

### Client

GO Transit

### Location

City of Toronto

### Services

- Track Alignment Design
- Contract Drawings
- Drainage analysis
- Regulatory Analysis

## West Toronto Diamond Rail/Rail Grade Separation

### Project Description

The CN Rail/GO Transit Weston rail corridor crosses CP Rail's major freight corridor at grade. The conflict with CP trains prevents GO Transit from expanding commuter service on the Weston corridor. GO Transit has hired Delcan to carry out the detailed design and construction of a four-track grade separation of these two rail lines.

The project is complicated by the presence of an existing public grade crossing – Old Weston Road, existing connecting tracks between the two railways in the SW quadrant, and an additional CP Connecting track over the CN tracks – all of which must be maintained during construction. Further, existing subways north and south of the project constrain the distance over which a grade separation can be achieved.



### Scope of Services

In cooperation with our structural department, Delcan carried out detailed horizontal and vertical track alignment designs for four CN/GO tracks under the CP Rail corridor; relocated CP/GO Galt Sub tracks, a relocated CP Connecting track, and a temporary diversion track. The Delcan design eliminated the need to purchase a custom temporary diamond crossing resulting in a significant saving to the project.

Detailed contract drawings, cross sections, and data sheets were prepared for all temporary and permanent trackwork.

In addition Delcan reviewed the regulatory requirements for the grade separations from a drainage, safety, evacuation and maintainability point of view, and ensured that all aspects of the overall design met all regulatory requirements.

### Results

The resulting infrastructure will permit future expansion of GO service, eliminate a main line public grade crossing, and provide an opportunity for enhanced CN & CP rail service.