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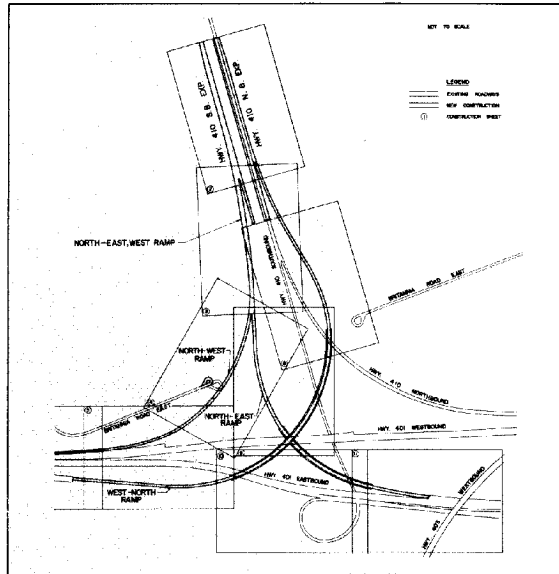
## MTO CONSTRUCTS MASSIVE OVERPASS

When construction is completed in 1990 of the new 4-tier \$17.2 million interchange that connects Highway 401 eastbound to Highway 410 northbound (555 metres long), it will form part of the largest interchange in Canada says Barry Reid, Project Supervisor for the Ministry of Transportation Ontario. In making this determination, Reid is including the projected Highway 410 to Highway 403 connection that is proposed for construction in 1992 and the existing Highway 403 at 401 Highway connection.

As a consequence, the operative word for the current project is "BIG" says Reid. In total, 1 088 tonnes of uncoated rebar along with 607 tonnes of epoxy coated rebar are being used. Total concrete required for the project is 22 500 cubic metres.

Included in the epoxy coated rebar are several 2.4 metre diameter spirals which, according to the rebar fabricator, posed quite a challenge. Generally, in other construction projects, the diameter of spirals is normally one metre. In comparison this was a monster size.

As the rebar is fabricated to the correct radius, the spirals are formed by welding together pre-coated, straight lengths of bar. Care is taken



to ensure the epoxy coating is not damaged.

The project is also unusual for the height of the columns says Reid. The highest column is 23.5 metres at the centre point of the structure (the usual height for a structural crossing over Highway 401 is 4.5 metres). Construction joints were required to ensure proper concrete placing and curing.

This created an on-site challenge of splicing the large 45M and 55M vertical bars. The rebar was placed in three stages by use of a moveable platform and

approximately 1,400 mechanical splices were used. This meant that a crane was at work almost continuously on the column, quite an unusual occurrence for this type of project says Reid.

When completed, the new interchange will move more of the ever increasing Mississauga/Brampton traffic onto Highway 410, which is better able to handle it, and should ease the flow on Highway 10.

**Owner:** Ministry of Transportation Ontario  
**Structural Engineers:** MTO / Parker Consultants  
**General Contractor:** BOT Construction

