Masonry Design in RISA

Matt Brown, S.E.
Program Version

RISA-3D

v11.0.2
Today’s Topics

- A Brief Review of Wall Panels
- In-Plane Design
- Out-of-Plane Design
- Masonry Design Rules
- Design Results (ASD vs Strength)
- Wall Stiffness (Diaphragms and Deflection)
WALL ANALYSIS
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Wall Regions

Vertically Spanning Regions

Transfer Regions (Horizontal)

Vertically Spanning Regions
In-Plane Design

WALL ANALYSIS
Out-of-Plane Design
WALL DESIGN RULES
Max Bending Chk
- Wall will be optimized to not exceed this value for bending/axial U.C.

Max Shear Chk
- Wall will be optimized to not exceed this value for shear U.C.
- **Block Nom Width**
  - Nominal Width of Wall
- **Block Grouting**
  - Ungrouted, Partial, or Fully
- **Reinforced**
  - Allows Unreinforced Walls
- **Wall Area Method**
  - NCMA (Face Shell Mortar Only) or RMEH (Mortar Bed includes Webs)
Bar Sizes
- Vertical and Horizontal

Boundary Zone
- Specify limits for Width

Bars per Cell
- One or Two

1.5x Shear Increase
- Shear Stress Increase for Seismic (older codes only)

Transfer Load
- If checked, no reinf. Bridges Load to adjacent regions
Bar Size
- Vertical

Bar Spacing
- Specify limits for Spacing

Bars Placement
- Centered, Each Face, or Staggered

Mortar and Cement Types

Transfer Load
- If checked, no reinf is used. Spans Horizontally
- **Depth**: Should be in increments of 8”
- **Bar Size**: Bending Steel and Stirrups
- **Layer Information**: Allows Multiple Layers (deep) of rebar
- **Bearing Length**: Defines how lintel bears on adjacent regions
ADDITIONAL RESOURCES

- RISA Help File
- www.risa.com
Questions?

Please let us know if you have questions.

We will answer as many questions as time permits during the webinar.

Once the webinar is closed, we will post all Q&A’s, as well as any supporting materials to our website:

www.risa.com

For further information, contact us at: info@risa.com