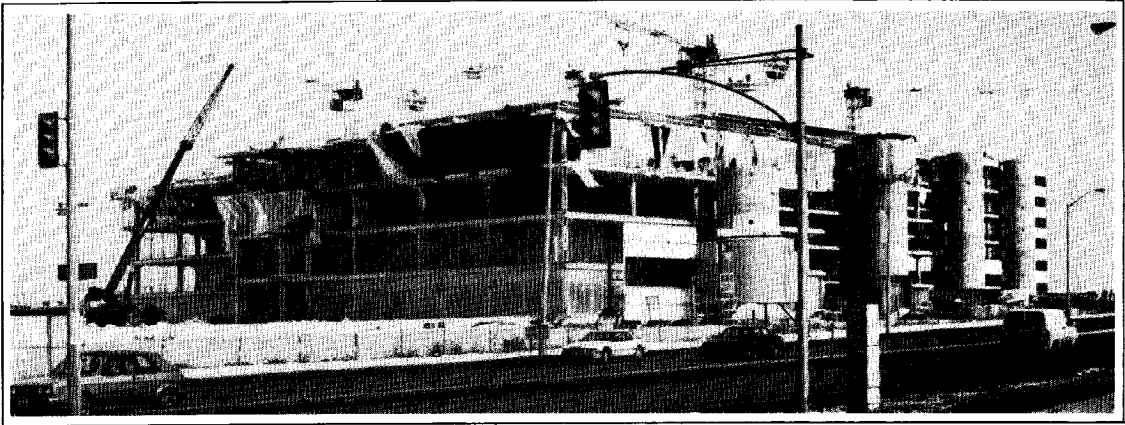


IBM Canadian Office Complex



On the north side of Steeles Avenue, between Victoria Park and Warden Avenue, the new, intriguingly-contoured IBM building has been assuming its place in the Markham landscape.

Eight towers have been rising gracefully since March 1989, the resulting smooth profile due to the use of reinforced concrete in the construction.

All parts of the building's 79 000 square metres are accessible to each other by means of a tunnel three metres underground or by the enclosed, connecting bridge.

Joining the tops of the four pairs of towers; the bridge

extends from the first pair, which has four storeys. From west to east it ascends one additional floor for each pair, ending at the fourth, and tallest pair, with seven storeys, plus the roof.

Peter Wagner, of Quinn Dressel Associates, the Structural Design Engineers of the building, said that comparative cost analysis indicated a saving of at least 10% over competitive material by using cast-in-place concrete. It was only by this means that the unique shapes of the office building and garage were achieved. With a flat slab design using a 4.8 kn/m² live load and a two hour fire rating the struc-

ture becomes cost efficient.

Because of the availability of a 14-acre site to the north of the office building, a 74 300 square metre garage was added.

With spaces to accommodate 2,600 vehicles, like Toronto's Terminal Two, the low-profile garage rises in six staggered levels, from grade.

Of the total 5 000 tonnes of rebar used in the entire project, 1 500 tonnes was epoxy-coated. The whole construction of the parking garage - walls, floors, columns, slabs - are all epoxy-coated in an effort to minimize corrosion damage caused by deicing salts.

Although the IBM office structure consists of several parts, it is still considered to be one building, by virtue of the fact that all components are connected. For this reason, the naturally fireproof properties inherent in reinforced concrete, was an important consideration in the construction.

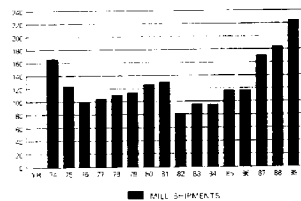
Owner: IBM Canada Ltd.

Architects:
Webb Zerafa Menkes
Housden Partnership

General Contractor:
Ellis-Don Limited

Structural Engineers:
Quinn Dressel Associates

MILL SHIPMENTS TO FABRICATORS
in thousands of tonnes



1989-RECORD YEAR

"As we head into 1990 the greater Toronto office market is still one of the healthiest and most vibrant in North America," said Wayne Mandeville, Executive Vice-President for Royal LePage's Commercial Real Estate services, in an issue of the Toronto Star.

This optimism argues well for the future said Reinforcing Steel Institute of Ontario's President, John Harris, of Harris Rebar, who noted that shipments of rebar from RSIO mill members to fabricator members reached an all-time high of 225 220 tonnes in 1989.

A strong construction market, new technologies such as high strength concrete, the professionalism

of our producers and fabricators, and the benefits of reinforced concrete construction all helped to make 1989 shipments, some 41 000 tonnes more than in 1988, said Harris.

While higher vacancy rates and a slow down in construction are being predicted for the future, Harris said, our industry looks forward to a high level of activity for most of 1990.