

# RSIO

## Case History Report

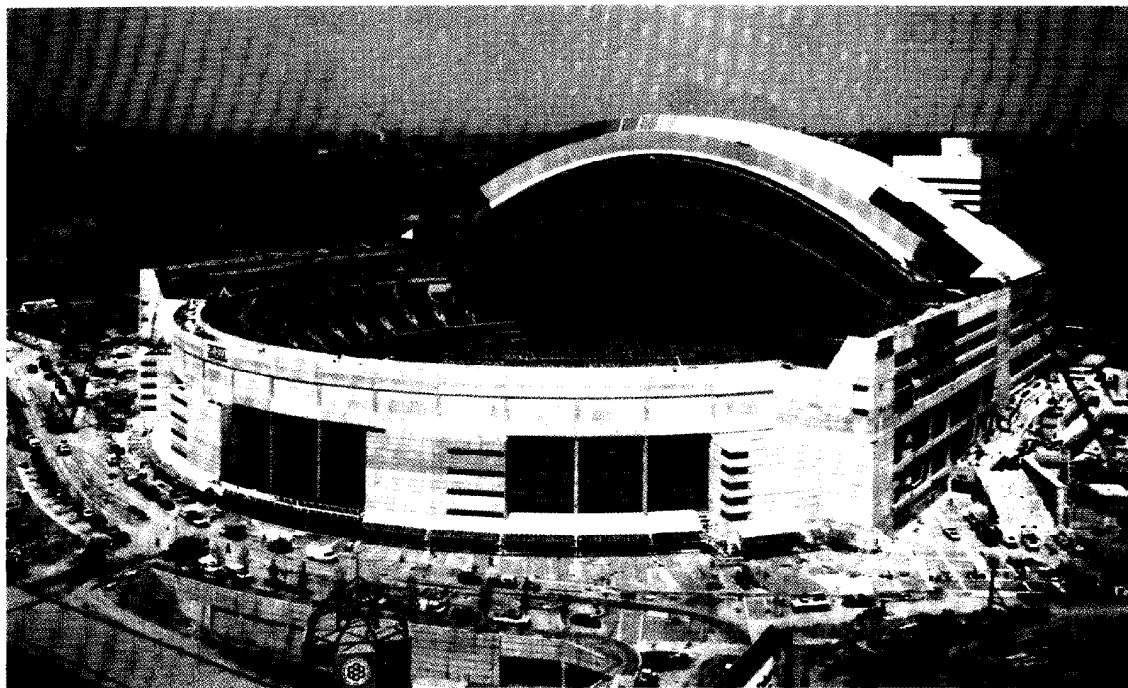
# SkyDome

Without the use of reinforced concrete in the SkyDome, the marvel of the only completely retractable stadium roof on the planet could never have happened. Even before groundbreaking, the glamour and wonder of this never-before-seen roof grabbed all of the attention and newspaper headlines.

The track beams, on which the trucks ride to effect the motion of the three moveable roof panels, is of cast-in-place reinforced concrete construction. Reinforced concrete is ideal, as it conforms to any and all shapes.

Building the all-important track beams was a challenging undertaking, due to the complex geometry of their design. There are two straight, parallel sections on the west and east, positioned on either side of the circular beam, which allows the 270 degree circular movement of the south panel. It was obvious that diverse shapes such as these demanded the special qualities of reinforced concrete.

With rail tolerances required to plus or minus 3 mm, the pouring of the concrete around the 2 200 tonnes of rebar in the track beams had to be completely accurate to minimize grouting. The ability to meet the tight tolerances had an unexpected benefit. The roof moved much more quietly than had earlier been anticipated.



SkyDome's exposed concrete exterior - an effective, economical finish. ▲