Metal Buildings and BIM

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Nucor Buildings Group
Metal Buildings: Quick Refresher

Custom-engineered low-rise, non-residential steel structures with rigid frames, and steel roofing and wall panel systems, designed and manufactured by the same company

Also known as:
- Pre-engineered metal buildings
- PEMBs
- Engineered metal buildings
- Metal building systems
Metal Building Types

- Office
- Retail
- Manufacturing
- Aviation
- Religious
- Recreational
Metal Buildings and LOD

• LOD Content Development led by MBMA
  • BIM Task Group
  • Endorses Industry Standards

• MBMA
  • Founded in 1956
  • 43 Manufacturers + 57 Associate Members

• Help us evolve!
  • Comments: http://www.mbma.com/Contact_us.asp
Metal Buildings and BIM – What to Know

• Many Metal Building manufacturers are BIM capable
  • Model Authoring and [.IFC]
  • Single Source: Scope Clarity & Value Engineering
  • Adapting Business Practices … takes time.

• What to Expect: LODs at Project Milestones
  • 200 at Quote stage: prelim design, no connections
  • 300 at Permit stage: final design, no connections
  • 350 at Approval stage: connections applied
  • 400 at Fabrication: final detail complete, production ready
Metal Buildings and BIM – What to Know

• We happily participate in federating Models, but…
  • We only accept scope change from our direct customer.

• Can we *(please)* use BIM to eliminate the OFA process?
  • Approve the model!
  • 2 weeks vs. One day
  • In-office / Online
Metal Buildings and BIM – What to Know

- Owners/Architects: Please specify BIM as a requirement
  - Up front enforcement helps drive all industries

- Use a BIM Execution Plan
  - Save time and money
  - Brings clarity to expectations for all BIM participants.
  - At the very least, use it to start a discussion.
  - LOD = Dictionary:
  - BxP = Narrative: How the words are applied
Metal Buildings and LOD

- Appendix F > Special Structures > Section F1020.40
  - Primary Framing and Bracing
  - Secondary Framing
  - Cladding and Exterior Trim
## Metal Buildings and LOD

- Next up are **Attribute Tables**
- **Non-Graphical** Information
- Model Object **Meta-data**

### Appendix - Metal Buildings

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<th>Data Type</th>
<th>Units</th>
<th>Option Examples</th>
<th>Commentary</th>
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#BIMForumED
Metal Building LOD Content

Primary Framing and Bracing
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Secondary Framing

200 300 400
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Cladding and Exterior Trim

200 300 350
Thank You.