



SFU Lorne Davies Gymnasium Burnaby, BC

Inspired by the ancient Mexican hilltop city of Monte Alban, Arthur Erickson's master plan for Simon Fraser University featured terraces of flat-roofed buildings on Burnaby Mountain. For nearly 30 years, architects and engineers conformed to this model, until Fast + Epp and project architects proposed a different response.

The project was an addition to Chancellor Gymnasium – its height and structural grid dictated massing and articulation of the new building. To maintain sight lines from the top of the bleachers, we proposed a hybrid wood and steel roof structure, using trusses with a curved bottom chord – high at the supports and low at the centre. To achieve the 40m span structural depth, the roof plane and top chord were also curved

Trusses were spaced at 6m centres and consisted of a pair of double curved glulam timber top chords and a single steel pipe curved bottom chord. The top and bottom chords are spread apart by pairs of tapered steel T-plates, forming a lenticular truss with no diagonal members. Trusses were constructed on site and lifted into place in one piece.

Expecting resistance to this break from tradition, we were pleasantly surprised when Arthur Erickson himself gave his blessing.

Fast + Epp

Status
Completed 2006

Project Cost
\$12 million

Area
40,000 ft² (3,716 m²)

Architect
CEI Architecture

Client
Simon Fraser University

