

### Management of Contaminated Materials

During the Detailed Design Stage, studies will be completed to determine any potential for the project to interact with contaminated soil or groundwater. Where the potential is confirmed, a plan to remediate the environment to the applicable standards will be prepared. The MOE and Construction Manager would be notified immediately upon discovery of any contaminated material encountered within the construction area. If contaminated materials or contaminated groundwater are encountered within the construction limits, these will be removed and disposed off in accordance with all applicable acts and regulations. Treatment and discharge of contaminated groundwater are also to be in accordance with applicable legislation and regulations.

### Construction Waste Management Plan

During construction there will be some excess materials requiring disposal off the site of the project. These could include concrete rubble, asphalt, earth and road ROW appurtenances such as signs and lighting and utility poles. During the Detailed Design Stage a Waste Management Plan will be developed to ensure that surplus material is recycled wherever practical and to describe the methods to be used by the Contractor for disposal of all other surplus material in accordance with provincial or local municipal practices and guidelines.

### Geotechnical Investigations

In advance of the detailed design, final, comprehensive geotechnical investigations will be required to confirm groundwater and subsurface conditions and potential impacts that will need to be considered in developing the detailed design of the project.

### Archaeological Assessment and Monitoring

From an initial assessment of the existing conditions, areas having archaeological potential have been identified. Accordingly, it is recommended that a Stage 2 Archaeological Assessment be conducted by a licensed archaeologist, prior to construction. During actual construction, it may be necessary to monitor deep excavations, by a licensed archaeologist. The results of the Stage 2 assessment should be used to determine this level of monitoring. If during the course of construction, archaeological resources are discovered, the site should be protected from further disturbance until a licensed archaeologist has completed implementing any necessary mitigation measures.

### Stormwater Management Plan

The post-development SWM strategy includes the design of several enhanced swales, as a part of a treatment train approach as discussed in **Section 6.4** for quality treatment of runoff generated by the transitway for drainage areas less than 5 ha, and several SWM ponds for drainage areas greater than 5 ha (details included in Chapter 5 of **Appendix M**). All ponds were designed for quantity and quality control providing Level 1 protection at the outlet.

### Erosion and Sediment Control Plan

In advance of the Construction Stage, a detailed plan will be prepared by the Contractor to manage erosion and the flow of sediment into storm sewers. This plan will be based on best management practices including the Guideline of Erosion and Sediment Control at Urban Construction Sites. Provision for inspection of erosion and sedimentation control measures during construction will be identified in permit approvals. Catchbasin filters and straw bales in roadside ditches will be used to control erosion and sedimentation during construction. Sediment fences will be used where construction is adjacent to watercourse crossings.

### Landscape Plan

During the Detailed Design Stage, and building on the concepts outlined in this report, a detailed Landscape Plan will be prepared to guide the species selection, location and planting details for all proposed plantings along the runningway and at stations, where applicable. The plan will be prepared by a professional landscape architect with experience in plantings along arterial highways and public areas such as the station precincts.

### Lighting Treatment Plan

A Lighting Treatment Plan in accordance with local and regional municipal standards will be prepared prior to the initiation of construction. The Lighting Treatment Plan will include lighting fixtures and illumination along the various sections of the corridor. A lighting audit of the preferred lighting design plan will be conducted to ensure clear sight lines and appropriate illumination.

### Public Communications Plan

The requirement for a Public Communications Plan stems from the need to keep the public informed about the work in progress and the end result of the construction activity. Residents and other stakeholders must be aware of scheduled road closings and other disruptions to normal service ahead of time in order that their activities can be planned with minimum disruption. The Public Communications Plan should detail how to communicate the information to the public, what information should be disseminated, and at what project stages the communications should take place.

## 8.3 Project Implementation Phasing

Implementation of the Central Section of the 407 Transitway will likely entail several phases, the extent and timing of each being a function of funding availability, the need to maintain transit service reliability and priorities for transit investment in the GGH. Currently Metrolinx provides cross-regional transit service in the 407 Corridor by operating in mixed traffic on the 407 ETR through this Central Section of the transitway by linking several municipalities east and west of Highway 400 to York University with a short diversion south from the 407 ETR. In addition, Metrolinx provides express service between RHC (Yonge Street) and Pearson International Airport, again using the 407 ETR for most of the route.

In establishing the objectives for phased implementation of the transitway, the current availability of the 407 ETR to Metrolinx services has been assumed as a baseline phase extending over the full 23 km of the Central Section. All phasing strategies assessed are based on a combination of part or parts of the existing 407 ETR service joined to a newly constructed portion of the ultimate 23 km fully grade-separated transitway. From this starting point, the following objectives were adopted in defining candidate phasing strategies:

- Each phase implemented should not result in a significant increase in travel time through the Central Section. Preferably, segment lengths should yield a travel time saving greater than the time penalty to divert from and to, the 407 ETR and phase limits selected must minimize the time to transfer from 407 ETR lanes to the new transitway;
- Ideally, the sequence of implementation should correspond to the likely distribution of traffic congestion in the 407 ETR lanes;

- Early implementation of segments that provide improved access to the (planned and likely completed) Yonge and Spadina subway extensions;
- Phase sequencing should be responsive to the zones with highest ridership potential to maximize benefits and exposure of dedicated transitway service. Ideally, segment phasing should respond to the timing of adjacent developments (particularly UGCs) and provide access to the transitway by all modes (local transit, park and ride, walk-in);
- Phase costs should result in a contract cash flow that MTO (or the funding agency) can accommodate in annual budgeting; and,
- Construction staging associated traffic diversion and delays that arterial road users will tolerate.

With a view to meeting the above objectives, potential Phasing Strategies being investigated include:

- A Baseline Strategy – Cross-regional Rapid Transit Service on the 407 ETR in mixed traffic;
- An Enhanced Baseline Strategy – Cross-regional Rapid Transit Service on 407 ETR with enhanced access to and/or additional off-line stops;
- Rapid Transit Service on newly-constructed 407 Transitway between Bathurst Street and Woodbine Avenue and on 407 ETR from Spadina Subway to Bathurst Street and from Woodbine Avenue to Markham Centre (Kennedy);
- Rapid Transit Service on 407 ETR from Spadina Subway to RHC and on newly-constructed 407 Transitway from RHC to Markham Centre (Kennedy); and,
- Rapid Transit Service on newly-constructed 407 Transitway from the Jane Station (Spadina Subway 407 Station) to Markham Centre (Kennedy Station).

Approval of this TPAP of the entire Central Section will enable the MTO, or the proponent at the time, to pursue any one or more of the above strategies, or variations of them, within the limits of this TPAP. **Should the proponent decide to implement the entire Central Section from Jane Station (Spadina Subway) to Kennedy Road in a single phase, the construction timeframe is anticipated to be 6-7 years taking into account winter construction constraints. A shorter initial phase such as the eastern Yonge Street to Kennedy Road section would reduce the period to approximately 4 years.**