



BIM-M

Building Information Modeling
for Masonry

Commercialization of the Masonry Unit Database: Developer's Briefing and Q/A

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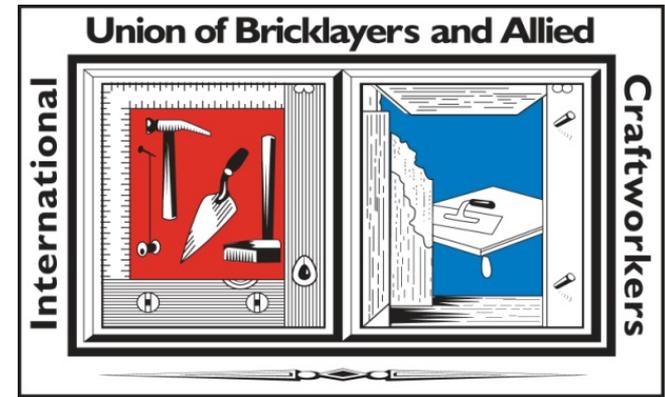
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Jeff Elder, Project Manager for MUD

10 February 2017

Presentation Outline

- BIM for Masonry Overview
- What is Masonry Unit Database (MUD)
- Structure of MUD
- MUD on the Web
- MUD BIM Plugin
- Opportunities for MUD Access
- V2 and V3 MUD Development
- Q/A



UNION MASONRY CRAFTWORKERS
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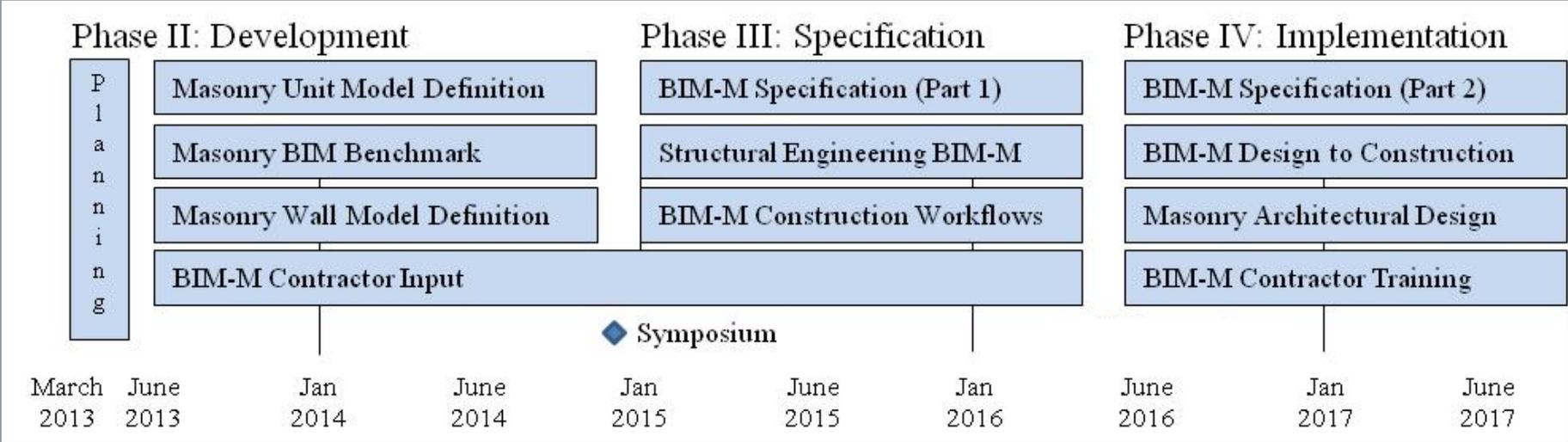


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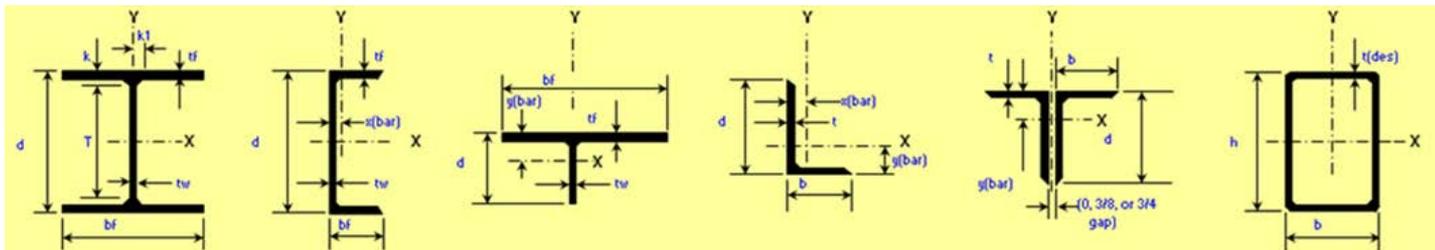
BIM-M 5-Year Plan



Extended through 2018

Masonry Unit Database (MUD)

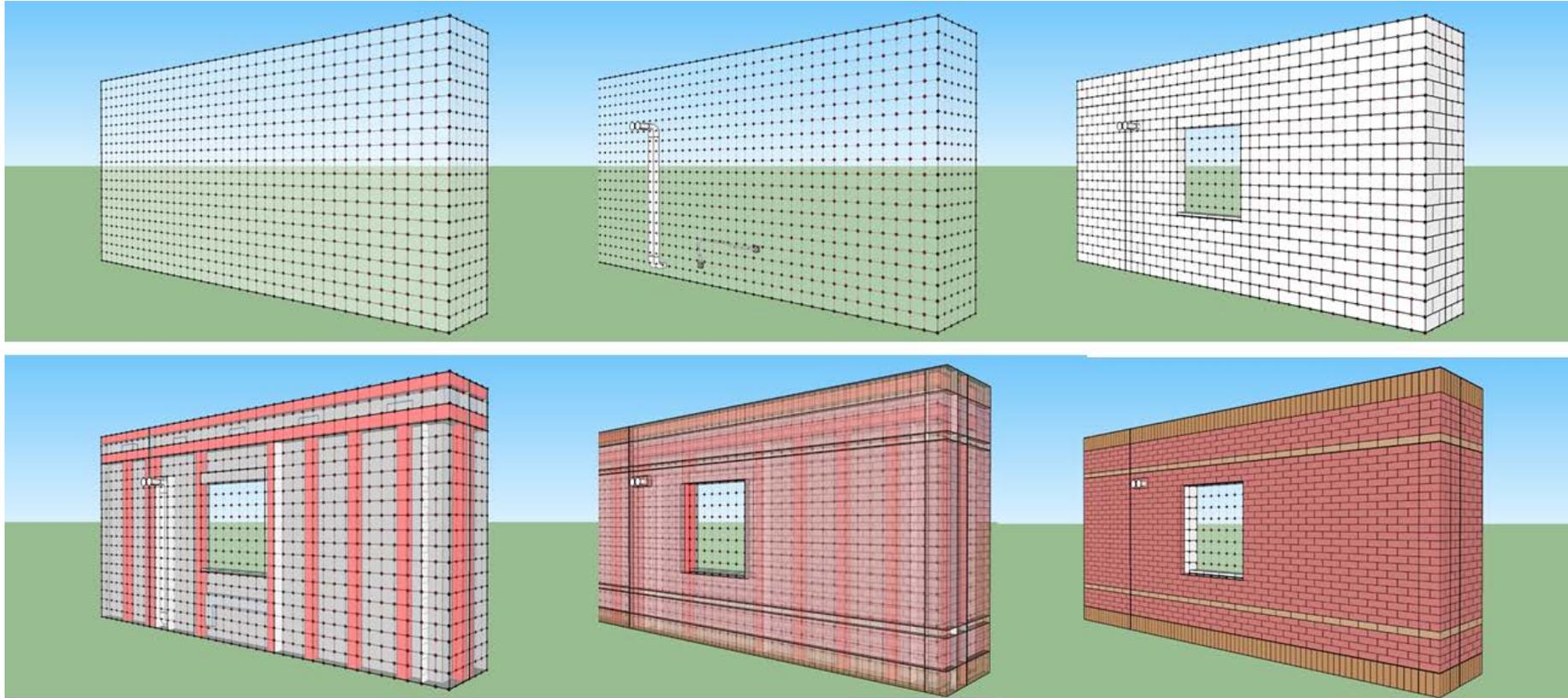
- MUD a data structure framework for the representation and exchange of information of masonry units for masonry BIM projects
- Contains the required data for digital representation of masonry units
- Facilitates the development of new BIM and other software applications for the masonry industry
- To be used as part of masonry wall system representation
- Can be compared to the AISC database of structural steel shapes

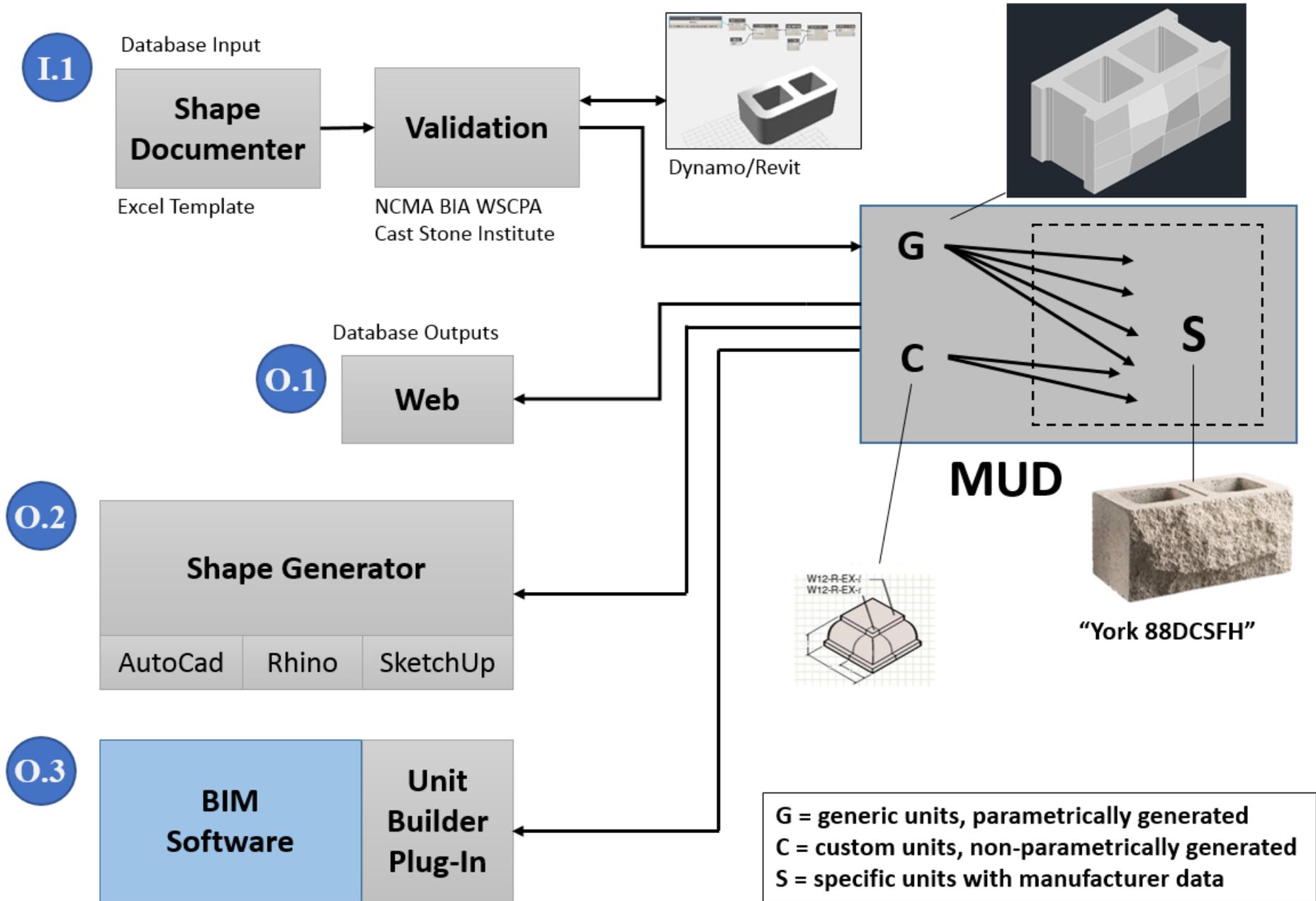


Why MUD ?

- Architects, engineers and contractors want access to the geometry of masonry units to place in their BIM models – they are drawing and re-drawing the units now.
- They want this geometry in a wide range of formats but modeled in a reliable and consistent way.
- Because the automation of BIM model creation requires that the data be available in a standardized format – and current models produced by the industry do not follow any standard.
- Analysis tools tied to BIM like structural analysis, cost analysis, energy analysis needs property information about the masonry units in the model.
- We can't build BIM models for masonry walls without the geometric information of masonry units.
- It's hard to gather and compare information about the wide range of masonry available in the marketplace today.

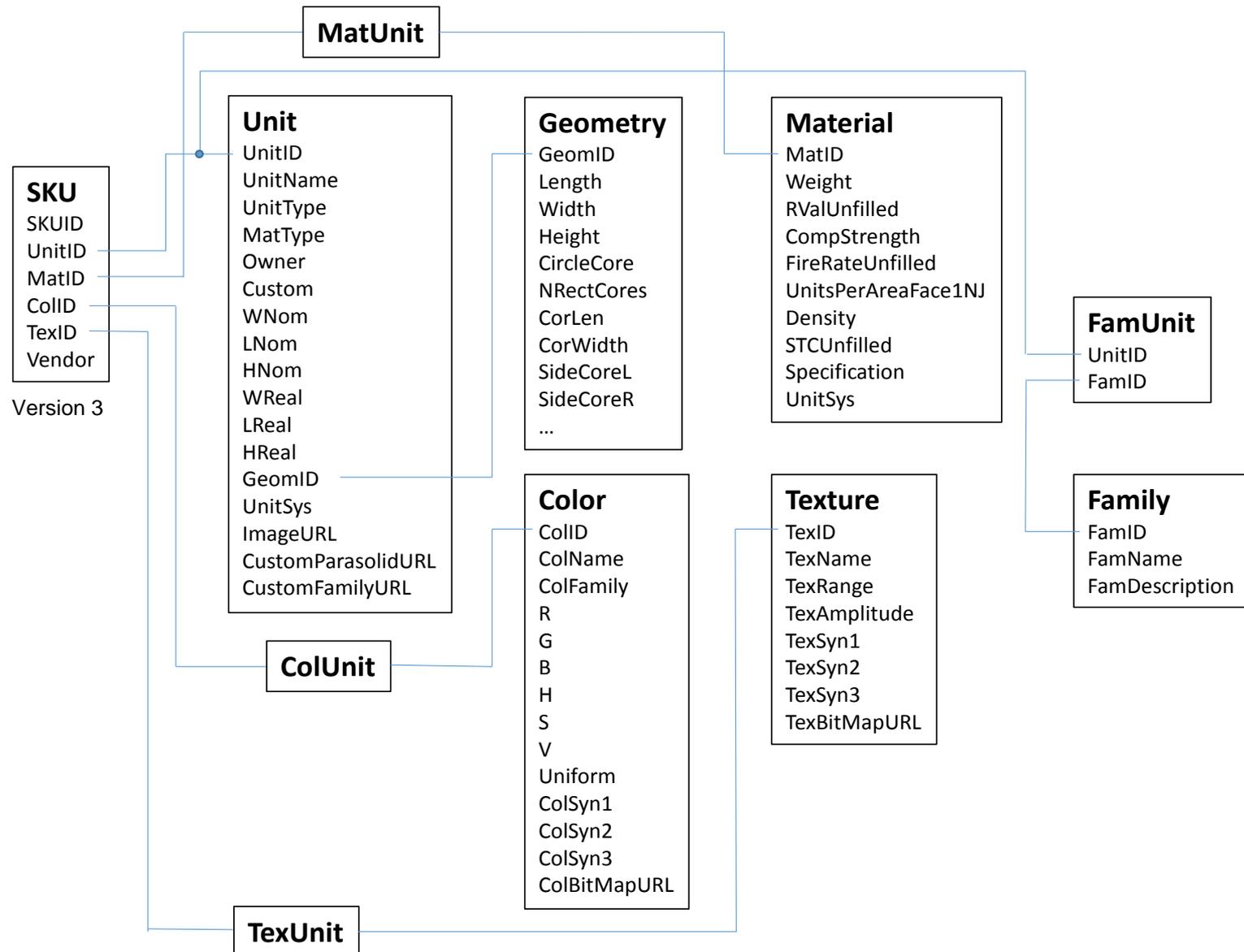
BIM-M | Unit to Wall Workflow





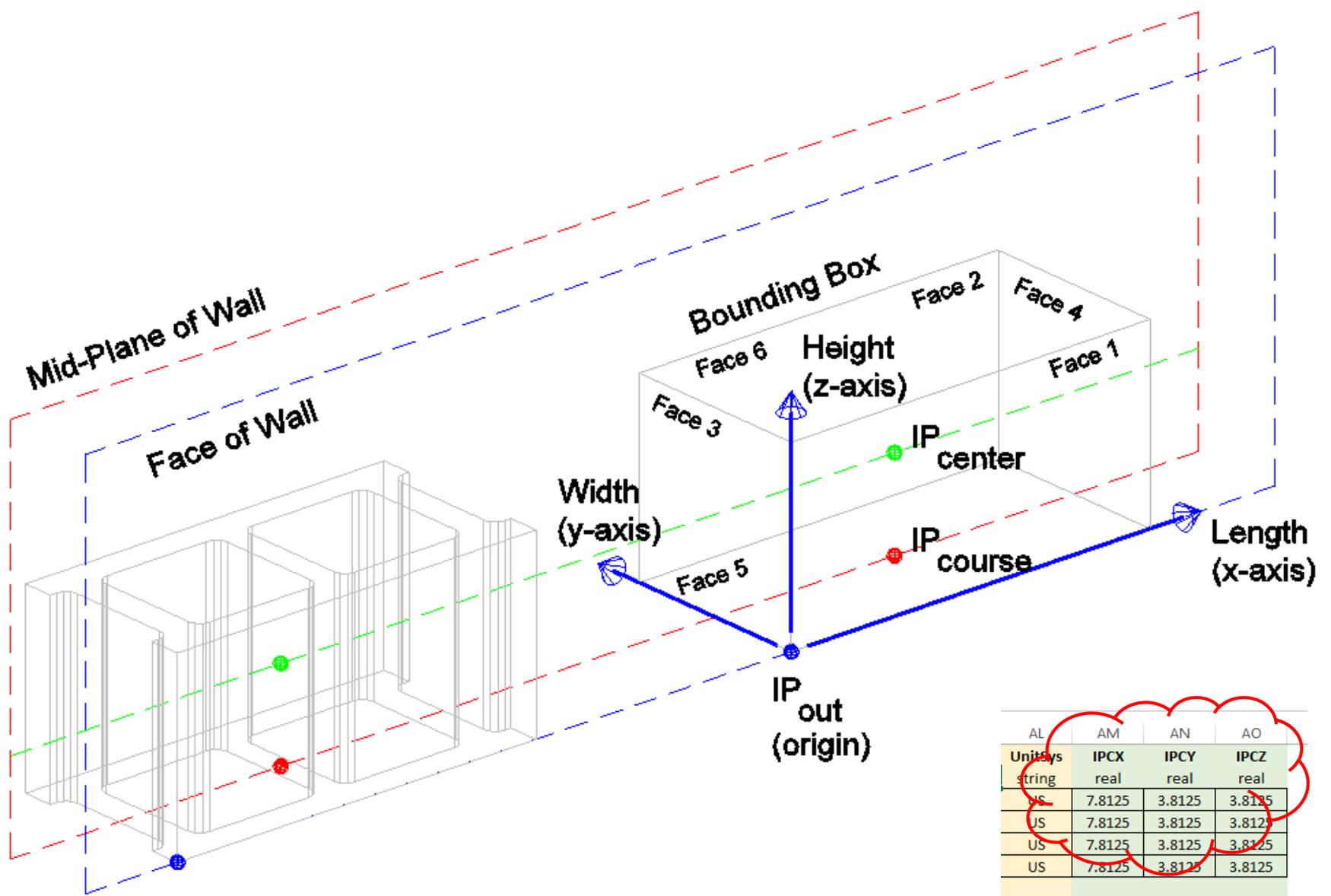
Implementation of V1 of the MUD

Proposed MUD Data Structure

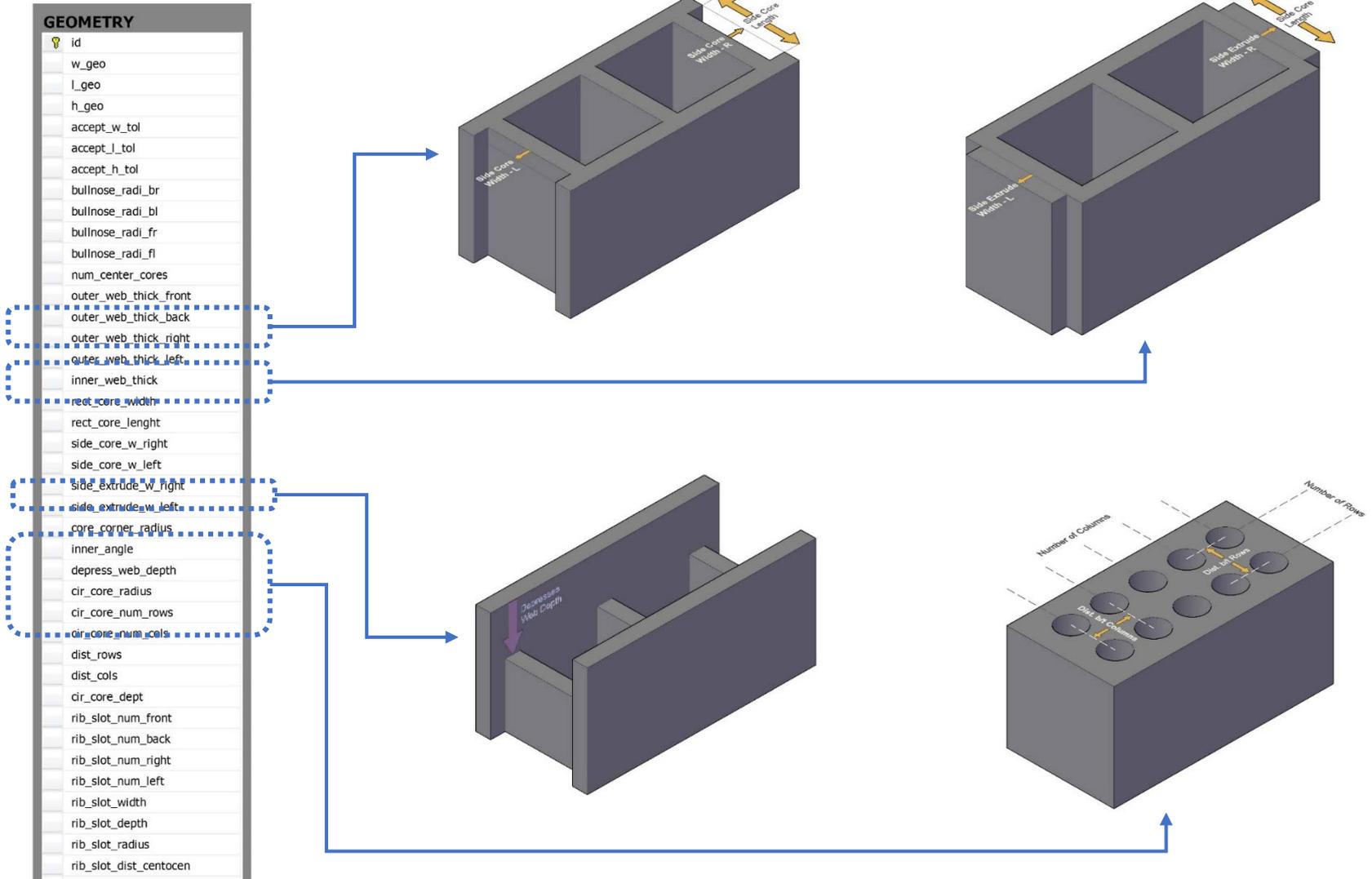


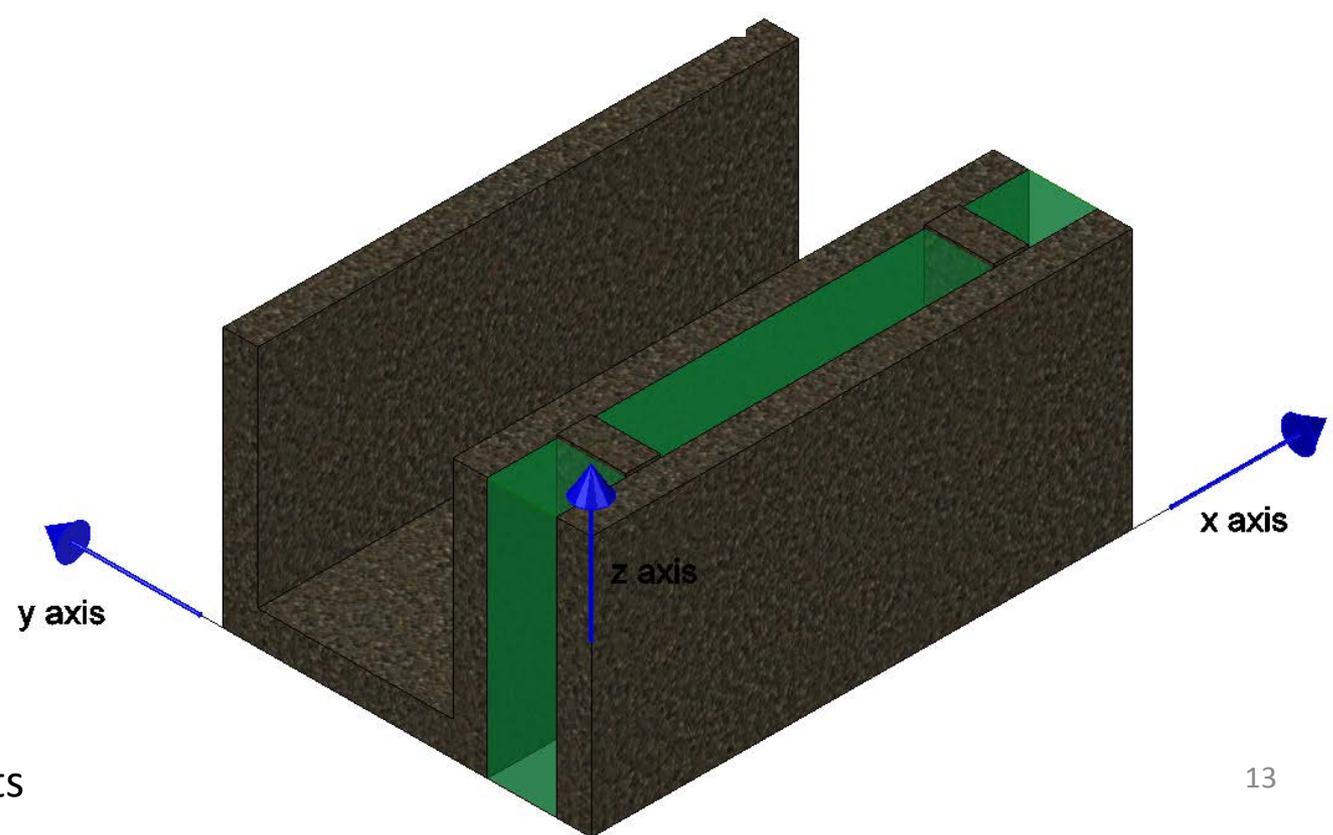
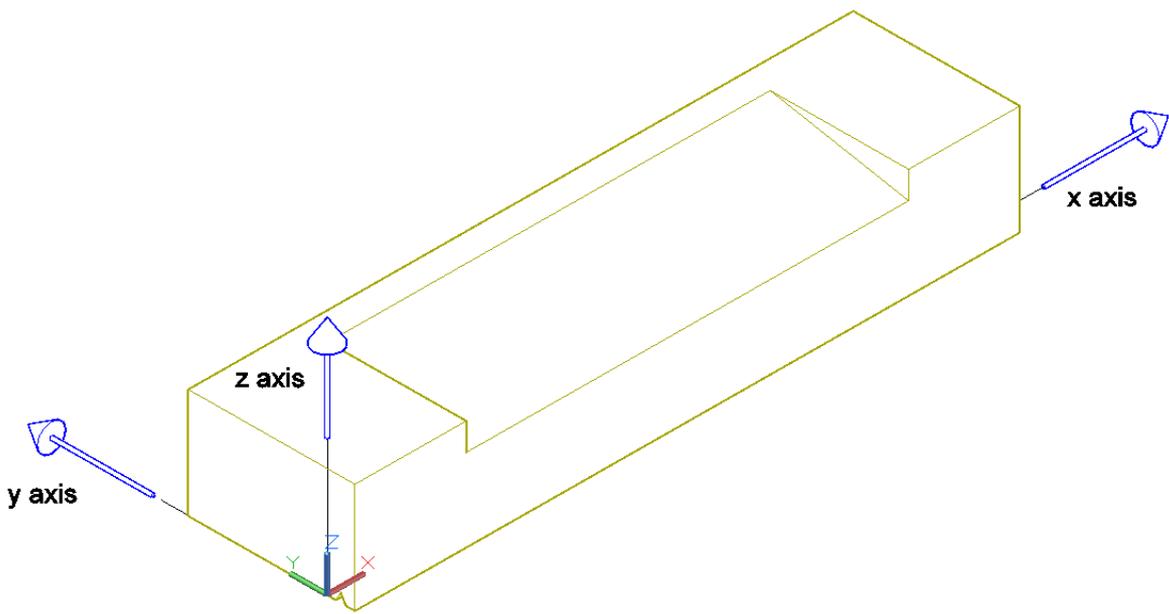
MUD Schedule

- Version 1 of the database and associated website and plug-ins published this spring and demonstrated at the BIM-M Symposium in Chicago (May 4-5).
- Version 2 RFP draft starting now. Your input is welcome. Custom units, tile and manufactured stone to be added to the database.
- Version 3 of the database to include manufacturer specific units and extension into additional masonry systems (hardscape, adhered veneer) and material types (cast stone, natural stone) depending on stakeholder interest.



Parametric Representation of Unit Geometry





Examples of custom units