



**NEW MILLENNIUM**  
BUILDING SYSTEMS  
Building a better steel experience.



**APPLICATION NOTES**  
April, 2018

## Integrating New Steel into a 186-Year-Old Renovation

Seamless integration with existing renovation infrastructure is a hallmark of New Millennium steel joists and decking ... even when the building is nearly two centuries old.



Bill Neikirk, design supervisor for New Millennium Building Systems, heads up the company's participation in the renovation of a nineteenth-century church. He was intrigued at the challenge of providing steel joists and decking for the condominium conversion of the structure built in 1832.

"They needed a lot of help, such as how many rows of bridging would be involved, how much welding would be required to attach joists bearing on the structure, and our standard bridging and seat details," he says.

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For this delicate conversion, New Millennium supplied 24-inch-deep, long span, LH-Series steel joists to the project as well as 1.5CD standard composite deck to integrate directly into the 186-year-old structure. “That is one of the

features that makes structural solutions from New Millennium Building Systems so versatile. They can integrate into wood, steel, or whatever existing structure is found on site,” says Bill.

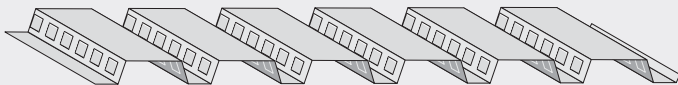


New Millennium steel joists span the existing infrastructure of the shell of a 1830s church in Beverly, MA.



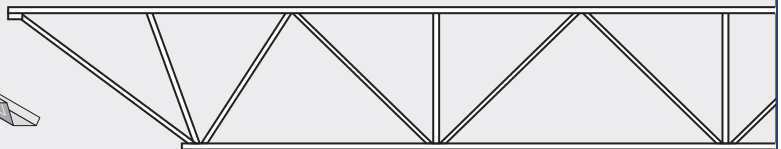
1.5CD standard composite deck sits atop steel joists in preparation for the concrete floor to be poured.

### Featured structural solutions:



#### 1.5CD standard composite deck

Standard composite deck has embossments in the vertical ribs that bond with the concrete slab to develop a composite floor system. Once the concrete cures, the resulting composite floor system provides superior strength and stiffness.



#### LH-Series steel joists

Single-piece joists can be produced up to 120' long, with field splices used to increase lengths and depths. Also available with single-pitched or double-pitched top chords.



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