





## End-of-life Disassembly and Re-use of Mass Timber

<https://research.thinkwood.com/en/permalink/catalogue2796>

Organization: TallWood Design Institute  
Oregon State University

Country of Publication: United States

Material: CLT (Cross-Laminated Timber)

Application: Wood Building Systems

Topic: Design and Systems  
Environmental Impact

Keywords: Deconstructable Connections  
End of Life  
Disassembly  
Reuse  
Mass Timber

Research Status: In Progress

Notes: Project contact is Lech Muszynski at Oregon State University

### Summary:

The aim of this project is to remove this vulnerability by thoughtful conceptualization of basic strategies for optimizing the design of mass timber buildings for successful post-use material recovery/reuse and end-of-life climate benefit. Research questions will include:

1. Is demolition of decommissioned mass timber buildings a viable end-of-life option at all?
2. Can deconstruction be conducted by following construction steps in reverse order?
3. What may be the extent of damage inflicted to the connection nests, connected edges and surfaces of MTP elements during a deconstruction?
4. Can original connection nests be safely reused in structures re-using deconstructed MTP elements?
5. What is the impact of techniques and technologies selected at the design, production, and construction stages on the EOL options and carbon cost of deconstruction,
6. What is the carbon impact of deconstruction on reuse or recycling of MTP elements?
7. Do the existing deconstruction companies in the Pacific northwest have capacity to process mass timber panels that could not be reused?
8. What is the carbon costs of transportation and repurposing/recycling of MTP elements for non-structural uses?

### Resource Link

<http://tallwoodinstitute.org/projects/end-life-disassembly-and-re-use-mass-timber> 