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ARCHITECT RECOMMENDS SWITCH TO REINFORCED CONCRETE

When Paul Strain, an architect with Toronto-based Page & Steele Architects inherited the 25-storey Bloor Park Condominium project, the original design called for the use of structural steel. However, Page & Steele recommended changing the building's structural material to cast-in-place reinforced concrete.

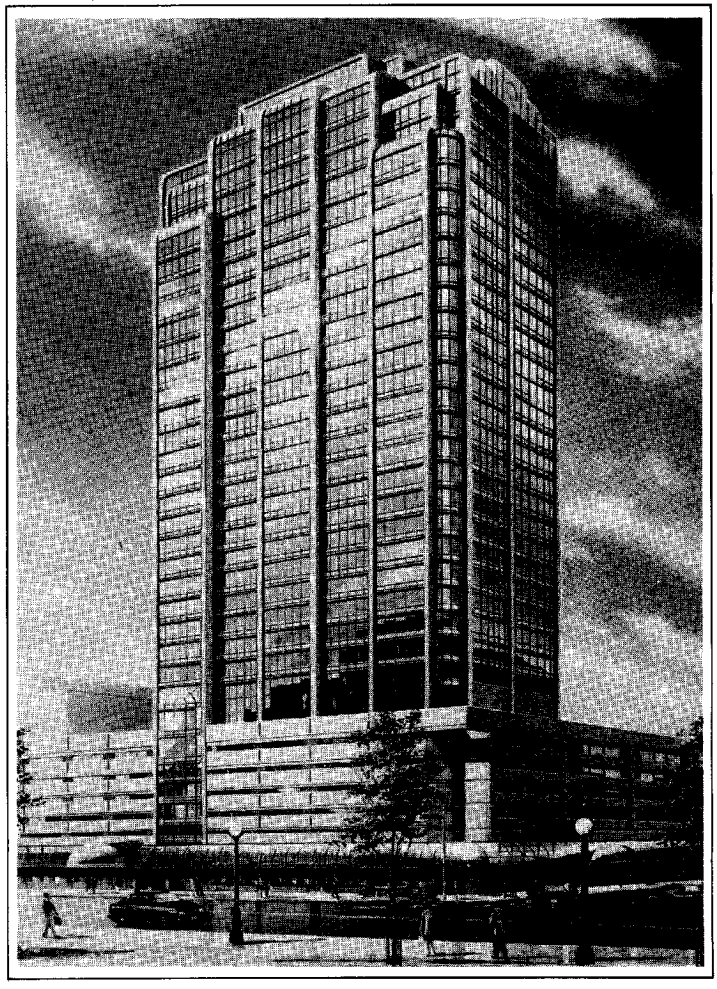
The reasons for the change to concrete were compelling says Strain. The still-under-construction residential condominium at 8 Park Road, Toronto, is actually an addition to a 4-level parking garage which sits on top of the Hudson's Bay Store. Farther below still, is a Food Court and then a further three levels of underground parking.

In the original plan, the structural grids did not align with the existing building. Moreover, when the existing parking garage was built, it was designed with only a 10-storey future addition in mind. Due to the fact that the new building was to be 25 storeys, the size of the structural columns had to be increased at every level that was affected by the weight of the new addition.

The original plan called for a structural steel truss system with a transfer bridge. Strain felt that this design might create problems and opted instead for a concrete structure!

As an alternative, Strain turned to a light weight concrete post-tensioned slab on shear walls aligned on to the existing structural grid. In addition, a commercial curtain wall was modified and adapted as a solution to a light weight exterior skin.

The choice of concrete was also based on the location and height of the building. The architects felt that the microclimate, such as wind effects, would result in building sway, that, with the use of structural steel, would produce creaks and pops suitable perhaps for an office building with the attendant environmental noise, but unacceptable for residential condominium occupancy.



Owner/Developer: Bramalea Limited
Architects: Page & Steel Architects
Engineer: Adjelian, Allen, Rubeli Ltd.