UTC Project Information	
Project Title	MPC-487 – Investigation of Cross Laminated Timber Bridge Decks as a Sustainable Solution for Repair of Deficient Rural Wood Bridges
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Funding Agencies	USDOT, Research and Innovative Technology Administration
Agency ID or Contract Number	DTRT13-G-UTC38
Project Cost	$64,000
Start and End Dates	September 30, 2013 to September 30, 2018
Project Duration	September 30, 2013 to September 30, 2018
Brief Description of Research Project	Wood bridge deck replacement using glue laminated timber panels has been investigated (see e.g. Moody et al, 1990) and shown to be effective. However, that body of research focuses on classical loading in bridge decks, namely vehicle loading, which is critical when considering bridge deck rehabilitation. The advent of cross laminated timber (CLT) in Europe and its introduction to North America brings with it the potential for application to bridge deck rehabilitation. CLT differs from traditional glue laminated timber in that each lamination layer is rotated 90 degrees to provide desirable mechanical properties in both directions. For bridges located in moderate seismic regions such as some locations within the mountain plains region the ability to resist and transfer in-plane shear in any directions is critical. Currently, no design procedure exists in North America for in-plane connections of CLT panels.
Describe Implementation of Research Outcomes (or why not implemented) Place Any Photos Here	Published in a journal paper for others to utilize the results as needed/desired.
Impacts/Benefits of Implementation (actual, not anticipated)	The results and method will allow for better modeling and validation of models for CLT bridge decks constructed/designed using CLT and subjected to lateral loads such as earthquakes.
Web Links • Reports • Project Website	• MPC Research Report • CSU Thesis