



STAFF REPORT ACTION REQUIRED

Power Connection at Wilson Yard Agreement

Date:	November 13, 2017
To:	TTC Board
From:	Chief Executive Officer

Summary

This report requests the Board's approval to execute the Toronto Hydro Offer to Connect Agreement (# THO 2017-000161), between TTC and Toronto Hydro, for the Wilson Yard second power feed. The Wilson Yard second power feed serves the new traction power substation built to serve the Wilson Yard expansion that is funded jointly between TTC's Toronto Rocket/T1 Rail Accommodation project and the Toronto-York Spadina Subway Extension project.

Recommendations

It is recommended that the Board:

1. Authorize staff to execute the Offer to Connect Agreement with Toronto Hydro to supply and install the secondary hydro feed works for Wilson Yard traction power substation, at a cost of \$8,700,000, on terms and conditions satisfactory to TTC General Counsel.

Financial Summary

An agreement was reached between TTC and TYSSE project on a cost sharing arrangement for all expansion works at Wilson Yard required for the TYSSE project. This arrangement covers all the sub-station works, inclusive of the second feed, and provides for a 60% (TYSSE) 40% (TTC) split on costs. The details of this arrangement were approved by TYSSE funding partners and TTC through its capital budget process.

Sufficient funds for 60% of this expenditure are included in the TTC's 2017 – 2026 Capital Budget and Plan for the TYSSE project budget of \$3.184B as approved by the Board on November 21, 2016 and approved by City of Toronto Council on February 15, 2017.

Sufficient funds for 40% of this expenditure are included in the TTC's 2017 – 2026 Capital Budget and Plan for the Toronto Rocket/T1 Rail Accommodation Project as approved by the Board on November 21, 2016 and approved by City of Toronto Council on February 15, 2017.

The ongoing operational costs will be borne by TTC as part of the operations budget.

The Chief Financial Officer has reviewed this report and agrees with the financial impact information.

Accessibility/Equity Matters

There are no accessibility or equity issues.

Decision History

On October 19, 2012, the TTC awarded Contract A18-15 for the construction of the Wilson Yard Modifications – Site Services Stage 1 as part of the TYSSE Project.

https://www.ttc.ca/About_the_TTC/Commission_reports_and_information/Commission_meetings/2012/November_21/Reports/TYSSE_Wilson_Yard_Mo.pdf

On September 25, 2013, the TTC awarded Contract A65-42 for the supply of Special Trackwork as part of the Wilson Yard Modifications works for the TYSSE Project.

https://m.ttc.ca/About_the_TTC/Commission_reports_and_information/Commission_meetings/2013/September_25/Reports/TYSSE_Wilson_Yard_Mo.pdf

On July 24, 2014, the TTC awarded Contract AW85-4, Wilson Yard Expansion Project, covering construction and project management responsibilities for the Wilson Yard Project, inclusive of 3 existing contracts. The award also covered the scope of work under contract A18-20, Wilson Yard Modifications – Site Services Stage 2, inclusive of a new hostler platform and site services of a north lead track for connection to Downsview station and TYSSE, and also the construction of site services for a new north runaround track for connecting 8 new storage tracks in the west yard.

http://www.ttc.ca/About_the_TTC/Commission_reports_and_information/Commission_meetings/2014/July_23/Reports/Procurement_Authorization_-_Wilson_Yard_Expansion_Project_-_pdf

At its meeting on January 21, 2016, the Board received the report entitled “Toronto-York Spadina Subway Extension – Schedule and Budget Reset”, and approved the recommended TYSSE schedule and budget changes, allowing funds to be made available to continue with support services required to complete the project. The Board has endorsed the recommendations outlined in the project reset, extending the project schedule to the end of 2017 and increasing the project budget.

https://www.ttc.ca/About_the_TTC/Commission_reports_and_information/Commission_meetings/2016/January_21/Reports/Board_Report_TYSSE_Schedule_and_Budget_Reset_2016-01-21_fina.pdf

Issue Background

The TTC is constructing an 8.6 km subway extension from the existing Downsview Station located in the City of Toronto, to the proposed Vaughan Corporate Centre located in the City of Vaughan, Region of York. The Toronto-York Spadina Subway Extension (“TYSSE”) will be an important part of both the TTC network and regional transit, improving transit in Toronto and the GTA.

As part of a jointly funded arrangement between the TYSSE and Wilson Yard Expansion projects, TTC is expanding its subway yard at 160 Transit Road (“Wilson Yard”) to increase the storage capacity and power supply for the additional trains needed for the new Line 1 Extension and other service increases on the line, including provisions for the Toronto Rockets and ATC signalling.

Wilson Yard Second Hydro Feed Works

TTC’s requirement is to use two feeders from two different sources at the Bathurst Transformer Station to supply the total required demand of 9MVA.

To satisfy TTC’s requirements, Toronto Hydro has provided feeder (85M10) as a primary feed to the desired point of connection and will bring a brand new feed from Bathurst Transformer Station as a secondary feed. The secondary feed (85M35) is required to be in place by December 17, 2017 (Line 1 Extension revenue service date).

In order to maintain contingency scenarios in case of the loss of one feeder, a portion of feeder 85M10 will be replaced from aluminum to copper increasing the capacity from 500 amps to 600 amps.

The details of the works, as approved by TTC project staff, proposed are summarized in attachment 1 and are inclusive of:

- 3200m of cable, splices, 2 switchgears, Stations & HONI work
- 984m of ducts, 6 cable chambers, 1 switchgear
- 1135m of ducts, 8 cable chambers, 1 switchgear

Comments

Toronto Hydro, as is its normal practice, have issued TTC an Offer to Connect Agreement identifying the scope of work, cost and conditions of supply and installation of the work.

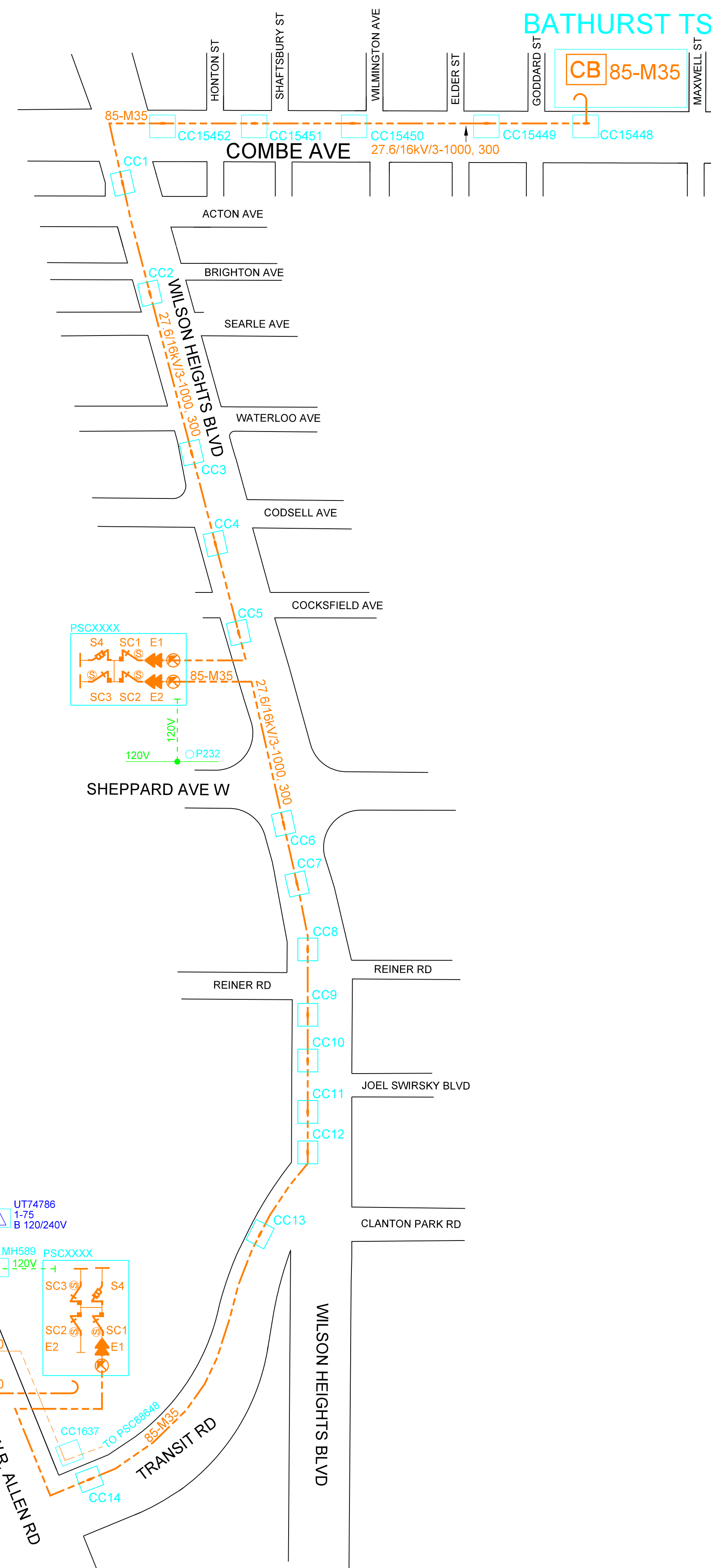
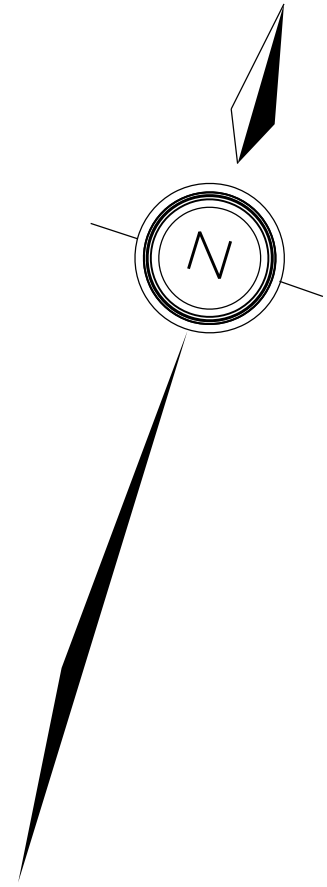
Toronto Hydro have provided a work cost breakdown as part of the Offer to Connect Agreement issued to TTC for works, which has been reviewed by TTC estimating staff. Final invoicing will be subject to Ontario Energy Board regulations.

Contact

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70-12-10
03-04-000252920

Attachment TTC WILSON YARD EXPANSION - Location Key Plan



BATHURST TS

CB 85-M35

COMBE AVE

PSCXXXX

SHEPPARD AVE W

WILSON HEIGHTS BLVD

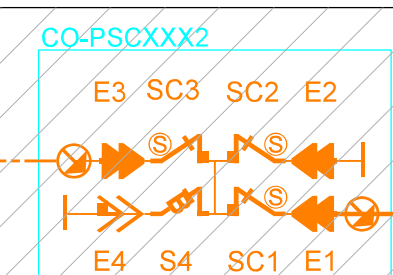
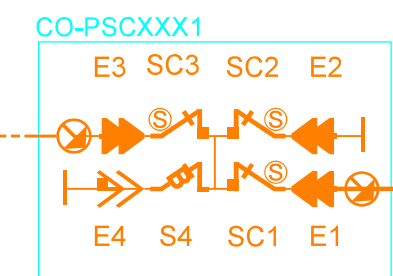
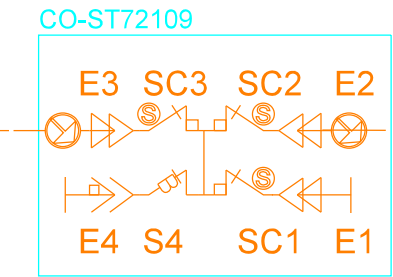
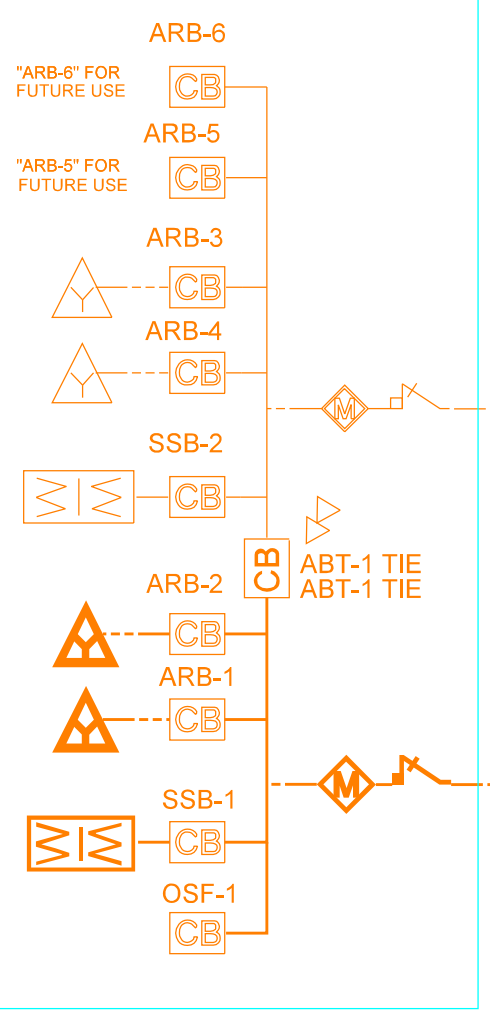
570 WILSON AVE
TTC - WILSON YARD
PHASE II

CO-ST86706

CO-ST86706-RT4
1-1680
550V (DC TTC)

CO-ST86706-RT3
1-1680
550V (DC TTC)

CO-ST86706-SPT-2
1-1000
550V (DC TTC)



CUSTOMER CONNECTION WORK TO BE COMPLETED BY C.O.S.

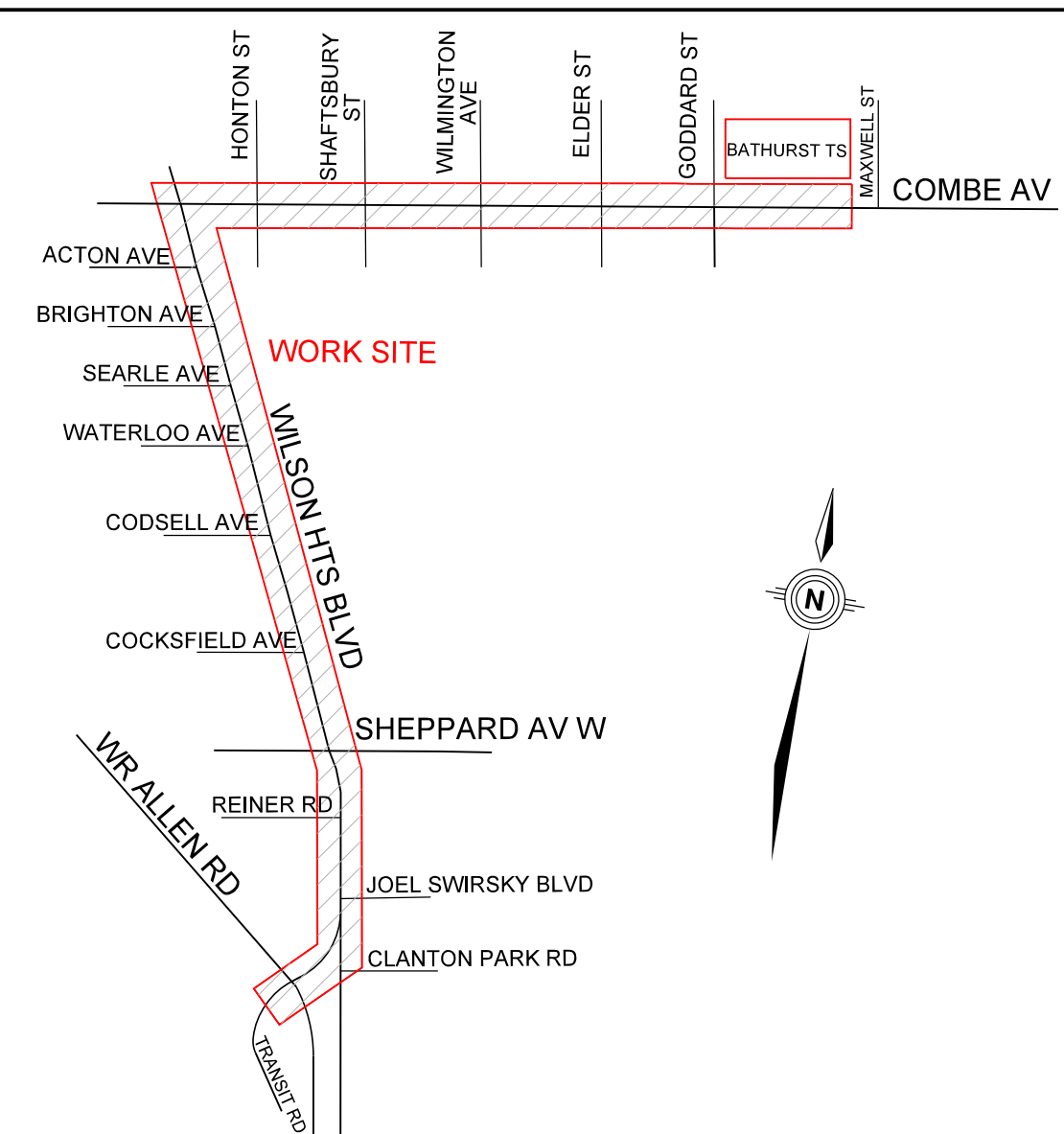
WORK TO BE COMPLETED BY AS PER P0121203

FEEDER 85-M35

This site has been left in a condition that presents no undue hazard to the public (as defined in the Technical Guidelines approved by the ESA under Ontario Regulation 22/04) and approved equipment has been used in the repair or replacement.

AS CONSTRUCTED		Municipality	
<input type="checkbox"/> ELECTRICAL	<input type="checkbox"/> CIVIL	<input type="checkbox"/> ET	<input type="checkbox"/> EY
WITH CHANGES AS SHOWN ON THIS DRAWING.		<input type="checkbox"/> NY	<input type="checkbox"/> YK
		<input type="checkbox"/> TO	<input type="checkbox"/> SC
		Date	
Marked By			
PRINT NAME			
SIGNATURE			
POSITION			
Approved by Toronto Hydro			
PRINT NAME			
SIGNATURE			
POSITION			
CONTRACTOR			
PRINT NAME			
SIGNATURE			
COMPANY NAME			

THIS WORK INSTRUCTION HAS BEEN ASSEMBLED UTILIZING ONLY CERTIFIED CONSTRUCTION STANDARDS, SPECIFICATIONS AND APPROVED EQUIPMENT AND MEETS THE SAFETY REQUIREMENTS OF SECTION 4 OF ONTARIO REGULATION 22/04.



KEY MAP N.T.S.

LEGEND

SYMBOL	DESCRIPTION
PROPOSED	
	PRIMARY TRXLPE 1000KCMIL 27.6KV CONDUCTOR
	SEC. CABLE (AS SHOWN)
	CABLE CHAMBER
	PADMOUNTED DEAD FRONT 27.6KV SCADA SWITCHGEAR EQUIVALENT TO PMH-11 (STD.# 13-7820)

rev.	date	description	by	appd.

TORONTO HYDRO COS NORTH YORK

map #			
drawn by	J.ENRIQUE	civil design	date yy/mm/dd
scope reference #	W18276	civil approval	date yy/mm/dd
design project #	P0119351	T.J. WAHID	date yy/mm/dd
construction project #	P0119351	CARMEN FILMON	date yy/mm/dd
scale	N.T.S.	sheet size	construction approval
		D	date yy/mm/dd
		RICHARD WILLEMS	date yy/mm/dd

W18276 - TTC WILSON YARD - ELECTRICAL EXPANSION
NEW FEEDER FROM BATHURST TS
PRIMARY SCHEMATIC

dwg. no.	2016-110839	sheet no.	1 of 1	rev. no.	0
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