





# General Requirements

- ❑ **Must obtain the services of an IAS-accredited inspection agency to conduct annual inspections at a job site.**
- ❑ **Shall establish and implement a management system that is fully documented (Quality Manual)**
- ❑ **The Quality Manual must describe the assembly procedures and quality assurance activities for ensuring the assembly meets the specified requirements.**

- ❑ **Work must conform to local codes and standards.**



# General Requirements

- ▣ The Assembler must submit a documented management system which includes a cross reference matrix that ensures the key requirements of AC478 sections 4-6 are met.
- ▣ The submitted management system document must be signed and dated by the highest level of authority within the organization.
- ▣ The submitted management system must be signed and dated by an authorized representative of an IAS-accredited Inspection Agency.

# General Requirements

- ▣ Entities accredited under these criteria will adhere to Metal Building Systems Manufacturer's drawings, specifications and installation manuals.
- ▣ Entities accredited under these criteria, that rely on subcontracted or temporary labor must have documented procedures that extends these requirements to said subcontractors
- ▣ Entities accredited under these criteria that sub-contract all or a significant portion of an assembly must have procedures in place that advises the project owner whether or not work will be performed by an accredited entity.



# Key Personnel

- ▣ **Accredited Entities must designate the following key personnel:**
  - **Safety Manager**
  - **Training Manager**
  - **Quality Manager**
- ▣ **It is understood that these three key personnel may be the same person but that person must be formally designated and have a clear understanding of his responsibilities with regards to each position.**

# Safety Manager

- ▣ Designated Safety Manager shall have the necessary training and experience to complete the tasks listed in the criteria.
- ▣ The Safety manager shall report directly to the highest level of authority within the organization.
- ▣ The Safety manager shall have the following responsibilities:
  - Maintaining the documented Safety Program in accordance with this criteria.
  - Monitoring the effective implementation of the documented Safety Program.
  - Assuring that periodic internal audits are conducted and documented, and that corrective actions are implemented.
  - Assuring that annual management reviews are conducted and documented to assure the adequacy and effectiveness of the Safety Program. Annual management reviews must produce a summary and a documented plan of action for improvement. Documents to be considered during the annual management review must include, but are not limited to, customer complaints, back charges, OSHA violations, internal audit results and corrective actions.
  - Developing job site specific safety plans , and having knowledge of and access to the appropriate documents to meet this requirement.

# Training Manager

- ▣ Designated Training manager shall have the necessary training and experience to complete the tasks listed in the criteria.
- ▣ The training manager shall report directly to the highest level of authority within the organization.
- ▣ The training manager shall have the following responsibilities:
  - Maintain the documented Training Program in accordance with this criteria.
  - Monitor the effective implementation of the documented Training Program
  - Ensure that periodic internal audits are conducted and documented, and that corrective actions are implemented.
  - Ensure that annual management reviews are conducted and documented to assure the adequacy and effectiveness of the Training Program. Annual management reviews must produce a summary and a documented plan of action for improvement. Documents to be considered during the annual management review must include, but are not limited to, customer complaints, back charges, OSHA violations internal audit results and corrective actions.
  - Develop Training plans that meet OSHA requirements, Building Manufacturer requirements, Equipment Use Requirements and have knowledge of and access to the appropriate resources to meet this requirement.



# Quality Manager

- ▣ **Designated Quality Manager who has the necessary training and experience to complete the tasks listed in the criteria and ensure the integrity of the Assembly.**
- ▣ **The Quality Manager shall report directly to the highest level of authority within the organization.**

# Safety Program

- ▣ Entities accredited under these criteria shall establish and implement a safety program that is fully documented. This documented safety program must describe the procedures and activities for ensuring that all employees, subcontractors and processes comply with at minimum OSHA standards and/or applicable regulatory requirements.
- ▣ Entities accredited under these criteria must have documented procedures for the development of job site specific safety plans upon award of a contract or prior to commencement of work.
- ▣ A documented safety program manual shall be prepared and submitted to IAS. The documentation shall include a check list prepared in concert with an IAS-accredited inspection agency ensuring compliance with the general requirements.
- ▣ The submitted Safety Program document must be signed and dated by the highest level of authority within the organization.
- ▣ The submitted safety program document must be reviewed at least annually.





# Training Program

- ▣ Entities accredited under these criteria shall establish and implement a training program that ensures a qualified labor force competent in techniques necessary to ensure the quality and integrity of assembled metal buildings.
- ▣ Entities accredited under these criteria will have a protocol in place for new hires to ensure they are trained adequately for assigned tasks
- ▣ The training program shall ensure that at least 50% of personnel on a job site can be classified as qualified for the task at hand.
- ▣ The training program shall ensure that at least 25% of the work force have achieved the equivalent of journeyworker status or equal.

# Training Program, cont.

- ▣ The training program shall meet all OSHA requirements for the trade
- ▣ The training program shall include instruction with required passing grades that includes:
  - Metal Buildings Institute Quality and Craftsmanship Training Series or Ironworker Quality Construction Practices Metal Building Systems Training
  - OSHA 10, for all employees with more than one year of service
- ▣ Any other required certifications and formal training necessary to perform the required tasks, including but not limited to: Welding, Aerial Lift Operator, Fork Lift Telehandler, Crane Operator, Specialty Items such as scaffolding, Tools, Products and/or Equipment that require documented training prior to use.



# Training Program, cont.

- ▣ The training program will have procedures in place to ensure the following training elements: Job Site Safety and Fall Protection, Safety and Emergency Services, Reading Job Plans and Specifications, Materials Identification, Tools and Equipment, Pre-Assembly Procedures, Hoisting, Materials Planning, Structural, Wall Covering, Roof Panels, Trim and Flashing, Job Completion
- ▣ It is understood that there are myriad styles of metal buildings with varying degrees of complexity. Entities accredited under this criteria warrant that they will only perform according to their training and competency

# Assessments

- ▣ Applicants are subject to an on-site joint assessment by the IAS and the IAS-accredited inspection agency.
- ▣ The purpose of the assessment is to determine the efficacy of safety plans, training programs and compliance with eligibility requirements.
- ▣ A thorough review of all required documentation is required.

# Assessment Schedule

- ▣ Initial Assessment – on-site by IAS jointly with the IAS-accredited Inspection Agency
- ▣ First Year Assessment – IAS conducts on-site to determine continued compliance. Repeated every subsequent two years.
- ▣ Desk Assessments in intermediate years (third, fifth, seventh)
- ▣ On-site job-site inspection by an IAS-accredited Inspection Agency during desk assessment years

# Inspections

- ▣ Inspections will rely on sampling: determining a representative body of work that is indicative of the overall body.
- ▣ Inspections will verify integrity of process not quality of product

# Inspections: Project Mgmt

1		Is there a Site Specific Project Plan available?	<input type="checkbox"/> YES	<input type="checkbox"/> NO	
1	a.	Does it include a Fall Protection Plan	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A
1	b.	Does it include a Lift Evaluation Form	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A
1	c.	Does it include a Critical Lift Plan	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A
1	d.	Does it include a Daily Jobsite check list	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A
1	e.	Does it include a Daily Equipment check list	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A
1	f.	Does it include an Emergency Evacuation Plan	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A
1	g.	Does it include a Vehicle Accident Report	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A
1	h.	Does it include an Accident/Near Miss Report	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A



# Inspections: Project Mgmt

1	i.	Does it include JSA's	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A
1	j.	Does it include a Site Layout Plan	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A
1	k.	Does it include a Temporary Bracing Plan	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A
1	l.	Does it include a Quality Control Plan	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A
1	m.	Does it include a narrative regarding the Erection Plan	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A
1	n	Do the plans appear to be implemented	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A
2		Is a complete set of stamped "for construction" erection drawings maintained at the job site?	<input type="checkbox"/> YES	<input type="checkbox"/> NO	
2	a.	Is it legible?	<input type="checkbox"/> YES	<input type="checkbox"/> NO	



# Inspections: Safety

1		Is there an individual on site assigned to safety functions? Note: the individual may perform other functions in addition to the duties related to safety.	<input type="checkbox"/> YES	<input type="checkbox"/> NO	
2		Is he conversant in the requirements of the company safety manual?	<input type="checkbox"/> YES	<input type="checkbox"/> NO	
3		Is there documentation that weekly safety meetings are held at the job site?	<input type="checkbox"/> YES	<input type="checkbox"/> NO	
3	a.	Are MSDS/SDS/GHS available to the workers?	<input type="checkbox"/> YES	<input type="checkbox"/> NO	
3	b.	Are the workers aware of GHS?	<input type="checkbox"/> YES	<input type="checkbox"/> NO	
4		Is there a designated area for first aid that is fit for purpose?	<input type="checkbox"/> YES	<input type="checkbox"/> NO	
5		Is emergency response information available?	<input type="checkbox"/> YES	<input type="checkbox"/> NO	
6		Is there evidence that perimeters and openings are protected?	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A

# Inspections: Rec/Storage

1	Is there a process for unloading and inventorying?	<input type="checkbox"/> YES	<input type="checkbox"/> NO	
2	Is there a process for documenting damage?	<input type="checkbox"/> YES	<input type="checkbox"/> NO	
3	Are mastic and caulking stored in a dry location?	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A
4	Are roof and wall panels stored as directed to avoid water pooling?	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A
5	Are any materials damaged due to improper storage?	<input type="checkbox"/> YES	<input type="checkbox"/> NO	

# Inspections: Training

1		Does the company have certified personnel for the scope of work for the project being inspected? Note: Inspector to validate at least 30% of job-site personnel. Inspector to list personnel verified and total number of personnel on job site.	__ YES	__ NO	
1	a.	Is there evidence of critical lift training?	__ YES	__ NO	__ N/A
1	b.	Is there evidence of OSHA 10 Training for personnel on job-site with at least one year experience	__ YES	__ NO	
2		Are there records of craft workers certifications and training for the following:			
2	a.	Roof Installers	__ YES	__ NO	__ N/A
2	b.	IMP Installers	__ YES	__ NO	__ N/A

# Inspections: Training

2	c.	Welders	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A
2	d.	Connectors	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A
2	e.	Siding Installers	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A
2	f.	Riggers	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A
2	g.	Signal Person	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	h.	Other: _____	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A

# Training, cont

3		Are there records of certifications/training for the equipment in use?			
3	a.	Fork-lift	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A
3	b.	Man-lift	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A
3	c.	Crane	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A
3	d.	Other: _____	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A
4		Are the welding personnel certified for the process and position the welder is welding?	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A

# Inspections: Competent Person

1	Is there an identified Competent person?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
2	Is he conversant in the requirements of the site specific project plan?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
	Does he demonstrate an understanding of manufacturer's standards and details?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
3	Has he verified anchor rod location and pattern are within tolerances as per anchor bolt plan and that anchor rods are properly tightened?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
5	Is he capable of identifying existing and/or predictable hazards in the surroundings?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
6	Is he authorized to take corrective actions, if necessary?	<input type="checkbox"/> YES	<input type="checkbox"/> NO

# Inspection: Assembly Process

1		Is there a procedure to confirm anchor bolt placement?	__YES	__ NO	
2		Are there check lists available and in use for QC of :	__YES	__ NO	__ N/A
2	a.	General Assembly	__YES	__ NO	__ N/A
2	b.	Installation of Roofing	__YES	__ NO	__ N/A
2	c.	Installation of Cladding	__YES	__ NO	__ N/A
2	d.	Weather-proofing	__YES	__ NO	__ N/A

# Assembly Process, cont.

2	e.	Insulation	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A
2	f.	Accessories	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A
2	g.	Final Inspection	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A
3		Is there a process to verify use of correct Bolts, Nuts and Washers?	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A
4		Are they adhering to the tightening method as specified?	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A



# Assembly Process, cont.

<b>5</b>		<b>Which bolt tightening method was in use?</b>		
<b>5</b>	<b>a.</b>	<b>Turn of Nut (RCSC – 8.2.1)</b>	<b>__ YES</b>	<b>__ NO</b>
<b>5</b>	<b>b.</b>	<b>Calibrated Wrench (RCSC – 8.2.2)</b>	<b>__ YES</b>	<b>__ NO</b>
<b>5</b>	<b>c.</b>	<b>Tension Control Bolts (RCSC – 8.2.3)</b>	<b>__ YES</b>	<b>__ NO</b>
<b>5</b>	<b>d.</b>	<b>Direct Tension Indicators (RCSC – 8.2.4)</b>	<b>__ YES</b>	<b>__ NO</b>
<b>5</b>	<b>e.</b>	<b>Snug Tight</b>	<b>__ YES</b>	<b>__ NO</b>

# Assembly Process, cont.

6		Is there a procedure to verify square and plumb?	<input type="checkbox"/> YES	<input type="checkbox"/> NO	
7		Is there a procedure for documenting changes, extra work and/or variance reports?	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A
8		Is there a procedure to note any damage to material?	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A
9		Is there a procedure to verify repairs are approved and executed?	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A
10		Is there a process to verify shims, where needed are being used and installed properly?	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A
11		Is there a process to verify correct washer placement and location?	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A
12		Is the current schedule of activities included in the scope of work?	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A



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# ANY QUESTIONS?