Overall 3D View
3D View of Entry
3D View of Entry
3D View of Ravine Terrace
3D View from Black Creek Ravine Edge
3D View of Typical Office Floor
The Comparables are Not Comparable

Concrete – Two Way System

Concrete – Continuous Beams

Simple Span

Moments

Shear

Moment

Simple Span Moments
Changing Materials

Change Proportions
A wood system must necessarily be much deeper than normal to accommodate the longer spans normally achieved in concrete for a similar building type.

Change System
Develop a new structural system to allow wood to achieve spans and proportions similar to concrete.

Change the Way we use the Building
Plan the building around spans that are suitable for conventional wood systems (±6m rather than 9m).

Direct Substitution
Substitute wood for concrete in similar proportions using conventional systems.
Composite vs. Non-composite

Less Timber
Shear Transfer (Cost & Complication)
Heavier

More Timber
Floating Topping (if used)
Lighter Weight (if no topping)
Faster