

411 RAILWAY STREET

Vancouver, BC | Completed 2023

Role of the firm: Structural Engineer of Record

Area: 112,000 ft² (10,405 m²)

Budget: CA \$52 million

Architect: office of mcfarlane biggar architects + designers

Client: Bensen Manufacturing and Danet Interiors

Nestled in the heart of Vancouver's Railtown neighborhood, this innovative six-storey mixed-use building is one of the first to adopt the recently created I-4 (Historic Industrial) Zoning District Schedule, incorporating the "Creative Products Manufacturing" use. Not only does this project support and promote the local creative economy, but it also provides an unparalleled level of flexibility and adaptability for businesses and tenants alike.

The building's layout features two concrete structures connected by mass timber bridges (designed and supplied by Workshop Engineers and Seagate respectively) and modulated by an atrium, which serves as a social hub and enables visual connections throughout the building. The connection of the bridge to the concrete structures were designed in such a way that allows the bridges to slide in and out during any seismic movement of the building.

The concrete structures are comprised of post-tensioned concrete slabs on concrete columns and walls. Carefully designed and detailed steel cross-braces also contribute to the lateral force resisting mechanism of the building while allowing ample natural light into the building through a sleek curtain wall façade.

