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## Office

Three takes on the new workplace



# Detail: Thompson Exhibition Building Structure

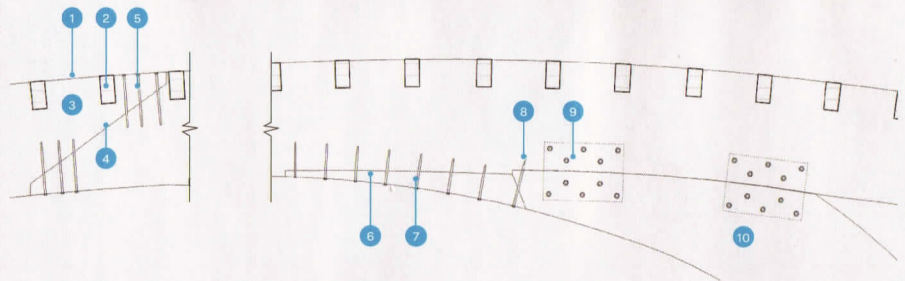
TEXT BY TIMOTHY A. SCHULER

As part of a new arrival sequence to the Mystic Seaport, a museum and re-created 19th-century maritime village in Mystic, Conn., the curvilinear, 14,000-square-foot Thompson Exhibition Building draws on everything from early shipbuilding to the radial geometry of mollusk shells. "Mystic Seaport calls itself the Museum of America and the Sea, and it's got the America part down great," says Chad Floyd, FAIA, a partner at Centerbrook Architects and Planners. What was missing, he says, was the feeling of the sea, which "got us thinking about ... the 'geometry of the sea.'"

The long-span structure assumes the form of a three-story wave cresting around the building's entrance. It was designed entirely in 3D using Autodesk Revit and rendered via Act-3D Lumion "quickly, early, and often," Floyd says.

Each of the 10 Douglas fir glulam ribs that comprise the structure contains a splice near a support column, shaped to complete the look of each rib's curvature. It took Goodlam (a division of Goodfellow), based in Delson, Quebec, 30 days to fabricate all 22.5 miles of the glulam. Steel knife plates concealed inside the structural members give the project "a much more elegant effect," Floyd says.

The exhibition building has expanded the experience of Mystic Seaport. "I like the fact that it resonates, has meaning, [and] communicates," Floyd says. "So many buildings are just abstract exercises that are wonderful and marvelous, but this is that and more."



1. Plywood roof deck
2. 5.125" x 8.75" glulam purlin (18" o.c.)
3. 8.75" x 39" Douglas fir glulam rib with 100'-radius curvature (19' o.c. between bays, 22' o.c. at end bays)
4. On-site splice made in rib
5.  $\varnothing 0.625"$  x 18" lag bolts (typ.)
6. 8.75"-thick Douglas fir glulam wedge
7. Two  $\varnothing 0.375"$  x 12" fasteners (10" o.c.) (typ.)
8. Two  $\varnothing 0.625"$  x 18" lag bolts
9. 28" x 20" x 0.5" knife plate (typ.)
10. 8.75" x 43.5" Douglas fir glulam column, with 10'-radius curvature (spaced to match that of the glulam ribs)

> To read more about the design and fabrication of the Thompson Exhibition Building, visit [bit.ly/ARThompson](http://bit.ly/ARThompson).