



2012 Virginia Wood Solutions Fair

Using Software to Design Multi-Story Wood Buildings

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Presenter: Michael Olson,



WoodWorks

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Questions related to specific materials, methods, and services will be addressed at the conclusion of this presentation.



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Learning Objectives

At the end of this program, participants will:

1. Understand the load path through a building structure.
2. Understand the basics of flexible and rigid diaphragms.
3. Understand the basics of the three wood shear wall design methods.
4. Have a basic understanding of how to model wood buildings using engineering software.



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Image Courtesy of International Code Council



Image Courtesy of American Wood Council

REFERENCED CODES

- Lateral Load Path
- Diaphragm Behavior
- Wall Behavior
- Build a Multi-Story Structural Model

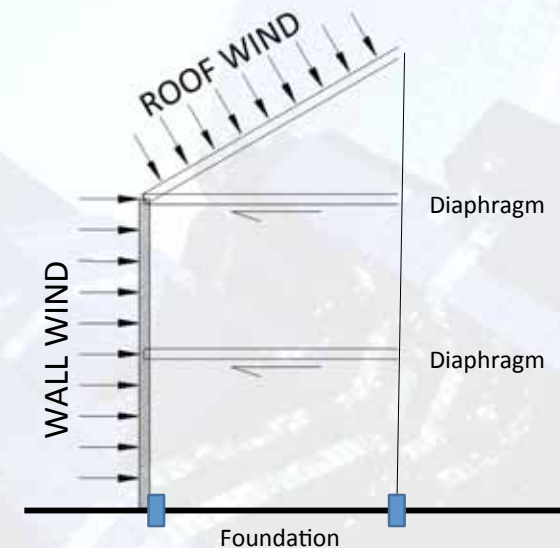
OVERVIEW

Lateral Force Load Path Code References*

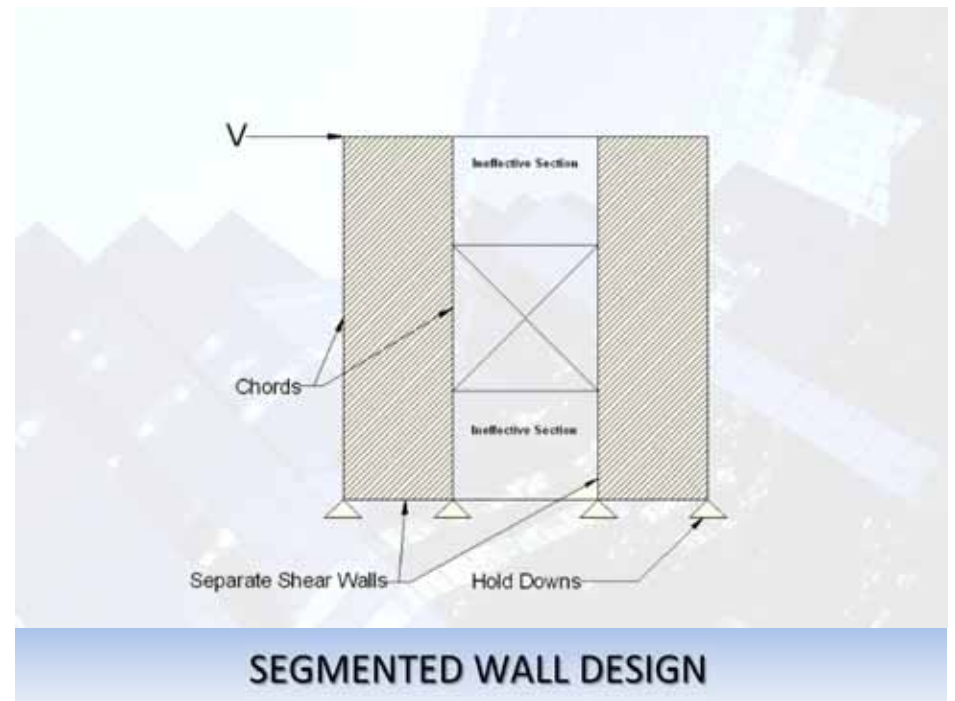
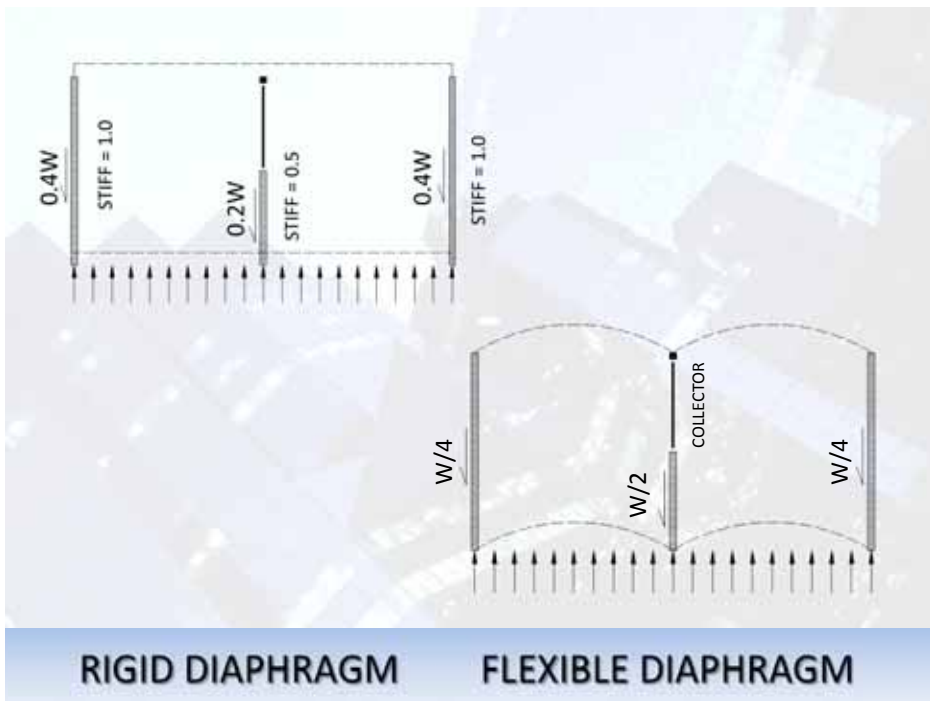
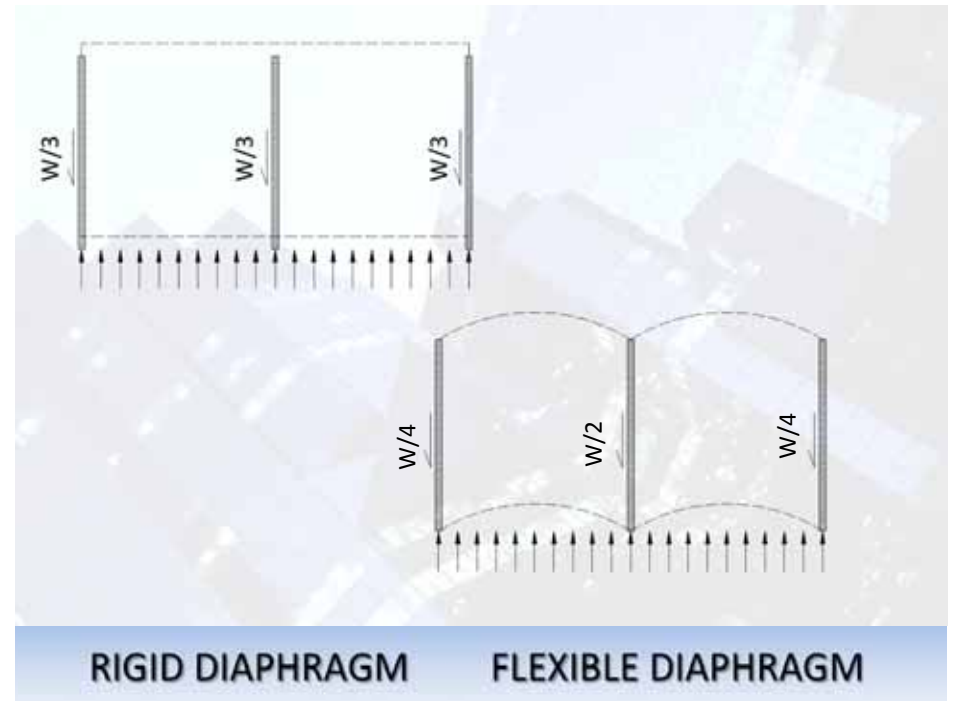
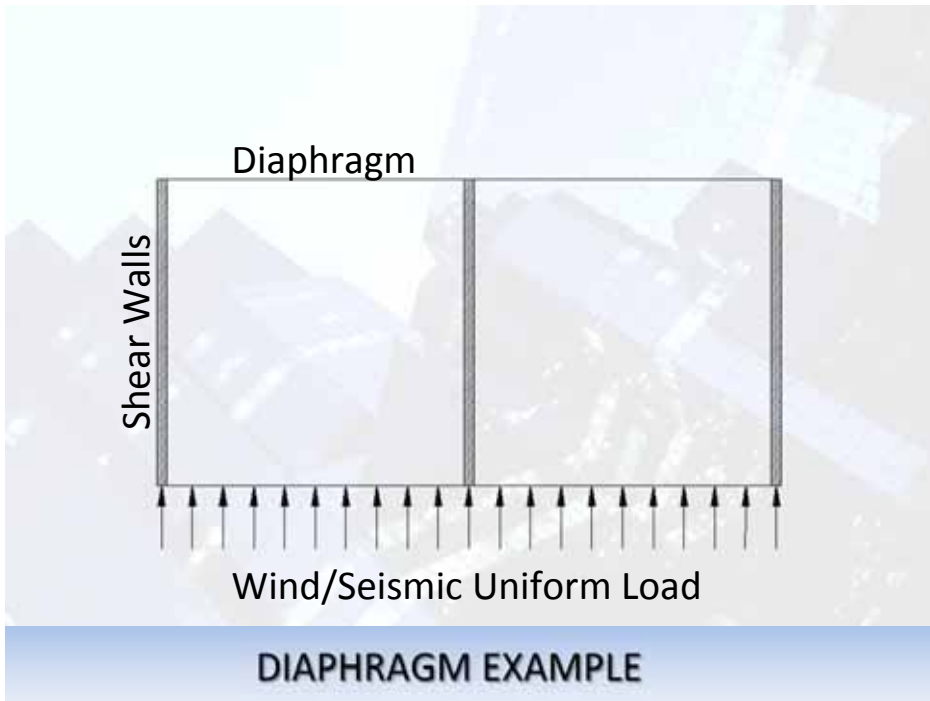
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|----------------------------------|-------------|
| 1. Diaphragm, Collector Elements | Section 4.2 |
| 2. Shear Walls | Section 4.3 |
| 3. Foundation | Section 3.3 |

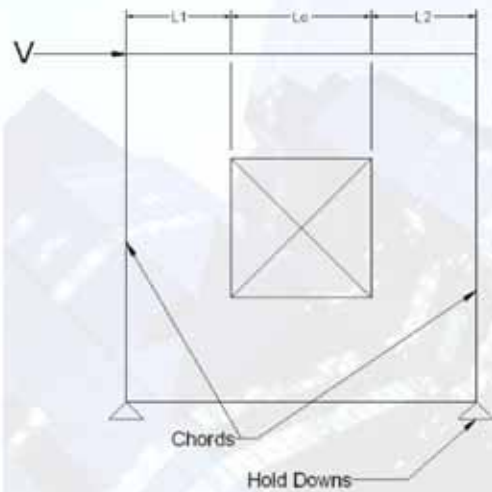
**Note that these code references refer to the NDS Special Design Provisions for Wind and Seismic.*

LOAD PATH

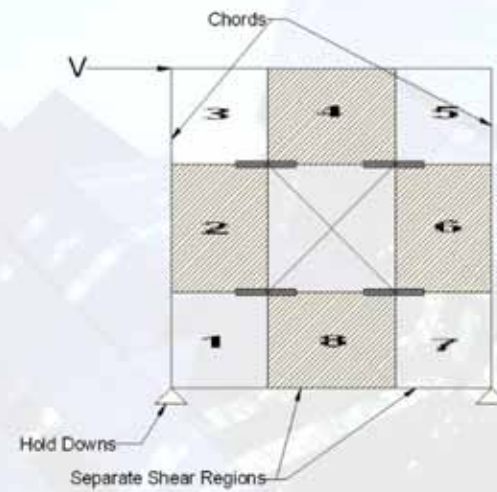


LOAD PATH ILLUSTRATED

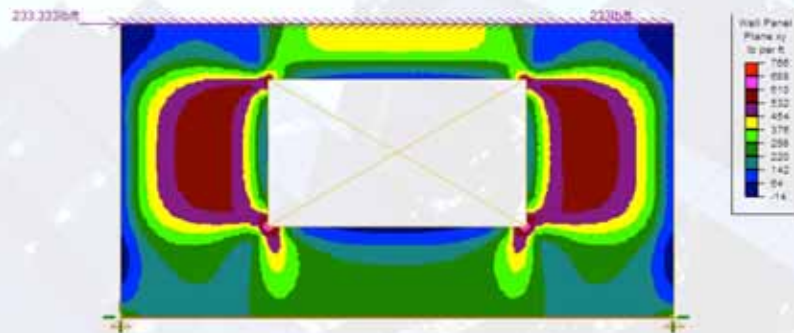




PERFORATED WALL DESIGN



FTAO WALL DESIGN



FINITE ELEMENT ANALYSIS



Image Courtesy of International Code Council

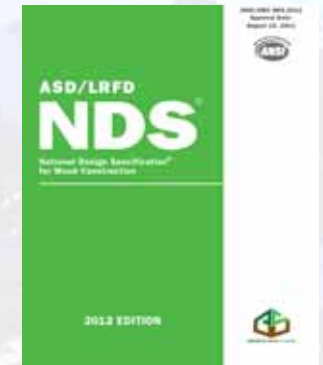


Image Courtesy of American Wood Council

WHAT'S COMING NEXT?



Additional Resources

- The RISA Booth at Today's Show
- RISA Webinars
- www.risanews.com

Presenter: Michael Olson,



> Questions?

This concludes The American
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