



# Philip J. Currie Dinosaur Museum

## Wembley, AB

One of the world’s foremost education centres for palaeontology, the Philip J. Currie Dinosaur Museum rests on the ancient Pipestone Creek bonebed in Northern Alberta. The museum’s geometrically-complex exposed roof mimics a dinosaur’s skeleton – prefabricated modular timber panels are supported by angled glue-laminated beams, linked with custom computer-cut laminated plywood connection “nodes”.

Fast + Epp, in collaboration with the design-builders, Structure Craft, used Rhino and Grasshopper modelling software to simplify complex roof angles and connections. While early cost estimates for an all-wood option seemed prohibitive, engineers developed an innovative solution using layers of plywood and a CNC machine to “stamp” two-dimensional shapes into the wood. They were then laminated into unique three-dimensional forms.

The largest nodes were 1500mm tall and 2400mm wide, composed of approximately 180 CNC-cut plywood pieces. Given this complexity – and the groundbreaking nature of timber connections – engineers tested the strength and failure thresholds rigorously. Shop fabrication required extensive coordination to ensure accuracy; each individual element was required to fit seamlessly as a kit of parts when erected.

### Fast + Epp

Status  
Completed 2015

Project Cost  
\$22 million

Area  
29,060 ft² (2,699 m²)

Client  
Teeple Architects and Architecture Arndt  
Tkalcic Bengert

