



# Track Inspection and Process Review

## Project

Track Inspection and Process Review

## Client

Toronto Transit Commission (TTC)

## Location

Toronto, Canada

## Dates & Duration

2018 – 2018  
(3 months)

## Services Provided

- ▶ Assessment of the Track Maintenance Practices and Processes; and
- ▶ Advice and Recommendations.

## Background

The Toronto Transit Commission (TTC) wished to gain an in-depth understanding and comparison of its own Track Maintenance practices to industry leading standards, for a large, complex public rail transit organization.

TTC engaged with Network Rail Consulting (NRC) to receive advice and recommendations on how to be more effective and efficient in terms of Track Inspection, communication, prioritization, preventive and corrective maintenance, Track Repair methodologies and equipment suitability, while maintaining current service schedule.

## Scope of Works

Network Rail Consulting were tasked to assess the impact of service schedule changes to the maintenance strategies and practices as well as reliability of track components.

### Task 1 - State of Subway Repair

Observe and report on the general state of subway corridor track assets at any two indoor and two outdoor mainline segments (station-to-station, approx. 1km) of it's choosing on each of Line 1 and Line 2. Make risk-based recommendations for improvements to asset condition.

### Task 2 - Condition Information

Review and sample condition information gathering processes (NDT, Track Patrol, Geometry and Wear Checks) and subsequent data handling, reporting, and archiving. Make recommendations for improvement based on industry-leading practices.

### Task 3 - Prioritization and Planning

Review the prioritization, planning, scheduling, dispatching and close-out of corrective and preventive maintenance interventions, and longer-term State of Good Repair (SOGR) work. Make recommendations for improvement drawing on risk-based industry-leading practices.

#### Task 4 - Constraints on Track Maintenance Production and Quality Levels

Review the prioritization, planning, scheduling, dispatching and close-out of corrective and preventive maintenance interventions, and longer-term State of Good Repair (SOGR) work. Make recommendations for improvement drawing on risk-based industry-leading practices.

#### Key Project Outputs

- ▶ Recommend optimal facilities for the Track Maintenance Group based on size, location and scheduling of the workforce, and relative to business needs;
- ▶ Provide benchmark rules, policies, procedures and standards for Track Maintenance management;
- ▶ Recommend suitable program dashboard to monitor maintenance of track elements allowing for real-time updates, development of senior management briefings, capturing all critical path items integral to scope, schedule and budget;
- ▶ Present best practice of Subway Track Maintenance through effective management using both general industry comparators, most similar to TTC, including public sector and public transportation comparators. Private sector comparators may be used where functions are generic, such as safety assurance, funds control;
- ▶ Identify track cleanliness standards and make recommendation as to the optimal staffing and efficiency model for sustained performance; and
- ▶ Compare relevance and effectiveness of KPIs with other similar organizations.