

yonge subway extension
finch station to richmond hill centre
transit project assessment



ENVIRONMENTAL PROJECT REPORT ADDENDUM
train storage facility

September 2014

**Yonge Subway Extension
Transit Project Assessment Process**

**Train Storage Facility
Environmental Project Report Addendum**

SEPTEMBER 2014

TABLE OF CONTENTS

	Page
1. INTRODUCTION	1-1
1.1 Purpose of the Document	1-1
1.2 Background.....	1-3
1.2.1 General	1-3
1.2.2 Subway Rail Yard Needs Study	1-3
1.2.3 Conceptual Design.....	1-5
1.3 Relevant Planning Policies and Documents	1-5
1.3.1 Province of Ontario Planning Process.....	1-5
1.3.2 Region of York Planning Policies	1-7
1.4 Changes to the Project	1-7
1.4.1 Study Area	1-7
1.4.2 Summary of Proposed Changes	1-8
1.4.3 Studies Prepared in Support of the YSE TPAP Addendum	1-11
1.5 TPAP Addendum Process	1-11
1.5.1 Content of the Environmental Project Report Addendum.....	1-12
1.5.2 Updated Project Description Results in Significant Changes	1-12
1.5.3 EPR Addendum Process	1-12
2. OUTLINE OF STUDY CONSULTATION PROCESS.....	2-1
2.1 Agency, Municipal and Aboriginal Community Consultation	2-1
2.1.1 Technical Advisory Committee.....	2-4
2.1.2 Feedback from Aboriginal Communities	2-4
2.2 Public Consultation	2-5
2.2.1 Public Information Centre #1	2-5
2.2.2 Public Information Centre #2.....	2-6
2.3 Circulation of Draft Environmental Project Report Addendum	2-8
2.4 Review of the Environmental Project Report Addendum	2-9
3. ALTERNATIVES CONSIDERED AND FEATURES OF THE RECOMMENDED TRANSIT PROJECT.....	3-1
3.1 Background.....	3-1
3.1.1 Design Criteria	3-1
3.1.2 Alignment and Configuration Alternatives	3-3
3.1.3 Evaluation of Alternatives and Selection of Preferred Alignment.....	3-11
3.2 Update of the Project Description	3-15
3.2.1 Subway Extension Alignment.....	3-15
3.2.2 Train Storage Facility	3-16
3.2.3 Surface Facilities.....	3-16
3.3 Construction Staging Approach	3-17
4. STUDY AREA CONDITIONS.....	4-1
4.1 Natural Environment	4-1
4.1.1 Terrestrial Habitat.....	4-3
4.1.2 Fish and Aquatic Habitat	4-4
4.1.3 Species at Risk	4-4

4.1.4	Soil and Groundwater Conditions.....	4-5
4.1.5	Drainage and Stormwater Management	4-8
4.1.6	Air Quality	4-8
4.1.7	Contaminated Properties	4-8
4.2	Socio-Economic Environment.....	4-12
4.2.1	Noise and Vibration.....	4-12
4.2.2	Land Use.....	4-13
4.3	Cultural Environment	4-13
4.3.1	Built Heritage and Cultural Heritage Landscapes.....	4-13
4.3.2	Archaeological Resources	4-13
4.4	Transportation Network.....	4-14
4.4.1	Transit Network	4-14
4.4.2	Existing Roadway Network	4-18
4.5	Utilities	4-19
5.	DETAILED ASSESSMENT OF THE IMPACTS, PROPOSED MITIGATION, AND MONITORING OF THE TRANSIT PROJECT.....	5-1
5.1	Natural Environment	5-2
5.1.1	Terrestrial Habitat.....	5-2
5.1.2	Fish and Aquatic Habitat	5-3
5.1.3	Species at Risk	5-4
5.1.4	Soil and Groundwater	5-5
5.1.5	Drainage and Stormwater Management	5-8
5.1.6	Air Quality	5-10
5.1.7	Contaminated Properties	5-13
5.2	Socio-Economic Environment.....	5-16
5.2.1	Property	5-16
5.2.2	Noise and Vibration.....	5-24
5.2.3	Electromagnetic Interference	5-30
5.2.4	Stray Current.....	5-30
5.3	Cultural Environment	5-30
5.3.1	Built Heritage and Cultural Heritage Landscapes.....	5-30
5.3.2	Archaeological Resources	5-30
5.4	Transportation Network.....	5-31
5.4.1	Transit Network	5-31
5.4.2	Pedestrian and Cycling Network	5-32
5.4.3	Existing Roadway Network	5-33
5.4.4	Utilities	5-35
5.5	Summary of Potential Impacts, Proposed Mitigation Measures, Monitoring, and Future Work.....	5-37
6.	COMMITMENTS TO FUTURE WORK.....	6-1
6.1	Permits and Approvals.....	6-1
6.2	Property Acquisition	6-2
6.3	Construction Issues	6-2
6.4	Consultation	6-4
6.5	Sustainable Development.....	6-4
6.6	Canadian Environmental Assessment Act (CEAA) Monitoring	6-4

6.7	Mechanism for Changes to the Approved Plan.....	6-5
6.7.1	Design Refinements.....	6-5
6.7.2	TPAP Addendum Process	6-5

LIST OF TABLES

Table 2-1:	Summary of Public Consultation Comments and Responses	2-7
Table 3-1:	Summary of Assessment of Alternatives.....	3-13
Table 5-1:	Permanent Property Impact Summary	5-16
Table 5-2:	Construction Property Impact Summary	5-22
Table 5-3:	Summary of Potential Impacts, Mitigation Measures, Future Work, and Contingencies	5-39

LIST OF FIGURES

Figure 1-1:	Approved Yonge Subway Extension Plan.....	1-2
Figure 1-2:	Train Storage Facility Addendum Project Timeline	1-2
Figure 1-3:	SRYNS Storage Facility Considerations	1-4
Figure 1-4:	Addendum Study Area.....	1-9
Figure 3-1:	Train Storage Options Studied in the Conceptual Design.....	3-4
Figure 3-2:	Alignment Alternative Bi.....	3-7
Figure 3-3:	Alignment Alternative Cii.....	3-8
Figure 3-4:	Alignment Alternative Gi.....	3-9
Figure 3-5:	Proposed YSE TSF.....	3-19
Figure 3-6:	YSE TSF Cross-Sections.....	3-22
Figure 4-1:	Natural Environment Features	4-2
Figure 4-2:	Local Transit Network	4-15
Figure 4-3:	Regional Transit Network.....	4-17
Figure 4-4:	Cycling Routes within Study Area,	4-18
Figure 4-5:	Existing Utilities.....	4-21
Figure 5-1:	Location of Construction Activities	5-10
Figure 5-2:	Location of Sensitive Receptors.....	5-11
Figure 5-3:	Impacted Properties.....	5-19
Figure 5-4:	Existing Storm Sewer / Relocation Options.....	5-38

APPENDICES

- APPENDIX A: Natural Environment Memorandum**
- APPENDIX B: Air Quality Assessment**
- APPENDIX C: Noise and Vibration Assessment**
- APPENDIX D: Contamination Overview Study and
Contaminant Investigation Report**
- APPENDIX E: Geotechnical Report**
- APPENDIX F: Groundwater Assessment Report**
- APPENDIX G: Stage 1- 2 Archaeological Assessment Report**
- APPENDIX H: Cultural Heritage Assessment Memorandum**
- APPENDIX I: Public Consultation Reports**
- APPENDIX J: Meeting Notes**
- APPENDIX K: Draft EPR Addendum Comment-Response Table**

GLOSSARY OF TERMS

APEC	Areas of Potential Environmental Concern
CEAA	<i>Canadian Environmental Assessment Act</i>
CN	Canadian National Railway
EEB	Emergency Exit Building
EMI	Electromagnetic Interference
EPR	Environmental Project Report
HVAC	Heating, Ventilation, and Air Conditioning
MNR	Ministry of Natural Resources (now the Ministry of Natural Resources and Forestry)
MOE	Ministry of the Environment (now MOECC)
MOECC	Ministry of the Environment and Climate Change
TSF	Train Storage Facility
NHIC	Natural Heritage Information Centre
PIC	Public Information Centre
PTTW	Permit to Take Water
SRYNs	Subway Rail Yard Needs Study
TAC	Technical Advisory Committee
TPAP	Transit Project Assessment Process
TRCA	Toronto and Region Conservation Authority
TSF	Train Storage Facility
TSP	Total Suspended Particulate Matter
TTC	Toronto Transit Commission
YRRTC	York Region Rapid Transit Corporation
YRT	York Region Transit
YSE	Yonge Subway Extension

This page intentionally left blank.