RESPONSES TO ONTARIO ENERGY BOARD STAFF INTERROGATORIES ON ISSUE 2.2

INTERROGATORY 29:

Reference(s): **T4/S B1/pp. 2-3/Table 1**

Please recast Table 1, in an MS-Excel format (with formulas) to be structured as shown below, by adding the requested information in the additional column for each of the jobs shown in the referenced Table:

Job #	Job Title	Year Original In-Service	Year(s) for Work Job Completion	EstimatedCost	No. of Submersible Transformers	Cable Length Km	Historical Reliability Performance 2009		Historical Reliability Performance 2010		Historical Reliability Performance 2011	
							CI	CHI	CI	CHI	CI	CHI

RESPONSE:

Table 1, in the attached Appendix A, provides the requested information. However, the "Year Original In-Service" information is not available. Furthermore, as explained in response to AMPCO interrogatory 10 (b) (Tab 6F, Schedule 2-10, part b), a feeder consists of hundreds, if not thousands, of components of different vintages.

Job #	Job Title	Year(s) for Work Job Completion	Estimated Cost ($M)	Number of Submersible Transformers to be Replaced	Cable Length (Km)	Historical Reliability Performance 2009		Historical Reliability Performance 2010		Historical Reliability Performance 2011	
						CI	CHI	CI	CHI	CI	CHI
1	Underground Rehabilitation of Feeder NY80M29	2012, 2013	$2.90	12	16.1	10473	3704.4	2430	1631.4	8255	2294.1
2	Underground Rehabilitation of Feeder SCNAR26M34	2012, 2013, 2014	$5.52	18	8.25	1183	7220.9	9101	5567.4	7560	14615.7
3	Underground Rehabilitation of Feeder NY55M8	2012	$2.49	31	7.5	15626	6944.5	6227	3920.1	10734	8972.8
4	Underground Rehabilitation of Feeder YK35M10	2012	$2.14	0	3.5	12687	4099.1	3289	548.4	17593	2332.9
5	Underground Rehabilitation of Feeder SCNT63M4	2014	$3.16	1	13.75	397	131.1	230	648.8	28124	22101.8
6	Underground Rehabilitation of Feeder SCNA47M14	2012, 2013	$4.43	37	6.5	4076	3364.7	14227	7657.6	11491	7586.0
7	Underground Rehabilitation of Feeder NY51M6	2012, 2013	$2.54	0	13.3	7099	6992.4	5131	2937.5	5408	8757.6
8	Underground Rehabilitation of Feeder NY80M8	2014	$9.51	18	11	4622	5143.6	4616	3768.3	3004	2975.2
9	Underground Rehabilitation of Feeder NY85M6	2014	$2.01	4	7.4	576	38.4	1831	782.2	5833	12279.2
10	Underground Rehabilitation of Feeder NY51M8	2013, 2014	$1.58	0	4	6124	2786.9	2277	2634.0	2480	460.9
11	Underground Rehabilitation of Feeder SCNA502M22	2012, 2013, 2014	$2.96	28	10.69	19233	11978.6	7957	4184.7	20126	7458.2
12	Underground Rehabilitation of Feeder SCNAH9M30	2013, 2014	$3.56	25	4.45	8147	8174.7	6796	9441.2	2461	3238.7
13	Underground Rehabilitation of Feeder NY85M4	2013, 2014	$8.27	30	14.5	524	129.1	26	84.1	2862	6235.2
14	Underground Rehabilitation of Feeder SCNA47M13	2013, 2014	$4.91	63	11.6	4889	2652.9	10328	11820.5	17600	12499.5
15	Underground Rehabilitation of Feeder NY80M2	2013	$1.63	0	5.1	2050	394.5	7966	5441.0	2809	1354.4
16	Underground Rehabilitation of Feeder NY51M7	2013	$1.40	1	4	5466	1782.7	9764	3676.3	3126	1728.4
17	Underground Rehabilitation of Feeder NY51M24	2013, 2014	$5.64	22	20.04	4337	3518.4	6265	5409.8	270	942.0
18	Underground Rehabilitation of Feeder NY80M30	2012	$8.95	30	40.3	7419	5809.5	9370	4961.8	442	255.7
19	Underground Rehabilitation of Feeder NY55M23	2014	$2.24	3	1.575	115	455.1	6533	1367.2	3170	914.9
20	Underground Rehabilitation of Feeder NY85M24	2014	$2.03	0	14.1	2726	1321.5	62	52.1	4793	3023.6
21	Underground Rehabilitation of Feeder SCNAE5-2M3	2013	$1.51	0	6	174	447.6	297	1376.3	2374	757.7
22	Underground Rehabilitation of Feeder NY85M7	2014	$13.83	41	8.58	1228	1415.1	3414	772.7	85	35.8
23	Underground Rehabilitation of Feeder SCNT63M12	2012, 2013, 2014	$11.14	121	64.529	4968	6925.4	1459	5414.3	18772	31571.0
24	Underground Rehabilitation of Feeder SCNT63M8	2013, 2014	$7.59	58	24.002	11495	5276.3	227	658.5	5313	5879.2
25	Underground Rehabilitation of Feeder SCNAE5-1M29	2012, 2013	$3.91	30	19.6	1934	3827.0	8032	4101.2	2676	1952.3
26	Underground Rehabilitation of Feeder NY53M25	2012, 2013	$3.44	0	13.6	19054	10647.6	563	1167.2	1393	919.9
27	Underground Rehabilitation of Feeder NY80M9	2014	$2.21	3	16.25	3666	1662.2	141	422.6	927	816.7
28	Underground Rehabilitation of Feeder SCNT47M3	2012, 2013, 2014	$20.44	13	66.45	47262	21607.5	102883	45728.6	12750	8963.5
29	Underground Rehabilitation of Feeder SCNAH9M23	2014	$2.71	0	12.3	1963	432.5	1163	134.8	10042	7207.5
30	Underground Rehabilitation of Feeder NY51M3	2013, 2014	$3.54	54	8.9	150	454.2	4500	1420.2	1638	3012.8
31	Underground Rehabilitation of Feeder SCNA47M17	2013, 2014	$5.70	1	16.6	7260	1916.2	7740	3305.4	3303	665.4
32	Underground Rehabilitation of Feeder SCNA502M21	2013, 2014	$3.44	0	16.742	7099	941.1	4814	1534.0	8992	6298.1
33	Underground Rehabilitation of Feeder SCNT47M1	2012, 2013, 2014	$14.91	16	58.68	6436	3492.6	11039	7162.5	2151	142.6
34	Underground Rehabilitation of Feeders NY85M1, NY85M9 and NYSS58F1	2012, 2013	$2.66	3	4.38	2191	1825.2	3359	3380.0	10731	6601.7

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INTERROGATORY 30:

Reference(s): **T4/S B1/pp. 2-3/Table 1,T4/S B1/p. 9/lines 1 – 6 and T4/Sch D1 Kinectrics Inc. Report *Toronto Hydro-Electric System Limited 2012 Asset Condition Assessment Audit*, May 7, 2012/pp. 42-43.**

Table 1 in the first reference includes jobs which in some cases include replacement of submersible transformers with the total number appearing to exceed 600.

In the second reference, it is stated that:

> "To achieve maximum job cost-effectiveness, THESL proposes that replacement of air-insulated distribution switchgear is to be completed alongside replacement of direct buried cable in the same job area. Also, where cost-effective, THESL proposes that non-standard submersible transformers will be replaced with new standard submersible transformers and air-insulated vault-installed switchgear will be replaced with SF_6-insulated vault-installed switchgear as a part of these jobs." [emphasis added]

In the third reference at Table 10-2 it is indicated that more than 97% of the population of 9249 units are in either "Good" or "Very Good" condition and only 2% are in "Poor" Condition.

a) For each of the 34 jobs that include submersible transformer replacements, please provide reliability indices for these submersible transformers. If available also provide where applicable for each of the noted jobs, the submersible transformer contribution to the feeder historical performance re:

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the two Reliability Metrics - Customer Interruptions (Cumulative) and Customer Hours Interruption (Cumulative).

RESPONSE:

a) The table below provides the requested information.

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Feeder	Number of Submersible Transformers on Feeder	Submersible Transformers Included in Job	Total Number of Submersible Transformer Outages 2006-2011	CI Contribution of Submersible Transformer Failures	CHI Contribution of Submersible Transformer Failures	Estimated Cost of Transformer Replacements in Job
NY80M29	73	12	7	864	1,781	$133,270
SCNAR26M34	268	18	7	1,281	5,283	$199,905
NY55M8	81	31	6	1,410	3,734	$344,281
SCNT63M4	170	1	10	3,388	3,717	$11,106
SCNA47M14	115	37	7	429	1,610	$410,916
NY80M8	55	18	2	1,885	690	$199,905
NY85M6	4	4	2	1,247	243	$44,423
SCNA502M22	142	28	2	251	678	$310,963
SCNAH9M30	5	25	3	298	776	$277,646
NY85M4	35	30	7	3,868	2,243	$333,175
SCNA47M13	244	63	6	4,353	1,302	$699,667
NY51M7	72	1	4	2,440	533	$11,106
NY51M24	123	22	7	1,619	3,655	$244,328
NY80M30	68	30	0	0	0	$333,175
NY55M23	17	3	0	0	0	$33,317
NY85M7	46	41	6	2522	2,180	$455,339
SCNT63M12	233	121	15	4,356	6,340	$1,343,806
SCNT63M8	242	58	9	4,882	2,769	$644,138
SCNAE51M29	20	30	1	1,620	462	$333,175
NY80M9	5	3	0	0	0	$33,317
SCNT47M3	419	13	22	5,883	8,221	$144,376
NY51M3	69	54	3	266	426	$599,715
SCNA47M17	312	1	16	8,154	6,304	$11,106
SCNT47M1	242	16	8	3,001	3,027	$177,693
NYSS58F1	8	3	4	219	1,265	$33,317

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b) Please provide estimated costs of the total number of new submersible transformers for the 34 jobs noted in the first reference.

RESPONSE:

b) The table provided above contains the requested information.

c) Please provide a list of the jobs that would not be negatively impacted in terms of reliability to end use customers, if the existing submersible transformers associated with each of these jobs, were not replaced.

RESPONSE:

c) THESL cannot confirm that any such jobs exist.

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INTERROGATORY 31:

Reference(s): **T4/S B1/Section II – Description of Work**

Section II of this Schedule provides a "Description of Work" for each of the 34 jobs included. This includes for each of the projects evidence with regard to the Historical Reliability Performance, for each of the 34 jobs. This incorporates in tabular forms, Reliability Metrics results for 3 years (2009, 2010, and 2011) of the Feeder Customer Interruptions ("CI") (Cumulative) and Feeder Customer Hours Interruptions ("CHI") (Cumulative)

As the trend over the 3-year period (2009-2011) is often unclear, additional historical reliability performance information would likely clarify that trend.

a) Please provide a recast of the 34 tables, one for each of the jobs noted, by adding in each table, the Feeder CI and Feeder CHI for the years 2006, 2007, and 2008.

RESPONSE:

a) Table 1, in the attached Appendix A, provides CI and CHI for each job for the years 2006 to 2011.

b) For each Job and for each year (2006 to 2011), please provide, where applicable, the contribution to the Feeder CI and Feeder CHI, of:

- **the Primary Cable**
- **the Air-insulated Pad-mounted Switchgear**
- **the Air-insulated Vault-installed Switchgear;**
- **Submersible Transformers.**

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RESPONSE:

b) Table 2, in the attached Appendix A, provides the contribution of primary cable, air-insulated pad-mounted and vault-installed switchgear, and submersible transformers to the CI and CHI for each job for the years 2006 to 2011. Please note that the CI and CHI contributions of pad-mounted and vault-installed switchgear are presented together because THESL does not record this information separately.

Table 1

Job #	Job Title	Historical Reliability Performance 2006		Historical Reliability Performance 2007		Historical Reliability Performance 2008		Historical Reliability Performance 2009		Historical Reliability Performance 2010		Historical Reliability Performance 2011	
		CI	CHI	CI	CHI	CI	CHI	CI	CHI	CI	CHI	CI	CHI
1	Underground Rehabilitation of Feeder NY80M29	20096	2386.2	8294	9781.4	10000	1829.4	10473	3704.4	2430	1631.4	8255	2294.1
2	Underground Rehabilitation of Feeder SCNAR26M34	1230	3576.4	1687	3982.4	3592	8995.2	1183	7220.9	9101	5567.4	7560	14615.7
3	Underground Rehabilitation of Feeder NY55M8	2219	640.6	4388	1548.6	7595	21434.9	15626	6944.5	6227	3920.1	10734	8972.8
4	Underground Rehabilitation of Feeder YK35M10	9708	8575.3	13452	5959.8	12575	4410.0	12687	4099.1	3289	548.4	17593	2332.9
5	Underground Rehabilitation of Feeder SCNT63M4	26083	18129.6	12452	9976.0	1504	3899.0	397	131.1	230	648.8	28124	22101.8
6	Underground Rehabilitation of Feeder SCNA47M14	5009	2395.0	6026	4910.7	3924	1226.2	4076	3364.7	14227	7657.6	11491	7586.0
7	Underground Rehabilitation of Feeder NY51M6	4678	4228.9	201	594.0	3015	2851.5	7099	6992.4	5131	2937.5	5408	8757.6
8	Underground Rehabilitation of Feeder NY80M8	138	379.1	2036	1006.0	4010	1002.7	4622	5143.6	4616	3768.3	3004	2975.2
9	Underground Rehabilitation of Feeder NY85M6	1196	1033.9	753	370.1	118	217.0	576	38.4	1831	782.2	5833	12279.2
10	Underground Rehabilitation of Feeder NY51M8	12195	2501.3	3179	481.9	5601	1154.2	6124	2786.9	2277	2634.0	2480	460.9
11	Underground Rehabilitation of Feeder SCNA502M22	11918	9346.4	27672	1755.8	3705	4775.5	19233	11978.6	7957	4184.7	20126	7458.2
12	Underground Rehabilitation of Feeder SCNAH9M30	5625	11707.0	80	356.6	5139	3820.8	8147	8174.7	6796	9441.2	2461	3238.7
13	Underground Rehabilitation of Feeder NY85M4	6802	2290.8	2243	1185.8	3261	470.1	524	129.1	26	84.1	2862	6235.2
14	Underground Rehabilitation of Feeder SCNA47M13	366	315.0	8142	2355.0	5692	2919.2	4889	2652.9	10328	11820.5	17600	12499.5
15	Underground Rehabilitation of Feeder NY80M2	7957	2924.5	21400	1176.4	4228	1898.7	2050	394.5	7966	5441.0	2809	1354.4
16	Underground Rehabilitation of Feeder NY51M7	2855	1815.2	4744	2243.7	14020	5422.4	5466	1782.7	9764	3676.3	3126	1728.4
17	Underground Rehabilitation of Feeder NY51M24	13331	8871.9	2086	2757.4	5141	2156.1	4337	3518.4	6265	5409.8	270	942.0
18	Underground Rehabilitation of Feeder NY80M30	9600	2859.7	460	647.0	7916	1695.7	7419	5809.5	9370	4961.8	442	255.7
19	Underground Rehabilitation of Feeder NY55M23	4354	5488.3	3485	3904.9	37	120.1	115	455.1	6533	1367.2	3170	914.9
20	Underground Rehabilitation of Feeder NY85M24	8722	2063.9	4271	5339.0	6324	5005.1	2726	1321.5	62	52.1	4793	3023.6
21	Underground Rehabilitation of Feeder SCNAE5-2M3	9160	2485.8	3607	6725.1	4391	4697.6	174	447.6	297	1376.3	2374	757.7
22	Underground Rehabilitation of Feeder NY85M7	1788	2487.6	169	431.0	2871	1248.0	1228	1415.1	3414	772.7	85	35.8
23	Underground Rehabilitation of Feeder SCNT63M12	39452	28309.6	23815	22638.4	985	2658.3	4968	6925.4	1459	5414.3	18772	31571.0
24	Underground Rehabilitation of Feeder SCNT63M8	4582	1871.0	15468	6657.7	6986	3533.3	11495	5276.3	227	658.5	5313	5879.2
25	Underground Rehabilitation of Feeder SCNAE5-1M29	786	351.7	1477	119.2	2955	494.0	1934	3827.0	8032	4101.2	2676	1952.3
26	Underground Rehabilitation of Feeder NY53M25	13233	3779.8	21402	6421.1	260	854.4	19054	10647.6	563	1167.2	1393	919.9
27	Underground Rehabilitation of Feeder NY80M9	1984	1295.2	104	203.6	1721	1292.7	3666	1662.2	141	422.6	927	816.7
28	Underground Rehabilitation of Feeder SCNT47M3	34440	21518.3	54593	20824.6	20841	8681.3	47262	21607.5	102883	45728.6	12750	8963.5
29	Underground Rehabilitation of Feeder SCNAH9M23	827	194.3	4217	2527.4	397	757.2	1963	432.5	1163	134.8	10042	7207.5
30	Underground Rehabilitation of Feeder NY51M3	45	62.3	2103	2722.5	259	265.9	150	454.2	4500	1420.2	1638	3012.8
31	Underground Rehabilitation of Feeder SCNA47M17	137	581.6	17982	6314.2	9360	10051.7	7260	1916.2	7740	3305.4	3303	665.4
32	Underground Rehabilitation of Feeder SCNA502M21	70469	39422.5	3893	1750.0	13067	12822.7	7099	941.1	4814	1534.0	8992	6298.1
33	Underground Rehabilitation of Feeder SCNT47M1	1277	2306.1	26818	5632.0	14377	8393.7	6436	3492.6	11039	7162.5	2151	142.6
34	Underground Rehabilitation of Feeders NY85M1, NY85M9 and NYSS58F1	10793	14196.5	4055	2379.4	8005	6655.3	2191	1825.2	3359	3380.0	10731	6601.7

Table 1

Job #	Job Title	Contributions to Feeder CI in 2006			Contributions to Feeder CHI in 2006	
		Primary Cable	Air- insulated Pad-mounted and Air insulated Vault mounted Switchgear	Submersible Transformers	Primary Cable	Air- insulated Pad-mounted and Air insulated Vault mounted Switchgear
1	Underground Rehabilitation of Feeder NY80M29	20	6196	280	28.0	154.9
2	Underground Rehabilitation of Feeder SCNAR26M34	1165	0	29	3287.4	0.0
3	Underground Rehabilitation of Feeder NY55M8	255	0	0	506.3	0.0
4	Underground Rehabilitation of Feeder YK35M10	4400	0	0	4913.3	0.0
5	Underground Rehabilitation of Feeder SCNT63M4	11338	1403	351	5010.3	2954.7
6	Underground Rehabilitation of Feeder SCNA47M14	130	0	10	340.3	0.0
7	Underground Rehabilitation of Feeder NY51M6	183	2470	0	426.1	102.9
8	Underground Rehabilitation of Feeder NY80M8	110	0	0	336.2	0.0
9	Underground Rehabilitation of Feeder NY85M6	0	0	0	0.0	0.0
10	Underground Rehabilitation of Feeder NY51M8	0	0	0	0.0	0.0
11	Underground Rehabilitation of Feeder SCNA502M22	6780	1724	0	9173.3	116.2
12	Underground Rehabilitation of Feeder SCNAH9M30	2093	0	0	3919.6	0.0
13	Underground Rehabilitation of Feeder NY85M4	2179	4214	0	354.1	873.8
14	Underground Rehabilitation of Feeder SCNA47M13	288	0	78	244.8	0.0
15	Underground Rehabilitation of Feeder NY80M2	2952	0	0	579.5	0.0
16	Underground Rehabilitation of Feeder NY51M7	0	0	0	0.0	0.0
17	Underground Rehabilitation of Feeder NY51M24	5	1665	317	2.3	1632.2
18	Underground Rehabilitation of Feeder NY80M30	0	3636	0	0.0	121.2
19	Underground Rehabilitation of Feeder NY55M23	0	0	0	0.0	0.0
20	Underground Rehabilitation of Feeder NY85M24	1248	0	0	985.6	0.0
21	Underground Rehabilitation of Feeder SCNAE5-2M3	2987	0	0	1397.5	0.0
22	Underground Rehabilitation of Feeder NY85M7	1732	0	0	2247.9	0.0
23	Underground Rehabilitation of Feeder SCNT63M12	0	1000	388	0.0	2087.5
24	Underground Rehabilitation of Feeder SCNT63M8	499	0	180	1458.6	0.0
25	Underground Rehabilitation of Feeder SCNAE5-1M29	0	0	0	0.0	0.0
26	Underground Rehabilitation of Feeder NY53M25	84	0	848	33.3	0.0
27	Underground Rehabilitation of Feeder NY80M9	0	0	0	0.0	0.0
28	Underground Rehabilitation of Feeder SCNT47M3	6960	13360	685	16049.3	1964.4
29	Underground Rehabilitation of Feeder SCNAH9M23	0	0	0	0.0	0.0
30	Underground Rehabilitation of Feeder NY51M3	45	0	0	62.3	0.0
31	Underground Rehabilitation of Feeder SCNA47M17	80	0	31	332.0	0.0
32	Underground Rehabilitation of Feeder SCNA502M21	3750	1813	17	17428.4	60.4
33	Underground Rehabilitation of Feeder SCNT47M1	0	950	156	0.0	1725.7
34	Underground Rehabilitation of Feeders NY85M1, NY85M9 and NYSS58F1	0	0	119	0.0	0.0

Table 1

Job #	Job Title		Contributions to Feeder CI in 2007			Contributions to Feeder CHI in 2007		
		Submersible Transformers	Primary Cable	Air- insulated Pad-mounted and Air insulated Vault mounted Switchgear	Submersible Transformers	Primary Cable	Air- insulated Pad-mounted and Air insulated Vault mounted Switchgear	Submersible Transformers
1	Underground Rehabilitation of Feeder NY80M29	365.2	4598	0	208	6725.3	0.0	580.9
2	Underground Rehabilitation of Feeder SCNAR26M34	188.8	147	1470	0	1348.3	2552.5	0.0
3	Underground Rehabilitation of Feeder NY55M8	0.0	2659	0	0	463.2	0.0	0.0
4	Underground Rehabilitation of Feeder YK35M10	0.0	0	0	0	0.0	0.0	0.0
5	Underground Rehabilitation of Feeder SCNT63M4	294.6	11581	0	238	8563.7	0.0	228.7
6	Underground Rehabilitation of Feeder SCNA47M14	67.0	300	417	60	620.0	465.4	154.0
7	Underground Rehabilitation of Feeder NY51M6	0.0	30	0	105	68.0	0.0	342.0
8	Underground Rehabilitation of Feeder NY80M8	0.0	48	0	0	220.8	0.0	0.0
9	Underground Rehabilitation of Feeder NY85M6	0.0	576	0	0	31.0	0.0	0.0
10	Underground Rehabilitation of Feeder NY51M8	0.0	0	0	0	0.0	0.0	0.0
11	Underground Rehabilitation of Feeder SCNA502M22	0.0	22244	0	0	451.4	0.0	0.0
12	Underground Rehabilitation of Feeder SCNAH9M30	0.0	0	0	0	0.0	0.0	0.0
13	Underground Rehabilitation of Feeder NY85M4	0.0	930	0	1220	31.0	0.0	939.7
14	Underground Rehabilitation of Feeder SCNA47M13	70.2	1470	0	4172	1270.2	0.0	751.5
15	Underground Rehabilitation of Feeder NY80M2	0.0	0	0	0	0.0	0.0	0.0
16	Underground Rehabilitation of Feeder NY51M7	0.0	40	0	0	66.0	0.0	0.0
17	Underground Rehabilitation of Feeder NY51M24	1149.6	1665	30	0	2216.1	55.5	0.0
18	Underground Rehabilitation of Feeder NY80M30	0.0	244	0	0	39.7	0.0	0.0
19	Underground Rehabilitation of Feeder NY55M23	0.0	0	0	0	0.0	0.0	0.0
20	Underground Rehabilitation of Feeder NY85M24	0.0	0	0	290	0.0	0.0	500.2
21	Underground Rehabilitation of Feeder SCNAE5-2M3	0.0	3545	0	0	6650.9	0.0	0.0
22	Underground Rehabilitation of Feeder NY85M7	0.0	84	0	84	280.0	0.0	148.2
23	Underground Rehabilitation of Feeder SCNT63M12	704.4	19336	3000	15	16717.7	4825.0	133.6
24	Underground Rehabilitation of Feeder SCNT63M8	129.8	360	3860	310	761.8	128.7	612.7
25	Underground Rehabilitation of Feeder SCNAE5-1M29	0.0	0	0	0	0.0	0.0	0.0
26	Underground Rehabilitation of Feeder NY53M25	1597.0	0	0	156	0.0	0.0	520.9
27	Underground Rehabilitation of Feeder NY80M9	0.0	0	0	0	0.0	0.0	0.0
28	Underground Rehabilitation of Feeder SCNT47M3	1080.7	21923	0	2784	6609.3	0.0	1942.6
29	Underground Rehabilitation of Feeder SCNAH9M23	0.0	650	1025	0	791.5	877.4	0.0
30	Underground Rehabilitation of Feeder NY51M3	0.0	45	0	0	99.0	0.0	0.0
31	Underground Rehabilitation of Feeder SCNA47M17	171.5	8129	0	2941	1709.1	0.0	1239.2
32	Underground Rehabilitation of Feeder SCNA502M21	254.2	52	0	0	122.6	0.0	0.0
33	Underground Rehabilitation of Feeder SCNT47M1	258.0	0	0	15	0.0	0.0	131.3
34	Underground Rehabilitation of Feeders NY85M1, NY85M9 and NYSS58F1	299.7	634	0.0	15	237.7	0.0	24.0

Table 1

Job #	Job Title	Contributions to Feeder CI in 2008			Contributions to Feeder CHI in 2008		
		Primary Cable	Air- insulated Pad-mounted and Air insulated Vault mounted Switchgear	Submersible Transformers	Primary Cable	Air- insulated Pad-mounted and Air insulated Vault mounted Switchgear	Submersible Transformers
1	Underground Rehabilitation of Feeder NY80M29	156	0	230	264.6	0.0	223.2
2	Underground Rehabilitation of Feeder SCNAR26M34	100	0	0	235.8	0.0	0.0
3	Underground Rehabilitation of Feeder NY55M8	33	0	110	78.1	0.0	244.8
4	Underground Rehabilitation of Feeder YK35M10	2302	0	0	268.2	0.0	0.0
5	Underground Rehabilitation of Feeder SCNT63M4	0	0	0	0.0	0.0	0.0
6	Underground Rehabilitation of Feeder SCNA47M14	1980	0	140	393.8	0.0	529.7
7	Underground Rehabilitation of Feeder NY51M6	1586	0	0	613.9	0.0	0.0
8	Underground Rehabilitation of Feeder NY80M8	0	0	75	0.0	0.0	187.5
9	Underground Rehabilitation of Feeder NY85M6	0	0	0	0.0	0.0	0.0
10	Underground Rehabilitation of Feeder NY51M8	0	0	0	0.0	0.0	0.0
11	Underground Rehabilitation of Feeder SCNA502M22	0	0	0	0.0	0.0	0.0
12	Underground Rehabilitation of Feeder SCNAH9M30	0	0	255	0.0	0.0	610.3
13	Underground Rehabilitation of Feeder NY85M4	0	0	2331	0.0	0.0	439.1
14	Underground Rehabilitation of Feeder SCNA47M13	1059	0	73	1879.1	0.0	146.1
15	Underground Rehabilitation of Feeder NY80M2	0	0	0	0.0	0.0	0.0
16	Underground Rehabilitation of Feeder NY51M7	7054	0	0	2021.2	0.0	0.0
17	Underground Rehabilitation of Feeder NY51M24	21	1665	435	12.5	305.3	291.3
18	Underground Rehabilitation of Feeder NY80M30	5913	0	0	898.0	0.0	0.0
19	Underground Rehabilitation of Feeder NY55M23	0	0	0	0.0	0.0	0.0
20	Underground Rehabilitation of Feeder NY85M24	0	0	0	0.0	0.0	0.0
21	Underground Rehabilitation of Feeder SCNAE5-2M3	0	3400	783	0.0	3950.6	519.5
22	Underground Rehabilitation of Feeder NY85M7	2859	0	0	1197.8	0.0	0.0
23	Underground Rehabilitation of Feeder SCNT63M12	150	172	319	385.0	101.9	611.4
24	Underground Rehabilitation of Feeder SCNT63M8	2201	4010	0	576.5	1604.7	0.0
25	Underground Rehabilitation of Feeder SCNAE5-1M29	0	0	1620	0.0	0.0	462.4
26	Underground Rehabilitation of Feeder NY53M25	110	0	0	614.2	0.0	0.0
27	Underground Rehabilitation of Feeder NY80M9	1473	0	0	695.8	0.0	0.0
28	Underground Rehabilitation of Feeder SCNT47M3	4342	0	745	3776.5	0.0	1008.4
29	Underground Rehabilitation of Feeder SCNAH9M23	87	150	0	362.7	242.5	0.0
30	Underground Rehabilitation of Feeder NY51M3	0	0	30	0.0	0.0	70.2
31	Underground Rehabilitation of Feeder SCNA47M17	105	5682	2445	369.8	5663.1	2235.7
32	Underground Rehabilitation of Feeder SCNA502M21	8522	0	105	9247.3	0.0	356.5
33	Underground Rehabilitation of Feeder SCNT47M1	482	0	2235	1337.8	0.0	1743.1
34	Underground Rehabilitation of Feeders NY85M1, NY85M9 and NYSS58F1	577	577	262	1366.4	86.6	1294.5

Table 1

Job #	Job Title	Contributions to Feeder CI in 2009			Contributions to Feeder CHI in 2009		
		Primary Cable	Air- insulated Pad-mounted and Air insulated Vault mounted Switchgear	Submersible Transformers	Primary Cable	Air- insulated Pad-mounted and Air insulated Vault mounted Switchgear	Submersible Transformers
1	Underground Rehabilitation of Feeder NY80M29	6356	0	110	618.7	0.0	500.0
2	Underground Rehabilitation of Feeder SCNAR26M34	580	0	591	3880.7	0.0	3328.4
3	Underground Rehabilitation of Feeder NY55M8	2	0	1	39.9	0.0	3.3
4	Underground Rehabilitation of Feeder YK35M10	0	0	0	0.0	0.0	0.0
5	Underground Rehabilitation of Feeder SCNT63M4	0	0	396	0.0	0.0	126.6
6	Underground Rehabilitation of Feeder SCNA47M14	702	0	0	2463.4	0.0	0.0
7	Underground Rehabilitation of Feeder NY51M6	6816	0	0	3951.4	0.0	0.0
8	Underground Rehabilitation of Feeder NY80M8	74	0	0	249.2	0.0	0.0
9	Underground Rehabilitation of Feeder NY85M6	0	0	0	0.0	0.0	0.0
10	Underground Rehabilitation of Feeder NY51M8	0	0	0	0.0	0.0	0.0
11	Underground Rehabilitation of Feeder SCNA502M22	11494	0	0	6576.3	0.0	0.0
12	Underground Rehabilitation of Feeder SCNAH9M30	7939	0	0	7315.3	0.0	0.0
13	Underground Rehabilitation of Feeder NY85M4	20	0	0	46.7	0.0	0.0
14	Underground Rehabilitation of Feeder SCNA47M13	592	0	0	2352.7	0.0	0.0
15	Underground Rehabilitation of Feeder NY80M2	0	0	0	0.0	0.0	0.0
16	Underground Rehabilitation of Feeder NY51M7	275	0	0	541.6	0.0	0.0
17	Underground Rehabilitation of Feeder NY51M24	197	0	352	372.8	0.0	404.7
18	Underground Rehabilitation of Feeder NY80M30	0	0	0	0.0	0.0	0.0
19	Underground Rehabilitation of Feeder NY55M23	0	0	0	0.0	0.0	0.0
20	Underground Rehabilitation of Feeder NY85M24	1467	0	0	1173.8	0.0	0.0
21	Underground Rehabilitation of Feeder SCNAE5-2M3	0	0	0	0.0	0.0	0.0
22	Underground Rehabilitation of Feeder NY85M7	0	0	1228	0.0	0.0	1415.1
23	Underground Rehabilitation of Feeder SCNT63M12	300	3338	785	1234.2	1248.1	3216.3
24	Underground Rehabilitation of Feeder SCNT63M8	174	3240	140	977.3	304.6	714.0
25	Underground Rehabilitation of Feeder SCNAE5-1M29	3	337	0	0.3	2653.3	0.0
26	Underground Rehabilitation of Feeder NY53M25	14031	0	806	8011.2	0.0	1451.7
27	Underground Rehabilitation of Feeder NY80M9	1400	0	0	694.8	0.0	0.0
28	Underground Rehabilitation of Feeder SCNT47M3	3990	7280	229	380.0	1280.9	415.8
29	Underground Rehabilitation of Feeder SCNAH9M23	0	0	0	0.0	0.0	0.0
30	Underground Rehabilitation of Feeder NY51M3	150	0	0	454.2	0.0	0.0
31	Underground Rehabilitation of Feeder SCNA47M17	190	0	1590	419.3	0.0	542.5
32	Underground Rehabilitation of Feeder SCNA502M21	5286	0	0	850.5	0.0	0.0
33	Underground Rehabilitation of Feeder SCNT47M1	344	2141	375	698.6	1251.8	545.3
34	Underground Rehabilitation of Feeders NY85M1, NY85M9 and NYSS58F1	0	0	45	0.0	0.0	206.0

Table 1

Job #	Job Title	Contributions to Feeder CI in 2010			Contributions to Feeder CHI in 2010		
		Primary Cable	Air- insulated Pad-mounted and Air insulated Vault mounted Switchgear	Submersible Transformers	Primary Cable	Air- insulated Pad-mounted and Air insulated Vault mounted Switchgear	Submersible Transformers
1	Underground Rehabilitation of Feeder NY80M29	0	0	0	0.0	0.0	0.0
2	Underground Rehabilitation of Feeder SCNAR26M34	410	2	0	2666.9	0.1	0.0
3	Underground Rehabilitation of Feeder NY55M8	5492	0	394	2247.4	0.0	1050.4
4	Underground Rehabilitation of Feeder YK35M10	0	1788	0	0.0	150.8	0.0
5	Underground Rehabilitation of Feeder SCNT63M4	0	0	15	0.0	0.0	21.8
6	Underground Rehabilitation of Feeder SCNA47M14	7807	0	94	1055.7	0.0	163.9
7	Underground Rehabilitation of Feeder NY51M6	2839	0	30	2001.6	0.0	178.8
8	Underground Rehabilitation of Feeder NY80M8	3222	0	0	1117.5	0.0	0.0
9	Underground Rehabilitation of Feeder NY85M6	576	0	1240	470.4	0.0	164.0
10	Underground Rehabilitation of Feeder NY51M8	30	0	204	138.8	0.0	331.9
11	Underground Rehabilitation of Feeder SCNA502M22	3815	0	0	127.6	0.0	0.0
12	Underground Rehabilitation of Feeder SCNAH9M30	148	0	0	542.7	0.0	0.0
13	Underground Rehabilitation of Feeder NY85M4	2	0	0	10.1	0.0	0.0
14	Underground Rehabilitation of Feeder SCNA47M13	0	0	15	0.0	0.0	161.5
15	Underground Rehabilitation of Feeder NY80M2	2020	0	0	4191.3	0.0	0.0
16	Underground Rehabilitation of Feeder NY51M7	4825	0	0	465.8	0.0	0.0
17	Underground Rehabilitation of Feeder NY51M24	1297	108	0	2885.7	295.2	0.0
18	Underground Rehabilitation of Feeder NY80M30	7188	1720	0	2991.6	401.3	0.0
19	Underground Rehabilitation of Feeder NY55M23	4837	0	0	1193.5	0.0	0.0
20	Underground Rehabilitation of Feeder NY85M24	0	0	0	0.0	0.0	0.0
21	Underground Rehabilitation of Feeder SCNAE5-2M3	60	0	0	793.0	0.0	0.0
22	Underground Rehabilitation of Feeder NY85M7	0	0	1200	0.0	0.0	602.0
23	Underground Rehabilitation of Feeder SCNT63M12	699	250	90	2491.7	1637.5	204.0
24	Underground Rehabilitation of Feeder SCNT63M8	200	0	10	534.0	0.0	28.5
25	Underground Rehabilitation of Feeder SCNAE5-1M29	3964	0	0	2332.4	0.0	0.0
26	Underground Rehabilitation of Feeder NY53M25	6	0	0	22.7	0.0	0.0
27	Underground Rehabilitation of Feeder NY80M9	0	0	0	0.0	0.0	0.0
28	Underground Rehabilitation of Feeder SCNT47M3	300	5194	506	712.5	1745.9	1279.6
29	Underground Rehabilitation of Feeder SCNAH9M23	50	0	0	1.7	0.0	0.0
30	Underground Rehabilitation of Feeder NY51M3	141	0	236	379.8	0.0	356.0
31	Underground Rehabilitation of Feeder SCNA47M17	330	300	120	1233.5	525.0	517.0
32	Underground Rehabilitation of Feeder SCNA502M21	2901	0	0	1208.5	0.0	0.0
33	Underground Rehabilitation of Feeder SCNT47M1	5512	11	0	1463.2	1.1	0.0
34	Underground Rehabilitation of Feeders NY85M1, NY85M9 and NYSS58F1	42	0	0	116.5	0.0	0.0

Table 1

Job #	Job Title	Contributions to Feeder CI in 2011			Contributions to Feeder CHI in 2011		
		Primary Cable	Air- insulated Pad-mounted and Air insulated Vault mounted Switchgear	Submersible Transformers	Primary Cable	Air- insulated Pad-mounted and Air insulated Vault mounted Switchgear	Submersible Transformers
1	Underground Rehabilitation of Feeder NY80M29	3386	0	36	499.2	0.0	112.2
2	Underground Rehabilitation of Feeder SCNAR26M34	1322	4668	100	6744.8	7198.1	574.8
3	Underground Rehabilitation of Feeder NY55M8	2412	0	165	584.1	0.0	924.5
4	Underground Rehabilitation of Feeder YK35M10	0	0	0	0.0	0.0	0.0
5	Underground Rehabilitation of Feeder SCNT63M4	10795	2346	0	7597.5	3922.3	0.0
6	Underground Rehabilitation of Feeder SCNA47M14	5189	0	125	5123.1	0.0	695.3
7	Underground Rehabilitation of Feeder NY51M6	2052	3037	0	2633.7	4892.7	0.0
8	Underground Rehabilitation of Feeder NY80M8	2887	0	0	1644.5	0.0	0.0
9	Underground Rehabilitation of Feeder NY85M6	0	0	0	0.0	0.0	0.0
10	Underground Rehabilitation of Feeder NY51M8	30	0	2281	135.2	0.0	82.3
11	Underground Rehabilitation of Feeder SCNA502M22	14501	0	0	7177.0	0.0	0.0
12	Underground Rehabilitation of Feeder SCNAH9M30	20	0	0	38.5	0.0	0.0
13	Underground Rehabilitation of Feeder NY85M4	16	0	0	293.9	0.0	0.0
14	Underground Rehabilitation of Feeder SCNA47M13	13298	0	15	8729.4	0.0	172.8
15	Underground Rehabilitation of Feeder NY80M2	2700	2	0	725.0	14.5	0.0
16	Underground Rehabilitation of Feeder NY51M7	0	0	0	0.0	0.0	0.0
17	Underground Rehabilitation of Feeder NY51M24	2	40	205	0.5	111.8	779.3
18	Underground Rehabilitation of Feeder NY80M30	349	0	0	68.5	0.0	0.0
19	Underground Rehabilitation of Feeder NY55M23	99	0	0	255.3	0.0	0.0
20	Underground Rehabilitation of Feeder NY85M24	1247	0	130	1559.2	0.0	374.6
21	Underground Rehabilitation of Feeder SCNAE5-2M3	0	0	0	0.0	0.0	0.0
22	Underground Rehabilitation of Feeder NY85M7	0	0	0	0.0	0.0	0.0
23	Underground Rehabilitation of Feeder SCNT63M12	0	0	115	0.0	0.0	57.7
24	Underground Rehabilitation of Feeder SCNT63M8	0	5297	0	0.0	5862.8	0.0
25	Underground Rehabilitation of Feeder SCNAE5-1M29	259	0	0	1831.5	0.0	0.0
26	Underground Rehabilitation of Feeder NY53M25	1063	0	0	338.8	0.0	0.0
27	Underground Rehabilitation of Feeder NY80M9	0	800	0	0.0	231.7	0.0
28	Underground Rehabilitation of Feeder SCNT47M3	0	0	0	0.0	0.0	0.0
29	Underground Rehabilitation of Feeder SCNAH9M23	3901	0	0	3290.1	0.0	0.0
30	Underground Rehabilitation of Feeder NY51M3	0	0	0	0.0	0.0	0.0
31	Underground Rehabilitation of Feeder SCNA47M17	40	0	0	520.0	0.0	0.0
32	Underground Rehabilitation of Feeder SCNA502M21	8965	0	0	6252.2	0.0	0.0
33	Underground Rehabilitation of Feeder SCNT47M1	2141	10	0	107.1	35.6	0.0
34	Underground Rehabilitation of Feeders NY85M1, NY85M9 and NYSS58F1	1	0	12	6.9	0.0	126.2

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INTERROGATORY 32:

Reference(s): T4/S B1/pp. 2-3/Table 1 and T4/S B1/p. 111/l 22 - 27

In the second reference it is stated that prior to 1990, XLPE cable manufacturing processes did not have sufficiently strict quality controls to keep out impurities from the insulation system and provide reliable sealing of the insulation system to prevent moisture ingress. It is also indicated that due to these defects, early vintage XLPE cables are more prone to water treeing and high rates of premature failure than newer generation XLPE cables.

a) Please indicate which of the 34 Jobs listed in the first reference has cables installed prior to 1990, and are thus from the early vintage XLPE cables that were prone to premature failures.

RESPONSE:

a) Of the 34 jobs, 29 jobs replace XLPE direct buried cable that was installed prior to 1990. These jobs have been identified in Table 1 below.

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RESPONSE:

Table 1: Jobs with direct buried cable that was installed prior to 1990

Job Title
Underground Rehabilitation of Feeder NY80M29
Underground Rehabilitation of Feeder SCNAR26M34
Underground Rehabilitation of Feeder NY55M8
Underground Rehabilitation of Feeder SCNT63M4
Underground Rehabilitation of Feeder SCNA47M14
Underground Rehabilitation of Feeder NY51M6
Underground Rehabilitation of Feeder NY80M8
Underground Rehabilitation of Feeder NY85M6
Underground Rehabilitation of Feeder NY51M8
Underground Rehabilitation of Feeder SCNA502M22
Underground Rehabilitation of Feeder SCNAH9M30
Underground Rehabilitation of Feeder NY85M4
Underground Rehabilitation of Feeder SCNA47M13
Underground Rehabilitation of Feeder NY80M2
Underground Rehabilitation of Feeder NY51M24
Underground Rehabilitation of Feeder NY80M30
Underground Rehabilitation of Feeder NY85M24
Underground Rehabilitation of Feeder SCNAE5-2M3
Underground Rehabilitation of Feeder NY85M7
Underground Rehabilitation of Feeder SCNT63M12
Underground Rehabilitation of Feeder SCNT63M8
Underground Rehabilitation of Feeder SCNAE5-1M29
Underground Rehabilitation of Feeder NY53M25
Underground Rehabilitation of Feeder SCNT47M3

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Job Title
Underground Rehabilitation of Feeder SCNAH9M23
Underground Rehabilitation of Feeder SCNA47M17
Underground Rehabilitation of Feeder SCNA502M21
Underground Rehabilitation of Feeder SCNT47M1
Underground Rehabilitation of Feeders NY85M1, NY85M9 and NYSS58F1

b) Of the Jobs identified in response to Question a) above, please identify all jobs where one or more portions of the original early vintage XLPE cables was replaced with newer tree-retardant XLPE cable (TR-XLPE), and for each such job, the year during which such replacements occurred.

RESPONSE:

b) Out of the 29 jobs identified in part (a) above, seven have portions of direct buried TR-XLPE cables that were installed after 1990. These jobs are listed in Table 2 below.

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Table 2: Jobs replacing TR-XLPE cable

Job Title	Year of XLPE Replacement with TR-XLPE
Underground Rehabilitation of Feeder SCNA502M22	1998
Underground Rehabilitation of Feeder NY51M7	2006
Underground Rehabilitation of Feeder SCNT63M12	1998
Underground Rehabilitation of Feeder SCNT63M8	2011
Underground Rehabilitation of Feeder SCNT47M3	1991, 1993, 2010
Underground Rehabilitation of Feeder NY51M3	1993
Underground Rehabilitation of Feeder SCNA502M21	1998

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INTERROGATORY 33:

Reference(s): **T4/S B1/pp. 2-3/Table 1, T4/S B1/p. 123 and Kinectrics Inc.Report *Toronto Hydro-Electric System Limited 2012 Asset Condition Assessment Audit,* May 7, 2012/pp. 61-62.**

In the second reference, it is stated that:

> "THESL recently determined that a batch of air-insulated pad-mounted switches manufactured between 2004 and 2008 have potentially defective mechanical springs, which can result in another serious air-insulated pad-mounted switch failure mode."

In the third reference it is indicated at Table 19-2 that 99% of the Pad-mounted switches of the population of 793 units are in either "Fair", "Good" or "Very Good" condition and only 0.75% are in "Poor" Condition.

a) Please state how many air insulated pad-mounted switches THESL purchased between 2004 and 2008 that have potential defective mechanical springs.

RESPONSE:

a) THESL purchased 217 air-insulated pad-mounted switches between 2004 and 2008.

b) Please state whether or not THESL has a special program to replace those potentially defective air insulated pad-mounted switches.

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RESPONSE:

b) THESL does not have a program to replace potentially defective air-insulated pad-mounted switches. Please see the response to part (d) below for further discussion.

c) Please provide a list of the Jobs from the 34 Jobs listed in the first reference that have potentially defective air insulated pad-mounted switches.

RESPONSE:

c) One of the 34 jobs, six have potentially defective air-insulated pad-mounted switches. These jobs are listed below:

Job	Number of Potentially Defective Air-insulated Pad-mounted Switches
Underground Rehabilitation of Feeder SCNA502M21	1
Underground Rehabilitation of Feeder SCNT63M4	2
Underground Rehabilitation of Feeder SCNT63M12	3
Underground Rehabilitation of Feeder SCNT63M8	1
Underground Rehabilitation of Feeder SCNAH9M23	1
Underground Rehabilitation of Feeder SCNT47M1	2

d) Please comment on the view that of the 34 jobs listed in the first reference, only those jobs with original in-service date between 2004 and 2008 would have potentially defective air-insulated pad-mounted switches.

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RESPONSE:

d) THESL disagrees with this view because all air-insulated pad-mounted switches are prone to premature failure because they allow external dirt, contamination and moisture to enter the switching compartment through the ventilation louvers and settle on live switch components. As shown in Figure 47 (page 120) and explained on pages 5, 8, and 120-125 of Tab 4, Schedule B1, THESL has suffered an increasing failure rate from this type of switch during the past years, and these failures have contributed to poor feeder reliability to THESL customers. The failure modes of these units also presents potentially serious safety risks to crew workers who operate this equipment and perform routine maintenance procedures, due to the live-front design in which energized components are fully exposed.

Efforts to remove excess contamination through CO_2 washing have not proven effective because contamination and moisture can accumulate in a short period of time after the washing. Also, CO_2 washing is suspected of causing microscopic damage to insulation surfaces in the switch assembly, thereby promoting "tracking" or the flow of electrical energy across insulation surfaces that can lead to a flashover and total failure of the unit. This has been discussed in detail in Tab 4, Schedule B1, pages 136-137.

For additional discussion, please see the response to EP interrogatory 18 (Tab 6F, Schedule 7-18).

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INTERROGATORY 34:

Reference(s): T4/S B1/p. 130/Table 1 and T4/S B1/pp. 2-3/Table 1

The first reference lists 13 cables as examples of direct buried cable failures that caused significant outages.

a) **Please indicate which of the 13 cables that failed are included in the list of 34 jobs listed in the second reference.**

RESPONSE:

a) Some of the information previously listed in Table 1 (Tab 4, Schedule B1) was included in error. The revised table below reflects the corrected information:

Table 1: Examples of direct buried cable failures that caused significant outages

Year	Feeder	District	Outage Duration (Hours)	SAIDI Contribution (Hours)
2002	NY51M3	North York	6.42	0.0162
2007	NYSS68-F7	North York	6.68	0.0001
2008	NYSS68-F9	North York	7.37	0.0001
2010	ETLFF1	Etobicoke	27.68	0.0080
2010	NY51M6	North York	19.18	0.0006
2010	NY55M25	North York	13.55	0.0005

Table 1 above lists seven distinct outages (on seven cable segments) on six distinct feeders. Two of the seven cables that failed are included in the list of 34 jobs. The failed cable segment on the NY51M3 feeder is part of the "Underground

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Rehabilitation of Feeder NY51M3" job, and the failed cable segment on the NY51M6 feeder is part of the "Underground Rehabilitation of Feeder NY51M6" job.

b) Please state whether or not any of the 13 cables listed in the first reference experienced a second failure after the repair was completed. If so, please provide information in each case including the Feeder identification, the year of failure recurrence, the cost of repair, outage duration, and SAIDI contribution.

RESPONSE:

b) Of the six feeders listed in Table 1 above, five experienced subsequent direct buried cable outages in the area of the original cable failure. The details of these failures are provided in Table 1 below (note that the cost of repair is not available).

Table 2: Repeat direct buried cable failures

Feeder	Outage Date (dd/mm/yyyy)	Outage Duration (hours)	SAIDI Contribution (hours)
NY55M25	26/08/2011	9.98	0.0000
	01/09/2011	0.23	0.0001
NYSS68-F9	09/12/2010	5.78	0.0000

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Feeder	Outage Date (dd/mm/yyyy)	Outage Duration (hours)	SAIDI Contribution (hours)
NY51M3	17/08/2002	7.73	0.0002
	20/08/2002	1.83	0.0002
	06/10/2002	6.02	0.0001
	05/08/2006	1.38	0.0001
	28/04/2007	2.20	0.0002
	05/06/2010	3.55	0.0004
	11/06/2010	2.53	0.0002
NY51M6	23/03/2010	3.32	0.0008
	22/04/2010	1.92	0.0003
	08/06/2010	0.83	0.0002
	29/06/2010	0.03	0.0000
	16/07/2010	1.45	0.0004
	03/10/2010	1.77	0.0005
	27/06/2011	3.63	0.0010
	28/07/2011	1.90	0.0028

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INTERROGATORY 35:

Reference(s): **T4/S B 2/App. A/pp. 30-32**

The above reference provides detailed calculations for PILC Piece-outs and Leakers Segment.

It is stated that:

> "An outage impact is calculated using 3200 kVA for 1 hour.
>
> Outage impact= ($30/kVA)(3,200kVA) + ($15/kVA*h)(3,200kVA*1h) =$480,000
>
> […] taking the average age of the population of PILC cables, and multiplying the (probability of having a piece-out leaker) x (impact), a risk cost is calculated. This risk is taken from the average age until the population is 100 years old, and done for each cable chamber visited containing a piece out leaker. Finally, the present value in 2012 dollars is taken.
>
> The present value of de-energizing until the cable is 100 years old is $3.0M per chamber. It is assumed that a given load cannot be transferred to another feeder because the standby feeder would also run in the cable chamber where work is happening, and be de-energized. Given 1,301 chambers are visited a year, this number is **$3 Billion** if all feeders are de-energized each time a worker is required to enter a chamber."

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Please ensure that the explanations provided include: (1) the equation for the conditional probability of "not having a new PILC cable", (2) the resulting frequency and duration based on the assumption stated on page 30 of THESL's evidence of "the risk taken from the average age of PILC cable of 28 years" until the population is 100 years old," (3) outage impact and (4) the details of the present value evaluation including the discount rate used of de-energizing until the cable is 100 years old, which would show the amount quoted of $3.0M per chamber.

a) Please provide a detailed explanation as to how the risk cost referenced in the first paragraph is calculated.

RESPONSE:

a) The calculation of the probability of failure relies on the assets' Hazard Distribution Function ("HDF"), which represents a conditional probability of an asset failing from the remaining population that has survived up till that time.

Based on the above, the failure probability for the next year given a specific age, per kilometre of PILC age cable is:

Year	Failure Probability	Year	Failure Probability
0	0	51	0.012535507
1	0.0000048195	52	0.013031915
2	0.000019278	53	0.013537962
3	0.0000433755	54	0.014053648
4	0.0000771119	55	0.014578973
5	0.000120487	56	0.015113937
6	0.000173502	57	0.01565854

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Year	Failure Probability	Year	Failure Probability
7	0.000236155	58	0.016212782
8	0.000308448	59	0.016776663
9	0.000390379	60	0.017350183
10	0.00048195	61	0.017933342
11	0.000583159	62	0.01852614
12	0.000694007	63	0.019128577
13	0.000814495	64	0.019740652
14	0.000944621	65	0.020362367
15	0.001084386	66	0.020993721
16	0.001233791	67	0.021634714
17	0.001392834	68	0.022285346
18	0.001561516	69	0.022945617
19	0.001739838	70	0.023615527
20	0.001927798	71	0.024295075
21	0.002125397	72	0.024984263
22	0.002332636	73	0.02568309
23	0.002549513	74	0.026391556
24	0.002776029	75	0.027109661
25	0.003012185	76	0.027837404
26	0.003257979	77	0.028574787
27	0.003513412	78	0.029321809
28	0.003778484	79	0.03007847
29	0.004053195	80	0.030844769
30	0.004337546	81	0.031620708
31	0.004631535	82	0.032406286
32	0.004935163	83	0.033201503
33	0.00524843	84	0.034006358
34	0.005571336	85	0.034820853
35	0.005903882	86	0.035644987

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Year	Failure Probability	Year	Failure Probability
36	0.006246066	87	0.036478759
37	0.006597889	88	0.037322171
38	0.006959351	89	0.038175222
39	0.007330452	90	0.039037911
40	0.007711192	91	0.03991024
41	0.008101571	92	0.040792208
42	0.00850159	93	0.041683814
43	0.008911247	94	0.04258506
44	0.009330543	95	0.043495944
45	0.009759478	96	0.044416468
46	0.010198052	97	0.045346631
47	0.010646265	98	0.046286432
48	0.011104117	99	0.047235873
49	0.011571608	100	0.048194952
50	0.012048738		

The impact of de-energizing each cable is calculated using an average of 3,200 kVA of load per cable chamber. Taking 3,200 kVA, and multiplying it by an event and duration cost, a total outage cost is calculated as per below.

Taking 3200 kVA * (event cost of $30/kVA) + 3,200kVA * (1hour outage) *($15/kWh) = $**144,000** / outage. This is an updated value to fix an error in EB-2012-0064 Tab 4, Schedule B2, page 31. The final outage cost of $3B mentioned in EB-2012-0064 Tab 4, Schedule B2, page 32 remains the unchanged.

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Given the average kilometres of PILC cable per segment of .0157 km (52m/phase), and the total PILC of 2 segments x 4 feeders = 1.256km of total PILC cable between two cable chambers.

Taking 1.256km and multiplying by the above failure probability, the probability of replacement (i.e., that the PILC cable has failed and has been replaced with new XLPE cable between two cable chambers) is determined for each year.

Taking (1-Probablity of PILC Replacement as detailed above) * (Outage cost of $144,000) the risk cost for each year per cable chamber is determined.

This value, from an age of 28 years to 100 years, is then brought back to a present value using a discount rate of 6.08%., and equates to **$2,306,842** / cable chamber for PILC as it ages from 28 years to 100 years. Again, this an updated value to fix an error in EB-2012-0064 Tab 4, Schedule B2, page 31. The final outage cost of $3B mentioned in EB-2012-0064 Tab 4, Schedule B2, page 32 remains the unchanged.

b) Please provide a similar explanation for the present value of de-energizing discussed in the second paragraph.

RESPONSE:

b) Given that there are 494 Cable Chambers with piece out and leaking PILC cable, and a total population of 10,853 cable chambers, and a total of 28,576 cable chambers visited in 2011, assuming that each cable chamber has a equal chance of being visited, there are:

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(494/10,853)*28,576 = 1,301 cable chambers visited a year containing PILC cables requiring piece out or having leaking cables every year. Multiplying this number by the outage cost in a) of $2,306,842 / cable chambers, and

(1301 cable chambers) * $2,306,842/cable chambers = **$2,998,894,600**

This number of $3B illustrates how unreasonable it is for THESL workers to de-energize all cables every time a cable chamber is entered.

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INTERROGATORY 36:

Reference(s): T4/S B2/p. 1, p. 10, p. 15, p. 19, p. 26

At page 1 of the reference, it is indicated that THESL has approximately 1,305 kilometers of PILC cables;

The two tables, Table 2 at page 10 and Table 3 at page 15, of the reference do not include the length of cables that will be replaced.

At page 19 of the reference it is stated that "Currently there are 91 identified cable chambers that are severely congested…"

At page 26 of the reference it is stated that "In 2011, there were 28,576 cable chambers and vaults entered by THESL workers".

a) **Please provide a recast of both Tables 2 and Table 3, noted above, adding in each the length of cable for each "Job" in kilometre which is proposed for replacement.**

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RESPONSE:

a)

Table 2: Required Capital Costs

Job Estimate Number	Job Title	Job Year	Kilometres of PILC Replaced	Total Estimated Cost ($M)
24463	Bridgman to High Level PILC Feeder Replacement	2012-2013	10.9 km	14.8

Table 3: Piece Out and Leaker Jobs

Job Estimate Number	Job Title	Units	Job Year	Kilometres of PILC Replaced	Total Cost ($M)
21216	Carlaw Station Piece Out and Leakers	24	2012	3.768 km	0.51
21217	Leaside Station Piece Out and Leakers	21	2012	3.297 km	0.24
21218	Esplanade Station Piece Out and Leakers	12	2012	1.884 km	0.11
21219	Glengrove Station Piece Out and Leakers	15	2012	2.355 km	0.29
21220	Cecil Station Piece Out and Leakers	17	2012	2.669 km	0.20
21221	Duplex Station Piece Out and Leakers	41	2012	6.437 km	0.61

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Job Estimate Number	Job Title	Units	Job Year	Kilometres of PILC Replaced	Total Cost ($M)
21222	Main Station Piece Out and Leakers	31	2012	4.867 km	0.58
24682	Windsor Station Piece Out and Leakers	49	2013	7.693 km	0.68
19798	Windsor Station Piece Out and Leakers II	8	2013	1.256 km	2.24
24684	Strachan Station Piece Out and Leakers	37	2013	5.809 km	0.62
24687	Dufferin Station Piece Out and Leakers	55	2013	8.635 km	0.89
19554	Terauley Station Piece Out and Leakers	49	2013	7.693 km	0.76
24688	Bridgman Station Piece Out and Leakers	17	2014	2.669 km	0.17
24703	Gerrard Station Piece Out and Leakers	12	2014	1.884 km	0.10
24706	Basin Station Piece Out and Leakers	3	2014	0.471 km	0.05
24711	4kV Stations Piece Out and Leakers	103	2014	16.171 km	1.15
Total					9.17

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b) Please provide the total number of Chambers and total number of Vaults that THESL has on its system that have PILC cables.

RESPONSE:

b) There are 5,081 cable chambers containing PILC cable, and 1,710 vaults (both customer-owned and THESL-owned) that contain PILC cable.

c) Please state whether or not THESL has a plan for replacement of the total 1,305 kilometres of PILC cables? If yes, please provide a copy of such a plan outlining the amount of cables to be replaced each of the years in that plan.

RESPONSE:

c) THESL has no plan at this time for the replacement of all the 1,305 km of PILC cable.

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INTERROGATORY 37:

Reference(s): **T4/S B 3/pp. 1 – 14**

At the reference, on page 1, lines 14 – 28, it is indicated that:

- of the approximately 11,700 handwells on the THESL system, by 2011, 5,600 existing units were replaced by new non-conducting units;
- these 5,600 units were concentrated in the downtown core because that is where both the number of handwells and the potential exposure to contact voltage are greatest;
- for the remaining handwells (4,900 units, as stated on page 13), THESL will target for replacement first the downtown core, and then North York, East York, Etobicoke, and Scarborough.

On pages 9 – 10, Figures 6 & 7 indicate that there have been marked improvements since 2009 in terms of “Historical Contact Voltage Hits identified by Mobile Surveying” (Figure 6), and “Average Level of Contact Voltage Detected” (Figure 7).

On pages 11 – 12, Tables 1 and 2 indicate marked reduction in the “Number of Energized Handwells” (Table 1) and that the “Contact Voltage Incidents on Handwells (2011)” (Table 2) were within the priority area targeted by THESL for handwell replacement before it replaces handwells in North York, East York, Etobicoke, and Scarborough.

a) **Please provide the number of handwells and the cost for units that still need replacement located in the downtown core.**

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RESPONSE:

a) The number of handwells that remain to be replaced in the downtown core is 1754. The estimated cost to replace these handwells is $12,007,529.

b) Please provide a recast of Table 3 on page 14 assuming THESL's implementation of the handwell replacement and their costs is spread over a longer period of six years (2012 – 2017), instead of three years. In providing this recast, the number and cost of handwells in 2012 and 2013 should include those identified in the response to part a) above.

RESPONSE:

b) The following table is a recast of Table 3 assuming an implementation of the handwell replacement from 2012-2017.

Project Title	Project Year	Cost Estimate
Handwell Standardization & Remediation	2012	$12,007,529
Handwell Standardization & Remediation	2013	$11,536,662
Handwell Standardization & Remediation	2014	$2,884,166
Handwell Standardization & Remediation	2015	$2,867,912
Handwell Standardization & Remediation	2016	$2,007,538
Handwell Standardization & Remediation	2017	$2,294,330
	Total:	$33,598,137

c) Please state how the experience gained from the early phases of the handwell Replacement program has been incorporated into the current (and future) programs.

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RESPONSE:

c) Some of the experiences gained in the early phases include: developing the contract management relationship between THESL and construction contractors, working with City of Toronto permit staff to determine how best to issue permits for handwell replacements (such as by individual handwell versus by street), increasing the pace of construction during the second and subsequent years of construction, informing stakeholders such as the Electrical Safety Authority or other utilities of the program through discussions and presentations at industry meetings, and creating and enhancing the new materials, Construction Standards, Standard Practices and Standard Design Practices described on page 9, lines 10-19.

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INTERROGATORY 38:

Reference(s): **T 4/S B 4 and Kinectrics Inc. Report *Toronto Hydro-Electric System Limited 2012 Asset Condition Assessment Audit,* May 7, 2012**

At the first reference at page 40 it is indicated that there are approximately 2,200 Completely Self-Protected (CSP) Transformers, and on page 42, that THESL plans to replace 35 CSP transformers with standard non-CSP transformers as part of conversion and rehabilitation work from 2012 to 2014. The same page also appears to suggest that THESL intends to replace all 2,200 CSP transformers between 2012 and 2014.

At page 58 of the first reference in regard to "Porcelain Overhead Switches", it is indicated that there are 8,774 manual in-line switch locations, 7,442 porcelain SMD-20 switch locations, and 1,200 manual ganged switch locations. At page 67 it is indicated that of the 8,774 in-line disconnect switches, 1,629 are over 50 years old, and 25 are over 60 years old – both categories need to be changed urgently and the units over 60 years old need to be replaced in 2012. On page 77, Option (a), is to replace in-line disconnect and manual air-break gang-operated switches in 238 locations in 2012, 547 in 2013 and 114 in 2014. On page 81, THESL is proposing to replace 400 porcelain insulators yearly in each of 2012, 2013, and 2014.

At the second reference in regard to "Section 16 Three Phase Overhead Gang (Rem.) Switches ", in Table 16-1, for a population of 263 and a sample size of about 52%, it is reported in Table 16-2 that the switches conditions approximately are 30% "Very Good" condition, 63% in "Good" condition and 7% in "Fair" condition.

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At the second reference in regard to "Section 17 Three Phase Overhead Gang (Man.) Switches ", in Table 17-1, for a population of 1069 and a sample size of about 6%, it is reported in Table 17-2 that the switches conditions approximately are 39% "Very Good" condition, 56% in "Good" condition and 5% in "Fair" condition.

a) Please provide the cost (labour and equipment) of installing a standard transformer for each CSP transformer replaced.

RESPONSE:

a) The unit cost of installing a non-CSP transformer on the 27.6 kV system (including the necessary 45-foot cedar pole and all associated equipment) is approximately $7,150 for materials and $12,450 for labour, which totals $19,600.

b) Please explain why THESL cannot modify the CSP design by simply having an external fuse installed outside of each CSP transformer, and solid connect the terminals inside to bypass the internal fuse. Please comment on the view that the proposed modification can be implemented on units that are still in good condition regardless of age, in order to effect savings.

RESPONSE:

b) THESL does not refurbish or modify transformers using in-house resources. The manufacturer does not recommend a retrofit of CSP transformer units in the proposed manner. If the suggested alteration were to be pursued, any modification of internal parts should be done in a controlled environment by qualified transformer technicians and not on the field. However, the estimated cost of shipping a CSP transformer for modification is greater than a non-CSP transformer itself.

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Furthermore, CSP transformers are on shorter poles than those required to provide adequate clearance between an external switch with the cut out fuse and the top of the transformer bushing. The proposed modification thus would require a new, larger pole to accommodate the external cut out fuse, which represents a substantial portion of the cost of installing non-CSP transformers. As a result, although it is technically viable, the estimated costs of modifying a CSP transformer in the manner suggested are greater than installing a new standard transformer, which has the additional benefit of an extended life span.

c) It is understood that THESL uses three" Single-Phase Switches" to form Three Phase Overhead Gang Switches. Please indicate how many of the 8,774 in-line disconnect switches reported at the first reference, are installed as single phase switches installed on laterals.

RESPONSE:

c) Of the 8,774 in-line disconnect switches reported at the first reference, 6,625 are installed as single-phase switches installed on laterals.

d) Please comment on the view that the condition of the single phase switches would not be any different than those reported at the second reference at sections 16 and 17.

RESPONSE:

d) THESL disagrees with this view. The health profile of the single-phase switches should be poorer than that of the three-phase overhead gang switches discussed in the

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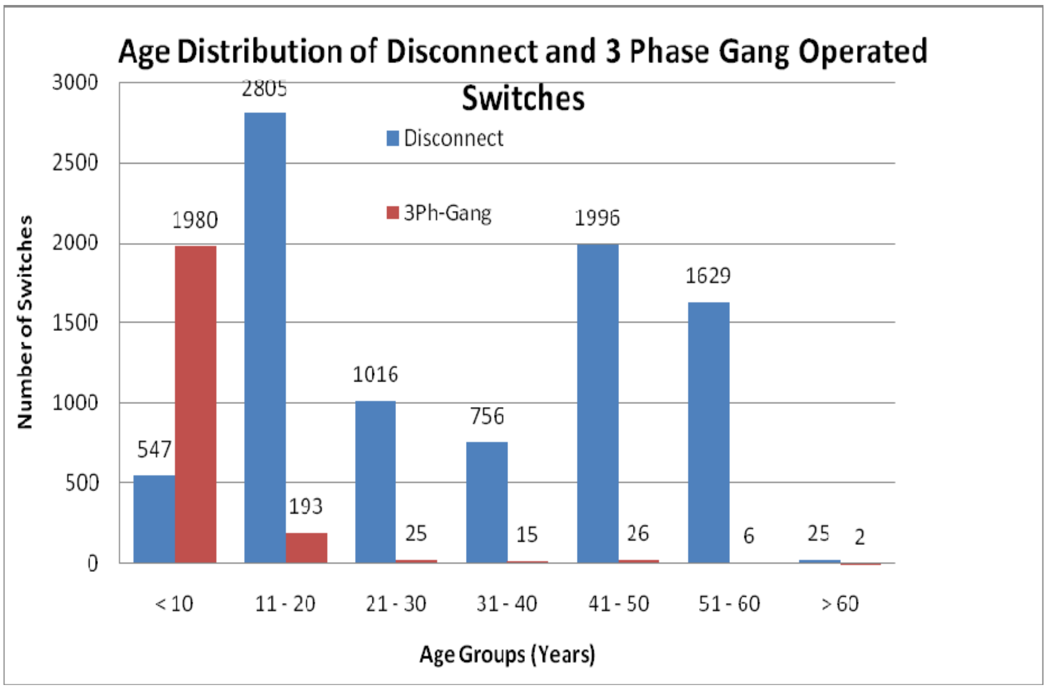
reference provided because the single-phase switches are generally older (average age is 39 years while the average age of the three-phase overhead gang switches is 5.23 years). The figure below compares the age distribution profile of in-line disconnects with three-phase ganged switches that are intended for replacement.



In addition, THESL uses more than simply age or condition assessment when determining switch replacements. Other factors such as asset type, asset class, probability of failure and risk exposure are considered as explained in the business case evaluation described in Tab 4, Schedule B4, Appendix 1.

e) Please comment on the view that age is not a determinant for replacing switches, but rather the condition assessment of such switches.

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RESPONSE:

e) THESL uses more than simply age or condition assessment when determining switch replacements. Other factors such as asset type, asset class, probability of failure and risk exposure are considered as explained in the business case evaluation described in the Overhead portfolio at Tab 4, Schedule B4, Appendix 1.

f) Please indicate how many "Three Phase Overhead Gang (Man.) Switches " and how many "Three Phase Overhead Gang (Rem.) Switches " are intended to be replaced in the 238 locations in 2012, 547 in 2013 and 114 in 2014 as reported on pages 76-77 of the first reference under Option (a).

RESPONSE:

f) In the referenced sections, THESL intends to replace 30 manual three-phase overhead Ganged switches, 51 remotely operated three-phase overhead Ganged in 2012; 47 manual three-phase overhead Ganged switches, 11 remotely operated three-phase overhead Ganged in 2013; nine manual three-phase overhead Ganged switches, and 16 remotely-operated three-phase overhead Ganged in 2014.

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INTERROGATORY 39:

Reference(s): **T4/S B 5 and IEEE *Guide for the Interpretation of Gases Generated in Oil- Immersed Transformers* – IEEE Std C57.104-1991, Recognized as an American National Standard (ANSI) /pages 10, 11 and 13**

At the first reference, the results of the Dissolved Gas Analysis (DGA) are shown for some of the transformers at various MSs.

a) Given the requirements set out at the second reference, please state the operating procedures followed by THESL to ensure continued reliable performance by the noted transformers.

RESPONSE:

a) THESL typically performs a DGA analysis on the transformers bi-annually in order to monitor condition, trend deterioration and identify potential signs of imminent failure. THESL contracts an independent laboratory to perform the DGA analysis and provide an assessment of transformer condition based on the results. This information feeds into THESL's condition assessment. If a DGA test indicates that there is an imminent problem, THESL will take action. Depending on the nature and urgency of the finding, an action that THESL may take is to increase the oil sampling frequency to closely monitor the situation, taking the unit out of service for repairs, or expediting replacement of the unit.

b) Please comment on the view that transformers with long service usually show gases, and as long as proper procedures are followed per the ANSI standard

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noted in the second reference, and the levels of various gases are within prescribed limits, eventual failures are not imminent, and replacement is not needed unless deterioration is noticed where a transformer is classed as either Condition 3 or Condition 4.

RESPONSE:

b) THESL agrees that as a transformer ages, oil testing will reveal increases in gas levels and that these increases do not necessarily mean that a transformer is at risk of imminent failure. However, DGA analysis is one of many different inputs THESL considers when determining whether or not to replace a specific transformer. Other factors include age, inspection results, health index, operational considerations and loading requirements. While DGA is a useful tool for proactively detecting serious problems, a Condition 1 or Condition 2 test result alone does not necessarily mean that a unit should not be replaced.

c) In regard to Transformer TR3 at College MS, and the DGA results that were reported at page 35, please provide an update in regard to any further testing that THESL may have undertaken, since December 15, 2009, given the unusual change in the Hydrogen (PPM), and THESL's comment that "large changes in DGA readings can be caused by contamination during oil sampling".

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RESPONSE:

c) The most recent DGA results are presented in the table below.

College MS TR3	February 2, 2012	May 17, 2011
Hydrogen (PPM)	4,159	2,594

This transformer is showing clear signs of gassing and, is in THESL's opinion, should be addressed in the near future. It will be removed from service once the proposed load conversion of College MS is completed.

d) Please comment on the view that of the investments outlined in this segment, consisting of 9 projects, only one conversion project involving Hazelwood MS is in need of urgent attention, as the DGA results for transformer TR1 indicate "condition 3" status, and the transformer TR2's DGA results show a very high ratio of CO2 : CO.

d) Station asset condition is only one of several factors considered by THESL in determining the need for the projects identified in this business case. Other important drivers such as safety, loading capacity, and clearance issues warrant projects other than those associated with Hazelwood MS to be performed as well.

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INTERROGATORY 40:

Reference(s): **T4/S B6**

Section V "Description of the Work" lists nine distinct areas that are designated for Rear Lot Construction.

The evidence at the first reference indicates that for six of the areas civil construction for all lots within the six areas are completed, these being: (1) Rexdale Colony Park, (2) Banbury – Larkfield – Chestwood, (3) Livingston Guildwood, (4) Rathburn, (5) Silverstone, and (6) Lawrence Leslie. For the Forest Hill area, it is stated that half of the civil construction has been completed.

a) Please state why THESL views the Rear Lot Construction in these nine areas as non-discretionary.

RESPONSE:

a) These jobs are non-discretionary for the same reasons as other rear lot conversion jobs as explained in Tab 4, Schedule B6, pages 5-7 and 16-31. In addition, for all these jobs except Livingston/Guildwood, the fact that civil construction has already been fully or partially completed makes finishing them particularly urgent as explained on page 29, line 18 through page 30, line 12. Livingston/Guildwood was included in error and the evidence is being corrected to reflect this fact.

b) Please provide the costs incurred in 2011 for completing the civil construction referenced above.

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RESPONSE:

b) The costs incurred in 2011 for completing the civil construction are as follows:

Rear Lot Construction Area	2011 Civil Construction Costs
Rexdale Colony Park	$4,244,216
Banbury – Larkfield – Charnwood	$4,987,073
Rathburn	$4,394,895
Silverstone	$3,218,236
Lawrence Leslie	$2,997,526
Forest Hill	$1,635,436

c) Please provide the costs for any other materials already spent or contractually committed that are related to the referenced nine areas.

RESPONSE:

c) Other materials costs already spent or committed (January 2011 to August 2012) are as follows:

Rear Lot Construction Area	Material Costs
Rexdale Colony Park	$3,027
Banbury – Larkfield – Charnwood	$11,198
Rathburn	$1,069,273
Silverstone	$508,734
Lawrence Leslie	$2,888
Forest Hill	$1,614

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INTERROGATORY 41:

Reference(s): T 4/S B 7/pp. 1-2

At the above reference, THESL discusses defective SMD-20 switches and states that:

> "There are 5,226 defective SMD-20 switches installed on 2,553 locations (many locations are on three phase systems and incorporate three defective SMD-20 switch installations) identified to require replacement on the THESL system and this segment targets replacing all of them over the next three years with "new design" SMD-20 switches."

THESL indicates that it has confirmed through testing that the manufacturer has remedied the defect in its new design, but that it has confirmed that the SMD-20 switches installed during the period of 2006 to 2011 are defective. THESL further indicates that it is in discussion with the manufacturer to determine the level of compensation that can be recovered.

a) Please state the total 2006 to 2011 expenditure by THESL on the defective SMD-20 switches.

RESPONSE:

a) Since the initial introduction of polymer SMD-20 units in 2006, THESL's total expenditure for defective SMD-20 units is $1.97 million.

b) Please state the magnitude of the compensation THESL is seeking from the manufacturer. Please include a discussion as to whether or not THESL is seeking compensation to cover the labour costs to it of removing and installing the new version of the switches.

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RESPONSE:

b) To date, the manufacturer has agreed to exchange any existing defective SMD-20 switch as stated in the attached ESA document DSB-04/12. The replacement only covers the material costs and not the labour costs. Any discussions in regard to additional compensation are still ongoing between THESL and the supplier.

c) Please state whether or not the manufacturer has provided to date any compensation to THESL in regard to the defective switches? If so please provide the amounts and the terms of the settlement.

RESPONSE:

c) 257 SMD-20 units existing in available stock were sent back and replaced with the new design. To date, no SMD-20 units from the field have been returned to the supplier for unit replacement.

d) Please discuss the extent to which other utilities have experienced similar problems with the SMD-20 switches and what actions they are taking to remedy the problem.

RESPONSE:

d) Although THESL is aware that other utilities are experiencing a similar problem with defective SMD-20 units, THESL cannot comment as to the actions those utilities are taking to remedy the problem.

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INTERROGATORY 42:

Reference(s): **T 4/S B 8/pp. 1-2, p. 17 and Kinectrics Inc. Report *Toronto Hydro-Electric System Limited 2012 Asset Condition Assessment Audit*, May 7, 2012/pp. 59-60/ Tables 18-1 and 18-2**

At the first reference it is indicated that the SCADA-Mate R1 switches have been identified as a safety risk to THESL crews due to two recorded incidents in June 2008 and three in April 2011. It is further indicated that to remedy this situation, THESL proposes spending $8.35 million in the 2012-2014 period to replace the 48% of existing SCADA-Mate R1 switches that are located in areas where there is an increased failure probability for these switches.

At the second reference, Table 1 appears to show a total of 318 SCADA-Mate R1 switches on THESL's system.

The third reference, which is the Kinetrics report, appears to show in Table 18-1 that there are a total of 767 of these switches in THESL's system and in Table 18-2 it is indicated that 98 % of the switches are in either "Good" or "Very Good" condition, and about 2% in "Fair" condition.

a) Please provide explanation for the variance in the total population between the two figures in the two noted references, and to the indication that there are no SCADA-Mate Switches in "Poor" or "Very Poor" condition.

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RESPONSE:

a) There are 318 SCADA-Mate R1 switches in the distribution system at THESL. The remaining 449 switches are SCADA-Mate R2 switches. External visual inspection can provide an overall condition assessment but cannot determine if a SCADA-Mate R1 switch is operationally defective due to corrosion in the motor operator as discussed in Tab 4, Schedule B8 at pages 8-12 and shown in the pictures provided there. Although external visual inspection categorizes the majority of SCADA-Mate switches in "good" or "very good" condition, the complete population of SCADA-Mate R1 switches must be treated as defective due to the internal design defect and the resulting potential safety risks.

b) Please state whether or not the manufacturer has provided to date any compensation to THESL in regard to the defective SCADA-Mate R1 Switches? If so please provide the amounts and the terms of the settlement.

RESPONSE:

b) No compensation has been established at this time.

c) Please provide information of the demographics of the noted defective SCADA-Mate R1 Switches.

RESPONSE:

c) All SCADA-Mate R1 units were installed between 1992 and 2000 across all former districts, as shown in Tab 4, Schedule B8, Figure 2, page 6.

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d) Please state whether or not THESL is aware of any research that has been done on SCADA-Mate switch failures and what measures other utilities have taken in these circumstances.

RESPONSE:

d) THESL is not aware of any research that has been done on SCADA-Mate R1 switch failures other than a report provided by the manufacturer. THESL cannot comment as to the measures other utilities are taking to remedy the problems they may have experienced.

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INTERROGATORY 43:

Reference(s): T 4/S B 10/pp. 9-14

On page 9 of the above reference, it is noted that: "According to THESL records, there have been 18 vault fires in the past ten years, many of which were directly traced back to Fibertop Network Units as the root cause". The following pages outline four major incidents that have arisen as a result of this problem.

a) Please provide a description of the increased preventative maintenance and the change in the maintenance cycle used to minimize the build-up of contaminants in the last 10 years on all the noted network vaults.

RESPONSE:

a) Fibertop Network Units all currently receive an annual cleaning. They were previously cleaned every three or five years, depending upon their voltage class, as part of their regularly scheduled overhauls. Other low risk types of protectors (i.e., non-Fibertop) are still only thoroughly cleaned during overhauls. Despite an increased preventative program, catastrophic failures continue to occur because the Fibertop Network Units remain uniquely susceptible to failure when exposed to sudden adverse conditions.

b) Please state how many of the 240 Fibertop Network Units were installed with Asbestos-Insulated Lead-Covered (AILC) secondary cables, and whether or not they are concentrated in certain locations on the system or spread over many areas.

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RESPONSE:

b) Virtually all Fibertop Network Units were originally installed with asbestos-insulated lead-covered cables. They generally tend to be concentrated in Toronto’s downtown core close to the Yonge Street corridor.

c) In the event that the proposed segment work were to be delayed, please discuss any additional measures that THESL would use to minimize the noted risks.

RESPONSE:

c) In the event that the proposed work was delayed, THESL would likely continue with its existing enhanced maintenance program and proceed with replacement of Fibertop Network Units only on a reactive basis. The potential risks of failure outlined in Tab 4, Schedule B10 would not be eliminated in the interim.

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INTERROGATORY 44:

Reference(s): **T 4/S B 11 and Kinectrics Inc. Report *Toronto Hydro-Electric System Limited 2012 Asset Condition Assessment Audit*, May 7, 2012/pp. 48-49.**

At the first reference on page 1, THESL indicated that it proposes to replace 30 ATS assets and 6 RPB assets. There appears to be no assessment by the Kinectrics report on the RPB units in the THESL system.

a) Please indicate whether THESL had previously identified the need to replace ATS units and RPB units in either its EB-2011-0144 or EB-2010-0142 applications. If not, please explain why not.

RESPONSE:

a) THESL did not identify the need to replace ATS and RPB units in the EB-2011-0144 or EB-2010-0142 applications as the overall serviceability of these units remained within manageable limits. Previously these units were replaced reactively as they failed or became unrepairable. Currently and over the next several years, as most of these units approach or pass their nominal life expectancy, the increasing failures and decreasing serviceability necessitates a change to a proactive replacement strategy. The substantial increase in ATSs rated “poor” and “very poor” between the 2010 and 2011 Asset Condition Assessments confirm that this change is now urgently required.

b) Please confirm that according to Tables 2 and 3 at pages 6-7 of the first reference the 30 identified locations for ATS replacement, and all 6 location for

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RPB replacement, require replacement in each case of the vault equipment including the distribution transformers.

RESPONSE:

b) Of the 30 ATS locations on the list, 18 require transformer replacement in addition to ATS replacement. All six of the RPB locations require transformer replacement in addition to RPB replacement.

c) Please state whether or not THESL has a long term plan to deal with the remaining ATS units and RPB units on the system and, if so, what it is.

RESPONSE:

c) THESL's long term plan to deal with aging ATS and RPB units is to proactively replace them with modern standard equipment. The equipment selected will vary depending upon what is most suitable and cost effective for each particular location. Please refer to the details provided in Tab 4, Schedule B11.

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INTERROGATORY 45:

Reference(s): **T 4/S B 12, and *The Duval Triangle DGA Diagnostic Method*, available from Delta-X Research Inc, P.O. Box 42083, 2200 Oak Bay Avenue, Victoria BC Canada V8R 6T4, Tel: (250) 592-2998 and website: www.deltaxresearch.com**

At pages 1-7 of the first reference, THESL is proposing to replace 12 power transformers ranging in size between a small unit of (3-4 MVA) and a large unit (12-15 MVA), and varying in age between 36 years and 84 years.

At pages 10-32 of the same first reference, THESL presents the results of visual inspection for oil leaks as well as the results of the Dissolved Gas Analysis (DGA) for all 12 transformers, and THESL's interpretation of the DGA results, especially the "Duval" Triangle DGA Diagnostic".

At the second reference, it is indicated that the Duval method is only applicable when the gas concentrations are fairly high compared to the allowed limits and rate of gas production is increasing rapidly. Furthermore it is also indicated that using the Duval method at low concentration leads to wrong conclusions.

On page 10, of the first reference it is stated that the Ellesmere White Abbey MS had reached the end of its operating life and that the risk of transformer oil leakage poses a potential environmental risk with high consequence costs. On pages 15 and 16, the Scarborough Golf Club MS is discussed and a similar conclusion is reached.

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On pages 11 through 14, of the first reference the Thistletown MS, transformer TR1 and TR2 are discussed and THESL concludes that both transformers should be replaced based on its Duval Triangle analysis.

On pages 24 through 26, of the first reference, the Blaketon MS – TR1 is discussed and THESL concludes that it should be replaced.

On pages 28 through 32, of the first reference, the Norseman MS and Underwriter Crouse MS' are discussed and it is concluded that they both should be replaced. Among the reasons cited for the replacement of Norseman is the existence of some sludge deposits in the transformer and for Underwriter Crouse the existence of high moisture content.

a) Please state whether or not in THESL's view the age of a transformer alone would provide sufficient justification for its replacement. If yes, please explain why.

RESPONSE:

a) Age can be a useful indicator of transformer condition, as internal components are known to degrade over the life of the equipment, but replacement decisions are not typically based on age alone. In cases where a transformer's age is beyond the manufacturer's expected life, and transformer deteriorated condition indicates an elevated risk of failure, THESL would generally propose to replace the transformer to minimize impact on cost and operation.

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b) Please state whether or not THESL's staff investigated the nature of the oil leaks in the Ellesmere White Abbey and Scarborough Golf Club MS', and if yes, please provide a brief summary of the results of the investigation.

RESPONSE:

b) The oil leaks were identified during routine maintenance inspections. Neither oil leak was severe and both transformers are located in oil containment areas. Oil leaks such as those identified at Ellesmere White Abbey MS and Scarborough Golf Club MS indicate degradation of gaskets and seals and provide a path for moisture to enter the transformer tank. Moisture in transformer winding decreases dielectric strength, accelerates paper insulation degradation and ultimately increases the probability of failure.

c) Regarding the Thistletown MS, please state whether or not the gas concentration in the two transformers was high compared to the allowed limits and if the rate of gas production was increasing rapidly. Please state whether or not in THESL's view in the absence of these two conditions, the Duval method would be applicable and if so, why in light of the evidence in the second reference where it is indicated that using the Duval method at low gas concentration leads to wrong conclusions.

RESPONSE:

c) To clarify, THESL does not employ Duval triangle analysis selectively. Rather, it is a "standard" technique that THESL applies to all transformers to compliment the entire suite of condition assessment considerations for a transformer. THESL disagrees with the statement that it results in "wrong conclusions". The more

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accurate statement would be that due to the relative low precision of the measurements performed at low gas concentrations in oil, the DGA diagnostic methods, including the Duval's triangle, should not be applied unless gas concentrations are over the detection limit. The gas concentration level for these two transformers is above detection limits. Due to the time between tests, the rate at which gas concentrations are increasing is not known. The Duval triangle analysis provides insight into the internal condition of the units and compliments the overall justification for replacement, which also considers factors such as age, field inspection results, third party analysis of DGA results, failure impact and operational history.

d) **Regarding the Blaketon MS, in addition to the issue of applying the Duval method at low gas concentration which leads to wrong conclusions, please explain why THESL concluded that this transformer is "Condition 3" given the results shown in Table 10 on page 23 and the levels of "Dissolved Key Gas Concentration Limits in Parts Per Million" for Conditions 1 to 4 outlined in Table 15 of Appendix 2, which might suggest gas levels closer to "Condition 1"**

RESPONSE:

d) Please note that the DGA results for Blaketon MS TR1 are actually shown in Table 11 on page 23. "Condition 3" is the overall condition rating assigned to this unit by THESL's independent laboratory (Weidmann Diagnostic Solutions). This conclusion was based on high levels of carbon monoxide, which is indicative of significant overheating of the cellulose insulation.

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e) Regarding the Norseman and Underwriter Crouse MS', please state whether or not in THESL's view, sludge deposits and high moisture content are treatable conditions. If not, please explain why not. If THESL would consider them as treatable conditions, please explain why these two transformers would need to be replaced.

RESPONSE:

e) Moisture and sludge in transformer oil are treatable conditions. However, given the overall condition of these units (which is that Norseman TR1 is 61 years old and has an elevated acid number which indicates internal corrosion and deterioration, Underwriter Crouse TR1 is 53 years old and has an elevated moisture level which accelerates the permanent deterioration of the paper insulation, and both showing reduced dielectric breakdown strength), THESL does not believe treating these two specific issues would extend the life of the unit to the degree that the oil filtering process would be cost-effective. Note that THESL does perform oil restoration in circumstances where it is believed to be a cost effective alternative to replacement.

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INTERROGATORY 46:

Reference(s): T 4/S B 13.1

At page 1 of this reference, it is indicated that there are 199 switchgears across 170 Municipal Substations of which THESL is proposing to replace 15 switchgears located in 12 Municipal substations.

On page 4 of this reference, it is indicated that 4 of the 12 Municipal Stations have additional operational problems posing risks to operating personnel due to circuit breakers in these substations having auto re-closure problems.

a) Please provide data on how many oil circuit breakers failed catastrophically over the last 10 years, and of these how many were over 50 years old. For each incident, please provide the year, location and name of the MS.

RESPONSE:

Since the evidence was filed, THESL has reviewed and updated its records for MS and TS switchgears. The results of the review show that there are 51 TS switchgear and 181 MS switchgear, for a total of 232. None of the records related to the switchgear identified in this application were affected.

a) THESL has experienced one catastrophic oil circuit breaker failure over the past ten years. This incident occurred at Station J MS in East York in 2010, which was 55 years old at the time of failure and resulted in a fire that burned down the entire substation.

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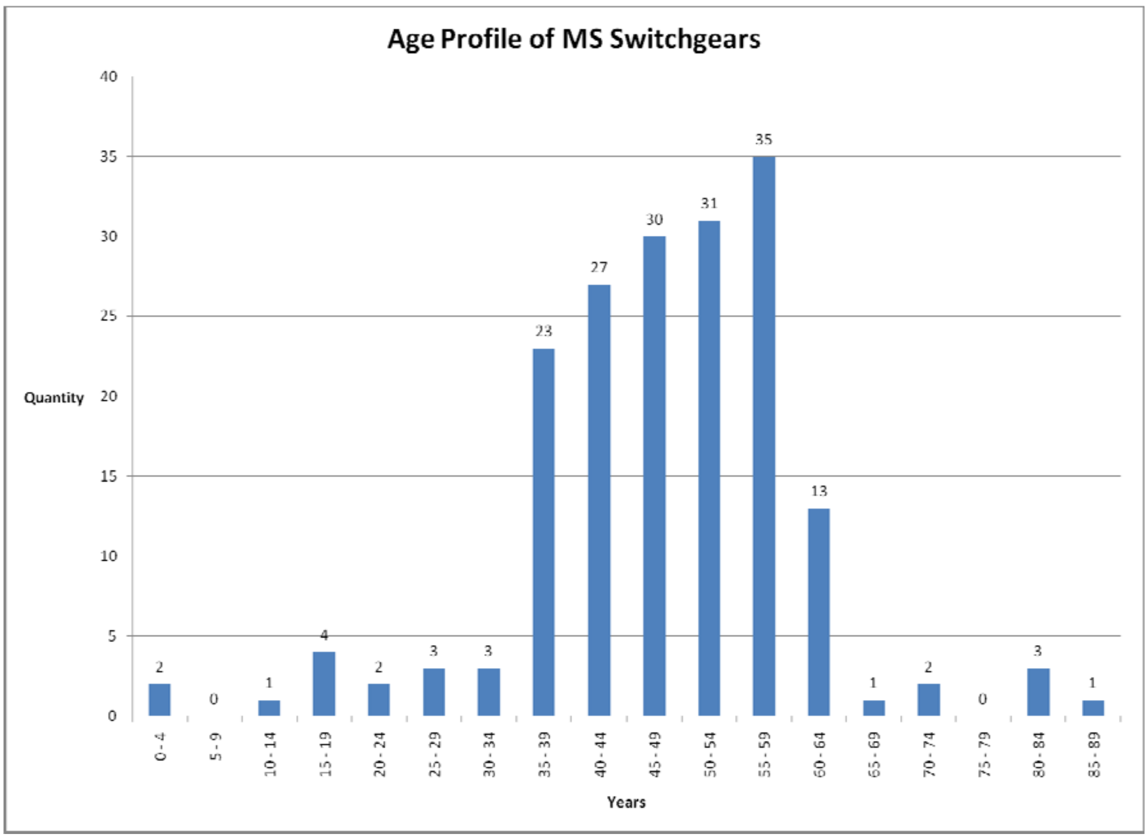
b) Please provide data in tabular or graph form showing the demographics of the reported 199 switchgears in the 170 Municipal Substations.

RESPONSE:

b) Please see the graph below.



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c) Please confirm that the remaining 8 stations of the 12 cited above do not have oil circuit breakers that have auto-reclose problems.

RESPONSE:

c) Confirmed.

d) Please state whether or not there are auto-reclose problems in any of the remaining 199 switchgears.

RESPONSE:

d) There are 11 additional substations that have oil circuit breakers with auto-reclose problems in the remaining 169 switchgears.

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INTERROGATORY 47:

Reference(s): T 4/S B 13.1/pp. 2-3

Table 1 of the above reference lists the job cost estimates for the switchgears in the 12 stations. The cost per switch gear varies from $0.82 million for the replacement at "Lawrence Golf", and $5.09 million for the "Leslie MS" replacement.

a) Please provide an explanation for the variance in costs cited above.

RESPONSE:

a) The wide cost variance between the most expensive switchgear replacement and the least expensive switchgear replacement is due to different scopes of work required to replace the switchgear. In order to replace the switchgear at Leslie MS, a completely new electrical housing (including ancillary systems) is required due to a lack of space in the existing housing for a new switchgear, the inability to temporarily transfer load to a different station and the condition of the existing building itself. Leslie is also a 13.8kV station whereas the other MS switchgear are 4.16kV. Additionally, the number of cells in the switchgear lineup at a given station will result in different replacement costs, as will the specific civil and cabling requirements of the job.

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b) Please state whether or not there is more than one manufacturer providing the equipment.

RESPONSE:

b) THESL employs a competitive bidding process for switchgear procurement. At this point, manufacturers have not been selected, nor has a decision been made regarding whether or not to aggregate some purchases and buy from a single manufacturer.

c) Please provide the name of the manufacturer or manufacturers that THESL is planning to purchase the switchgear from.

RESPONSE:

c) THESL has not yet selected a manufacturer to purchase switchgear from for the jobs listed in this segment.

d) Please provide historical cost information on completed switch gear replacements in the last five years along with a description of the jobs and indicate the similarity of each (scope, equipment, etc.) to a corresponding proposed switchgear replacement listed in Table 1, page 2 of the reference.

RESPONSE:

d) The table below lists MS switchgear replacement projects that have been completed since the beginning of 2008.

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Year	Project Description	Scope	Actual Cost
2008	S08177 Lupin Crocus - Replace 4kV switchgear	New housing, new switchgear (3 cells), battery, charger, RTU	$720,000
2008	S08176 Coronation Bennett - Replace 4kV switchgear	New housing, new switchgear (3 cells), battery, charger, RTU	$740,000
2010	S09227 Underwriters Crouse - Replace 4kVswithgear	New housing, new switchgear (3 cells), battery, charger, RTU	$845,000

The projects listed above all involved installation of new electrical housing (they were previously outdoor). Aside from this fact, these are similar in terms of general scope and equipment to all the projects identified in Table 1 of the reference, except for Leslie MS for the reasons described in (a).

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INTERROGATORY 48:

Reference(s): **T 4/S B 13.1 and Kinectrics Inc. Report *Toronto Hydro-Electric System Limited 2012 Asset Condition Assessment Audit*, May 7, 2012/pp. 31-32**

At the first reference on page 3, it is stated in part that:

> "The switchgear employ obsolete technology, such as non arc-resistance design, oil circuit breakers and mechanical relays. Non arc-resistant switchgear does not have the ability to channel the energy released during an internal arc fault in ways that minimize the potential injury to personnel and damage to equipment in the surrounding area, including damaging the entire substation."

At the second reference at page 31, in Table 5-1, it is indicated that the total population of oil circuit breakers in 2011 is 371 and in 2012 is 398. Table 5-2 shows that over 90 percent of all the oil circuit breakers are either in fair shape (83.75%) or in good shape (7.5%).

a) Please state whether the oil circuit breakers cited in the first reference are included in the oil circuit breakers cited in the second reference.

RESPONSE:

a) The oil circuit breakers cited in the first reference are included in the oil circuit breakers cited in the second reference.

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b) If the answer to a) above is affirmative:

(i) please explain the reason for the increase of 27 oil circuit breakers in the total population of the oil circuit breakers in 2012 (398) over the population in 2011(371), and

(ii) please state why given that over 90% of all the oil circuit breakers are in fair or good shape, such breakers cannot be expected to continue to function well subject to performing regular maintenance as required by good utility practice.

RESPONSE:

b)

(i) The apparent increase is due to THESL's data improvement initiatives (reclassification of certain records, removal of duplicate records, etc.), which occur on an ongoing basis as THESL strives to improve overall data quality.

(ii) The health index of the oil breakers is only one of many considerations in determining the need to replace them. With the exception of Leslie MS, all the breakers that will be replaced are 48 years old or greater and past their useful lives. Additionally, maintenance and repair of these oil breakers is more burdensome as they are no longer manufactured. Based on these considerations, and coupled with the potential for collateral damage associated with oil breakers during the event of a failure, THESL believes that these breakers must be replaced in a planned manner. As is also described in the business case, the switchgear assemblies themselves employ a non-arc resistant design which increases the chance of potential collateral damage or potential injury in the event of a failure.

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INTERROGATORY 49:

Reference(s): **T 4/S B 13.2**

On page 10, it is stated that for the Carlaw TS that switchgear had been purchased in 2011.

a) Please provide the name of the manufacturer that provided the switchgear for Carlaw TS in 2011, and the actual cost paid for that switchgear.

RESPONSE:

a) The manufacturer was selected through a competitive bidding process. The name of the manufacturer is ABB Inc. and the actual cost paid is $3,204,776.72.

b) Please state whether there were any other manufacturers providing switchgear meeting THESL's specifications that bid on the job. If yes, please provide a summary of the reasons for selection of the winning manufacturer.

RESPONSE:

b) The procurement of the Carlaw switchgear was based on a competitive bidding process. Multiple bids were received. Factors considered by THESL in the selection process include adherence to specification, price, delivery schedule and technical support.

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c) Please provide the year, location and costs for similar class switchgear jobs completed in the last 10 years for THESL.

RESPONSE:

c) Similar jobs are listed below, along with the cost per switchgear.

Year	Station	Switchgear	Switchgear Cost
2007	Glengrove TS	A3-4	$3.0M
2007	George and Duke MS	A3-4	$3.7M
2007	Carlaw TS	A8-9	$3.2M
2009	Wiltshire TS	A11-12	$3.4M
2009	Carlaw TS	A10-11	$3.6M

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INTERROGATORY 50:

Reference(s): **T 4/S B13.2 and Kinectrics Inc. Report *Toronto Hydro-Electric System Limited 2012 Asset Condition Assessment Audit*, May 7, 2012/pp. 31-32.**

At the first reference at page 18, Table 8 lists five transformer substations with spare capacity and it is stated when discussing the circuit breakers for these stations that:

> "In addition to being non-arc resistant design, the existing circuit breakers that are fitted in these switchgear are of air blast type (with the exception of Duplex), and are obsolete."

At the second reference on page 27-28 under Section 3. "Air Blast Circuit Breakers" , it is indicated that there are 292 Air Blast Circuit Breakers in 2012, Table 3-2 from this section shows for 2012 a decrease the Poor Category from the 2011 level and an increase in the Fair Category in 2012 over the 2011 level.

a) Please provide data in a tabular or a graph form showing the demographics of the 292 Air Blast Breakers reported at the second reference.

Prepared by: Daniel Smart

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RESPONSE:

a) Please see the table below.

Age Group (years)	Number of Air Blast Circuit Breakers
0-10	0
11-20	15
21-30	6
31-40	24
41-50	19
51-60	212
61-70	16
TOTAL	292

b) Please state how many of the Air Blast Breakers that are categorized as "Poor" in the second reference are in service in the five transformer stations noted above.

RESPONSE:

b) Out of the 129 air blast circuit breakers that currently have sufficient data to generate a health index, there are a total of 15 air blast circuit breakers categorized as Poor condition located in the five stations mentioned in Table 8 of Schedule B13.2 (Strachan TS, Carlaw TS, Wiltshire TS, Duplex TS, and Windsor TS).

c) If there are any Air Blast Breakers reported in response to b) above, please state what additional measures are needed to improve their performance.

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RESPONSE:

c) One criterion used by THESL to prioritize the switchgear replacement program is the presence of air blast circuit breakers. All air blast circuit breakers eventually will be replaced as part of switchgear replacement program. Among the 15 air blast breakers categorized as "Poor" referenced above, eight of these airblast circuit breakers are proposed for replacement in 2012-2014 (four circuit breakers as part of Wiltshire A3-4 switchgear replacement and four circuit breakers as part of Windsor A5-6 replacement). The remaining seven Poor airblast circuit breakers will likely be proposed for replacements within ten years. Please refer to Tab 4, Schedule B13.2 for more details.

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INTERROGATORY 51:

Reference(s): **T 4/S B 14 and Kinectrics Inc. Report *Toronto Hydro-Electric System Limited 2012 Asset Condition Assessment Audit*, May 7, 2012**

At the first reference on page 1, it is indicated that 21 oil circuit breakers (27.6 kV) mounted outdoors are to be replaced with vacuum circuit breakers at a cost of $3.83 million. On page 4, table 2 lists the circuit breakers to be replaced.

At the second reference at pages 33-34, it is indicated that 78% of the Oil KSO Breakers are either in "Fair" or "Good" condition.

a) **Please indicate which of the Oil KSO Circuit Breakers in Table 2, as referenced above, is either in "Fair" or "Good" condition.**

RESPONSE:

a) Please see the table below. Breakers that are not listed are either in "Poor" condition or do not have a health index score at this time.

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Circuit Breaker Name	Health Index Category
Fairchild TS – 80M1	Fair
Fairchild TS – 80M3	Fair
Fairchild TS – 80M5	Fair
Fairchild TS – 80M9	Fair
Bathurst TS – 85M1	Fair
Bathurst TS – 85M2	Fair
Bathurst TS – 85M4	Fair
Bathurst TS – 85M24	Fair

b) If THESL is replacing KSO Oil Circuit Breakers that are in "Fair" or "Good" conditions, please explain its rationale for doing so.

RESPONSE:

b) While many breakers have been assigned a health index of "Fair", all the Oil KSO breakers planned for replacement are at or beyond the expected useful life of 42 years. Additionally, as the technology becomes obsolete, spare parts necessary to make repairs are not readily available. These facts, coupled with a high risk of potential collateral damage during a failure event due to splattering oil, form the basis for THESL's rationale. For more details regarding the Manby incident, see IESO report IESO_REP_0670, "Manby H1L15 Breaker Incident – July 5, 2010". The fallout of this incident highlights the impact of an oil breaker failure (in this case, the failed oil breaker caused five additional faults on nearby equipment).

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INTERROGATORY 52:

Reference(s): **T 4/S B 15**

On page 1 of the above reference, it is indicated that station control and communication work proposed for 2012, 2013, and 2014 would cost $4.6 M, and consist of $2.1M for improving SONET system and $2.5M for replacing / installing SCADA RTU.

Table 2 of the above reference lists five planned SCADA RTUs Replacing/Installing planned jobs.

On page 2 of the above reference, it is stated that:

> "The SONET fibre optic communication system is normally designed as a redundant ring system between station assets and the Control Centre, but some segments lack redundancy and as these fibre optic lines age or are damaged by adjacent construction, there is a risk of a complete SONET system failure."

On pages 5-9 of the above reference, six planned jobs are outlined.

a) **Please state when the issues of "aging" or "damage during construction" discussed above were detected and the extent to which they were a factor in proposing the six jobs referenced above.**

RESPONSE:

a) The issues of aging assets and damage during construction have come to THESL's attention in the past few years. The areas identified in this business case for improvements are aimed at addressing the more problematic sections of the system,

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which currently lack sufficient redundancy to deliver sufficiently reliable service. Incidents of damaged cable are not becoming more frequent; however as the system ages its ability to resist such incidents is diminishing. One recent example was detected in 2012 when a contractor employed by a third party inadvertently caused THESL's fibre optic cable to snap, resulting in the loss of communication to five Terminal Stations.

b) Please provide information on projects similar to the six planned jobs referenced above completed in the last five years involving SONET System Redundancy/Upgrading providing for each historical job its cost and location.

RESPONSE:

b) The table below presents information on two projects completed in the last five years that involve redundancy improvement of the SONET system similar to the six jobs proposed.

Project Name	Project Location	Project Year	Project Cost (M)
Improve Sonet Redundancy 2010	Ellesmere TS, Bermondsy TS and Parkdale MS	2010	$0.31
Improve SONET Redundancy: Parkdale MS (PQ) to Strachan TS	Parkdale MS to Strachan TS	2012	$0.13

c) Please provide similar information to b) for the Replacing/Installing SCADA RTUs jobs referenced above.

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RESPONSE:

c) The table below presents information on projects completed in the last five years that involve RTU/SCADA upgrades and replacements similar to the six jobs proposed. Please note that the scopes of the completed projects are not exactly the same as those of the projects proposed in this business case, nor are they necessarily for the same number of units.

Project Name	Project Location	Project Year	Project Cost (M)
North York Substations RTU Upgrade	Various North York Stations	2007	$0.70
Ellesmere TS: Replace RTU	Ellesmere TS	2007	$0.72
Warden TS: Replace RTU	Warden TS	2007	$0.41
Sheppard TS E: Replace RTU	Sheppard TS E	2008	$0.22
Sheppard TS W: Replace RTU	Sheppard TS W	2008	$0.01
Malvern TS: Replace RTU	Malvern TS	2008	$0.24
Finch Warden MS: Replace RTU	Finch warden TS	2009	$0.09
Morrish Ellesmere MS: Replace RTU	Morish Ellesmere MS	2009	$0.03
Sheppard Kennedy MS: Replace RTU	Sheppard Kennedy MS	2009	$0.07
Centennial D’arcy Magee MS: Replace RTU	Centennial D’arcy Magee MS	2009	$0.13
Brimley Sheppard MS: Replace RTU	Brimley Sheppard MS	2009	$0.10
Midland Huntingwood MS: Replace RTU	Midland Huntingwood MS	2010	$0.19
Palmdale Sheppard MS: Replace RTU	Paldale Sheppard MS	2010	$0.08

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Project Name	Project Location	Project Year	Project Cost (M)
Brimley Lawrence MS: Install SCADA/RTU	Brimley Lawrence MS	2010	$0.08
Scarborough Civic Center: Replace RTU	Scarborough Civic center	2011	$0.06

d) Please state whether the need to improve the SONET system and replace/install SCADA RTUs had been identified by THESL in either the EB-2011-0144, or EB-2010-142 applications to the Board. If not, please explain why not.

RESPONSE:

d) The need to improve the SONET system and replace/install SCADA RTUs was discussed in EB-2011-0144 Exhibit D1, Tab 9, Schedule 4 (“Sustaining Portfolio – Station Assets”). MOSCAD radio issues (with overhead switches) are also discussed in EB-2011-0144, Exhibit Tab 9, Schedule 2.

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INTERROGATORY 53:

Reference(s): T 4/S B 16

This section discusses downtown station load transfers. On page 2 of the above reference, THESL states that:

> "Downtown Toronto, representing approximately one-third of THESL's total customers and load, utilizes a radial design for the distribution system that lacks ties between stations. The design provides quick restoration times for common failure modes, but does not provide back-up for some low probability high impact events such as partial or complete station failure."

On page 1 of the reference, it is indicated that the Dufferin-Bridgman feeder tie work was largely completed in 2011, but that about 17% would remain for 2012

a) **Please discuss the extent to which the low probability high impact events discussed in the first reference could be addressed in the immediate and short term by more effective approaches such as: (1) improving existing infrastructure, (2) construction of a new 115 kV station, or other alternatives.**

RESPONSE:

a) The building of redundancy in THESL station equipment allows for quick restoration of service in the case of most THESL station equipment related failures. The downtown core is provided with more redundancy than outside the downtown core. This extra redundancy effectively addresses the consequences of high impact events originating within THESL equipment in the downtown core.

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Other station equipment-related failures are caused by factors external to THESL. Work has been done recently to improve THESL stations in Downtown Toronto in order to minimize the risk of low probability high impact events. An example of such improvements includes measures to increase the ability to withstand water ingress such as from water main failures. These changes include improved seals, additional alarms and greatly increased emergency pumping capabilities. These projects have reduced the risk of a major failure, but do not mitigate the consequences should such a failure occur.

The construction of a new 115kV station could contribute to mitigating the consequences of loss-of-supply incidents. However, it would not mitigate low probability high impact events without the building of back-up ties from this new station to existing stations.

b) Please state whether or not the noted Dufferin-Bridgeman feeder tie-work had originally been planned for 2011 and whether or not it was included in the capital program proposed for approval in the EB-2010-0142 proceeding. If yes:

(i) Please provide the cost estimates for the total job in EB-2010-0142 for the Dufferin-Bridgeman feeder tie work.

(ii) Please explain the reasons and circumstances that caused the delay in completing the work in 2011.

RESPONSE:

b) No, the 2011 Dufferin-Bridgman feeder tie work was not included in the capital program proposed for approval in EB-2010-0142. Three projects included in that application—W10279, W10280 and W10307—had technical issues that could not be

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resolved within the year and were replaced with new Dufferin-Bridgman feeder tie projects X11620 and X11677.

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INTERROGATORY 54:

Reference(s): T 4/S B 17/ pp. 9-38

At pages 9-10 of the above reference, it is indicated that there is an immediate need (i.e. by 2014) for 72 MVA of capacity and that by 2017 there is a need for 144 MVA of capacity.

At page 37 of the above reference, Table 13 shows Phase 1 of Bremner completed in 2014 and Esplanade completed in 2016.

At page 14 of the above reference, Esplanade is shown as providing an additional capacity of 216 MVA.

a) Please confirm that Esplanade would be able to meet the "Short-terms need" of 144 MW identified as needed by 2017.

RESPONSE:

a) It is conceivable, although not likely, that Esplanade TS would be able to meet the "short-term need" by 2017. The Present Value (PV) analysis of alternatives to the Bremner TS (Tab 4, Schedule B17, Table 13) forecasts that Esplanade can be completed by 2016 in order to meet the "short-term need" and provides a financial basis for the analysis. This, however, is not an execution plan.

In order to be certain that a 2017 timeline is possible for Esplanade TS, THESL would need to immediately commence the planning and stakeholdering process, seek OEB approval, complete a CCRA with Hydro One, complete a Connection Impact

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Assessment (CIA) and System Impact Assessment (SIA), and complete a detailed design. In parallel, Hydro One would also have to commence their planning and stakeholdering process, submit a new application to the OEB, and complete a detailed design. Once these activities are complete, the Esplanade TS project would approximately be at the same stage where the Bremner TS project is today.

It is also worth noting that completion of the Esplanade TS in 2017 would not address the immediate need of offloading Windsor TS, which THESL is striving to achieve with the Bremner TS in 2014.

b) Please state how likely it is in THESL's view that Bremner would be able to meet the identified 2014 immediate need of 72 MVA.

RESPONSE:

b) Once complete, the Bremner TS project will initially provide 144MVA of capacity and, therefore address the immediate need of 72 MVA, as well as the short-term need of an additional 72MVA.

There is a high likelihood of achieving this goal in late 2014, contingent on construction starting in early January 2013.

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INTERROGATORY 55:

Reference(s): T 4/S B 17/App. 3/p. 28 and T 4/S. B 17/App. 5

At the first reference, it is stated in part that:

> "The Bremner station, unlike other HONI and THESL stations, will include gas-insulated transformers and breakers, thereby eliminating the need for oil containment equipment and enclosures. [emphasis added]

At the second reference, Option B is discussed and it is stated that "of all the alternatives examined, this Option B was deemed most feasible from a constructability standpoint, given the aforementioned design constraints":

a) Please state the impact on the costs of the Bremner station of including gas-insulated transformers and breakers in place of oil containment equipment and enclosures.

RESPONSE:

a) THESL would like to clarify that the "elimination of oil containment equipment and enclosures" is only in the context of the Gas Insulated Transformers (GIT). The impact on the costs of the Bremner station of including GITs is an increase in the cost of the transformer (see response to part c below) and a savings in oil containment and enclosures. Although a detailed design has yet to be completed, THESL is of the opinion that the costs associated with the purchase and installation of oil type transformers would exceed the cost associated with the purchase and installation of GITs.

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For oil type transformers, the Ontario Building Code requires that the enclosing room be designed to meet strict blast resistance requirements. These requirements include explosion venting 1.5 times the floor area on top of each transformer room. This venting in the case of the Bremner TS would interfere with the road above the station and require complex and costly construction alterations.

b) Given that Option B is mainly built above grade, please discuss whether or not the station could be built to accommodate oil filled Power Transformers with appropriate containment equipment and whether this would reduce the costs of this option.

RESPONSE:

b) As stated in a) above, the cost of containment of oil-filled transformers is expected to exceed the differential between GITs and oil type transformers. The Ontario Building Code requires that the enclosing room be designed to meet strict blast-resistant requirements:

i) enclosure walls and floors would be thicker and include much more reinforcement;
ii) overhead doors would be custom made to withstand blast;
iii) oil containment including double wall tanks, controls, pipe and alarms would be required;
iv) elaborate fire protection including foam with compressed air; and
v) explosion venting 1.5 times the floor area would be required on top of each transformer room.

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In the case of Option B, this cost differential would be exacerbated. The transformers would have to be located at the top level of the station to accommodate venting directed upward. The lower levels of the structure would be required to carry the heavier load, increasing the cost of columns, floors and shear walls.

By comparison, Option B with GITs was concluded to be too high for adjacent structures and intrusive to the heritage of the site. The same approach (above ground) with oil filled transformers would increase the cost and worsen the negative impact on the heritage of the site.

c) Please provide a cost comparison for a gas-filled single transformer rated 144 MVA 115 kV/13.8 kV-13.8kV versus a single transformer with identical capacity and configuration, but oil-filled (OFAF) design.

RESPONSE:

c) The approximate cost of a gas-filled single transformer rated 144 MVA 115kV/13.8kV-13.8kV is $5.6 M , a single transformer with identical capacity and configuration, but oil-filled (OFAF) design would be approximately $2.6 M .

d) Please recast Table 2 of Appendix 5 “Comparison of Costs for Options”, assuming for Option B that power transformers, each rated 144 MVA with oil filled (OFAF) design, as referenced in c) above are used in place of gas-insulated transformers.

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RESPONSE:

d) Revised Table 2 is included below:

Task	Option A		Option B - Gas-Insulated Transformers	Option B - Oil type Transformers	
	Cost ($M)	Cost ($M)	% variance from Option A	Cost ($M)	% variance from Option A
Land acquisition	5.60	5.60		5.6	
Distribution Modification	2.30	2.30		2.3	
Procurement of Major Equipment	52.60	52.60		46.6	-11.4%
Detailed Design / Construction PM	6.70	9.00	34.3%	9.0	34.3%
Construction of Building					
Machine Shop Disassembly/ Reassembly	8.80	0.80			
Shoring & Excavation	16.70	10.00			
Structural Work	21.50	24.80			
Finishes	2.20	1.80			
Mechanical	4.00	4.40			
Sub-Total	53.30	41.80	-21.6%	52.3	-2.0%
Construction of Cable Tunnel	14.00	14.90	6.4%	14.9	6.4%
Total*	**134.5**	126.20	-6.2%	130.7	-2.9%

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Based on the preceding responses to (a) through (c), the reduced cost of procuring oil type transformers instead of GITs for Option B, leads to a decrease in major equipments costs from $52.6 million to $46.6 million. In addition, the increased complexity of the Option B building when oil type transformers are used has led to a forecasted increase in building costs from $41.8 million to $52.3 million. Altogether, the cost of completing Option B with oil type transformers results in an increase in cost from the original GIT-version of Option B by 3.6%.

Please note that the Total for Option B – GIT has been corrected to 126.20 in the table above, as the original amount presented in Table 2 in the ICM business case at Tab 4, Schedule B17, Appendix 5 was summed incorrectly.

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INTERROGATORY 56:

Reference(s): **T 4/S. B 17/App. 5/Sch. 3, T 4/S. B 17/App.6 and T 4/S. B 17/App. 5**

At the first reference, the noted IBI report discusses Option B, which is a viable option from a construction point of view, but is rejected by the IBI Report. The Report in its conclusions on page iv of the first reference states that:

> “The entirely above grade Option B is completely incompatible with the heritage attributes and character of the adjacent roundhouse, a designated National Historic Site, the intent and spirit of heritage conservation in the PPS and City of Toronto Official Plan and contravenes many of the most significant principles in the Union Station Heritage Conservation District Plan and Guidelines.
>
> We find it would be very difficult to get positive acceptance of this option by the City of Toronto approval agency or the heritage community or do we expect that the Planning / Urban Design arm of the City of Toronto would support Option B.”

At the second reference, the THESL-commissioned IBI Report made an assessment of Option A for the Bremner TS.

At the third reference in Section 2.0, under Site Approvals, the steps taken to obtain ”Site Approvals” were taken for Option A (THESL’s preferred Option) where it is stated that:

> “As a result of the site’s heritage designation, the municipal and provincial site planning authorities require a detailed assessment of potential heritage impacts to

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> the site, by way of a Heritage Impact Assessment (HIA) document. The detailed HIA has been included as Appendix 6 to this ICM.
>
> Municipally, the heritage impact is reviewed by the Heritage Preservation Services department at the City of Toronto. Provincially, the heritage impact is documented and reviewed as part of the Class Environmental Assessment for Minor Transmission Facilities. Both authorities would ultimately have to sign off on the HIA in order for the project to proceed to the construction phase. The status of this signoff is captured in Appendix 8 to this document"

Please indicate the reasons for not requesting that IBI include in its Report cited at Appendix 6 of the second reference, assessment of Option B since it is the next best option to option A.

RESPONSE:

The purpose of an HIA document is to capture the heritage characteristics of an existing site, document the foreseeable heritage impacts of a new development at the site, and derive solutions that mitigate the heritage impact of the new development to the existing site. When an HIA is drafted, the intention is to present a single proposal and indicate how it preserves the integrity of the site.

Option A is the least intrusive solution for the proposed Bremner TS and was therefore the basis for the HIA document. By comparison, the likelihood of Option B achieving the relevant heritage approvals is very low, as documented in the Heritage Impact Opinion contained in Tab 4, Schedule B17, Appendix 5-3.

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INTERROGATORY 57:

Reference(s): **T4/S. B18/pp. 14-29**

In the above reference, 10 projects are discussed that will require capital contributions to Hydro One Networks Inc. In THESL's discussion of each of these projects, it is stated that if funding for THESL's capital contributions is not available, THESL expects that Hydro One will not carry out the engineering study needed to determine project feasibility and the required capital contribution.

Please state whether or not in THESL's view the Transmission System Code would permit Hydro One to condition its feasibility studies on the receipt of a capital contribution to perform such a study and, if so, please specify the relevant section or subsection.

RESPONSE:

THESL's evidence was not intended to indicate that Hydro One required a capital contribution from THESL for the study per se. Rather, it was meant to indicate that if funding for the project as a whole was not available, then THESL's expectation would be that Hydro One would not undertake a feasibility study for a project, which would not move forward due to a lack of funding.

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INTERROGATORY 58:

Reference(s): **T 4/S. B 18**

At subsection 1.2.2 at page 4 of the reference, the Leaside-Birch project is discussed and THESL's capital contribution is stated as consisting of $17.6 million in 2012 and $15.28 million in 2013.

a) Please indicate the amount of capital contribution paid to Hydro One by THESL prior to 2012.

RESPONSE:

a) The capital contribution that THESL paid to HONI for the Leaside-Birch project prior to 2011 is as follows:
   - $400,000 in 2008
   - $342,000 in 2009
   - $458,000 in 2010
   - $12,100,000 in 2011

b) Please provide an update on the status of progress of HONI's work in this project.

RESPONSE:

b) The Leaside-Birch project progressing on plan. The construction of overhead towers and circuit lines between Leaside TS and Bayview junction was completed in June 2012. The construction of the underground tunnel main shaft at the Rosehill Pumping station was completed in August 2012. The tunnel boring machine was delivered at

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main shaft site in August 2012. Next steps are underground tunnel boring and construction of overhead line between Birch junction and Bridgman TS.

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INTERROGATORY 59:

Reference(s): T 4/S. B 19

In this section, THESL's feeder automation program is discussed and it is noted on page 3 that by deploying feeder automation on the referenced feeders that a potential reliability savings of 50% for customer interruptions and 43% for customer hours interrupted can be achieved.

Please provide information on the extent to which THESL presently uses, or is anticipating using approaches to address high incidences of faults to improve feeder reliability, such as: (1) live line washing;(2) inspections and replacement of defective insulators; (3) measures to install animal guards where incidents of animal caused faults were detected, and (4) installation of tree resistant contact conductors (Hendricks) to address the referenced reliability concerns.

RESPONSE:

THESL's approaches to address high incidences of faults to improve feeder reliability are as follows:

1. Line Patrolling – This is a visual inspection consisting of walking or driving by overhead equipment to identify obvious structural problems and hazards. When a hazard is identified, it is referred to Customer Reliability Services for follow-up and repair.
2. Insulator Washing – Regular insulator washing removes summer dirt and winter salt that accumulates over time. This dirt and salt, combined with moisture, reduce insulation levels and lead to tracking. Flashovers and pole fires are potentially the end result. In addition to the washing of line insulators, this

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program includes the washing of all switches, arresters, terminators, current limiting fuses, transformer bushings, and other circuits, which may exist on a pole.

3. Tree Trimming (Cycle Pruning) – Overhead distribution systems are prone to tree branch contacts resulting in feeder outages. This program is a reliability improvement initiative aimed at reducing the possibility of tree contact interruptions by maintaining adequate clearance between tree branches and overhead conductors.
4. Use of Infrared Audits – Infrared inspection of overhead line components identifies potential "hot spots" and allows corrective measures to be taken before they have an impact on system reliability.
5. Installation of Wildlife Guards – All new transformers require wildlife guard and insulated drop leads. Non-standard transformers are to have wildlife guards installed; if non-standard, it will be removed and a re-build will be done.
6. Installation of Tree-proof conductors – THESL plans to install tree-proof conductors in heavily-treed areas and areas that have a large number of outages related to tree contacts.

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INTERROGATORY 60:

Reference(s): T 4/S B19/pp. 123-124

On these pages, business case evaluations for six feeder automation target area projects are presented. The "Option Benefit/Cost Ratio" statistics for these projects appear to be quite high ranging from 71.67 times to 188.94 times.

Please explain why THESL believes these statistics are reasonable. In so doing, please provide an illustration as to how the "Project Cost Allocated ($)" and "Project Net Benefit" are calculated for one of the projects.

RESPONSE:

The Fairchild TS Project is used as the example to illustrate below the calculations of Option Benefit/Cost Ratio, Project Net Benefit and Project Cost Allocated.

- PROJECT BENEFIT/COST RATIO

Table 1. Summary of BCE of Fairchild Project

Project Location	Project Cost Allocated($)	Project Net Benefit	Option Benefit/Cost Ratio
Fairchild TS	$2,537,530	$181,874,571	72.67

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- PROJECT NET BENEFIT

Table 2. BCE Details for Fairchild Project

NPV (Existing)	$100,245,906
NPV (New)	$93,588,433
NAR (Existing)	$243,910,224
NAR (New)	$66,155,596
Project Costs (New)	$2,537,530
Net Present Benefit	$181,874,571
Benefit/Cost Ratio	72.67

As described in the document (REF: T 4/S B19/pp.122-123), the formulas used for Project Net Benefit and benefit/cost ratios are as follows.

$$\text{Project Net Benefit} = (NPV_E + NAR_E) - (NPV_N + NAR_N) - \text{Project Costs}$$

$$\text{Benefit-Cost Ratio} = \text{Project Net Benefit} / \text{Project Cost}$$

Where E refers to the Existing State of Assets and N refers to the New State of Assets.

The NPV value represents the cost of ownership of either the existing state or new state of assets. This cost of ownership is the net present value of the various asset-related costs associated with the respective assets across their life cycles (100-year period). The NAR value represents the associated non-asset-related risks associated with these respective assets across their life cycles for each state.

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As illustrated above, the Project Net Benefit can be calculated by determining the difference in cost of ownership (including asset-related and non-asset-related risk) between the existing and new state of assets, and further subtracting this from the Project Cost. In this case, the new state of assets represents those same existing assets with the Feeder Automation scheme fully deployed. This means that should an outage occur, the outage duration along the feeder trunk circuit will be reduced from 30 minutes to less than one minute.

The benefit/cost ratio is calculated by dividing the Project Net Benefit with the Project Cost. The high benefit/cost ratio for this business case can be explained by the large reduction in risk cost between the existing state of assets (without FA) and the new state of assets (with FA deployment) and the relatively low project execution cost .

- PROJECT COST ALLOCATED

The table below provides details on the calculation of the Project Cost Allocated results.

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Fairchild TS - Project Cost Allocated ($)				
Feeder	**Project Breakdown**	**Material**	**Resource**	**Total**
W13367 - 80M2 (4 New Switches, 2 Retrofit RTUs)	Design		$12,246	$12,246
	OH-Switching/Support Services		$3,241	$3,241
	OH-Poles	$2,725	$4,487	$7,211
	OH-Framing/Stringing/Transfers	$1,242	$1,710	$2,951
	OH Switch Install	$111,055	$18,922	$129,977
	OH -Distribution Automation/Test Commission	$110,512	$16,904	$127,417
	Street Lighting Transfers		$387	$387
	Cut Repairs, Permits, Additional Costs		$56,420	$56,420
	Sub-Total	**$225,534**	**$114,315**	**$339,849**
W13368 - 80M4 (3 New Switches, 3 Retrofit RTUs)	Design		$13,733	$13,733
	OH-Switching/Support Services		$3,241	$3,241
	OH-Poles	$6,403	$12,110	$18,513
	OH-Framing/Stringing/Transfers	$3,124	$2,892	$6,016
	OH Switch Install	$118,928	$7,687	$126,615
	OH -RTU Install/Test Commission	$98,969	$16,904	$115,873
	Street Lighting Transfers		$3,521	$3,521
	Cut Repairs, Permits, Additional Costs		$57,264	$57,264
	Sub-Total	**$227,424**	**$117,353**	**$344,777**

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Fairchild TS - Project Cost Allocated ($)				
Feeder	**Project Breakdown**	**Material**	**Resource**	**Total**
W13374 - 80M29 (4 New Switches, 2 Retrofit RTUs)	Design		$16,270	$16,270
	OH-Switching/Support Services		$3,241	$3,241
	OH-Poles	$4,087	$6,730	$10,817
	OH-Framing/Stringing/Transfers	$4,666	$3,117	$7,782
	OH Switch Install	$142,885	$18,922	$161,806
	OH -RTU Install/Test Commission	$110,512	$16,904	$127,417
	Street Lighting Transfers		$773	$773
	Cut Repairs, Permits, Additional Costs		$65,321	$65,321
	Sub-Total	**$262,150**	**$131,277**	**$393,428**
W13366 - 80M1 (5 New Switches, 1 Retrofit RTU)	Design		$16,970	$16,970
	OH-Switching/Support Services		$3,241	$3,241
	OH-Poles	$4,087	$5,129	$9,217
	OH-Framing/Stringing/Transfers	$951	$2,564	$3,515
	OH Switch Install	$150,020	$23,652	$173,672
	OH -RTU Install/Test Commission	$122,056	$16,904	$138,960
	Street Lighting Transfers		$773	$773
	Cut Repairs, Permits, Additional Costs		$70,866	$70,866
	Sub-Total	**$277,114**	**$140,100**	**$417,214**

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Fairchild TS - Project Cost Allocated ($)				
Feeder	**Project Breakdown**	**Material**	**Resource**	**Total**
W13369 - 80M6 (2 New Switches, 3 Retrofit RTUs)	Design		$9,097	$9,097
	OH-Switching/Support Services		$2,701	$2,701
	OH-Poles	$4,087	$6,730	$10,817
	OH-Framing/Stringing/Transfers	$1,255	$2,564	$3,819
	OH Switch Install	$61,845	$9,461	$71,306
	OH -RTU Install/Test Commission	$76,702	$14,087	$90,789
	Street Lighting Transfers		$580	$580
	Cut Repairs, Permits, Additional Costs		$37,659	$37,659
	Sub-Total	**$143,889**	**$82,879**	**$226,768**
W13370 - 80M8 (2 New Switches, 2 Retrofit RTUs	Design		$5,686	$5,686
	OH-Switching/Support Services		$2,160	$2,160
	OH-Poles	$2,725	$3,419	$6,144
	OH-Framing/Stringing/Transfers	$1,242	$1,710	$2,951
	OH Switch Install	$57,252	$9,461	$66,713
	OH -RTU Install/Test Commission	$65,979	$11,269	$77,248
	Street Lighting Transfers		$193	$193
	Cut Repairs, Permits, Additional Costs		$33,356	$33,356
	Sub-Total	**$127,198**	**$67,254**	**$194,453**

RESPONSES TO ONTARIO ENERGY BOARD STAFF INTERROGATORIES ON ISSUE 2.2

Fairchild TS - Project Cost Allocated ($)				
Feeder	**Project Breakdown**	**Material**	**Resource**	**Total**
W13372 - 80M10 (4 New Switches, 2 Retrofit RTUs)	Design		$14,433	$14,433
	OH-Switching/Support Services		$3,241	$3,241
	OH-Poles	$4,087	$6,971	$11,058
	OH-Framing/Stringing/Transfers	$1,876	$2,564	$4,440
	OH Switch Install	$118,928	$16,556	$135,485
	OH -RTU Install/Test Commission	$110,512	$16,904	$127,417
	Street Lighting Transfers		$387	$387
	Cut Repairs, Permits, Additional Costs		$58,734	$58,734
	Sub-Total	**$235,404**	**$119,790**	**$355,194**
W13373 - 80M21 (2 New Switches, 3 Retrofit RTUs)	Design		$10,672	$10,672
	OH-Switching/Support Services		$2,701	$2,701
	OH-Poles	$4,087	$6,023	$10,110
	OH-Framing/Stringing/Transfers	$4,666	$3,117	$7,782
	OH Switch Install	$88,006	$9,461	$97,467
	OH -RTU Install/Test Commission	$76,702	$14,087	$90,789
	Street Lighting Transfers		$580	$580
	Cut Repairs, Permits, Additional Costs		$45,747	$45,747
	Sub-Total	**$173,461**	**$92,386**	**$265,847**
Project Fairchild TS - Grand Total		**$1,672,176**	**$865,354**	**$2,537,530**

RESPONSES TO ONTARIO ENERGY BOARD STAFF INTERROGATORIES ON ISSUE 2.2

INTERROGATORY 61:

Reference(s): **T 4/S B19/p.1, T 4/S. B 19/p. 8 and T4/S B19/pp. 123-124**

In the first reference it is indicated that when discussing Feeder Automation (FA) that it is an effective solution to mitigate impact outages to non-affected customers. It is also stated that the quickest alternative restoration method, remote operation of a SCADA switch by a system controller, takes approximately 30 minutes.

The second reference deals with operating controls when an FA is not used and states that: there is an outage that, as part of the procedure used:

> "As part of this procedure, power system controllers must also individually analyze each feeder to verify the loading requirements and compare this to the feeders' supply capacity to ensure that any potential load transfers do not damage feeder assets from overloading. All told, these activities usually require about 30 minutes if all operable switches are remotely controlled."

a) Please state the basis for THESL's belief that 30 minutes is required for the activities discussed in the above two references.

RESPONSE:

a) Feeder restoration using remote SCADA switches requires a dynamic set of operations that can vary in time duration. The main factors that affect its duration is the complexity of the feeder, the number of SCADA switches available, the capable restoration points available, the number of faults the control operator is managing at that time, and the experience level of the control operator. THESL recognizes in ideal restoration scenarios a feeder restoration can be done in less than 30 minutes

RESPONSES TO ONTARIO ENERGY BOARD STAFF INTERROGATORIES ON ISSUE 2.2

using remote SCADA enabled switches. However, there are instances where restoration can take a few hours when there are situations that encumber the controller. THESL has determined that 30 minutes was a fair restoration time to contain an outage taking into account all of the above.

b) With respect to the third reference, please re-run the "Project Net Benefit" and "Option Benefit/Cost Ratios" for the six proposed locations using restoration times of 5 minutes for non-affected customers for cases where SCADA –enabled switches are used without FA, instead of the 30 minutes assumed, and present the results by recasting Tables D.1, to D 6.

RESPONSE:

b) The following are the re-calculated Business Case Evaluations of the Feeder Automation jobs where it is compared to SCADA switches that have a restoration time of five minutes instead of the 30 minutes that was originally assumed.

D1. Business Case Evaluations (BCE) of FA Target Area Projects

Project Location	Project Cost Allocated ($)	Project Net Benefit	Option Benefit/Cost Ratio
Etobicoke Grid	$3,042,223	$234,018,370	76.92
North York Grid	$2,537,530	$169,619,212	66.84
Scarborough Grid	$25,919,699	$ 2,769,979,555	107.87

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D2. BCE of Cavanagh T.S. and Agincourt T.S. Job

Project Location	Project Cost Allocated ($)	Project Net Benefit	Option Benefit/Cost Ratio
Cavanagh TS and Agincourt TS	$7,820,666	$1,434,090,710	184.37

D3. BCE of Horner T.S. and Manby T.S. Job

Project Location	Project Cost Allocated ($)	Project Net Benefit	Option Benefit/Cost Ratio
Horner TS and Manby TS	$3,042,223	$234,018,370	76.92

D4. BCE of Fairchild T.S. Job

Project Location	Project Cost Allocated ($)	Project Net Benefit	Option Benefit/Cost Ratio
Fairchild TS	$2,537,530	$169,619,212	66.84

D5. BCE of Cavanagh T.S., Agincourt T.S., Ellesmere T.S., and Malvern T.S.

Project Location	Project Cost Allocated ($)	Project Net Benefit	Option Benefit/Cost Ratio
Cavanagh TS to Agincourt TS	$10,722,785	$599,957,936	56.95

D6. BCE of Scarborough East T.S.

Project Location	Project Cost Allocated ($)	Project Net Benefit	Option Benefit/Cost Ratio
Scarborough East T.S.	$7,376,248	$735,930,909	100.77

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INTERROGATORY 62:

Reference(s): T4/S. B20/pp. 1- 3, 4

The table on page 3 of the reference indicates a total of $22.9 million of metering expenses will be incurred from 2012-2014. About 71% of the total is for metering expenses related to Wholesale Metering Market Settlement Compliance ("WMMSC") and the remainder is for seal expiring meters.

Page 1 of the reference indicates that the 2012-2014 replacements are needed in order to remain in compliance with the IESO Market Rules and Measurement Canada requirements.

Page 3 indicates that the proposed WMMSC replacements are necessary to complete full meter upgrades at all applicable delivery points by 2021 in accordance with THESL's IESO approved proposal.

a) **Please explain how the proposed capital expenditures shown in the table on page 3 of the reference were arrived at, including appropriate cost breakdowns.**

RESPONSE:

a) The Wholesale Metering Market Settlement Compliance cost estimates comprise of quotes from Hydro One (HONI) and cost estimates from THESL for work that each party will be responsible for. HONI work includes:
   - replacement of switchgear within the Hydro One Transformer Substation;
   - upgrading of the instrument transformers to meet IESO regulations; and

RESPONSES TO ONTARIO ENERGY BOARD STAFF INTERROGATORIES ON ISSUE 2.2

- de-commissioning and deregistering of HONI Metering Points and where required, relocation of the metering plant outside HONI's building to allow for THESL access.

THESL work includes:

- replacement of the main and alternate metering points;
- commissioning, engineering, and decommissioning of the old meter point; and
- installation of new WAN communication technology to enable daily and on-demand readings.

The cost breakdown is shown below:

2012	HONI ESTIMATE	THESL ESTIMATE	TOTAL
WMMSC METERING			
IESO Compliant Metering at Leslie TS (T4J & T4Q)	$480,000		$480,000
IESO Compliant Metering at Strachan TS (A7-A8)		$180,000	$180,000
IESO Compliant Metering at Wiltshire TS (A3-A4)		$180,000	$180,000
TOTAL	$480,000	$360,000	$840,000

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2013	HONI ESTIMATE	THESL ESTIMATE	TOTAL
WMMSC METERING			
IESO Compliant Metering at Bermondsey TS (T1J, T1Q, T2J, T2Q, T3B, T3Y, T4B, T4Y)	$1,520,000	$280,000	$1,800,000
IESO Compliant Metering at Scarboro TS (T21J, T21Q, T22J, T22Q, T23B, T23Y, T24B, T24Y)	$1,520,000	$280,000	$1,800,000
IESO Compliant Metering at Dufferin TS (T2A5A6, T2A7A8, T4A5A6, T4A7A8)	$760,000	$140,000	$900,000
IESO Compliant Metering at Fairbank TS (Y Bus, Z Bus, B Bus, Q Bus)	$760,000	$140,000	$900,000
IESO Compliant Metering at Ellesmere TS (T3J, T3Q, T4J, T4Q)	$760,000	$140,000	$900,000
TOTAL	$5,320,000	$980,000	$6,300,000

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2014	HONI ESTIMATE	THESL ESTIMATE	TOTAL
WMMSC METERING			
IESO Compliant Metering at Gerrard TS (T1A4A5, T2A2A2, T3A1A2 & T4A4A5)	$840,000	$160,000	$1,000,000
IESO Compliant Metering at Warden TS (J Bus & Q Bus)	$300,000	$100,000	$400,000
IESO Compliant Metering at Basin TS (T3A5A6, T3A7A8, T5A5A6, T5A7A8)	$840,000	$160,000	$1,000,000
IESO Compliant Metering at Main TS (T3 & T4)	$1,000,000	$200,000	$1,200,000
IESO Compliant Metering at Manby TS (T13 & T14)	$380,000	$120,000	$500,000
IESO Compliant Metering at Runnymede TS (T3 & T4)	$460,000	$40,000	$500,000
IESO Compliant Metering at Bridgman TS (T5 & T11)	$880,000	$120,000	$1,000,000
IESO Compliant Metering at Leaside TS (M1, M2, M3, M4, M8, T19, T20, T21)	$1,520,000	$280,000	$1,800,000
IESO Compliant Metering at Esplanade TS (M11, M12, M13)	$570,000	$129,999	$699,999
IESO Compliant Metering at Terauley TS (T2, T3)	$380,000	$120,000	$500,000
IESO Compliant Metering at Strachan TS (T13, T15)	$380,000	$120,000	$500,000
TOTAL	**$7,550,000**	**$1,549,999**	**$9,099,999**
TOTAL IESO Wholesale Metering Compliance Costs	**$13,350,000**	**$2,889,999**	**$16,239,999**

RESPONSES TO ONTARIO ENERGY BOARD STAFF INTERROGATORIES ON ISSUE 2.2

Seal Expiry Meter Cost Breakdown

Seal Expiring Meter Changes	2012		2013		2014	
Required Meter Change Details	Meters	Cost	Meters	Cost	Meters	Cost
Seal Expired RPP Conventional Meters includes 846 Asbestos	5,989	$4,641,000	0	0	0	0
Conventional GS>50KW seal expired	70	$53,699	0	$0	0	$0
RIMS seal expired	13	$23,205	327	$407,099	304	$39,508
Quad Logic seal expired	336	$119,952	1,376	$491,589	4,703	$839,486
Other Revenue Meters seal expired	0	$0	6	$3,511	292	$87,049
Seal Expiry	6,408	$4,837,900	1,709	$902,200	5,299	$966,000

b) Please provide copies of:

- **the Measurements Canada requirements that relate to the replacement of WMMSC meters;**
- **the IESO Market Rules that relate to the replacement of WMMSC meters; and**
- **THESL's IESO approved proposal to complete full meter upgrades at all applicable delivery points by 2021.**

RESPONSE:

b) Measurement Canada Electricity and Gas Inspection Act, sets forth the requirements for all Meters (including WMMSC meters) as noted specifically in Sections 9,11 and 12 as provided as Appendix B to this Schedule. To remain in compliance with the

RESPONSES TO ONTARIO ENERGY BOARD STAFF INTERROGATORIES ON ISSUE 2.2

Independent Electricity System Operator (IESO) rules, THESL must also comply with the IESO Wholesale Revenue Metering Standards –Hardware and IESO Market Rules hereto provided as Appendices C and D, respectively.

THESL's IESO-approved proposal to complete full meter upgrades at all applicable delivery points by 2021 is provided as Appendix A to this Schedule.

c) Please state the estimated total cost of all the WMMSC replacements needed from 2012-2021.

RESPONSE:

c) The estimated total cost of all the WMMSC replacements needed from 2012-2021 is $20,380,000 as per the above schedule and cost estimates.

d) Please describe THESL's process for determining which replacements would be carried out in 2012-2014 and which would be deferred beyond 2014.

RESPONSE:

d) THESL prioritized the WMMSC replacements for the 2012-2014 based on:

1) Regulatory compliance (seal expiry, IT's that do not meet current accuracy requirements) – these meters must be replaced to remain in compliance with Measurement Canada and IESO Regulations.
2) Planned switchgear replacements – the metering upgrades are more cost effective in conjunction with switch gear replacement.

RESPONSES TO ONTARIO ENERGY BOARD STAFF INTERROGATORIES ON ISSUE 2.2

3) Availability of HONI resources – HONI is eager to transfer the responsibility of being the MSP to Toronto Hydro and has committed resources for 2013 and 2014 to expedite the process.

Complicated replacements, that are more effectively done in conjunction with switchgear replacements or more resource intensive replacements, were deferred until past 2014.

Toronto Hydro-Electric System Limited
EB-2012-0064
Tab 6F
Schedule 1-62
Appendix A
Filed: 2012 Oct 5
(7 pages)

CANADA

CONSOLIDATION

CODIFICATION

Electricity and Gas Inspection Act

Loi sur l'inspection de l'électricité et du gaz

R.S.C., 1985, c. E-4

L.R.C., 1985, ch. E-4

Current to September 4, 2012

À jour au 4 septembre 2012

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tings or other apparatus of the contractor for the measurement or conveyance of electricity or gas supplied by him, or

(*b*) ascertaining the quantity or making other measurements of the electricity or gas consumed or supplied,

enter any premises belonging to or occupied by the purchaser to whom the contractor has undertaken to supply the electricity or gas.

Liability of contractor

(2) A contractor that has exercised any right of entry pursuant to subsection (1) is responsible for, and shall forthwith repair and make good, all damage caused by the entry or by any inspection, testing, installation, repair, removal or change for the purpose of which the contractor has exercised that right.

1980-81-82-83, c. 87, s. 7.

Service pressure reports

8. A contractor shall, if the regulations so require, report at prescribed intervals to the director, in respect of any gas supplied by the contractor, such particulars of the service pressures as are prescribed.

1980-81-82-83, c. 87, s. 8.

METERS

Verification

9. (1) Subject to subsections (2) and (3), where a contractor or purchaser intends to use or cause to be used a meter for the purpose of obtaining the basis of a charge for electricity or gas supplied by or to him, the meter shall not, until it has been verified and sealed in accordance with this Act and the regulations, be put into service.

Temporary dispensation

(2) The director may grant permission for the putting into service, without verification and sealing or without sealing, of any meter or any class, type or design of meter on a temporary basis under such terms and conditions and for such period as the director stipulates.

Permanent dispensation

(3) The director may grant approval for the putting into service, without verification and sealing or without sealing, of any meter or any class, type or design of meter.

Director's approval required for verification

(4) No meter shall be verified pursuant to this Act until it or the class, type or design of meter to which it belongs has received the approval of the director.

1980-81-82-83, c. 87, s. 9.

a) soit d'inspecter, d'éprouver, de poser, de réparer, d'enlever ou de changer, pourvu qu'il en ait le droit, tout compteur, fil, tuyau, appareillage ou autre appareil du fournisseur pour la mesure ou le transport de l'électricité ou du gaz fourni par lui;

b) soit de déterminer la quantité d'électricité ou de gaz consommé ou fourni ou de prendre d'autres mesures se rapportant à l'électricité ou au gaz consommé ou fourni.

Responsabilité des fournisseurs

(2) Le fournisseur est responsable des dommages occasionnés lors de l'entrée ou des opérations prévues au paragraphe (1) et doit immédiatement les réparer.

1980-81-82-83, ch. 87, art. 7.

Rapports sur les pressions du service

8. Si les règlements l'exigent, les fournisseurs font, aux intervalles prévus par les règlements, rapport au directeur sur les caractéristiques des pressions de service prévues au règlement et relatives au gaz qu'il fournit.

1980-81-82-83, ch. 87, art. 8.

COMPTEURS

Vérification

9. (1) Sous réserve des paragraphes (2) et (3), un compteur dont un fournisseur ou un consommateur prévoit l'usage aux fins d'établir le montant exigible pour l'électricité ou le gaz qu'il fournit ou qui lui est fourni, selon le cas, ne peut être mis en service que s'il a d'abord été vérifié et scellé conformément à la présente loi ou aux règlements.

Dispense temporaire

(2) Le directeur peut permettre, suivant les modalités et pour la période qu'il fixe, la mise en service temporaire, sans vérification ni scellage ou sans scellage, de tout compteur ou de toute catégorie, de tout type ou de tout modèle de compteur.

Dispense permanente

(3) Le directeur peut approuver la mise en service, sans vérification ni scellage ou sans scellage, de tout compteur ou de toute catégorie, de tout type ou de tout modèle de compteur.

Conditions préalables à la vérification

(4) La vérification d'un compteur en vertu de la présente loi est précédée de l'approbation, par le directeur, du compteur lui-même ou de la catégorie, du type ou du modèle auquel il appartient.

1980-81-82-83, ch. 87, art. 9.

Accredited meter verifiers

10. Subject to the regulations, any person

(*a*) may, on making application in prescribed manner, be accredited by the director for purposes of the verification, sealing, reverification and resealing of any meter or any class, type or design of meter and the execution of prescribed incidental functions by that person or their employee, agent or mandatary; and

(*b*) shall, in the event of the granting of the application under paragraph (*a*), be issued with a certificate of accreditation in prescribed form by the director.

R.S., 1985, c. E-4, s. 10; 2011, c. 21, s. 122.

Vérificateur accrédité

10. Sous réserve des règlements, toute personne :

a) peut, en en faisant la demande de la façon réglementaire, être accréditée par le directeur pour la vérification et le scellage initiaux et subséquents de tout compteur ou de toute catégorie, de tout type ou de tout modèle de compteur ainsi que pour l'exercice, tant par elle-même que par son employé ou son mandataire, des fonctions réglementaires qui s'y rapportent;

b) doit, en cas d'acceptation de la demande visée à l'alinéa *a*), recevoir du directeur un certificat d'accréditation en la forme réglementaire.

L.R. (1985), ch. E-4, art. 10; 2011, ch. 21, art. 122.

Revocation of permission

11. (1) A permission granted under subsection 9(2) may, by notice given in prescribed manner, be revoked by the director for failure to comply with any of the terms or conditions on which the permission was granted.

Révocation de la permission

11. (1) Le directeur peut, par avis donné de la façon réglementaire, révoquer la permission accordée en vertu du paragraphe 9(2) pour défaut d'observer les modalités fixées en conformité avec les règlements.

Revocation of approval or accreditation

(2) Any approval granted under subsection 9(3) or (4) or accreditation granted under section 10 may, by notice given in prescribed manner, be revoked by the Minister for failure to comply with any conditions to which that approval or accreditation has been made subject in accordance with the regulations.

Révocation d'approbation ou d'accréditation

(2) Le ministre peut, par avis donné de la façon réglementaire, révoquer les approbations ou les accréditations obtenues en vertu des paragraphes 9(3) et (4) et de l'article 10, respectivement, pour défaut d'observer les modalités fixées en conformité avec les règlements.

Requirement on revocation

(3) Where a permission under subsection 9(2) or an approval under subsection 9(3) is revoked, any meter that is in service pursuant to the permission or approval at the time of the revocation shall thereupon be taken out of service unless, in the case of revocation of an approval, the notice of revocation otherwise provides.

Effet de la révocation

(3) Sur révocation d'une permission ou d'une approbation obtenues en vertu des paragraphes 9(2) ou (3), respectivement, les compteurs mis en service en vertu de celles-ci sont alors mis hors service sauf si l'avis de révocation, dans le cas de la révocation d'une approbation, prévoit autre chose.

Right to make representations

(4) No permission under subsection 9(2), approval under subsection 9(3) or (4) or accreditation under section 10 shall be revoked unless

(*a*) notice of the proposal to revoke it has been given in prescribed manner;

(*b*) any interested person objecting to the proposal has been afforded reasonable opportunity to make representations with respect to his objection; and

(*c*) the representations, if any, so made have been taken into account in deciding whether to implement such proposal.

1980-81-82-83, c. 87, s. 11.

Droit d'être entendu

(4) Les permissions, approbations et accréditations visées aux paragraphes 9(2), (3) ou (4) et à l'article 10, respectivement, ne peuvent être révoquées que si les trois conditions suivantes sont remplies :

a) un avis de l'intention de révoquer a été donné de la façon réglementaire;

b) les intéressés qui s'opposent à la révocation ont eu la possibilité de présenter des observations à cet égard;

c) on a tenu compte des observations, s'il en est.

1980-81-82-83, ch. 87, art. 11.

Reverification

12. (1) Within

(*a*) the period of eight years from verification, and the period of eight years from each reverification, of a meter used for the purpose of obtaining the basis of a charge for electricity,

(*b*) the period of seven years from verification, and the period of seven years from each reverification, of a meter used for the purpose of obtaining the basis of a charge for gas, or

(*c*) such other period from any or each verification or reverification of a meter as may be determined in any case or class of cases by the director,

the meter shall be submitted to reverification, together with resealing or marking, or to cancellation of the seal or mark, as the case may require, under this Act and the regulations.

Where shorter period determined

(2) No period determined under paragraph (1)(*c*) for any reverification shall be shorter than the period specified therefor in paragraph (1)(*a*) or (*b*) unless the director so determines the period under paragraph (1)(*c*) with the approval of the Minister, in which event the director shall cause to be given, in prescribed manner and before a prescribed time prior to expiration of the period determined under paragraph (1)(*c*), notice that the reverification within the period so determined, instead of within the period so specified, is required.

1980-81-82-83, c. 87, s. 12.

Exercise of powers by inspector

13. The power to deal with a meter in any manner provided or referred to in section 12 or specified or authorized pursuant to paragraph 28(1)(*c*) or (*d*) may be exercised by an inspector, on the general or special instructions of the director, whether or not the meter may be or has been so dealt with by an accredited meter verifier.

1980-81-82-83, c. 87, s. 13.

Certificates

14. On verification or reverification of a meter by an inspector or an accredited meter verifier who is not the owner of the meter, the inspector or meter verifier shall, in prescribed manner, issue to the owner a certificate containing prescribed particulars respecting the verification or reverification.

1980-81-82-83, c. 87, s. 14.

Nouvelle vérification

12. (1) Tout compteur doit être soumis à une nouvelle vérification :

a) dans le cas d'un compteur servant à établir un montant exigible pour la fourniture d'électricité, dans les huit ans de la dernière vérification;

b) dans le cas d'un compteur servant à établir un montant exigible pour la fourniture de gaz, dans les sept ans de la dernière vérification;

c) dans certains cas ou dans certaines catégories de cas déterminés par le directeur, dans les délais fixés à cet égard par celui-ci.

Le compteur fait alors l'objet d'un nouveau scellage ou d'un nouveau marquage ou d'une annulation du sceau ou de la marque, selon le cas, en conformité avec la présente loi et les règlements.

Période plus courte

(2) La période fixée en vertu de l'alinéa (1)*c*) pour une nouvelle vérification ne peut être plus courte que celle dont font état les alinéas (1)*a*) ou *b*) qu'avec l'approbation du ministre; dans un tel cas, le directeur en fait donner un préavis dans les délais réglementaires et de la façon réglementaire avant l'expiration de la période fixée en vertu de l'alinéa (1)*c*).

1980-81-82-83, ch. 87, art. 12.

Exercice des pouvoirs par l'inspecteur

13. Suite aux directives générales ou spéciales du directeur, les inspecteurs peuvent soumettre un compteur aux exigences prévues à l'article 12, ou spécifiées ou autorisées conformément aux alinéas 28(1)*c*) ou *d*), indépendamment du fait que le compteur ait été, ou puisse être soumis, aux mêmes exigences par un vérificateur accrédité.

1980-81-82-83, ch. 87, art. 13.

Certificats

14. L'inspecteur, ou le vérificateur accrédité qui n'est pas le propriétaire du compteur, qui soumet celui-ci à une vérification, initiale ou subséquente, délivre, de la façon réglementaire, au propriétaire un certificat contenant les renseignements réglementaires à l'égard de cette vérification.

1980-81-82-83, ch. 87, art. 14.

Persons authorized to deal with meters

15. (1) No meter shall be verified, sealed, reverified or resealed by any person other than an inspector or an accredited meter verifier, and no person,

(*a*) other than an inspector, shall break the seal of any verified meter the correctness of which is in dispute; or

(*b*) other than an inspector, an accredited meter verifier or the owner, shall, except as prescribed, break the seal of any verified meter.

Meter with broken seal

(2) Except as otherwise provided by or pursuant to this Act, no meter on which the seal has been broken shall be put into service or continued in use until it has been reverified and resealed.

1980-81-82-83, c. 87, s. 15.

Owner's liability

16. (1) The owner of each verified meter that is in use shall keep it in good repair and is responsible for causing it to be dealt with from time to time in accordance with the requirements of this Act and the regulations and, subject to those requirements, the owner is liable to pay any fees chargeable for so dealing with the meter.

Owner's records

(2) An owner referred to in subsection (1) shall keep records containing such information related to the administration of this Act, in such form, at such place and for such period as may be prescribed.

1980-81-82-83, c. 87, s. 16.

Records of accredited meter verifiers

17. Every accredited meter verifier shall keep records containing such information related to the administration of this Act, in such form, at such place and for such period as may be prescribed.

1980-81-82-83, c. 87, s. 17.

Examination of records

18. All records kept pursuant to sections 16 and 17 shall be open for examination by an inspector during normal business hours and the inspector may make such copies thereof or extracts therefrom as he may require.

1980-81-82-83, c. 87, s. 18.

Contractor to provide facilities for testing

19. Every contractor shall provide free of charge,

Personnes autorisées

15. (1) Seul un inspecteur ou un vérificateur accrédité peut vérifier, sceller, vérifier de nouveau ou sceller de nouveau un compteur, et seul :

a) un inspecteur peut briser le sceau d'un compteur vérifié dont l'exactitude est contestée;

b) un inspecteur, un vérificateur accrédité ou le propriétaire peut, sauf règlements à l'effet contraire, briser le sceau d'un compteur vérifié.

Sceau brisé

(2) Sauf disposition contraire de la présente loi ou édictée sous son régime, aucun compteur dont le sceau a été brisé ne peut être mis en service ni continuer à servir tant qu'il n'a pas été vérifié de nouveau et scellé de nouveau.

1980-81-82-83, ch. 87, art. 15.

Responsabilité du propriétaire

16. (1) Le propriétaire de chaque compteur vérifié qui est en usage le conserve en bon état et voit à ce qu'il soit soumis aux exigences de la présente loi et de ses règlements d'application; sous réserve de ces exigences, le propriétaire est responsable du paiement des droits qui y sont afférents.

Dossiers du propriétaire

(2) Le propriétaire visé au paragraphe (1) tient des dossiers sur l'application de la présente loi conformément aux règlements, qui prescrivent leur contenu et leur forme ainsi que l'endroit où ils sont gardés et la période pendant laquelle ils sont tenus.

1980-81-82-83, ch. 87, art. 16.

Dossiers du vérificateur accrédité

17. Les vérificateurs accrédités tiennent des dossiers sur l'application de la présente loi conformément aux règlements, qui prescrivent leur contenu et leur forme ainsi que l'endroit où ils sont gardés et la période pendant laquelle ils sont tenus.

1980-81-82-83, ch. 87, art. 17.

Examen des dossiers

18. Les dossiers tenus conformément aux articles 16 et 17 peuvent être examinés pendant les heures ouvrables normales par un inspecteur, qui peut en faire les copies ou les extraits qu'il juge nécessaires.

1980-81-82-83, ch. 87, art. 18.

Le fournisseur doit fournir gratuitement les installations d'épreuve

19. Tout fournisseur est tenu de procurer gratuitement, selon qu'il s'engage à fournir de l'électricité ou du gaz :

(*a*) where the supply of electricity is undertaken by him, electricity, equipment and all reasonable facilities, and

(*b*) where the supply of gas is undertaken by him, gas, equipment and all reasonable facilities,

at such place or places as the director may designate for the purpose of making such tests of the electricity or gas and of any of the meters and other apparatus relating to that supply as the director deems necessary for the purposes of this Act.

1980-81-82-83, c. 87, s. 19.

Entry by accredited meter verifier or inspector exercising powers

20. Any premises may, at all reasonable times, be entered

(*a*) by any inspector, where on reasonable grounds he believes the entry to be required, for the purpose of exercising any power conferred on him by section 13 or 18; or

(*b*) by any accredited meter verifier, where on reasonable grounds he believes the entry to be required, for the purpose of executing, in respect of a meter on or in those premises, any functions relating or incidental to its verification or reverification.

1980-81-82-83, c. 87, s. 20.

Assistance to inspector or accredited meter verifier

21. The owner or person in charge of, and every person employed in, premises entered by an inspector or an accredited meter verifier pursuant to section 20 or subsection 26(6) shall give the inspector or accredited meter verifier all reasonable assistance in his power to enable the inspector or accredited meter verifier to execute his functions pursuant to this Act and shall furnish him with such information with respect to the administration of this Act and the regulations as he may reasonably require.

1980-81-82-83, c. 87, s. 21.

Direction to take meter out of service

22. (1) The director may, by notice in writing given in prescribed manner to the owner of any meter, require the withdrawal of the meter from service if the director, having regard to the requirements of this Act and the regulations with respect to that meter or to meters of its class, type or design, believes on reasonable grounds that the withdrawal is necessary.

a) l'électricité, l'équipement et les installations adéquates;

b) le gaz, l'équipement et les installations adéquates,

aux endroits que le directeur peut désigner, pour procéder aux épreuves portant sur l'électricité ou sur le gaz, et sur les compteurs et les autres appareils relatifs à leur approvisionnement, que le directeur juge nécessaires pour l'application de la présente loi.

1980-81-82-83, ch. 87, art. 19.

Accès accordé aux vérificateurs accrédités et aux inspecteurs

20. Peuvent entrer dans tout lieu à des heures convenables, s'ils le jugent nécessaire en se fondant sur des motifs raisonnables :

a) les inspecteurs, aux fins d'exercer les pouvoirs que leur confèrent les articles 13 ou 18;

b) les vérificateurs accrédités, aux fins d'exercer les fonctions relatives ou connexes à la vérification, initiale ou subséquente, d'un compteur qui se trouve dans ce lieu.

1980-81-82-83, ch. 87, art. 20.

Aide fournie à l'inspecteur ou au vérificateur accrédité

21. Le propriétaire des lieux où sont entrés un inspecteur ou un vérificateur accrédité, conformément à l'article 20 ou au paragraphe 26(6), le responsable de ces lieux et chaque personne qui y travaille doivent fournir à l'inspecteur ou au vérificateur, dans la mesure du possible, l'aide dont ces derniers ont besoin pour exercer les fonctions que la présente loi et les règlements leur confèrent, ainsi que les renseignements relatifs à l'application de la présente loi et des règlements dont ils peuvent avoir besoin dans les circonstances.

1980-81-82-83, ch. 87, art. 21.

Ordre de mettre un compteur hors service

22. (1) Le directeur qui a des motifs raisonnables de croire que cette mesure est nécessaire, compte tenu des exigences de la présente loi et des règlements relatives à un compteur donné ou aux compteurs de sa catégorie, de son type ou de son modèle, peut par avis écrit donné de la façon réglementaire, ordonner au propriétaire du compteur de le mettre hors service.

Compliance with direction

(2) An owner to whom notice is given under subsection (1) shall forthwith take all reasonable steps to comply therewith.

1980-81-82-83, c. 87, s. 22.

DISPUTES

Dispute procedure

23. (1) At the request of a contractor or purchaser who is dissatisfied with the condition or registration of any meter used in respect of electricity or gas supplied by or to him, an inspector shall proceed in prescribed manner and shall collect such payments, from such persons, at or within such times and for the provision of such services and facilities incidental to proceeding in that manner as are prescribed.

Duties of inspector

(2) Where an inspector proceeds in the matter of any request pursuant to subsection (1), he shall issue to each person directly concerned with the matter, including the owner of any meter tested by the inspector in the course of so proceeding, a certificate setting forth the inspector's findings with respect to that matter and findings so set forth shall include the result of the test, if any.

Reference to director for reconsideration

(3) Where a person who is provided with a certificate of findings by an inspector pursuant to subsection (2) gives notice to the inspector within a prescribed time that he is dissatisfied with the findings, the inspector shall refer the matter to the director for reconsideration in prescribed manner.

Director's decision final

(4) The decision of the director on a matter referred to him pursuant to subsection (3) is final and conclusive.

1980-81-82-83, c. 87, s. 23.

Loss by error

24. (1) Subject to subsections (2) to (4), where, on a proceeding in the matter of any request pursuant to section 23, a meter is found to register with an error not permitted by the regulations, the error shall be deemed to have existed from the commencement of the period of three months before the date of the receipt of the request, or from the date on which the meter was last sealed if the sealing took place within that period.

Idem

(2) Subject to subsections (3) and (4), where, on a proceeding in the matter of any request pursuant to section 23, a meter is found to register with an error not permitted by the regu-

Observation de la directive

(2) Le propriétaire qui a reçu l'avis visé au paragraphe (1) prend alors toutes les mesures raisonnables pour s'y conformer.

1980-81-82-83, ch. 87, art. 22.

CONTESTATIONS

Façon de procéder en cas de contestation

23. (1) Sur demande du fournisseur ou du consommateur mécontent de l'état ou de l'enregistrement d'un compteur qui est ou a été utilisé à l'égard du gaz ou de l'électricité qu'il a fourni ou qui lui a été fourni, l'inspecteur procède de la façon réglementaire et perçoit, de ces personnes, au moment ou dans les délais réglementaires, les paiements prévus par les règlements pour les services et les facilités fournis suite à son action.

Obligations de l'inspecteur

(2) L'inspecteur qui donne suite à la demande dont il est saisi conformément au paragraphe (1) donne aux intéressés un certificat exposant ses conclusions, lesquelles contiennent les résultats des épreuves effectuées, le cas échéant; s'il a effectué des épreuves, il donne aussi une copie du certificat au propriétaire du compteur en cause.

Renvoi au directeur

(3) L'inspecteur avisé dans le délai réglementaire par le destinataire du certificat visé au paragraphe (2) que ce dernier n'est pas d'accord avec ses conclusions, renvoie la question au directeur pour qu'il la reconsidère de la façon réglementaire.

La décision du directeur est sans appel

(4) La décision du directeur sur une question qui lui est soumise conformément au paragraphe (3) est sans appel.

1980-81-82-83, ch. 87, art. 23.

Écart constaté

24. (1) Sous réserve des paragraphes (2) à (4), dans le cas où, suite à la demande visée à l'article 23, il est constaté, dans l'enregistrement d'un compteur, un écart non autorisé par les règlements, cet écart est réputé avoir existé à partir du début de la période de trois mois précédant la date de réception de la demande, ou à compter de la date à laquelle le compteur a été scellé pour la dernière fois, si l'apposition du sceau a eu lieu pendant cette période.

Idem

(2) Sous réserve des paragraphes (3) et (4), dans le cas où, suite à la demande visée à l'article 23, il est constaté, dans l'enregistrement d'un compteur, un écart non autorisé par les rè-

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MARKET RULES

for the Ontario Electricity Market

ieso
Power to Ontario.
On Demand.

Public

Issue Date: December 7, 2011

Market Rules

Chapter 6
Wholesale Metering

ieso
Power to Ontario.
On Demand.

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Table of Contents

1. Introduction

1.1 Application and Interpretation

1.1.1 This Chapter applies to the following:

1.1.1.1 the *IESO*;

1.1.1.2 *market participants*; and

1.1.1.3 *metering service providers*.

1.1.2 Nothing in this Chapter shall affect the obligation of any *market participant*, *metered market participant* or *metering service provider* to comply with all applicable *federal metering requirements* provided that, where this Chapter or a policy or standard established by the *IESO* pursuant to this Chapter prescribes a higher standard than that prescribed by *federal metering requirements*, the relevant *market participant*, *metered market participant* or *metering service provider* shall, for purposes of this Chapter, comply with such higher standard.

1.1.3 This Chapter does not apply to an *intertie metering point*.

1.1.4 This Chapter does not apply to a *metering installation* that is not used or required by these *market rules* to be used for *settlement* purposes in the *IESO-administered markets*.

1.2 Purpose

1.2.1 The purpose of this Chapter is to set out the rights and obligations of *market participants, metered market participants* and the *IESO*, and the rights, obligations and qualifications of *metering service providers* associated with the measurement of *energy*; the registration, provision, installation, commissioning, maintenance, repair, replacement, inspection, testing and audit of *metering installations;* and the provision, security and accuracy of *metering data* relating to the *real-time markets* or the *procurement markets.*

1.2.2 Nothing in this Chapter shall preclude a *metered market participant* from applying, or from permitting a *metering service provider* to apply, evolving technologies and processes relating to *metering* as they become available provided that such application is effected in accordance with section 12.1.1.

2. Requirements for Metering Installations

2.1.1 Subject to sections 2.1.3 and 2.1.5, the *IESO* shall not permit a person to participate in the *real-time markets* or the *procurement markets* or to cause or permit electricity to be conveyed into, through or out of the *IESO-controlled grid* in respect of a *connection point*, other than an *interconnection*, or in respect of an *embedded connection point* unless the *IESO* is satisfied that:

2.1.1.1 the *connection point* or *embedded connection point* has an associated *metering installation* that, subject to section 4.4, complies with the requirements of this Chapter and of any policy or standard established by the *IESO* pursuant to this Chapter. A single *metering installation* may be associated with more than one *connection point* or *embedded connection point*;

2.1.1.2 if the person is or will be the *metered market participant* for the *metering installation* referred to in section 2.1.1.1:

a. the person has entered into an agreement under section 3.1.2.2(a) in relation to the *metering installation* or is a registered *metering service provider*; and

b. if the person is also an *embedded market participant*, has advised the relevant *distributor* or *transmitter* of the entering into of the agreement referred to in section 2.1.1.2(a); and

2.1.1.3 either

a. such *metering installation* has been and continues to be registered with the *IESO* in accordance with the procedures referred to in section 6.1.2., or

b. such *metering installation* has been registered with the *IESO* in accordance with the procedures referred to in section 6.1.2 and the registration has expired provided that the *IESO* determines that the continued use of the *metering installation* is necessary for the efficient operation of the *IESO-administered markets*.

2.1.2 Subject to section 2.1.3, the *IESO* shall refuse to permit a person to participate in the *real-time markets* or the *procurement markets* or to cause or permit electricity to be conveyed into, through or out of the *IESO-controlled grid* in respect of any *connection point*, other than an *interconnection*, or an *embedded connection point* if the conditions set forth in section 2.1.1 are not satisfied. Such refusal is a *reviewable decision*.

2.1.3 Section 2.1.1 and 2.1.2 shall not apply in respect of a person, other than a person that is or will be the *metered market participant* for a *metering installation*, that demonstrates to the satisfaction of the *IESO* that it will for *settlement* purposes have allocated to it *metering data* by means of *physical allocation data* submitted by a *metered market participant* in accordance with section 2.4 of Chapter 9.

2.1.4 This Chapter applies in respect of a *metering installation* that measures the consumption of *energy* in accordance with section 2.1A.1 of Chapter 9.

Temporary Withdrawal of Electricity without a Registered Wholesale Meter

2.1.5 The *IESO* may permit a *market participant* to withdraw electricity temporarily from the *IESO-controlled grid* at a *connection point* without a *metering installation* being registered with the *IESO* for that *connection point* under the conditions specified in the applicable *market manual*.

3. Metered Market Participants

3.1 General Obligations

3.1.1 Each *metered market participant* shall:

3.1.1.1 ensure that, subject to section 4.4, each *metering installation* in respect of which it is the *metered market participant* complies with the requirements set forth in this Chapter and in any policy or standard established by the *IESO* pursuant to this Chapter;

3.1.1.2 comply with the obligations imposed on *metered market participants* in Appendix 6.1 and in any policy or standard established by the *IESO* pursuant to this Chapter; and

3.1.1.3 coordinate electronic access, by persons other than the *IESO*, to each *metering installation* in respect of which it is the *metered market participant* so as to prevent such persons from accessing the *metering installation* at a time or in a manner that may adversely affect the ability of the *IESO* to access the *metering data* in that *metering installation* in accordance with the notice given pursuant to section 8.1.7.

3.1.2 Each *metered market participant* shall:

3.1.2.1 if a registered *metering service provider*:

a. subject to section 4.4, register, provide, install, commission, maintain, repair, replace, inspect and test each *metering installation* in respect of which it is the *metered market participant* in accordance with the provisions of this Chapter and of any policy or standard established by the *IESO* pursuant to this Chapter; and

b. comply with all of the obligations imposed on *metering service providers* in this Chapter and in any policy or standard established by the *IESO* pursuant to this Chapter; and

c. provide to the *IESO* the information referred to in sections 1.2 and 1.3 of Appendix 6.5 and update such information as required to maintain such information current; and

d. where the *metering installation* is associated with more than one *connection point*, *defined meter point* or *facility*, on a timely basis review and update the information referred to in sections 1.2 and 1.3 of Appendix 6.5 and provide it to the *IESO*:

   i. annually; and

   ii. when material changes are made to the *IESO-controlled grid* downstream of the *metering installation* including the application by another *metered market participant* to register a different *metering installation* downstream of the *metering installation*; or

3.1.2.2 if not a registered *metering service provider*:

a. enter into an agreement with a registered *metering service provider* for the registration, provision, installation, commissioning, maintenance, repair, replacement, inspection and testing by that registered *metering service provider* of each *metering installation* in respect of which it is the *metered market participant*; and

b. ensure that its *metering service provider* provides the *IESO* with the information referred to in sections 1.2 and 1.3 of Appendix 6.5 and updates such information as required to maintain that information current; and

c. where the *metering installation* is associated with more than one *connection point*, *defined meter point* or *facility*, on a timely basis ensure that its *metering service provider* reviews and updates the information referred to in sections 1.2 and 1.3 of Appendix 6.5 and provide it to the *IESO*:

i. annually; and

ii. when material changes are made to the *IESO-controlled grid* downstream of the *metering installation* including the application by another *metered market participant* to register a different *metering installation* downstream of the *metering installation*; and

d. be liable to the imposition of financial penalties and other sanctions, in accordance with Chapter 3, in respect of the failure by each *metering service provider* that acts as a *metering service provider* for a *metering installation* in respect of which it is the *metered market participant* to comply with the obligations imposed on *metering service providers* in this Chapter and in any policy or standard established by the *IESO* pursuant to this Chapter.

3.1.3 Nothing in section 3.1.2 shall prevent a *metered market participant* from entering into an agreement with one registered *metering service provider* for the provision, installation and commissioning of a *metering installation* and entering into a separate agreement with another registered *metering service provider* under which that other *metering service provider* assumes responsibility for all subsequent maintenance, repair, replacement, inspection and testing of that *metering installation.*

3.1.4 Each *metered market participant* shall bear all costs and expenses associated with:

3.1.4.1 the registration, provision, installation, commissioning, maintenance, repair, replacement and inspection of each *metering installation* for which it is the *metered market participant*;

3.1.4.2 the routine testing, as described in section 7.1.1, of each *metering installation* in respect of which it is the *metered market participant*;

3.1.4.3 the testing, other than the routine testing referred to in section 3.1.4.2, and audit of each *metering installation* in respect of which it is the *metered market participant* where such costs and expenses are required to be borne by the *metered market participant* pursuant to section 7.3.1;

3.1.4.4 the security and accuracy of all *metering data* recorded in each *metering installation* for which it is the *metered market participant* and the transfer of such *metering data* to the communication interface of the *metering database*; and

3.1.4.5 gaining its own access to the *metering registry*, the metering database and the *metering data* recorded in each *metering installation* for which it is the *metered market participant.*

3.1.5 Nothing in section 3.1.4 shall prevent a *metered market participant* from entering into an agreement with a person pursuant to which agreement such person agrees to indemnify the *metered market participant* in respect of some or all of the costs and expenses referred to in section 3.1.4.

3.2 Transitional Arrangements

3.2.1 Notwithstanding any other provision of this Chapter, a person that owns a *metering installation* that is in service on the date of coming into force of this section 3.2 or that is brought into service between the date of coming into force of this section 3.2 and the *market commencement date* shall, unless an election is made by such person pursuant to section 3.2.2, apply for registration as a *metering service provider* and shall act as the *metering service provider* in respect of such *metering installation* from the *market commencement date* until the earliest expiry date of any seal period of any *meter* forming part of such *metering installation*. Once such seal period expires, the *metered market participant* for the *metering installation* shall make such alternative arrangements as may be necessary to comply with the provisions of this Chapter and of any policy or standard established by the *IESO* pursuant to this Chapter.

3.2.2 A person that owns a *metering installation* that is in service on the date of coming into force of this section 3.2 may elect to enter into an agreement with a registered *metering service provider* pursuant to which that *metering service provider* acts as the *metering service provider* in respect of such *metering installation.*

3.2.3 Notwithstanding section 3.1.2.2(c), a *metering service provider* designated as such pursuant to section 3.2.1 or 3.2.2, shall, in addition or in lieu of any liability that may be imposed on a *metered market participant* pursuant to section

3.1.2.2(c), be liable to the imposition of financial penalties and other sanctions, in accordance with the enforcement provisions of Chapter 3, in respect of a failure by the *metering service provider* to comply with the obligations imposed on *metering service providers* in this Chapter and in any policy or standard established by the *IESO* pursuant to this Chapter, and for such purposes, *metering service providers* shall be deemed as *market participants*. Such *metering service providers* shall only be subject to such liability in respect of *metering installations* for which they are designated as *metering service providers* pursuant to section 3.2.1 or 3.2.2 and only until the earliest expiry date of any seal period of any *meter* forming part of the *metering installation.*

4. Metering Installation

4.1 Metering Installation Standards

4.1.1 Subject to sections 4.1.2, 4.4, and 4.6, each *metering installation* shall:

4.1.1.1 contain *meters* that are of a type that are described on the list of conforming *meters* established by the *IESO*;

4.1.1.2 be comprised of two *meters*, at least one of which shall be a *revenue meter* that meets or exceeds the 0.2% accuracy class of ANSI standard C12.20;

4.1.1.3 have *instrument transformers* whose current transformers and voltage transformers meet or exceed the 0.3% accuracy class of ANSI standard C57.13;

4.1.1.4 meet the accuracy requirements set forth in this Chapter and in any policy or standard established by the *IESO* pursuant to this Chapter;

4.1.1.5 meet the security requirements set forth in this Chapter and in any policy or standard established by the *IESO* pursuant to this Chapter;

4.1.1.6 subject to section 10.3.2, be capable of collating *metering data* into *dispatch intervals*;

4.1.1.7 be capable of separately registering and recording flows in each direction where bi-directional active *energy* flows may occur;

4.1.1.8 be capable of allowing remote access to the *metering data* contained in the *metering installation* in the manner set forth in this Chapter and in any policy or standard established by the *IESO* pursuant to this Chapter;

4.1.1.9 be capable of storing *metering data* for at least 35 days; and

4.1.1.10 comply with all other requirements set forth in this Chapter and in any policy or standard established by the *IESO* pursuant to this Chapter.

4.1.2 A *metering installation* may exceed the level of accuracy and other requirements set forth in this Chapter and in any policy or standard established by the *IESO* pursuant to this Chapter.

4.1.3 No *metering installation* shall be placed into service unless:

4.1.3.1 it has been commissioned in accordance with this Chapter and with any policy or standard established by the *IESO* pursuant to this Chapter;

4.1.3.2 the communication equipment forming part of the *metering installation* has successfully passed an end-to-end test; and

4.1.3.3 it has been registered with the *IESO* in accordance with the procedures described in section 6.1.2.

4.1.4 The *IESO* shall, upon request by a metered market participant or a metering service provider, review conceptual drawings for a metering installation proposed to be installed by the metered market participant or the metering service provider.

4.1.5 A *metered market participant* or a *market participant,* with the agreement of the relevant *metered market participant*, may arrange for a *metering installation* to contain features in addition to those specified in section 4.1.1 and in the requirements, policies or standards referred to in that section.

4.1.6 Subject to section 4.1.7, where a *metering installation* is intended to be used for a purpose in addition to the collection, recording and storage of *metering data* and the transfer of *metering data* to the *IESO,* the *metered market participant* for the *metering installation* shall:

4.1.6.1 ensure that such use shall not interfere with the ability of the *metering installation* to perform or function in accordance with section 4.1.1 and the requirements, policies and standards referred to in that section;

4.1.6.2 obtain the prior approval of the *IESO* for such use and shall co-ordinate with any person that uses the *metering installation* for such other purposes to ensure that such use does not interfere with the ability of the *metering installation* to perform or function in accordance with section 4.1.1 and with the requirements, policies and standards referred to in that section; and

4.1.6.3 ensure that such use complies with all applicable *federal metering requirements.*

4.1.7 Each *metered market participant* shall ensure that any *instrument transformer* forming part of a *metering installation* in respect of which it is the *metered market participant* is not used for a purpose other than the measurement of *energy* for *settlement* purposes unless:

4.1.7.1 the instrument transformer is part of a main/alternate metering installation;

4.1.7.2 the *instrument transformer* is not connected to the *revenue meter* that has been designated by the *metered market participant* as the main *revenue meter* as reflected in the registration information pertaining to the *main/alternate metering installation*; and

4.1.7.3 the *instrument transformer* is operated within the rated burden limits for the accuracy class referred to in section 4.1.1.4.

or

4.1.7.4 the *metering installation* is registered under section 4.6 and the *IESO* has approved the placing of additional loads on the *instrument transformer* under section 4.6.6.

4.1A Metering Installations for Segregated Mode of Operation

4.1A.1 Subject to section 4.4, no *metered market participant* may operate a *registered facility* in a *segregated mode of operation* unless the *metering installation* for that *registered facility* generates *metering data* that reads zero, or is capable of such adjustment as may be required to ensure that such *metering data* reads zero, when the *registered facility* is operating in a *segregated mode of operation.*

4.2 Defined Meter Point and Error Correction Factors

4.2.1 Subject to section 4.4, each *metered market participant* shall ensure, in respect of each *metering installation* for which it is the *metered market participant*, that:

4.2.1.1 subject to sections 4.2.2 and 4.2.2A, the *meter point* is located at the *defined meter point* for the *facility* to which the *metering installation* relates and otherwise complies with all requirements for *meter points* set forth in this Chapter and in any policy or standard established by the *IESO* pursuant to this Chapter; and

4.2.1.2 any instrument *transformers* required for a *check meter* within a *main/check metering installation* are located in a position which achieves a mathematical correlation with the *metering data* from the *revenue meter*.

4.2.2 The *IESO* shall permit a *metering installation* to be registered in respect of a *facility* notwithstanding that the *meter point* is not located at the *defined meter point* provided that all transfers of *energy* at any points of supply or consumption for the *facility* to which the *metering installation* relates are separately *metered* in a manner satisfactory to the *IESO*.

Metering Installation Associated with More than One Defined Meter Point and/or Facility

4.2.2A The *IESO* shall permit a *metering installation* to be associated with more than one *facility* notwithstanding that the *meter point* is not located at the *defined meter points* for the *facilities,* provided that all transfers of *energy* at any points of supply or consumption for the *facilities* to which the *metering installation* are associated, are determined in a manner satisfactory to the *IESO.*

Where a *metered market participant* intends that such a *metering installation* is to be used for determining *settlement amounts* instead of one or more pre-existing downstream *metering installations,* the *IESO* shall not permit the use of the upstream *metering installation* for determining *settlement amounts* unless the *metered market participant* demonstrates, to the satisfaction of the *IESO* in accordance with the applicable market manual, the accuracy of the *energy* transfer measurements of the upstream *metering installation* relative to the downstream *metering installations*.

4.2.2B When developing the conditions of satisfaction referred to in section 4.2.2A, the *IESO* shall be guided by the principle that all *market participants* are to be held financially whole by the use of the upstream *metering installation*.

4.2.3 The *IESO* shall, in respect of *metering data* recorded in the *metering database* that was obtained from a *metering installation* whose *meter point* is not located at the *defined meter point* for a *facility* to which the *metering installation* relates, adjust the *metering data* on the basis of the site-specific loss adjustments referred to in section 4.2.4 or 4.2.5.1 and, where applicable, on the basis of the loss adjustments provided pursuant to section 4.2.5.2.

4.2.4 Where the *defined meter point* in respect of a *facility* is a *connection point* and the *meter point* of the *metering installation* for that *facility* is located other than at the *defined meter point*, the *metering service provider* for the relevant *metering installation* shall provide to the *IESO*, at the time of registration of the *metering installation*, in accordance with section 4.2.6, the parameters for site specific loss adjustments required to reflect losses between the *meter point* and the *defined meter point*.

4.2.5 Where the *defined meter point* in respect of a *facility* is an *embedded connection point* and the *meter point* is not located at the *defined meter point*, the *metering service provider* for the relevant *metering installation* shall provide to the *IESO*, at the time of registration of the *metering installation*:

4.2.5.1 the parameters for site specific loss adjustments to reflect losses between the *meter point* and the *embedded connection point*, in accordance with section 4.2.6; and

4.2.5.2 the loss adjustments required to reflect losses between the *defined meter point* for the *primary RWM* associated with the *facility* and the *defined meter point* for the *embedded RWM* associated with the *facility*, obtained where applicable from the relevant *transmitter* or *distributor*, as the case may be depending on the owner of the *facilities* to which the *facility* to which the *meter point* relates is connected.

4.2.6 The parameters for site specific loss adjustments referred to in sections 4.2.4 and 4.2.5.1 shall comply with the requirements of any site specific loss adjustment policy or standard established by the *IESO* and shall be updated by each *metering service provider* as may be required by the *IESO*.

4.2.7 Each *metering service provider* shall provide to the *IESO* measurement error correction factors for each *metering installation* in respect of which it acts as a *metering service provider* in accordance with this Chapter and with any policy or standard established by the *IESO* pursuant to this Chapter.

4.3 Use of Metering Data and Metering Data Collection

4.3.1 *Metering data* shall be used by the *IESO* for *settlement* purposes following completion of the validation and, where applicable, substitution and estimation processes, in the manner set forth in Chapter 9.

4.3.2 Each metering installation shall:

4.3.2.1 have a communication link to the relevant telecommunication network, and, where required, isolation equipment approved under applicable telecommunications laws and regulations; and

4.3.2.2 be capable of remote communication by electronic means from the site of the *metering installation* to the communication interface of the *metering database.*

4.3.3 Each *metered market participant* shall ensure that all *metering data* contained in each *metering installation* for which it is the *metered market participant* is made available and transferred to the communication interface of the *metering database* in accordance with the requirements set forth in this Chapter and in any policy or standard established by the *IESO* pursuant to this Chapter. The *IESO* may use *data collection systems* operated by meter data management agencies for the purpose of the transfer of *metering data* to the *metering database.*

4.3.4 Each *metered market participant* shall ensure that all *metering data* in each *metering installation* for which it is the *metered market participant* is transferred to the communication interface of the *metering database* in a manner that preserves the security from access and the accuracy of such *metering data* as described in this Chapter and in any policy or standard established by the *IESO* pursuant to this Chapter.

4.3.5 The *IESO* shall ensure that all *metering data* that has been transferred to the communication interface of the *metering database* is transferred from such communication interface to the *metering database* in a manner that preserves the security of access and the accuracy of such *metering data* as described in this Chapter and in any policy or standard established by the *IESO* pursuant to this Chapter.

4.3.6 No *metered market participant* shall use a protocol or data format in respect of the transfer of *metering data* from a *metering installation* to a *data collection system* unless that protocol or data format has been approved by the *IESO.*

4.3.7 Each *metered market participant* shall ensure that *metering data* recorded in a *metering installation* in respect of which it is the *metered market participant* that is transferred to the communication interface of the *metering database* is in a data format that is compatible with the data format used by the *IESO* for the retrieval of *metering data* from such communication interface.

4.4 Alternative Metering Installation Standards

Obligations of Metered Market Participants

4.4.1 A *metered market participant* with a *metering installation* registered under section 4.4.3, shall ensure that the *metering installation* meets the requirements set forth in the alternative standards specified in Appendix 6.2.

Registration Under the Alternative Metering Installation Standard

4.4.2 A *metering service provider* applying to register a *metering installation* under the alternative standards specified in Appendix 6.2 shall submit to the *IESO*:

4.4.2.1 an application for registration specifying the alternative *metering installation* standard(s) for which registration is sought;

4.4.2.2 applicable supporting information as specified in Appendix 6.2; and

4.4.2.3 information otherwise required by Chapter 6 or the applicable *market manual*.

4.4.3 The *IESO* shall register the *metering installation* provided that, in the opinion of the *IESO,* the *metering service provider* meets the requirements of section 4.4.2. Where the *IESO* is not satisfied that the requirements of section 4.4.2 have been met, it shall refuse to register the *metering installation.* The *IESO* shall so notify the applicant, together with the reasons for refusal. Such a refusal is a *reviewable decision.*

Expiry and Revocation of Registration

4.4.4 Registration granted under section 4.4.3, in respect of a particular alternative standard, shall expire on the earlier of:

4.4.4.1 the date specified in Appendix 6.2 for that alternative standard; and

4.4.4.2 the date on which registration is revoked by the *IESO* under section 4.4.6.

4.4.5 Subject to section 4.4.8, prior to the expiry of registration of a *metering installation* under the alternative standard, the *metered market participant* for that *metering installation* shall ensure that the *metering installation* is brought into full compliance with the applicable requirements set forth in this Chapter and in any policy or standard established by the *IESO* under this Chapter.

4.4.6 The *IESO* may revoke registration granted under section 4.4.3 in the circumstances described in Appendix 6.2.

4.4.7 If the *IESO* revokes the registration for a *metering installation* under section 4.4.6, the *metered market participant* for that *metering installation* shall ensure that the *metering installation* is brought into full compliance with the applicable requirements of this Chapter within the time specified in Appendix 6.2 and shall so notify the *IESO*.

Retaining Registration Under the Alternative Standard

4.4.8 Prior to the expiry of registration of a *metering installation* under the alternative standards specified in sections 1.2, 1.6, 1.7, 1.8, 1.9, 1.11, 1.12, and 1.13 of Appendix 6.2, the *metered market participant* may apply to the *IESO* to retain registration under those sections. The *IESO* shall grant the *metered market participant* the right to retain registration if, in the opinion of the *IESO,* the changes required for the *metering installation* meet the criteria specified in the applicable *market manual*. The *IESO* shall recover the cost of processing the application from the *metered market participant* in accordance with the applicable *market manual.*

Estimation of Metering Data for Settlement Purposes

4.4.9 Where a *metered market participant* fails to comply with section 4.4.5 or 4.4.7, the *IESO* shall take such action with respect to the estimation of *metering data* for *settlement* purposes as specified in section 1.14 of Appendix 6.2.

4.5 Alternative Metering Installation Standards for Embedded Generation Facilities

4.5.1 A *transmission customer* that has an *embedded generation facility* that:

4.5.1.1 registers that *generation facility* for the purpose of determining transmission charges;

4.5.1.2 is rated less than 20 MW; and

4.5.1.3 meets the applicable Ontario Uniform Transmission Rate Schedule requirements with respect to the transmission *delivery point* through which the *generation facility* is connected to the *transmission system* and attracts Line or Transformation Connection Service charges;

4.5.1.4 [Intentionally left blank – section deleted]

shall either comply with the *metering installation* standards specified elsewhere in this Chapter 6 or with the alternative *metering installation* standards specified in this section 4.5 for that *embedded generation facility*.

4.5.2 A *transmission customer* that chooses to meet the alternative *metering installation* standards of this section 4.5 for an *embedded generation facility* shall, in accordance with the applicable *market manual*, have their *metering service provider*:

4.5.2.1 register with the *IESO* a *metering point* for that *embedded generation facility*.

4.5.2.2 [Intentionally left blank – section deleted]

4.5.3 Within three months of the calendar year end, the *transmission customer* shall, for each *embedded generation facility* for which a *metering point* has been registered under the alternative *metering installation standards* of this section 4.5, in the manner specified in the applicable *market manual*:

4.5.3.1 determine the annual adjustment dollar value for the applicable *transmission service charges* based on the impact of the actual output of the *embedded generation facility*;

4.5.3.2 obtain agreement of the *transmitter* as to this adjustment amount; and

4.5.3.3 submit this information to the *IESO*.

4.5.4 In the event that the *IESO* does not receive the information specified in section 4.5.3 within the time specified in section 4.5.3, the *IESO* shall use the *maximum continuous rating* for the *embedded generation facility*, provided to the *IESO* at the time of the *meter point* registration referred to in section 4.5.2.

4.5.5 The *IESO* shall adjust the applicable *transmission service charge settlement amounts* by any such amount, submitted in accordance with section 4.5.3 or by the amount determined under section 4.5.4, for the *transmission customer* and the *transmitter*. The *IESO* shall make this adjustment on the applicable *settlement statement* for the last day of the month in which the adjustment information is received or the last day of the month in which the *IESO* determines the adjustment amount, whichever is applicable.

4.6 Metering Installation Standards for Embedded Generation Facilities Under 2 MVA or Injecting Less than 17 GWh Per Annum

4.6.1 A *market participant* that has a registered *minor generation facility* embedded within a *distribution system* and which either injects less that 17 gigaWatt-hours per annum or has a nameplate rating less than 2 MVA shall be eligible to register with the *IESO* a *metering installation* for that *generation facility* comprised of a standalone *meter.*

4.6.2 The standalone *meter* shall be either a main *meter* or an alternate *meter* from the *IESO's* conforming *meter* list.

4.6.3 The *meter service provider* for the *metering installation* registered under section 4.6.1 shall not be required to submit an emergency *instrument transformer* restoration plan otherwise required under section 1.3.2.17 of Appendix 6.5.

4.6.4 If there is a failure of an *instrument transformer* at a *metering installation* registered in accordance with this section, the *IESO* shall estimate the *metering data* from the *metering installation* for *settlement* purposes in accordance with section 11.1.4A of Chapter 6 for the duration of the failure.

4.6.5 The *metered market participant* for a *meter* registered in accordance with this section shall not be required to meet the testing requirements specified in section 1.2 of Appendix 6.3.

4.6.6 The *metered market participant* for a *metering installation* registered in accordance with this section shall, subject to *IESO* approval, be permitted to place additional loads on its *instrument transformer*.

4.6.7 Within three months from the date of notification by the *IESO*, a *metered market participant* shall make a *metering installation* fully compliant with the *metering installation* standards specified elsewhere in Chapter 6 if the *energy* threshold recorded by the standalone *meter* exceeds 17 gigaWatt-hours per annum.

5. Metering Service Providers

5.1 Registration

5.1.1 No person may perform the activities required by this Chapter or by any policy or standard established by the *IESO* pursuant to this Chapter to be performed by a *metering service provider* unless that person has been registered by the *IESO* as a *metering service provider.*

5.1.2 No person shall be registered by the *IESO* as a *metering service provider* unless the person demonstrates to the satisfaction of the *IESO* that the person has the qualifications described in Appendix 6.4.

5.1.3 Any person including, but not limited to, a *market participant* or a *metered market participant*, that wishes to be registered by the *IESO* as a *metering service provider* shall file with the *IESO*:

5.1.3.1 a completed application for registration as a *metering service provider* in such form as shall be established by the *IESO*;

5.1.3.2 an executed agreement, in such form as shall be established by the *IESO*, pursuant to which the person agrees, among other matters, to be bound by and comply with the provisions of the *market rules* applicable to *metering service providers*; and

5.1.3.3 the application fee established from time to time by the *IESO*, and approved by the *OEB*, to defray the costs of processing the application, conducting the systems and procedures tests and audits referred to in section 5.1.6 and conducting the review referred to in section 5.1.13.

5.1.4 The *IESO* shall, within ten *business days* of receiving an application for registration as a *metering service provider* or within such longer period of time as may be agreed between the *IESO* and the applicant, notify the applicant of any further information or clarification that is required in support of its application if, in the *IESO's* opinion, the application is:

5.1.4.1 incomplete; or

5.1.4.2 contains information with respect to which the *IESO* requires clarification.

5.1.5 If the further information or clarification which is requested by the *IESO* pursuant to section 5.1.4 is not provided to the *IESO's* satisfaction within fifteen *business days* of the request or within such longer period of time as may be agreed between the *IESO* and the applicant, the applicant shall be deemed to have withdrawn its application for registration as a *metering service provider.*

5.1.6 The *IESO* may, if the applicant does not have ISO 9000 certification, conduct such audits or tests of the applicant's systems and procedures as the *IESO* determines appropriate.

5.1.7 The *IESO* shall, within twenty *business days* of:

5.1.7.1 receipt of the application for registration as a *metering service provider*;

5.1.7.2 receipt of the further information or clarification requested under section 5.1.4; or

5.1.7.3 the conduct of any audits or tests referred to in section 5.1.6,

whichever is the later, or within such longer period of time as may be agreed between the *IESO* and the applicant, notify the applicant that the *IESO* intends to register the person as a *metering service provider* upon completion of the review referred to in section 5.1.13, on such terms and conditions as the *IESO* considers appropriate, if the applicant has demonstrated to the *IESO*'s satisfaction that it has the qualifications set forth in Appendix 6.4. If the applicant has ISO 9000 certification, the *IESO* shall, together with the notice of intention to register the applicant, refund that portion of the application fee referred to in section 5.1.3.3 that is attributable to the costs of conducting the systems and procedures tests and audits referred to in section 5.1.6.

5.1.8 If the *IESO* is not satisfied that the applicant has demonstrated that it has the qualifications set forth in Appendix 6.4, the *IESO* shall, within twenty *business days* of receipt of the application for registration as a *metering service provider*, of receipt of the further information or clarification requested under section 5.1.4 or of any audits or tests referred to in section 5.1.6, whichever is the later, or within such longer period of time as may be agreed between the *IESO* and the applicant, notify the applicant that the *IESO* intends to deny its application for registration as a *metering service provider*. Such notice shall identify the deficiency in the applicant's qualifications that formed the grounds for the issuance of the notice.

5.1.9 An applicant to whom a notice is issued in accordance with section 5.1.8 shall have 20 *business days* from the date of receipt of such notice, or such longer period of time as may be agreed between the *IESO* and the applicant, in which to rectify the deficiency in its qualifications identified in such notice and to notify the *IESO* of such rectification.

5.1.10 Where the *IESO* is satisfied that, with the rectification described in section 5.1.9, the applicant has demonstrated that it meets the qualifications set forth in Appendix 6.4, the *IESO* shall notify the applicant that the *IESO* intends to register the person as a *metering service provider* upon completion of the review referred to in section 5.1.13, on such terms and conditions as the *IESO* considers appropriate.

5.1.11 Where:

5.1.11.1 an applicant to whom a notice is issued in accordance with section 5.1.8 fails to rectify the deficiency in its qualifications within the time specified in that section; or

5.1.11.2 the rectification described in section 5.1.9 is not such as to satisfy the *IESO* that the applicant meets the qualifications set forth in Appendix 6.6,

the *IESO* shall:

5.1.11.3 notify the applicant in writing that its application for registration as a *metering service provider* has been denied;

5.1.11.4 if the *IESO* has not conducted the systems and procedures tests and audits referred to in section 5.1.6, return to the applicant that portion of the application fee referred to in section 5.1.3.3 that is attributable to the costs of conducting such tests and audits; and

5.1.11.5 return to the applicant that portion of the application fee referred to in section 5.1.3.3 that is attributable to the costs of conducting the review described in section 5.1.13.

5.1.12 Denial by the *IESO* of an application for registration as a *metering service provider* is a *reviewable decision.*

5.1.13 The *IESO* shall review with each applicant referred to in sections 5.1.7 and 5.1.10:

5.1.13.1 the procedures for the registration of *metering installations* described in this Chapter and in the procedures established by the *IESO* pursuant to section 6.1.2 of this Chapter; and

5.1.13.2 the performance standards for *metering service providers* set forth in the applicable *market manual*.

5.1.14 The *IESO* shall, within five *business days* of completion of the review referred to in section 5.1.13, register the person as a *metering service provider*, on such terms and conditions as the *IESO* considers appropriate, and shall notify the applicant accordingly.

5.1.15 Each applicant for registration as a *metering service provider* and each *metering service provider* shall forthwith notify the *IESO* of any circumstances that result or are likely to result in a change in the information provided in the person's application for registration as a *metering service provider* or any updates thereto.

5.1.16 The *IESO* shall establish, maintain, update and *publish*:

5.1.16.1 a list of all persons that have been registered as *metering service providers*; and

5.1.16.2 a list of each *metering service provider* whose registration as a *metering service provider* has been revoked pursuant to section 5.3.

5.2 Activities and Standards for Metering Service Providers

5.2.1 The activities described in section 1.3 of Appendix 6.1 shall be performed by a *metering service provider*.

5.2.2 Each *metering service provider* shall comply with all of the obligations imposed on *metering service providers* in Appendix 6.1 and in any policy or standard established by the *IESO* pursuant to this Chapter.

5.2.3 Each *metering service provider* shall meet all performance standards as set forth in the applicable *market manual*.

5.2.4 Where the provision of written meter-related materials or of post-registration familiarization and competency updating or upgrading to a metering service *provider* imposes a significant expense on the *IESO*, such documentation, assistance or training may be provided upon payment by the *metering service provider* of a reasonable fee.

5.3 Revocation of Registration of Metering Service Providers

5.3.1 The *IESO* may revoke the registration of a *metering service provider* where the *metering service provider*:

5.3.1.1 has been found to be in breach of the *market rules* applicable to *metering service providers* on a persistent basis;

5.3.1.2 fails to meet the performance standards set forth in the applicable *market manual* on a consistent basis;

5.3.1.3 has been found to be in breach of a material provision of the agreement referred to in section 5.1.3.2; or

5.3.1.4 ceases to satisfy any material qualification for registration as a *metering service provider* or any material requirement imposed upon it as a condition of registration as a *metering service provider*.

5.3.2 Where the *IESO* intends to revoke the registration of a *metering service provider*, the *IESO* shall give notice to the *metering service provider* and to all *metered market participants* for whom the *metering service provider* is, to the *IESO's* knowledge, acting as *metering service provider*. The notice shall specify:

5.3.2.1 the grounds upon which the *metering service provider's* registration is proposed to be revoked and details of any evidence on which the *IESO* is relying in support of its intention to revoke such registration;

5.3.2.2 that the *metering service provider* may within 10 *business days* make written representations as to why its registration should not be revoked; and

5.3.2.3. the right of the *metering service provider* to request a hearing before the *IESO Board* or a committee of the *IESO Board* established for such purpose to show cause why its registration should not be revoked.

5.3.3 Following expiry of the time noted in section 5.3.2.2, and after consideration of any representations made by the *metering service provider* pursuant to that section, the *IESO* may:

5.3.3.1 subject to section 5.3.4, revoke the *metering service provider's* registration; or

5.3.3.2 make such order as the *IESO* determines appropriate, including but not limited to an order:

a. directing the *metering service provider* to do, within a specified period, such things as may be necessary to comply with the *market rules* applicable to *metering service providers*;

b. directing the *metering service provider* to cease, within a specified period, the act, activity or practice constituting a breach of the *market rules* or a breach of a material provision of the agreement referred to in section 5.1.3.2; and

c. imposing additional or more stringent terms and conditions in respect of the continued registration of the *metering service provider*.

5.3.4 Where the *metering service provider* has requested a hearing pursuant to section 5.3.2.3, the *IESO Board* or a committee of the *IESO Board* established for such purpose shall conduct a hearing providing the *metering service provider* with a reasonable opportunity to show cause as to why its registration should not be revoked by the *IESO*. In such case, the *IESO* shall not revoke the *metering service provider's* registration under section 5.3.3.1 until such hearing has been held.

5.3.5 All rights of a *metered service provider* to perform the activities of a *metering service provider* under this Chapter shall be terminated upon revocation of the *metering service provider's* registration.

5.3.6 The *IESO* shall, immediately upon revoking the registration of a *metering service provider*, notify each *metered market participant* for whom the *metering service provider* was, to the *IESO's* knowledge, acting as *metering service provider* at the time of revocation, of the revocation of the *metering service provider's* registration.

5.3.7 A *metering service provider* whose registration has been revoked by the *IESO* remains subject to and liable for all of its liabilities and financial obligations as a *metering service provider* which were incurred or arose under the *market rules* prior to the date on which it's registration is revoked regardless of the date on which any claim relating thereto may be made.

5.3.8 A *metering service provider* whose registration has been revoked and that wishes to be re-registered a *metering service provider* shall be required to re-apply for registration in accordance with section 5.1. The *IESO* may impose such terms and conditions on the registration of the *metering service provider* as the *IESO* determines appropriate in the circumstances, whether or not such terms and conditions are otherwise applicable to other *metering service providers*.

5.3.9 A decision by the *IESO* to revoke the registration of a *metering service provider* is a *reviewable decision* and shall be without prejudice to the right of the *IESO* to impose upon the *metered market participant* for whom the *metering service provider* is acting as *metering service provider* sanctions or financial penalties in accordance with Chapter 3 in respect of any breach of the *market rules* that formed the grounds for revocation of the *metering service provider's* registration.

6. Registration of Metering Installations and Metering Registry

6.1 Registration of Metering Installations

6.1.1 Subject to section 6.1.1A, no person shall use a *metering installation* for the measurement of *energy* for *settlement* purposes relating to the *real-time markets* or the *procurement markets* unless the *metering installation* has been registered by the *IESO* in accordance with this section 6.1 and that registration has not expired.

6.1.1.A A person may only use a *metering installation* for the measurement of *energy* for *settlement* purposes relating to the *real-time markets* or the *procurement markets* if the *metering installation* has been registered by the *IESO* in accordance with this section 6.1 and the registration has expired provided that the *IESO* determines that the continued use of the *metering installation* is necessary for the efficient operation of the *IESO-administered markets*.

6.1.2 The *IESO* shall establish in the applicable *market manual* the procedures to be followed by *metering service providers* for the registration of *metering installations*. Such procedures shall include, but not be limited to, an identification of:

6.1.2.1 the information and documentation required to be submitted by a *metering service provider* in support of the registration of a *metering installation* including, but not limited to, the information described in sections 1.2, 1.3 and, where applicable, 1.3A of Appendix 6.5; and

6.1.2.2 the tests required to be conducted in respect of a *metering installation* prior to registration.

6.1.2A Each *metered market participant* for a *metering installation* that will be used for the purpose of the calculation and collection by the *IESO* of charges for *transmission service* shall, request the *metering service provider* for that *metering installation* to submit the *meter point* documentation for that *metering installation* and any updates thereto, to the *transmitter* identified by the *metered market participant* for the purpose of soliciting the written confirmation of that *transmitter's* approval referred to in section 1.3A of Appendix 6.5.

6.1.2B Each *metering service provider* to whom a request has been made pursuant to section 6.1.2A shall as soon as practicable submit the relevant *meter point* documentation or update referred to in that section to each *transmitter* identified in such request.

6.1.3 The *IESO* shall refuse to register a *metering installation*:

6.1.3.1 where the *metering installation* does not comply with the requirements set forth in this Chapter or in any policy or standard established by the *IESO* pursuant to this Chapter; or

6.1.3.2 where the *metering installation* will be used for the calculation and collection of charges for *transmission service*, the relevant portion of the *meter point* documentation submitted in support of the application to register the *metering installation* is not accompanied by such confirmation of each applicable *transmitter* referred to in section 1.3A of Appendix 6.5.

6.1.4 Where the *IESO* refuses to register a *metering installation* pursuant to section 6.1.3, the *IESO* shall so notify the *metering service provider*, together with reasons for the refusal.

6.1.5 Refusal by the *IESO* to register a *metering installation* is a *reviewable decision*.

6.1.6 Each *metering service provider* shall, at the request of the *metered market participant* for a *metering installation*, provide that *metered market participant* with copies of all information, including but not limited to *meter point* documentation and data, submitted by the *metering service provider* in support of the application to register the *metering installation*, and of all updates to such information submitted to the *IESO* by the *metering service provider*.

6.1.7 Each *metering service provider* shall, at the request of a *transmitter* that has given confirmation of its approval of a portion of the applicable *meter point* documentation or any update thereto referred to in section 1.3A of Appendix 6.5, as may be applicable, provide that *transmitter* with copies of such *meter point* documentation submitted by the *metering service provider* in support of the application to register the *metering installation* and of all updates thereto submitted to the *IESO* by the *metering service provider*.

6.1.8 No *metering service provider* to whom a request has been made pursuant to section 6.1.2A has been made shall submit to the *IESO* any updates to any *meter point* documentation for a *metering installation* that will be used for the purpose of the calculation and collection by the *IESO* of charges for *transmission service* unless such updates are accompanied by the confirmation of the approval of each applicable *transmitter* referred to in section 1.3A of Appendix 6.5.

6.2 Metering Registry

6.2.1 The *IESO* shall establish and maintain a *metering registry* containing the information specified in Appendix 6.5 in respect of each *metering installation* that provides *metering data* used by the *IESO* for *settlement* purposes.

6.2.2 The *IESO* shall record in the *metering registry* the results of all tests provided to it pursuant to section 7.1.2, the results of any tests conducted pursuant to section 7.2.5 and any changes confirmed to it pursuant to section 9.3.1.3.

6.2.3 The data recorded in the *metering registry* in respect of a registered *metering installation* shall be available to:

6.2.3.1 the metered market participant for that metering installation and an authorized agent of such metered market participant;

6.2.3.2 the metering service provider for that metering installation;

6.2.3.3 any *market participant* whose *settlement statement* is determined on the basis of the *metering data* recorded in that *metering installation* and an authorized agent of such *market participant;* and

6.2.3.4 any *transmitter* or *distributor* to whose system a *facility* in respect of the *metering installation* relates is connected.

6.2.4 Data recorded in the *metering registry* is *confidential information* and the *IESO* shall ensure that such data is not accessible by or disclosed by the *IESO* to any person other than the *IESO* and the persons referred to in sections 6.2.3.1 to 6.2.3.4 or as otherwise permitted by section 5 of Chapter 3 or any policy of the *IESO* established pursuant to that section.

Toronto Hydro-Electric System Limited
EB-2012-0064
Tab 6F
Schedule 1-62
Appendix C
Filed: 2012 Oct 5
(9 pages)

PUBLIC

MDP_STD_0004

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STANDARDS

Wholesale Revenue Metering Standard - Hardware

Issue 9.0

This standard provides the principles, accountabilities, and requirements for *metering installations* used for *settlement* in the IESO-administered wholesale market.

5. Meters

5.1 Accuracy Requirements for Main Meters – New Meters

5.1.1 Requirements

Accuracy requirements shall apply to all new main *meters*. The requirements for main *meters* are:

a. *meters* shall be approved by Measurement Canada prior to deployment in the *IESO-administered market*;

b. *meters* shall meet or exceed the 0.2 accuracy class of ANSI standard C12.20;

c. the pulse resolution of the *energy* transferred shall be within ± 0.05% (at full load kW) of the *energy* measured by the *meter*;

d. Measurement Canada test points shall be used;

e. tolerance for all tests shall be 0.2% at unity power factor and 0.3% at 0.5 power factor; and

f. *meters* shall be listed on the Conforming Meter List.

5.1.2 Meters Sealed by Meter Service Organization

The population of *meters* sealed by a *meter* service organization for application in the *IESO-administered market* shall be randomly distributed to *metered market participants*; so as to disperse the error associated with the accuracy of the *meter* calibration.

5.2 Accuracy Requirements for Alternate Meters – New Meters

5.2.1 Requirements

Accuracy requirements shall apply to all new alternate *meters*. The requirements for alternate *meters* are:

a. *meters* shall be approved by Measurement Canada prior to deployment in the *IESO-administered market*;

b. *meters* shall meet or exceed the 0.5 accuracy class of ANSI standard C12.20; and

c. the pulse resolution of the *energy* transferred shall be within ± 0.05% (at full load kW) of the *energy* measured by the *meter*.

d. Measurement Canada test points shall be used;

e. tolerance for all tests shall be 0.5% at unity power factor and 0.6% at 0.5 power factor; and

f. the *meters* shall be listed on the Conforming Meter List.

5.2.2 Meters Sealed by Meter Service Organization

The population of *meters* sealed by a *meter* service organization for application in the *IESO-administered market* shall be randomly distributed to *metered market participants*; so as to disperse the error associated with the accuracy of the *meter* calibration.

5.3 Accuracy Requirement for Meters – Existing Meters

5.3.1 Conditions of Use

A *meter* installed before the *Market Rules* came into effect, and that does not comply with the requirement of section 5.1.1.b for main *meters*, and section 5.2.1.b for alternate *meters*, will be permitted by the *IESO* to remain in service subject to the following conditions:

a. Measurement Canada has granted approval of type for the specific *meter*;
b. an accredited *meter* service organization or Measurement Canada has verified and sealed the *meter*; and
c. the seal has not expired.

5.3.2 Replacement

All *meter*s shall be replaced at the seal expiration date:

a. with *meters* conforming to section 5.1 for main *meters* and 5.2 for alternate *meters;* or
b. with *meters* conforming to section 5.1 for main *meters*.

5.4 Functional Requirements – New Meters

5.4.1 Use of Instrument Transformers

Instrument transformers supplying the main *meter* shall be used solely for the purposes of revenue metering and not for any other purposes, including, but not limited to, the attachment of other devices.

5.4.2 Requirements for Main and Alternate Meters

Meters installed as the main or alternate *meter*, shall meet the minimum requirements listed below and accepted on the Conforming Meter List:

Item	**Main Meter**	**Alternate Meter**
Quadrants	4 Quadrant: - Wh/Varh DEL - Wh/Varh REC	4 Quadrant: - Wh/Varh DEL - Wh/Varh REC

Item	**Main Meter**	**Alternate Meter**

Item	Main Meter	Alternate Meter
Interval Data	Wh, Varh for *settlement* of market transactions. Four channels are required for recording Wh/Varh DEL and Wh/Varh REC. V^2h, I^2h per phase for loss adjustment and data validation[3].	Wh, Varh for *settlement* of market transactions. Four channels are required for recording Wh/Varh DEL and Wh/Varh REC.
Time Synchronization	The internal clock shall be capable of being reset set by the data collection software during normal collection operations.	The internal clock shall be capable of being reset set by the data collection software during normal collection operations.
Data Storage	35 days of 5-minute time-stamped interval data. 100 event log readable by MV90.	10 days of 5-minute time-stamped interval data. Flags readable by MV90.
Data Collection Protocol	Compatible with MV90.	Compatible with MV90.
Encoded Registers	Date- and time-stamped readings of the cumulative *energy* register for each active or reactive *energy* measured and to be read remotely.	Date- and time-stamped readings of the cumulative *energy* register for each active or reactive *energy* measured and to be read remotely.
Password Protection	Two or more levels. One for each: *Meter* data collection agency: full access to set time functions; read-only access to interval data, event log and meteorological quantities.	Two or more levels. One for each: *Meter* data collection agency: full access to set time functions; read-only access to interval data, event log and meteorological quantities.
Built-in Battery Backup	In the event of power outage or depressed voltage, the *meter* maintains the interval data, event log and clock time for 35 days. Clock time shall drift less than 1 minute per month.	In the event of power outage or depressed voltage, the *meter* maintains the interval data, event log and clock time for 10 days. Clock time shall drift less than 1 minute per month.
Self Power[4]		Not the same source as the main *meter*.
Power Switching	From an external source.	Connected to phase power.

[3] The time integral of voltage or current squared over a *metering interval* recorded as if it were another energy measurement in a normal data channel, the quantity may be displayed as a *demand* (V^2 or I^2) by MV90.

[4] In cases where the *facility* is disconnected from the source and kept off potential for an extended period of time, the auxiliary power configuration must be such that both the Main and Alternate meters are powered at all times. Use of an auto transfer scheme for auxiliary power to the Alternate Meter is subject to IESO approval.

Item	**Main Meter**	**Alternate Meter**
Self Monitoring	Condition monitoring to record, in the event log or channel status, critical errors such as failure of the measuring system or pulse overrun. The *IESO* must be able to upload and detect the critical error.	
Instrument Transformer Monitoring	Condition monitoring capable of detecting loss of voltage and/or current and recording of the event, date and time in the event log. The *IESO* must be able to upload and detect faulty equipment condition.	
Optical Interface	To enable local downloading of metered data.	To enable local downloading of metered data.
Modem	Either internal or external: 9.6 Kb/s minimum.	Either internal or external: 2.4 Kb/s minimum.

5.4.3 Data Channel Assignments for Main and Alternate Meters

Main *meters* will provide the following data channels.

Data from the Main Meter

	Interval Data	Channel
1.	kWh delivered	1
2.	kVARh delivered	2
3.	kWh received	3
4.	kVARh received	4
5.	V^2H per phase	5, 6, 7
6.	I^2h per phase	8, 9, 10

Table 5.1: Data Channels for Main Meters

The channels numbers shown shall be the assignment for the wholesale market.

Meters installed in delta power systems may have two current transformers and two voltage transformers instead of three as shown above. In this case, channel 5 and channel 6 is V^2h per phase and channel 7 and channel 8 is I^2h per phase.

Since MV90 has the capability to record up to 16 channels, channels 11 to 16 for a three element *meter* or channels 9 to 16 for a two element *meter* shall be set to unconnected (code 42) and flagged to omitted on upload.

Data from the Alternate Meter

Alternate *meters* will provide the following data channels:

	Interval Data	Channel
1.	kWh delivered	1
2.	kVARh delivered	2
3.	kWh received	3
4.	kVARh received	4

Table 5.2: Data Channels for Alternate Meters

Since MV90 has the capability to record up to 16 channels, channel 5 to 16 must be set to unconnected (code 42) and flagged to omit on upload.

6.8.6 Metering Installations

Where power system switching affects the metering more than twice per annum, additional *metering installations* shall be installed to cover this contingency.

6.9 Instrument Transformer Ratios – New Instrument Transformers

6.9.1 Selection of Current Transformer Ratios

Current transformer ratios shall be selected according to the following factors:

a. the maximum sustained primary current in a current transformer shall not exceed the primary tap multiplied by the continuous current Rating Factor (RF) of the current transformer; and

b. the minimum sustained primary current during normal operation shall not be less than 10% of the primary tap, for ANSI 0.3 accuracy class; or

c. the minimum sustained primary current during normal operation shall not be less than 5% of the primary tap, for the defined standard of ANSI 0.15 accuracy class; and

d. the minimum sustained current during normal operation shall not be less than 1% of primary tap, for the defined standard of ANSI 0.15S accuracy class.

6.9.2 Selection of Voltage Transformer Ratios

Voltage transformer ratios shall be selected such that operation at the minimum or maximum sustained secondary voltage shall not affect *meter* accuracy or *meter* function.

6.10 Accuracy Requirements – New Instrument Transformers

6.10.1 Current Transformers

Current transformers shall conform to the IEEE ANSI C57.13 -2008 for 0.3 metering accuracy class or the Canadian Standards Association CAN/CSA-C60044-1:07 for 0.3 metering accuracy class. High accuracy current transformers shall conform to the IEEE ANSI C57.13.6 for 0.15 and 0.15S metering accuracy class or the Canadian Standards Association CAN/CSA-C60044-1:07 for 0.15 and 0.15S metering accuracy class.

6.10.2 Voltage Transformers

Voltage transformers shall conform to the IEEE ANSI C57.13 - 2008 for 0.3 metering accuracy class or the respective Canadian Standards Association CAN/CSA-C60044-2:07, CAN/CSA-C60044-3:07, or CAN/CSA-C60044-5:07 for 0.3 metering accuracy class.

6.10.3 Electronic Current Transformers

Electronic current transformers shall conform to the respective IEEE ANSI C57.13 – 2008 and IEEE ANSI C57.13.6 for 0.3, 0.15 and 0.15S metering accuracy class or the respective Canadian Standards Association CAN/CSA-C60044-1:07 and CAN/CSA-C60044-8:07 for 0.3, 0.15 and 0.15S metering accuracy class. Electronic current transformers shall have 5 Amp rated secondary output for the *IESO-administered market*.

6.10.4 Electronic Voltage Transformers

Electronic voltage transformers shall conform to the respective IEEE ANSI C57.13 – 2008 and IEEE ANSI C57.13.6 for 0.3 and 0.15 metering accuracy class or the respective Canadian Standards Association CAN/CSA-C60044-1:07 and CAN/CSA-C60044-7:07 for 0.3 and 0.15 metering accuracy class.

6.10.5 Monitoring Requirements – New Electronic Instrument Transformers

Where the installation has an electronic *instrument transformer*, it shall have a mechanism for real-time monitoring of alarm statuses and events associated with optical sensors, transmitting systems and secondary converters. Within 24 hours of any metering alarm affecting the normal metering operation, the *IESO* shall be notified of the alarm event and the consequences to the *revenue* metering. An alarm event log shall be in place and maintained for *IESO* audit purposes. The installation shall be subject to *IESO* approval.

6.11 Safety Requirements – New Instrument Transformers

6.11.1 Requirements

The installation shall conform to the requirements of:

a. Measurement Canada Standard Drawings;
b. the Ontario Electrical Safety Code; and
c. the ANSI/IEEE C57.13-1983 IEEE Guide for Grounding of Instrument Transformer Secondary Circuits and Cases.

6.12 Instrument Transformers – Existing Installations

6.12.1 Continued Use of Existing Instrument Transformers

Approval of the *IESO* shall be required for continued use of existing *instrument transformers* in the wholesale market.

6.12.2 Approval

Instrument transformers shall be approved for use by Measurement Canada, or shall have special dispensation/temporary permission from Measurement Canada.

6.12.3 Dispensation After Market Rules Come Into Effect

Should further dispensation/temporary permission be required after the *Market Rules* come into effect, the *metered market participant* shall seek dispensation/temporary permission from Measurement Canada, and maintain records of the equipment granted dispensation.

6.12.4 Accuracy

Instrument transformers shall meet the requirements of ANSI 0.3 accuracy, or correction factors shall be applied.

6.12.5 Proof of Accuracy Compliance

Proof of compliance with 0.3 ANSI accuracy class shall be provided as follows:

a. in the form of factory test cards complete with serial numbers;
b. provide verifiable nameplate data, where the nameplate contains the required ANSI accuracy information and is affixed to the *instrument transformers*; and
c. Measurement Canada-type approval information, where such approval contains the required ANSI accuracy information.

6.12.6 Accuracy Requirements

Where accuracy tests are required, they shall comply with the following requirements:

a. tests shall be carried out by a third-party testing agency using equipment traceable to Canadian national standards;
b. tests shall be conducted with the existing burden connected to each current transformer;
c. additional tests shall be conducted at other suitable burdens if the existing burden is expected to change in the future;
d. tests shall include on-site ratio and phase-angle error tests;
e. on-site ratio- and phase-angle tests of current transformers shall be measured over a range of secondary current from not more than 0.1 ampere to not less than the rating factor;
f. where the secondary current is less than 0.1 ampere, an additional test point shall be provided at the minimum load current; and
g. test results shall provide correction factors to be applied to both active and reactive power at each test point.

6.12.7 Other Identical Units

Where an *instrument transformer* is identical to another unit tested on-site, as described in section 6.12.7, the *instrument transformer* shall be considered as having met the requirements listed there provided that:

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toronto hydro
electric system

August 11, 2009

Independent Electricity System Operator
Market Assessment & Compliance Division (MACD)

Subject: Toronto Hydro's Wholesale Metering Proposal

Dear MACD,

Over the past three (3) years, Toronto Hydro has worked with Hydro One and the IESO'S Revenue Metering Standing Committee to implement the High Voltage Metering Proposal. The intent of this proposal was to achieve full compliance with the IESO Market Rules in the shortest possible time.

Another advantage included potential short-term savings, as the cost of completing conventional upgrades at the existing metering installations was initially estimated at \$40-\$45 million. The alternative cost of installing HV Metering was initially estimated at \$17 million.

Due to the insurmountable challenges, we have decided to abandon the High Voltage Metering Proposal.

During the approval process, some changes occurred that make High Voltage metering less attractive, and not as beneficial as initially planned. This includes the following:

- **Rising Costs** – The latest cost provided by Hydro One to implement HV metering is \$18.7 million. This cost does not include real-estate legal fees and land acquisition costs.

- **Schedule delays -** Based on Hydro One's construction schedule, HV Metering will not be in place until May 2012, when the new HV Metering points at Sheppard TS are in-service.

- **Risk** – Toronto Hydro and Hydro One have not reached an agreement on the Diversity Factor and true-up methodology

- **MC Approval** – Toronto Hydro has yet to receive written approval from Measurement Canada for the use of check meters for periodic true-up

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- **Capital Spending** – The availability of new compact instrument transformers will make retrofits at the many of indoor stations possible. In addition, Toronto Hydro is committed to an aggressive switchgear replacement plan, supported by our EDR Rate filing – Upgrades can be "phased-in" with our REBUILD Program, with minimal impact to budget.

We will be working diligently with Hydro One to include the upgrade of all meter points in Hydro One work schedules. We are committed to meet with Hydro One staff on a regular basis.

Sincerely,

David Grant, P. Eng.
Manager, Meter Operations

RESPONSES TO ONTARIO ENERGY BOARD STAFF INTERROGATORIES ON ISSUE 2.2

INTERROGATORY 63:

Reference(s): **T4/S B21**

This section of the evidence discusses externally-initiated plant relocations and expansions. Tables 1 to 3 provide cost estimates for specific projects.

On pages 1 and 2, as part of the discussion of "Waterfront Toronto and GO Metrolinx", it is stated that "THESL endeavours to relocate its existing facilities on a 'like for like' basis, so as to facilitate keeping the capacity of the electrical distribution system intact."

a) **Please explain how the proposed capital expenditures shown in Tables 1-3 were arrived at, including appropriate cost breakdowns, the source, and method of determination.**

RESPONSE:

a) The proposed capital expenditures were arrived at by reviewing the extent of the proposed agency work, determining the extent of the THESL work necessary, developing a conceptual design and high level design estimate, and then portioning the project costs between THESL and the agency on the basis of existing legislation or land use agreements.

b) **Please explain THESL's rationale for the statement quoted above about relocating existing facilities on a 'like for like' basis, including how this approach would take into account future requirements.**

RESPONSES TO ONTARIO ENERGY BOARD STAFF INTERROGATORIES ON ISSUE 2.2

RESPONSE:

b) Once a request for a relocation is made by an external agency, THESL and agency staff jointly review the extent of the proposed agency work. THESL staff also review the THESL long-term plan to determine if there are any synergies between the necessary relocation work and THESL plans. At a minimum, the assets to be relocated are rebuilt to current standards. However, it may be prudent for THESL to advance some of its own work to coincide with the relocation such cases include work that is necessary for reliability or safety improvements or to meet future capacity needs.

c) Please state whether or not the proposed Waterfront Revitalization jobs and costs end in 2014. If not, please provide the estimated total cost of the Waterfront Revitalization jobs and the expected year by year costs beyond 2014.

RESPONSE:

c) The Queens Quay Rebuild portion of the Central Waterfront Revitalization Project is planned for completion by the end of 2014. While, there may be additional relocations or expansions required for the future Waterfront Toronto projects beyond 2014, to date no others have been identified.

RESPONSES TO ONTARIO ENERGY BOARD STAFF INTERROGATORIES ON ISSUE 2.2

INTERROGATORY 64:

Reference(s): T4/S B22/pp. 7-8

Table 2 of the above reference provides THESL's proposed expenditures for Grid Analytics of $1.2M, $1.2M and $0.6M for 2012, 2013 and 2014, respectively for a total THESL expenditure of $3.0M.

a) Please indicate the costs incurred by THESL and the timing for installation of the transformer monitors and the power line monitors to date.
b) Are there any additional transformer monitors and power line monitors planned for installation in 2012 and beyond? If so, please indicate the number of units, expected costs and timing for these installations.
c) Please provide the ongoing operation, maintenance and administration costs associated with the Grid Analytics segment of the Grid Solutions Project.
d) What staffing levels and costs are required for the ongoing operation, maintenance and administration functions associated with the Grid Analytics segment of the Grid Solutions Project?

RESPONSE

a) to d)

Pursuant to THESL's letter dated October 5, 2012, THESL has withdrawn the Grid Solutions project (Tab 4, Schedule B-22) from this application.

RESPONSES TO ONTARIO ENERGY BOARD STAFF INTERROGATORIES ON ISSUE 2.2

INTERROGATORY 65:

Reference(s): **T4/S B22/pp. 13-22**

In the above reference Community Energy Systems (CES) are discussed.

Table 4 on page 16 shows the market value of each CES system (amounting to $2.33M) and then calculates a Benefit/Cost ratio using the "Market Value of Two CES Systems" as the Benefit and THESL's proposed expenditure of $1.80 million as the cost. This analysis appears to compare the total cost of the project (excluding THESL's portion of the cost) to THESL's portion of the cost to arrive at a Benefit/Cost ratio.

a) Please provide the cost to date and the expected total cost of THESL's first CES system planned for 2013.
b) Please provide an estimate of the annual economic benefits associated operating the two CES systems planned for 2013, based on the benefits listed on page 17 of the reference.
c) Please provide the Benefit/Cost ratio, and/or the pay-back period for the two CES systems planned for 2013 based on:
    (i) THESL's cost of the two CES systems planned for 2013 and the benefits determined in (b) above; and
    (ii) The total cost of the two CES systems planned for 2013 and the benefits determined in (b) above

    Please specify the key assumptions made in the above analysis.

RESPONSES TO ONTARIO ENERGY BOARD STAFF INTERROGATORIES ON ISSUE 2.2

RESPONSE:

a) to c)

Pursuant to THESL's letter dated October 5, 2012, THESL has withdrawn the Grid Solutions project (Tab 4, Schedule B-22) from this application.

RESPONSES TO ONTARIO ENERGY BOARD STAFF INTERROGATORIES ON ISSUE 2.2

INTERROGATORY 66:

Reference(s): **T4/S B22/pp. 25-29**

Table 5 of the above reference provides THESL's proposed expenditures for the Solutions Development Centre (SDC) totaling $2.16 million for the 2012 to 2014 period.

a) Please describe the make-up of the SDC segment of the Grid Solution project (e.g in terms of type of facility, level of staffing etc).
b) Please provide the ongoing operation, maintenance and administration costs associated with the SDC.
c) Please state whether or not there are any additional capital expenditures beyond 2014 associated with the SDC. If so, please indicate expected year by year expenditures over a 5-year period beyond 2014.

RESPONSE:

a) to c)

Pursuant to THESL's letter dated October 5, 2012, THESL has withdrawn the Grid Solutions project (Tab 4, Schedule B-22) from this application.

RESPONSES TO ONTARIO ENERGY BOARD STAFF INTERROGATORIES ON ISSUE 2.2

INTERROGATORY 67:

Reference(s): T4/S C1/p. 2

The above reference indicates that Engineering Capital consists of the labour costs of engineers, technologists, design technicians and power system controllers for engineering, design and planning work that they perform on distribution assets that are put in service. These costs are estimated at $9.5M per year for 2012-2014.

a) Please explain why the proposed engineering capital costs are not assigned to the associated distribution system assets or projects to which the work pertains.

RESPONSE:

a) Engineering capital has been assigned directly to the ICM projects, but presented separately for projects within the materiality threshold. Engineering capital costs are allocated to projects at the time of completion based on the cost of each project before the allocation. The total cost of each project is then capitalized to a specific asset. Thus, all Engineering Capital costs are ultimately capitalized to project-specific assets.

b) Please explain how the proposed $9.5M per year for 2012-2014 for Engineering Capital was arrived at, including appropriate cost breakdowns.

RESPONSE:

b) THESL has advised the OEB and intervenors that it will be filing an update to its pre-filed evidence. THESL believes that its pending update will fundamentally affect THESL's response to this interrogatory, such that providing a response now would

RESPONSES TO ONTARIO ENERGY BOARD STAFF INTERROGATORIES ON ISSUE 2.2

not materially assist the OEB or intervenors. THESL accordingly defers its response to this part until after its forthcoming evidentiary update.

RESPONSES TO ONTARIO ENERGY BOARD STAFF INTERROGATORIES ON ISSUE 2.2

INTERROGATORY 68:

Reference(s): **T4/S C1/p. 2**

Table 3 on page 5 of the reference provides THESL's proposed expenditures for Worst Performing Feeder (WPF) of $6.10M, $24.50M and $24.50M for 2012, 2013 and 2014, respectively for a total WPF expenditure of $55.1M.

Please explain how the proposed WPF expenditures shown in Table 3 of the reference were arrived at, including appropriate cost breakdowns.

RESPONSE:

THESL has advised the OEB and intervenors that it will be filing an update to its pre-filed evidence. THESL believes that its pending update will fundamentally affect THESL's response to this interrogatory, such that providing a response now would not materially assist the OEB or intervenors. THESL accordingly defers its response to this interrogatory until after its forthcoming evidentiary update.

RESPONSES TO ONTARIO ENERGY BOARD STAFF INTERROGATORIES ON ISSUE 2.2

INTERROGATORY 69:

Reference(s): **T4/S C1/pp. 5-6**

Table 4 on page 6 of the reference provides THESL's proposed expenditures for Customer Connections (net of Customer Contributions) of $25.8M, $30.00M and $30.00M for 2012, 2013 and 2014, respectively for a total expenditure of $85.8M.

Please explain how the proposed customer connection expenditures shown in Table 4 of the reference were arrived at, including appropriate cost breakdowns.

RESPONSE:

THESL's proposed expenditures for Customer Connections are calculated based on the historical costs associated with the different types of activities that are anticipated to occur based on historical customer connection work and additional confirmed large customer connection requests. These activities include normal construction work to supply new residential services and general services class customers. The historical costs and labour requirements for each specific activity performed by THESL crews are determined and normalized over the past three years and are used to forecast future requirements and costs. Information for large customer connection requests is gathered through existing signed or draft Offers to Connect, as well as in meetings and discussion between THESL designers and developers.

THESL has advised the OEB and intervenors that it will be filing an update to its pre-filed evidence. THESL believes that its pending update will fundamentally affect THESL's response to this interrogatory, such that providing a response now would not materially assist the OEB or intervenors. THESL accordingly defers its response on the

RESPONSES TO ONTARIO ENERGY BOARD STAFF INTERROGATORIES ON ISSUE 2.2

questions related to the proposed cost expenditures until after its forthcoming evidentiary update.

RESPONSES TO ONTARIO ENERGY BOARD STAFF INTERROGATORIES ON ISSUE 2.2

INTERROGATORY 70:

Reference(s): **T4/S C1/pp. 6-7**

Table 5 on page 6 of the reference provides THESL's proposed Reactive Capital expenditures of $27.70M, $31.90M and $32.70M for 2012, 2013 and 2014, respectively for a total expenditure of $92.3M.

Please explain how the proposed Reactive Capital expenditures shown in Table 5 of the reference were arrived at, including appropriate cost breakdowns.

RESPONSE:

The Reactive Capital program focuses on work requiring capital expenditures on overhead, underground, stations, and metering equipment to restore power to customers in the case of outages, address unforeseeable events that require immediate actions, eliminate safety hazards to the public, maintain system integrity, maintain accurate billing, and do corrective work to address failed and defective equipment. THESL allocates funds for reactive work based on historical system performance, asset demographics, and analyses of trends in the number of corrective work over the past five years.

THESL has advised the OEB and intervenors that it will be filing an update to its pre-filed evidence. THESL believes that its pending update will fundamentally affect THESL's response to this interrogatory, such that providing a response now would not materially assist the OEB or intervenors. THESL accordingly defers its response on the questions related to the proposed expenditures until after its forthcoming evidentiary update.

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INTERROGATORY 71:

Reference(s): **T4/S C1/pp. 7-9**

The proposed capital expenditures for each of these groups is given in Table 6 on page 9 of the reference which indicates expenditures of $52.60M, $25.70M and $24.90M for 2012, 2013 and 2014, respectively for a total expenditure of $103.2M.

Please explain how the proposed capital expenditures shown in Table 6 of the reference were arrived at, including appropriate cost breakdowns.

RESPONSE:

THESL has advised the OEB and intervenors that it will be filing an update to its pre-filed evidence. THESL believes that its pending update will fundamentally affect THESL's response to this interrogatory, such that providing a response now would not materially assist the OEB or intervenors. THESL accordingly defers its response to this interrogatory until after its forthcoming evidentiary update.

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INTERROGATORY 72:

Reference(s): T4/S C2/pp. 1-5

Page 1 of the reference indicates that the Information Technology (IT) Capital Portfolio for 2012-2014 consists of required hardware asset replacements, application upgrades and 2011 carryover projects that need to be completed. Table 1 provides a summary of projects and costs for the IT capital portfolio and indicates expenditures of $15.00M per year for a total expenditure of $45M in the 3-year period 2012-2014. The highest cost project in the group is the "Information Technology Hardware Asset Replacement" project with proposed expenditures of $21.7M over the 3-year period.

Please provide a description of the main IT hardware assets, by groups, that are in need of replacement during 2012-2014 and indicate age, condition or other reasons for replacement at this time.

RESPONSE:

THESL has developed and implemented a proactive risk-based asset model driven by standards. The standards model mitigates the risk of core hardware asset component failure by determining the useful life of each hardware asset based on manufacturer Mean Time Between Failures (MTBF), Failure in Time (FIT) rate, asset replacement and benchmarking data provided by the world's leading information technology research and advisory and companies and THESL-computed empirical data to quantify end of useful life for asset.

The group "Information Technology Hardware Asset Replacement" in the evidence is composed of various categories of assets. The table below presents the projected asset

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replacement schedule based on useful life and percentage of assets scheduled for replacement for each asset category in the years 2012, 2013 and 2014.

IT Hardware Asset Category	Asset Useful Life (Years)*	2012	2013	2014
		% Assets Beyond Useful Life	% Assets Beyond Useful Life	% Assets Beyond useful Life
Servers	6	23.00	9.51	7.31
Storage and Backup	6	0.00	22.22	66.67
Network and Telephony	6	7.72	23.86	0.00
Printers and Plotters	5	5.00	10.00	45.00
User Endpoints	4	3.33	48.33	48.34
Security Appliances	4	0.00	40.00	40.00

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INTERROGATORY 73:

Reference(s): **T4/S C3/pp. 1-2**

Page 1 of the reference states that THESL's Fleet is currently composed of 749 motor vehicles, including cars, pickups, bucket trucks and other vehicles (such as sweepers, backhoes and forklifts). Table 1 shows the various vehicle types, number of replacements and capital expenditures for each of 2012, 2013 and 2014. Based on Table1, the numbers of vehicles proposed for replacement are 21, 14 and 9 in 2012, 2013 and 2014 respectively at a cost of $2.00M per year.

a) **Please add a column to Table 1 to indicate the total number of vehicles in THESL's fleet for each of the vehicle categories listed.**

RESPONSE:

a) Please see the table below, which forecasts categories of THESL's fleet in which replacement vehicles are required.

Vehicle Description	2012		2013		2014		Current No. of Vehicles in Service*
	Number	Cost	Number	Cost	Number	Cost	
Car/Light Truck	5	0.14	-	-	-	-	322
Derrick	2	0.35	-	-	-	-	43
Water Truck	2	0.21	-	-	-	-	2
Forklift	1	0.11	-	-	-	-	28
Bucket Truck (Various Designs)	-	-	4	1.00	6	1.69	135
Cube Van	11	1.19	10	1.01	3	0.31	64
Total	21	2.00	14	2.00	9	2.00	

* Vehicle count information is as of Sept. 14, 2012.

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b) Please state whether or not the numbers of vehicle replacements proposed for 2012-2014 (average of 11 replacements peer year) typical of the number of replacements in the last 5 years. Please explain.

RESPONSE:

b) The number of vehicles proposed for replacement for 2012 to 2014 is lower than the numbers proposed in recent years. For the period 2009 to 2011, THESL purchased an average of 115 vehicles per year. The decrease in the planned vehicle replacements for 2012 to 2014 is due to THESL's decision to significantly reduce planned capital expenditures for the period 2012 to 2014.

The information presented in Table 1 represents the vehicles that have the most urgent need of replacement, as determined through the analysis of historical maintenance costs, and the use of predictive modelling to estimate future operating costs. THESL anticipates that fleet vehicle maintenance and operating costs will increase during the period 2012 to 2014 as the average age of the fleet increases significantly through year 2014.

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INTERROGATORY 74:

Reference(s): **T4/S C4/pp. 1-6**

Table 1, on page 2 of the reference, shows the proposed capital expenditures for buildings and facilities of $5.00M per year for each of 2012, 2013 and 2014 for a total expenditure of $15.00M.

Please provide THESL's capital expenditures on buildings and facilities over the last 5 years (2007-2011) and provide explanations of the change if these expenditures significantly different from the proposed 2012-2014 proposed expenditures.

RESPONSE:

THESL buildings and facilities expenditures for years 2007-2011 are indicated by building or major project/expense category in Table 1 below.

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Table 1: Buildings and Facilities Capital Expenditures for 2007-2011 ($ M)

Project Name	2007	2008	2009	2010	2011
14 Carlton Street	1.93	1.23	2.67	3.05	2.02
2300 Yonge Street	0.10	-	-	-	-
28 Underwriters Road	-	0.33	0.35	0.22	0.07
34 Southport Street	-	-	-	0.05	0.04
500 Commissioners Street	0.43	0.84	2.02	3.67	3.07
5800 Yonge Street	0.14	0.09	0.39	2.46	0.98
6 Monogram Place	2.90	0.28	0.30	0.56	0.85
60 Eglinton Ave W	0.01	0.01	-	0.06	0.12
601 Milner Avenue	12.77	0.63	0.65	0.13	0.34
715 Milner Avenue	-	-	-	-	17.28
Substations	1.66	0.04	1.19	1.90	0.57
TOTAL	19.94	3.44	7.57	12.12	25.34

As stated in Tab 4, Schedule C4, Page 2, Lines 3 to 5 and consistent with Tab 2, Pages 23 to 25, THESL's planned spending on Facilities capital projects for 2012-2014 is less than half of actual historical spending in recent years, given that proposed expenditures are limited to the highest-priority, non-discretionary items only.

Some of the proposed projects were aimed at ensuring that business continuity and safety were addressed such as the generator installations at 14 Carlton and 500 Commissioners, the asbestos remediation at 14 Carlton, and the security camera installations at substations and some of our work centres. The others were aimed at addressing only urgent concerns such as assets at end of life to avoid more costly repairs if left undone such as the roof repairs and water heater replacements at 500 Commissioners.

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INTERROGATORY 5:

Reference(s): **Tab 2**

a) Please complete the following table to provide THESL's recent Reliability Statistics:

	2008	2009	2010	2011
Interruptions				
Customers Interrupted				
Customer Hours Interrupted				
SAIDI				
SAIFI				
CAIDI				

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RESPONSE:

a)

	2008	2009	2010	2011
Interruptions	1,836	1,901	2,164	1,938
Customers Interrupted	1,203,272	1,125,153	1,229,183	1,143,395
Customer Hours Interrupted	847,885	946,736	898,587	1,006,809
SAIFI	1.76	1.64	1.77	1.62
SAIDI	1.24	1.38	1.29	1.43
CAIDI	0.70	0.84	0.73	0.88

(MEDs[1] not included)

b) Please provide the data and percentage breakdown of customer hours interrupted by cause for the years 2008 to 2011.

RESPONSE:

b)

	2008	2009	2010	2011
Adverse Environment	4.6%	0.7%	4.6%	0.4%
Adverse Weather	8.8%	6.9%	9.8%	9.7%
Defective Equipment	51.9%	49.9%	37.9%	41.2%
Foreign Interference	8.9%	12.2%	6.1%	7.7%
Human Element	0.6%	0.6%	1.3%	0.9%

[1] "Major Event Days" as defined by the IEEE 1366.

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	2008	2009	2010	2011
Lightning	7.5%	7.1%	1.9%	8.8%
Loss of Supply	2.2%	10.0%	8.5%	3.8%
Scheduled Outage	3.0%	2.3%	12.4%	5.7%
Tree Contacts	10.1%	8.4%	14.9%	18.5%
Unknown	2.4%	1.9%	2.6%	3.4%

(MEDs not included)

c) Please provide the data and percentage breakdown of types of equipment failures based on customer hours interrupted for 2010 and 2011.

c)

	2010	2011
Overhead Equipment	44.2%	34.2%
Station Equipment	1.7%	7.3%
Underground Equipment	53.5%	58.5%
Various	0.6%	0.0%

(MEDs not included)

d) Please comment on reliability trends based on 2012 year to date.

d) Please see THESL's response to OEB Staff interrogatory 23 (Tab 6F, Schedule 1-23).

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INTERROGATORY 6:

Reference(s): Tab 4, Schedule A, Appendix 1, Page 1

a) Please provide the labour components of the capital programs listed in Appendix 1.

RESPONSE:

a) THESL has advised the OEB and intervenors that it will be filing an update to its pre-filed evidence. THESL believes that its pending update will fundamentally affect THESL's response to this interrogatory, such that providing a response now would not materially assist the OEB or intervenors. THESL accordingly defers its response to this part until after its forthcoming evidentiary update.

b) Please discuss the basis for the budget amounts i.e. which ones will be determined by competitive bidding?

RESPONSE:

b) THESL's practice is to undertake work that maximises the use of internal labour first. Once internal resources are fully utilised, the remaining work is provided to external contractors in accordance with their bid unit prices. The particular breakdown of what portions of each segment are to be contracted is dependent on scheduling and resource availability, and can change over time.

c) Please provide details of any new hires planned to carry out the incremental projects and reconcile total labour costs with new hires.

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RESPONSE:

c) THESL currently has no plans for additional hires to carry out the incremental projects.

d) Please reproduce the Summary of Capital Program Table in Appendix 1 on the basis of highest priority to lowest priority.

RESPONSE:

d) Please refer to THESL’s response to OEB Staff interrogatory 26 (Tab 6F, Schedule 1-26 part b).

e) Please provide a Capital Spending Schedule that sets out on a comparative basis 2009 actual capital spending, 2010 actual capital spending, 2011 approved (EB-2011-0142), 2011 actual, 2012 year to date and the proposed capital spending for 2012, 2013 and 2014 using the spending categories from EB-2011-0142 (Tab 8, Schedule 1, Page 5).

RESPONSE:

e) Please refer to THESL’s response to SEC interrogatory 6 (Tab 6E, Schedule 10-6).

f) Please provide explanations for any categories where the variance is plus/minus 10 % between 2011 approved and the 2011 actual.

RESPONSE:

f) The OEB has historically approved overall total amounts for capital expenditures; it has not divided that amount between capital portfolios. As a result, it is not possible

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to compare variance by category between 2011 approved and the 2011 actuals. Please refer to THESL's response to SEC interrogatory 6 (Tab 6E, Schedule 10-6).

g) Please explain any significant variances for 2012, 2013 and 2014 compared to previous years.

RESPONSE:

g) Please refer to THESL's response to SEC interrogatory 6 (Tab 6E, Schedule 10-6).

h) Please identify the spending in the 2012, 2013 and 2014 budget that does not include replacement.

RESPONSE:

h) Of the capital spending over 2012 to 2014, $366.74M does not pertain to work including replacement.

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INTERROGATORY 7:

Reference(s): Tab 2, page 7

a) Page 7 - Please explain why THESL is not requesting to transfer resources between projects.

RESPONSE:

a) THESL believes that it can manage the work it is required to do within the framework of discrete projects. This approach is congruent with the overall ICM framework. THESL believes that transferring resources between projects, as it might do in a non-ICM context, could introduce unwarranted complexities both for initial approval of projects and for eventual review and reconciliation upon rebasing.

b) Page 16 – On what basis has THESL estimated that for each year, two thirds of the jobs would be complete within that year, with the remaining third completed the following year.

RESPONSE:

b) THESL bases this estimate on its past experience in this area.

c) Page 23 – On what basis has THESL determined that it does not plan to execute projects such as Paper Insulated Lead Covered Cable Replacement, Asbestos Insulated Lead Covered Cable Replacement, Stations Infrastructure, Nomenclature, Grounding Compliance, Electric Vehicles and Modernization Initiatives in the next three years.

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RESPONSE:

c) THESL determined not to include the identified projects (Paper Insulated Lead Covered Cable Replacement; Asbestos Insulated Lead Covered Cable Replacement; Stations Infrastructure; Nomenclature; Grounding Compliance; Electric Vehicles; and Modernization Initiatives) in this application because, although THESL views these projects as necessary, prudent or otherwise appropriate to undertake in the medium to long term in light of public policy considerations, it does not consider them to be as high priority as the projects included within its current application – such projects being essential to maintain the safety and reliability of the distribution system.

d) Page 24 – Please explain further the areas of significant change in the composition of proposed spending.

RESPONSE:

d) Projects pertaining to general plant comprise a smaller amount of capital expenditure under the present application, relative to the early rebasing application that THESL presented to the OEB under file number EB-2011-0144. Projects directed to the renewal of general plant, such as Information Technology Capital and Fleet Capital, have been reduced. This had the effect of changing the composition of THESL's proposed capital expenditure spending by decreasing the proportion devoted to general plant from 14.1% to 5.4%. In contrast, the proportion of proposed capital expenditures devoted to distribution plant increased from an average of 85.9% to 94.6%.

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INTERROGATORY 8:

Reference(s): Tab 2, Page 16 lines 26 to 30 & Page 17 lines 1 to 21

Preamble:

THESL indicates that not all projects are non-discretionary based on five considerations described on Page 17, but every project is needed and non-discretionary based on at least one of these criteria.

a) Please provide a table that lists each proposed project and the corresponding non-discretionary criterion considered by THESL.

RESPONSE:

Please see THESL's response to SEC interrogatory 9 (Tab 6E, Schedule 10-9).

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INTERROGATORY 9:

Reference(s): Tab 4, Schedule B1

a) Page 4 – The evidence indicates that in 2011 Customers Interrupted (CI) and Customer Hours Interrupted (CHI) values for direct buried cables accounted for 57% and 43% respectively for the CI and CHI for the entire underground distribution system. Please provide a breakdown of the other causes that make up 100% of the CI and CHI values in 2011.

RESPONSE:

a) Table 1 below provides a breakdown of CI and CHI for 2011 by underground asset type.

Table 1: Breakdown of CI and CHI for 2011 by underground asset type

Asset	% CI	% CHI
Direct buried cable	57.0	43.0
Cable in duct	18.7	29.6
Elbow	3.0	1.7
Pothead	0.2	0.3
Switch	8.0	11.5
Termination	4.6	2.1
Transformer	8.4	11.9

b) The Table on Page 4 provides the number of interruptions attributed to direct buried cable failures. Please explain the increase in 2005 and decrease in 2006.

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RESPONSE:

b) Please note that Figures 1 and 43 in Tab 4, Schedule B1, which are the same, include both momentary and sustained interruptions atrributed to direct buried cable failures. This is an error as the figure should only include sustained interruptions.

Figure 1 below updates and corrects Figures 1 and 43. It shows only sustained interruptions due to direct buried cable failures. As is evident from the figure, there is only a slight difference between the number of interruptions attributed to direct buried cable failures in 2005 and 2006 that is well within the range of variation fluctuation seen among the years.

The number for 2012 is for the first six months of the year.

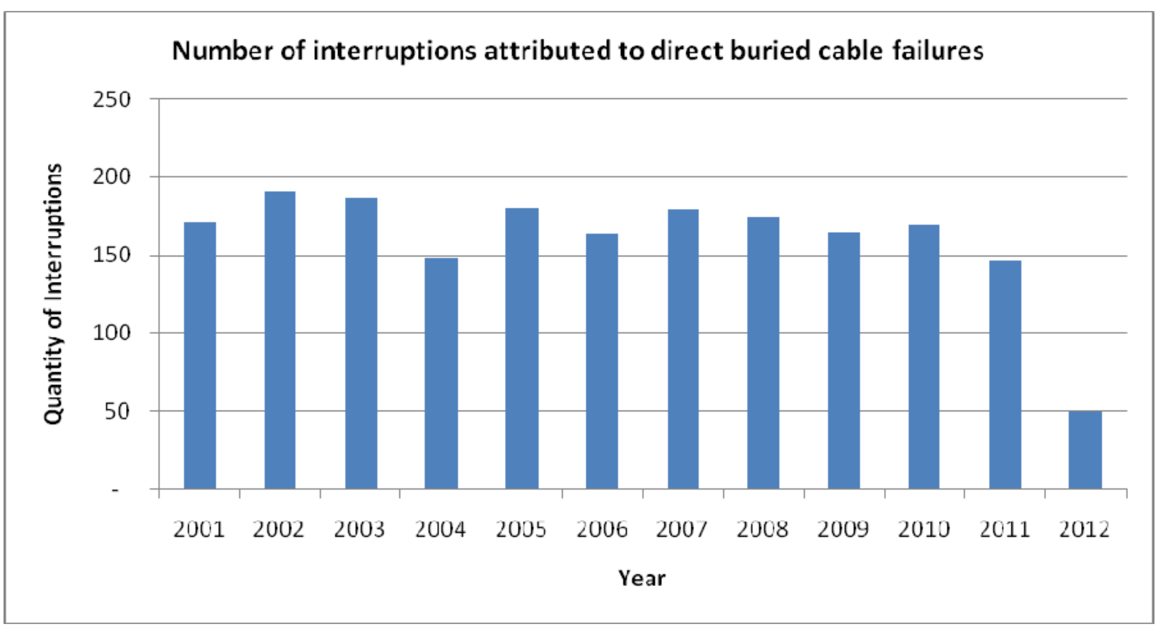

Figure 1: Number of interruptions attributed to direct bured cable failures.

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c) Page 110 – The evidence indicates that 66% of the direct buried XLPE cables (580 circuit kilometres) are in need of immediate attention. Please confirm the total km proposed for replacement in 2012, 2013 and 2014.

RESPONSE:

c) THESL has advised the OEB and intervenors that it will be filing an update to its pre-filed evidence. THESL believes that its pending update will fundamentally affect THESL's response to this interrogatory, such that providing a response now would not materially assist the OEB or intervenors. THESL accordingly defers its response to this part until after its forthcoming evidentiary update.

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INTERROGATORY 10:

Reference(s): **Tab 4, Schedule B1**

Preamble:

Table 1 on Page 2 lists the jobs to be executed in 2012, 2013 and 2014. The jobs are listed in order of the number of sustained outages in 2011.

a) Please provide the number of customers serviced by each feeder.

RESPONSE:

a) Table 1 below lists the number of customers served by each feeder.

Table 1: Customers served by each feeder

Feeder	Number of Customers
NY80M29	2,405
SCNAR26M34	1,470
NY55M8	1,942
YK35M10	5,462
SCNT63M4	3,503
SCNA47M14	1,731
NY51M6	1,226
NY80M8	1,548
NY85M6	490
NY51M8	2,060
SCNA502M22	1,723
SCNAH9M30	1,925
NY85M4	914
SCNA47M13	2,046

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Feeder	Number of Customers
NY80M2	1,357
NY51M7	2,350
NY51M24	1,790
NY80M30	1,847
NY55M23	1,387
NY85M24	1,191
SCNAE5-2M3	1,162
NY85M7	927
SCNT63M12	3,338
SCNT63M8	3,860
SCNAE5-1M29	635
NY53M25	2,838
NY80M9	800
SCNT47M3	6,430
SCNAH9M23	1,096
NY51M3	2,018
SCNA47M17	3,251
SCNA502M21	1,813
SCNT47M1	2,141
NY85M1	2,690
NY85M9	670
NYSS58F1	1,194

b) Please provide the useful life and age of each feeder.

RESPONSE:

b) Feeders are typically comprised of hundreds if not thousands of components. These components include cable, wire, connections, transformers and switches. The

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installation dates of these components vary, and are dependent on changes to the feeder such as expansions and new connections. It is therefore not possible to provide an age for each feeder. Similarly, the useful life of each component depends on the condition of the component, and because each component has a different condition and each feeder is made up of many of these components, it is not possible to give each feeder a useful life.

c) Please provide the total number of unplanned sustained outages and unplanned sustained outages related to primary cable failures for each feeder for the years 2009, 2010 and 2011.

RESPONSE:

c) Table 2 below lists the total number of unplanned sustained outages and unplanned sustained outages related to primary cable failures for each feeder for the years 2009, 2010 and 2011.

Table 2: Number of outages on feeders for 2009, 2010 and 2011

Feeder	Unplanned Sustained Outages			Unplanned Sustained Outages due to Primary Cable Failures		
	2009	2010	2011	2009	2010	2011
Feeder NY80M29	14	7	15	2	0	4
Feeder SCNAR26M34	7	7	12	3	2	5
Feeder NY55M8	9	10	12	1	4	2

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Feeder	Unplanned Sustained Outages			Unplanned Sustained Outages due to Primary Cable Failures		
	2009	2010	2011	2009	2010	2011
Feeder YK35M10	12	6	11	0	0	0
Feeder SCNT63M4	2	3	10	0	0	3
Feeder SCNA47M14	8	6	10	5	2	4
Feeder NY51M6	6	10	10	2	7	2
Feeder NY80M8	6	7	8	2	2	3
Feeder NY85M6	1	3	8	0	1	0
Feeder NY51M8	2	7	8	0	1	2
Feeder SCNA502M22	6	6	7	2	2	6
Feeder SCNAH9M30	6	11	7	3	2	1
Feeder NY85M4	2	4	7	1	2	1
Feeder SCNA47M13	6	6	6	3	0	3
Feeder NY80M2	4	7	6	0	1	1
Feeder NY51M7	11	9	6	2	3	0
Feeder NY51M24	11	6	6	2	1	1
Feeder NY80M30	14	13	6	0	4	2
Feeder NY55M23	6	8	6	0	4	1

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Feeder	Unplanned Sustained Outages			Unplanned Sustained Outages due to Primary Cable Failures		
	2009	2010	2011	2009	2010	2011
Feeder NY85M24	3	3	6	1	0	1
Feeder SCNAE5-2M3	5	6	6	0	1	0
Feeder NY85M7	2	4	6	0	0	0
Feeder SCNT63M12	9	9	5	2	2	0
Feeder SCNT63M8	6	4	5	2	1	0
Feeder SCNAE5-1M29	6	5	5	1	3	4
Feeder NY53M25	11	6	5	3	1	1
Feeder NY80M9	10	3	5	1	0	0
Feeder SCNT47M3	21	12	4	2	1	0
Feeder SCNAH9M23	2	4	4	0	1	2
Feeder NY51M3	1	7	4	1	2	0
Feeder SCNA47M17	6	12	3	1	1	1
Feeder SCNA502M21	3	3	2	2	1	1
Feeder SCNT47M1	9	7	2	4	3	1
Feeder NY85M1	5	6	6	0	1	0
Feeder NY85M9	1	9	4	0	1	0

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Feeder	Unplanned Sustained Outages			Unplanned Sustained Outages due to Primary Cable Failures		
	2009	2010	2011	2009	2010	2011
Feeder NYSS58F1	6	9	6	0	0	1

d) Feeder NY80M29 had 15 unplanned sustained outages in 2011 and 5 were related to primary failure cables. Please explain the reasons for the remaining 10 unplanned outages.

RESPONSE:

d) Table 3 lists the causes of the outages on feeder NY80M29 in 2011:

Table 3: Causes of Sustained Outages on Feeder NY80M29 in 2011

Outage Cause	Number of Occurrences
Primary cable	5
Overhead disconnect switch failure	1
Extreme wind / adverse weather	1
Tree contact	1
Lightning	2
Dig-in	1
Submersible transformer failure	1
Animal contact	2
Unknown	1

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e) Please provide the total km of buried cable replaced to date by year.

RESPONSE:

e) Table 4 below lists the number of kilometres of direct buried cable replaced each year.

Table 4: Number of kilometres of direct buried cables replaced per year

Year	Direct Buried cable [km]
2007	52
2008	92
2009	74
2010	169
2011	94
2012	42 (as of Aug 31)

Please note that the references to "circuit kilometres" in Tab 4, Schedule B1, Page 4, Lines 10-11 and Tab 4, Schedule B1, Page 110, Lines 9-10 should refer to "conductor kilometres".

f) Please comment on the trend in 2012 year to date regarding the number of interruptions attributed to direct buried cable failures.

RESPONSE:

f) The number of interruptions attributed to direct buried cable has shown a slightly decreasing trend, as discussed in the response to AMPCO interrogatory 9 (Tab 6F, Schedule 2-9). The total length of direct buried cable in the system has also been

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decreasing as direct buried cable is replaced. As a result, the total number of interruptions attributed to direct buried cable per unit length of direct buried cable has been increasing. This is shown in the response to VECC interrogatory 34 (Tab 6F, Schedule 11-34).

Between January 1, 2012, and August 31, 2012, 89 interruptions have been attributed to direct buried cable. It is expected that the year-end result will be continue the trends discussed above.

g) Table 2 on Page 10 provides historical data regarding reliability performance. Please explain the decrease in 2010 compared to 2009 and why the 2011 levels are below the 2009 levels.

RESPONSE:

g) Between the years 2009 to 2011, feeder NY80M29 suffered its highest CI and CHI in 2009. There were 16 sustained outages in 2009 with six caused by underground equipment failures, two due to dig-ins or foreign interference and the remaining eight outages caused by adverse environment or brush contacts with the overhead plant. Of the 16 outages in 2009, two were dominant in terms of CI and CHI. One of these two was due to extreme wind on May 14, 2009 and the other was due to an underground cable failure on June 26, 2009. The combination of these two events resulted in CI of 9,310 and CHI of 824 or 89% of annual CI and 22% of annual CHI.

It is suspected that the decrease in CI and CHI in 2010 from 2009 is due to the short term remediation work done in 2010 to replace old or unreliable equipment. Typical short term remediation work involves targeted overhead assets such as animal guards

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and insulators, as well as tree trimming. These preventative tasks minimize the likelihood of outages due to contacts from tree branches or animals and strengthen the overhead plant from transients or surges in voltage due to lightning strikes.

In 2011, there were a total of 15 sustained outages on the feeder. CI and CHI rose mainly due to two outages that occurred in June; one of the outages was due to lightning and the other was due to an underground cable failure. The combination of these two incidents resulted in 6,196 CI and 717 CHI, representing 75% and 31% of the total 2011 CI and CHI respectively. Although the total number of sustained outages in 2009 and 2011 are similar, the reason for a lower CI and CHI in 2011 when compared to 2009 may be due to the fact that the two dominant outages in 2011 had a lower total CI and CHI when compared to the two dominant outages in 2009.

h) Please explain how the values in Table 2 on Page 10 are cumulative.

RESPONSE:

h) The cumulative CI and CHI in Table 2 on Page 10 (Tab 4, Schedule B1) are the total CI or CHI on the feeder for each year between January 1 and December 31.

i) Page 113 – The evidence indicates that several utilities across North America have reported an unexpected increase in failures due to their direct buried underground assets. Please discuss if THESL is aware of other utilities in Ontario who have reported an increase in failures due to their direct buried underground assets.

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RESPONSE:

i) THESL is aware of other utilities in Ontario who have experienced reliability issues with direct buried cable. These utilities include Horizon Utilities, Hydro Ottawa, Kingston Hydro, and PowerStream, which have included direct buried cable replacement projects in recent regulatory filings.

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INTERROGATORY 11:

Reference(s): Tab 4, Schedule B3

a) Please provide the number of proposed handwell replacements by year.

RESPONSE:

a) THESL has advised the OEB and intervenors that it will be filing an update to its pre-filed evidence. THESL believes that its pending update will fundamentally affect THESL's response to this interrogatory, such that providing a response now would not materially assist the OEB or intervenors. THESL accordingly defers its response to this part until after its forthcoming evidentiary update.

b) Please provide the number of handwell replacements in the downtown core by year.

RESPONSE:

b) For the reasons set out in a) above, THESL defers its response in respect of projected handwell replacements until after its forthcoming evidentiary update.

Year	Number of Handwell Replacements in the Downtown Core
2010	2,592 (actual)
2011	2,999 (actual)

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INTERROGATORY 12:

Reference(s): Tab 4, Schedule B9, Page 2 - 3

a) Please provide the total number of vaults classified by the Asset Condition Assessment with a status of “poor” and “very poor”.

RESPONSE:

a) The Kinetrics 2012 Asset Condition Assessment Audit (Tab 4, Schedule D1) concludes that 1.14% of vaults surveyed were classified as very poor and 5.87 % as poor. Given that there are 1,064 network vaults in THESL’s service area, this equates to 12 vaults with a status of Very Poor and 62 vaults with a status of Poor.

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INTERROGATORY 13:

Reference(s): Tab 4, Schedule B9, Pages 5 to 9

Preamble:

THESL proposes to eliminate immediate structural deficiencies of 50 high risk vaults identified by the ACA as being in “poor” or “very poor” condition.

a) Please provide a breakdown of the 50 vaults classified by the ACA as either poor and very poor.

RESPONSE:

a) The breakdown of the 50 vaults has been provided in Tables 1-3 below.

b) Please provide a breakdown of the 15 network vault roofs rebuilds between poor and very poor.

RESPONSE:

b) The breakdown of the 15 vault roofs has been provided in Table 2 below.

c) Please confirm the total number of vault roof rebuilds in Table 2 by Job Number/year.

RESPONSE:

c) Table 2 below has been updated to show the 15 vault roofs rebuilds. Project X12652 is two vaults side by side and is considered as one roof.

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d) Page 7 - Please identify the vault roof rebuilds in the worst structural condition that have been prioritized to be addressed first.

RESPONSE:

d) The vault roofs considered to be in the worst structural condition and prioritized to be addressed first are those currently in "very poor" condition. There is no specific job prioritization between vault roofs within the "very poor" category.

e) Page 9 - Please identify the network vault rebuild projects in the worst structural condition that have been prioritized to be addressed first.

RESPONSE:

e) The vaults considered to be in the worst structural condition and prioritized to be addressed first are those currently in "very poor" condition. The only exception is one rebuild (X11504) which due to equipment failure has already been temporarily bypassed through a neighbouring vault, mitigating immediate reliability concerns. There is no specific job prioritization between vault rebuilds within the "very poor" category.

Table 1: Vault Decommissioning

Job Number	Job Title	Rating
X12207	X12207 Loc #4287 60 Simcoe St	Very Poor
X12858	X12858 Decommission 2 Network Vaults	Poor
X12844	X12844 Decommission 3 Network Vaults	Poor
X14404	X14404 Decommission 2 Network Vaults	Poor

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Table 2: Vault Roof Rebuild

Job Number	Job Title	Number of Roofs	Rating
X12350	X12350 Loc#4510, Rebuild Vault Roof, 60 Gloucester St A50CS and A51CS	1	Poor
X12652	X12652 Loc #4252 and 4308, Victoria and Shuter	1 (Side by side)	Very Poor
X12321	X12321 Loc#4931, Rebuild Vault Roof Front St. East and Jarvis St. A40GD	1	Very Poor
X12208	X12208 - Loc#4485, 105 Adelaide St. West – Rebuild Vault Roof	1	Poor
X12327	X12327 Loc#4262, Rebuild Vault Yorkville St and Yonge St. High Level Network	1	Very Poor
X11351	X11351 Rebuild Location #4174, Bay St/Front St. West	1	Poor
X13428	X13428 3 Vault Roof Rebuild Project	3	Poor
X14386	X14386 6 Vault Roof Rebuild Project	6	Poor

Table 3: Complete Vault Rebuild

Job Number	Job Title	Rating
X12289	X12289 Vault Loc#4412, Build a new Vault Adelaide St. West/Grand Opera Lane	Poor
X11533	X11533 Loc#4818, Rebuild Vault at Richmond/Bay	Very Poor
X11362	X11362 -Loc# 4111 - Augusta and College	Very Poor
X12371	X12371 -Loc# 4431 - Blue Jays Way and King St. West	Very Poor
X12830	X12830 Loc# 4432 vault rebuild project	Very Poor

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Job Number	Job Title	Rating
X11441	X11441 -Loc# 4512 - Eglinton Ave E./Holly St	Very Poor
X11487	X11487 Vault Rebuild, Loc#4312, King St. West/Yonge St.	Very Poor
X12834	X12834 Vault Rebuild Project	Very Poor
X11234	X11234 Location # 4481, Eglinton Avenue East/ Holly St.	Poor
X12835	X12835 Vault Rebuild Project	Poor
X11440	X11440 Vault Relocate, Loc#4642 St. Clair Ave. W/Yonge St.	Poor
X12345	X12345 Loc#4562, Vault Roof Rebuild, King St West/Jordan St. A54WR	Poor
X11529	X11529-2 Vaults--Loc# 4790 East + West Vault Wellington St. W/ Emily St	Poor
X12334	X12334 Loc#4299 Rebuild Vault Peter St/Adelaide St West A66WR	Poor
X13323	X13323 Vault Rebuild - TD-21 York and King	Poor
X13347	X13347 - Loc#4795, 77 Grenville St. Vault Rebuild	Poor
X11504	X11504 -Loc# V4511 - Overlea Blvd/William Morgan Dr. (E. York)	Very Poor
X14385	X14385 9 units Vault Rebuild Project	Poor

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INTERROGATORY 14:

Reference(s): Tab 4, Schedule B9, Pages 13, Figure 4

a) Please confirm the age of each of the 50 vaults.

RESPONSE:

a) The age of each of the 50 vaults has been provided below in Tables 1-3.

Table 1: Vault Decommissioning

Job Number	Job Title	Age
X12207	X12207 Loc #4287 60 Simcoe St	59
X12858	X12858 Decommission 2 Network Vaults	46 , 58
X12844	X12844 Decommission 3 Network Vaults	>59
X14404	X14404 Decommission 2 Network Vaults	>59

Table 2: Vault Roof Rebuild

Job Number	Job Title	Age
X12350	X12350 Loc#4510, Rebuild Vault Roof, 60 Gloucester St A50CS and A51CS	59
X12652	X12652 Loc #4252 and 4308, Victoria and Shuter	74
X12321	X12321 Loc#4931, Rebuild Vault Roof Front St. East and Jarvis St. A40GD	59
X12208	X12208 - Loc#4485, 105 Adelaide St. West – Rebuild Vault Roof	59

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Job Number	Job Title	Age
X12327	X12327 Loc#4262, Rebuild Vault Yorkville St and Yonge St. High Level Network	72
X11351	X11351 Rebuild Location #4174, Bay St/Front St. West	59
X13428	X13428 3 Vault Roof Rebuild Project	>25
X14386	X14386 6 Vault Roof Rebuild Project	>59

1 **Table 3: Complete Vault Rebuild**

Job Number	Job Title	Age
X12289	X12289 Vault Loc#4412, Build a new Vault Adelaide St. West/Grand Opera Lane	56
X11533	X11533 Loc#4818, Rebuild Vault at Richmond/Bay	59
X11362	X11362 -Loc# 4111 -Augusta and College	55
X12371	X12371 -Loc# 4431 -Blue Jays Way and King St. West	55
X12830	X12830 Loc# 4432 vault rebuild project	54
X11441	X11441 -Loc# 4512 -Eglinton Ave E./Holly St	50
X11487	X11487 Vault Rebuild, Loc#4312, King St. West/Yonge St.	60
X12834	X12834 Vault Rebuild Project	83

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Job Number	Job Title	Age
X11234	X11234 Location # 4481, Eglinton Avenue East/ Holly St.	50
X12835	X12835 Vault Rebuild Project	59
X11440	X11440 Vault Relocate, Loc#4642 St. Clair Ave. W/Yonge St.	59
X12345	X12345 Loc#4562, Vault Roof Rebuild, King St West/Jordan St. A54WR	59
X11529	X11529-2 Vaults--Loc# 4790 East + West Vault Wellington St. W/ Emily St	48
X12334	X12334 Loc#4299 Rebuild Vault Peter St/Adelaide St West A66WR	74
X13323	X13323 Vault Rebuild - TD-21 York and King	80
X13347	X13347 - Loc#4795, 77 Grenville St. Vault Rebuild	59
X11504	X11504 -Loc# V4511 -Overlea Blvd/William Morgan Dr. (E. York)	43
X14385	X14385 9 units Vault Rebuild Project	>59

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INTERROGATORY 15:

Reference(s): Tab 4, Schedule B10, Page 1

The assets selected for replacement have been identified as possessing the highest probability of failure, based on inspection of all THESL units.

a) Please confirm this finding is reflected in THESL's Asset Condition Assessment.

RESPONSE:

a) The Asset Condition for the network protector class can be found in the following graph. The graph indicates that the majority of network protectors are in good and very good condition. As discussed in the evidence (Tab 4, Schedule B10, pages 6 to 14), however, Fibertop protectors, particularly those outdoors below public thoroughfares, have a much higher probability of catastrophic failure because of deficiencies inherent in their design.

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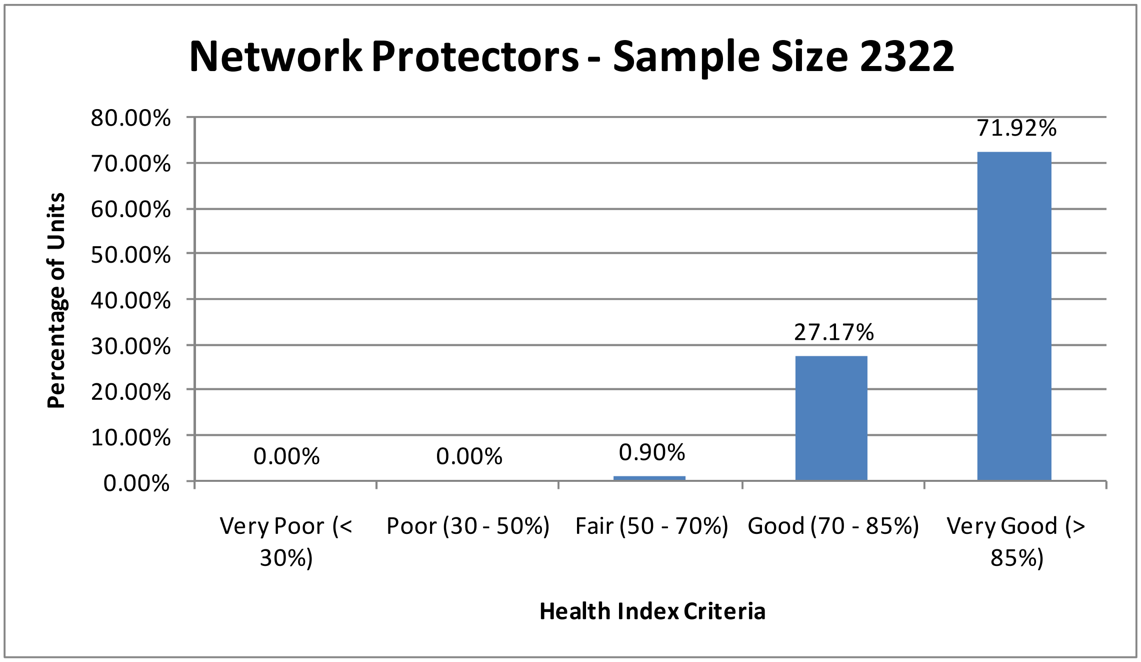

The units identified as possessing the highest probability of catastrophic failure are Fibertop Network Units that are located in public pedestrian walkways under the sidewalk. These outdoor locations are typically affected in the winter with de-icing salts that contaminate network equipment. Fibertop protectors are particularly susceptible to this contamination because of their design. Therefore they are viewed as having the highest probability of failure.

Recently there has been an increase in maintenance for these Fibertop Units to mitigate the possibility of a catastrophic failure. Annual cleaning for all Fibertop Units is preformed in an attempt to remove contaminants that may cause vault fires. Although the increased cleaning has helped improved the overall condition of the Fibertop Network Units, the underlying flaws still exist.

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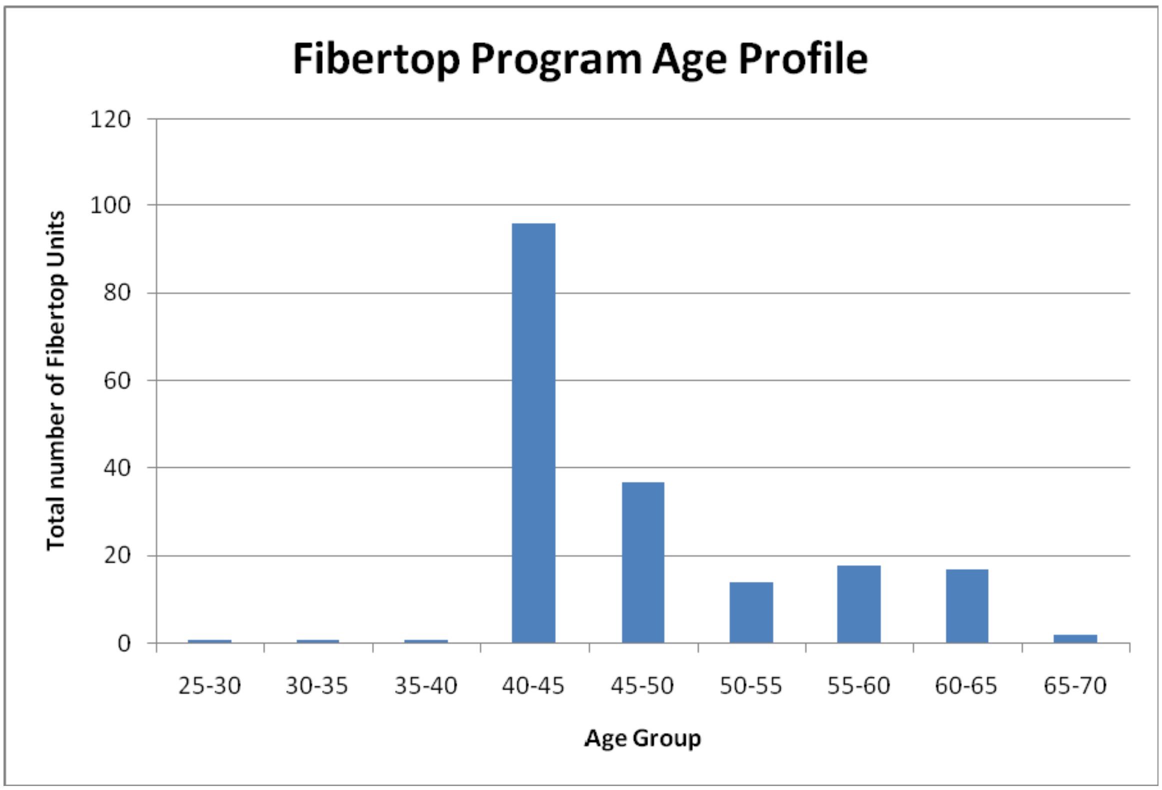
The following graph shows that the population of Fibertop Network Units is generally over 40 years old. As stated in the Reference (Tab 4, Schedule B10, page 2) the useful life of these assets is 20 years. Therefore, although the ACA shows a good condition asset, THESL has determined that these assets require replacement because of their age and the risk and nature of their failure.



b) Please provide a breakdown of the 187 Fibertop Network Units between poor and very poor.

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RESPONSE:

b) There are no Fibertop network units in the poor and very poor ACA category. As described in the response to part a) above, although the ACA shows a good condition asset, THESL has determined that these assets require replacement because of their age and the risk and nature of their failure.

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INTERROGATORY 16:

Reference(s): **Tab 4, Schedule B10, Page 4**

Preamble:

THESL indicates that in the recent past it has replaced 40 to 60 Network units annually due to corrosion. Leaking transformers and fibertops have made up a significant portion of these replacements (40% in 2009 and 60% in 2010). The proposed segment would be an increase to the existing replacement strategy as more units would be replaced annually.

a) Please provide the number of fibertop replacements in 2009, 2010, 2011 and 2012 year-to-date.

RESPONSE:

a) There were 16 fibertop replacements in 2009, 36 in 2010, 16 in 2011, and four to date in 2012.

b) Please discuss the impact on THESL's proposed replacement strategy and budget if the level of replacement of fibertops in 2012, 2013 and 2014 was maintained at the average of the past three years.

RESPONSE:

b) Between 2009 and 2011 THESL averaged 23 Fibertop Network Unit replacements per year. The impact of a replacement strategy at this level would mean that assets that are susceptible to failure are left in the field for longer periods of time. As a result, there is a potential risk that the general public would be exposed to a greater

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number of failures and potential vault fires (refer to Tab 4, Schedule B10, pages 9-14 for a detailed description of the impacts of these incidents). It is expected that the Fibertop Network Unit replacement program would need to be extended from five years to 11 years to completely change-out existing units. The cost to fund a reduced program would be $3.22M annually, compared to the $8.5M, $8.77M, and $9.35M as proposed.

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INTERROGATORY 17:

Reference(s): Tab 4, Schedule B10, Page 9

Preamble:

According to its records THESL indicates there have been 18 vault fires in the past ten years.

a) Please tabulate the 18 vault fires by vault number, cause and by year.

RESPONSE:

a) The following table provides the 18 vault fire incidents over the past ten years:

Vault Number	Cause	Year
4644	Cable – Primary / Underground Equipment / Defective Equipment	2001
4457	Network Protector / Underground Equipment / Defective Equipment	2001
N1061	Transformer - Other / Underground Equipment / Defective Equipment	2002
4541	Network Protector / Underground Equipment / Defective Equipment	2003
4055	Switchgear - All Other Types / Underground Equipment / Defective Equipment	2003
4103	Cable - Secondary / Underground Equipment / Defective Equipment	2004
4705	Transformer - Submersible / Underground Equipment / Defective Equipment	2004

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Vault Number	Cause	Year
4441	Network Protector / Underground Equipment / Defective Equipment	2005
4410	Transformer - Other / Underground Equipment / Defective Equipment	2005
4623	Transformer - Other / Underground Equipment / Defective Equipment	2005
4475	Network Protector / Underground Equipment / Defective Equipment	2005
4323	Network Protector / Underground Equipment / Defective Equipment	2005
4323	Network Protector / Underground Equipment / Defective Equipment	2007
4021	Switchgear - All Other Types / Underground Equipment / Defective Equipment	2008
4944	Switchgear - All Other Types / Underground Equipment / Defective Equipment	2010
4557	Network Protector / Underground Equipment / Defective Equipment	2010
4771	Switchgear - All Other Types / Underground Equipment / Defective Equipment	2010
4557	Network Protector / Underground Equipment / Defective Equipment	2011

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b) Please provide THESL's maintenance budget for Fibertop Network Units for the past three years.

RESPONSE:

b) There are several maintenance tasks that make up the budget for Fibertop Network Unit maintenance. They are Network Vault Inspections, Protector Overhauls, and Protector Top Cleaning. The portion of each task's budget that is associated with Fibertop Network Units is included in the chart below:

	2010	2011	2012
Network Vault Inspections	$68,394	$91,262	$90,545
Protector Overhaul	$60,149	$146,201	$133,013
Protector Top Cleaning			$33,281
Total	**$128,544**	**$237,463**	**$256,839**

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INTERROGATORY 18:

Reference(s): Tab 4, Schedule B10, Page 18

a) THESL indicates that there are approximately 854 available crew days that must be divided amongst the entire underground capital program. Please provide this calculation.

RESPONSE:

a) Some general assumptions were made to derive this number:

Total available crew days were calculated as follows:

52 Weeks – (5 Weeks Vacation + 2 Weeks Training + 2 Weeks Stat Holidays + 1 Week Sick Time) = 42 Available weeks per person

42 Weeks x 5 days/week x 6 crews available = 1,260 Total available crew days

The 2012 maintenance program requires the same resources to perform 406 days of maintenance work. The tasks are outlined below:

Protector Overhauls: 458 x 0.5days = 229 days
RPB Overhauls: 46 x 0.5days = 23 days
Powerlite Overhauls: 12 x 0.5days = 6 days
CNT Cleaning: 3 x 2days = 6 days
Protector Cleaning: 168 x 0.25days = 42 days
Cable Chamber inspections: 200 x 0.5days = 100 days
Total: 406 days

The total number of discretionary days is therefore 854 (i.e., 1,260 total available – 406 for maintenance).

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b) THESL indicates that even if these resources were entirely dedicated to replace Fibertop Network Units, only approximately 113 units could be addressed annually. Please provide this calculation.

RESPONSE:

b) The document specifies 131 units replaced annually, not 113 as quoted in the question. The assumption made to calculate the number of units was that each Fibertop requires 104.4 labour-hours to change out:

854 available crew days x 8 hour day x 2 crew members = 13,664 labour-hours
13,664 labour-hours / 104.4 labour-hours/Fibertop = 130.8 Fibertop replacements

c) THESL proposes to replace only units that are deemed high risk of immediate failure and have a direct impact on the safety of the general public. Please confirm how the determination of high risk of immediate failure was made.

RESPONSE:

c) As specified in Tab 4, Schedule B10, page 19, THESL determined that units deemed at high risk of immediate failure and which are likely to create potential safety risks were those located directly underground below street level (where they are subject to adverse environmental conditions). In contrast, units not selected for immediate replacement are generally located above ground in building electrical rooms.

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INTERROGATORY 19:

Reference(s): **Tab 4, Schedule B10, Appendix A**

Preamble:

Appendix A contains a detailed list of projects.

a) Please confirm the number of proposed replacements by year is 61 in 2012, 61 in 2013 and 65 in 2014.

RESPONSE:

THESL has advised the OEB and intervenors that it will be filing an update to its pre-filed evidence. THESL believes that its pending update will fundamentally affect THESL's response to this interrogatory, such that providing a response now would not materially assist the OEB or intervenors. THESL accordingly defers its response to this interrogatory until after its forthcoming evidentiary update.

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INTERROGATORY 20:

Reference(s): Tab 4, Schedule B11, Pages 9 to 10

a) Please explain why Reverse Power Breakers (RPB) were not assessed in the 2010 and 2011 ACA program.

RESPONSE:

a) Reverse Power Breakers were not assessed in 2010 and 2011 because the asset class was known to be obsolete and intended for replacement.

b) Of the 30 identified ATS assets that have degraded from a condition of fair to poor or very poor, please provide the current number with a status of poor and very poor.

RESPONSE:

b) All assets that had previously degraded from a condition of fair to poor or very poor remain in poor or very poor condition. The total number is 26 (the 30 noted in the application was incorrect).

c) Please provide the age of each proposed asset for replacement.

RESPONSE:

c) The ages of the ATS units scheduled for replacement is provided below.

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Vault & Location	Age
D9012 - Near 654 Castlefield, Toronto	19
D3031 - 2108 Queen St East, Toronto	32
4862 - 77 Ryerson Ave, Toronto	39
4023 - Near 142 Pears Ave, Toronto	49
D9010 - 205 Richmond St W, Toronto	26
D3022 – 75 Dowling Ave, Toronto	54
4064 – 295 College St, Toronto	49
D3002 – 70 Elmsthorpe, Toronto	26
D9013 - 2727 Dundas W, Toronto	36
4063 - 645 Adelaide St W, Toronto	49
4086 – 499 St Clair Ave W, Toronto	49
4081 – 700 St Clair Ave W, Toronto	49
4321 – 245 Eglinton Ave W, Toronto	49
4027 - 14 Spadina Road	34
D3012 – 439 Sherbourne Ave, Toronto	47
4046 - Near 130 EGLINTON, Toronto	33
N1164 – 35 Jackes Ave, Toronto	44
4129 - Heath Street East	30
D9008 – 40 Scollard Rd, Toronto	49
4158 - Duncan Ave	32
4817 - ADJ. to 330 GERRARD	24
D9007 – 658 to 668 Danforth Ave, Toronto	49
D3014 – 2001 Bloor St W, Toronto	49
4157 – 175 Elm, Toronto	49
D3041 – 1141 Bloor St W, Toronto	48
D3003 – 75 Eglinton Ave W, Toronto	44
4118 – 197 Wellesley St E, Toronto	44
4763 – 700 Ontario St, Toronto	44

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Vault & Location	Age
4121 – 36 Earl, Toronto	44
4861 – 165 Grange Ave, Toronto	40

d) Please provide the number of ATS and RPB replaced in 2009, 2010, 2011 and 2012 year-to-date.

RESPONSE:

d) The table below gives the number of ATS and RPB replacements from 2009 through 2012.

	2009	2010	2011	2012
Replacements of RPBs and ATSs	2	12	14	5

e) Please provide the number of failures of ATSs and RPBs in 2009, 2010, 2011 and 2012 year-to-date.

RESPONSE:

e) An ATS or RPB can fail in one of two ways. If the ATS or RPB fails to operate as intended in a contingency situation (i.e., automatically switch) it is considered a failure. An ATS or RPB can also catastrophically fail, which may result in a fire or explosion as a result of its unsuccessful switching. The following table, giving the number of failures from 2009 through 2012, accounts for both failure types.

	2009	2010	2011	2012
Failures of RPBs and ATSs	5	7	10	1

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INTERROGATORY 21:

Reference(s): **Tab 4, Schedule B12, page 3**

a) Please provide the failure rates for each transformer.

RESPONSE:

a) None of the transformers listed in this business case have failed in the past. THESL assumes that the question is referring to Table 2 on page 3 where the third column from the left is labelled "Customers affected due to Transformer failure." To clarify, this column indicates the number of customers that <u>would be</u> impacted, should the transformer fail in service.

b) Please provide the definition of catastrophic failure of transformers.

RESPONSE:

b) A catastrophic failure is a failure that results in significant damage to the unit, such as an explosion.

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INTERROGATORY 22:

Reference(s): **Tab 4, Schedule B12, Pages 10 to 32**

Preamble:

Pages 10 to 32 describe the need to replace each transformer station and under the justification section various risks are included.

a) Please tabulate the risks by transformer and provide the expected timeline for failure.

RESPONSE:

a) THESL does not calculate an expected timeline for failure by transformer. Please see below for health index scores for each transformer. Additional comments are provided for units where the health index indicates Fair or Good condition. Please refer to the business case provided in the evidence for more details.

Station	Transformer	Health Index	Notes
Ellesmere White Abbey	TR1	Poor	
Thistletown	TR1	Fair	• Transformer age is beyond useful life • DGA indicates high CO2 and low dielectric breakdown
Scarborough Golf Club Rd	TR1	Poor	
Thistletown	TR2	Fair	• Transformer age is beyond useful life • DGA indicates high acid number, reflective of deterioration

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Station	Transformer	Health Index	Notes
Kingston Morningside	TR1	Fair	• Transformer age is beyond useful life • DGA indicates high acetylene content (internal arcing) • High moisture in oil, which permanently degrades paper insulation
Edenbridge	TR1	Poor	
High Level	TR1	Poor	
High Level	TR2	Poor	
Blaketon	TR1	Fair	• Refer to part (b)
Albion	TR2	Good	• Refer to part (b)
Norseman	TR1	Fair	• Transformer age is beyond useful life • DGA indicates high acid number, reflective of deterioration
Underwriter Crouse	TR1	Fair	• Transformer age is beyond useful life • DGA indicates elevated moisture in oil, which permanently degrades paper insulation and reduced dielectric breakdown strength

b) The evidence indicates that two power transformers selected for replacement are less than 43 years old: Blaketon MS-TR1 and Albion MS-TR2. Under the justification for each of these transformers, THESL indicates the transformer has reached the end of its operating life. Please explain.

RESPONSE:

b) For Blaketon MS transformer TR1, an overall condition rating of 3 was assigned to the transformer by an independent laboratory based on the DGA oil sample submitted

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by THESL. The laboratory report shows high levels of carbon dioxide, indicating severe overheating of the cellulose insulation. Carbon monoxide was also high, indicating significantly overheated cellulose insulation. These findings are evidence of deteriorating winding insulation, which means the likelihood of failure can be expected to increase as insulation further degrades. Blaketon MS forms an important part of the electrical grid which supports the adjacent MS stations of Palmwood MS and Walney MS, which means that its failure would likely have a large impact on customers. This information, coupled with the fact that at 42 years old this unit is very near typical end-of-life, is the basis for THESL's view that the transformer needs to be replaced.

In the case of Albion MS TR2, the DGA oil test shows high levels of ethylene, indicating significantly overheated oil (likely due to an overheating conductor) and carbon monoxide, which is also indicative of overheating cellulose insulation. These findings are evidence of deteriorating internal insulation, which means the risk of failure is also increasing. This fact, couple with a large number of connected customers, form the basis for the plan to replace this transformer six years prior to the typical end-of-life for this equipment.

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c) Please provide the Health Index Distribution Change from 2010 to 2011 for Power Transformers.

RESPONSE:

c) The information on the health index change for power transformers from 2010 to 2011 is presented in the table below.

Very Poor			Poor			Fair			Good			Very Good		
2010	2.70%	-1.37%	2010	9.91%	+2.09%	2010	48.65%	-4.65%	2010	24.77%	+1.01%	2010	13.96%	+2.93%
2011	1.33%		2011	12.00%		2011	44.00%		2011	25.78%		2011	16.89%	

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INTERROGATORY 23:

Reference(s): Tab 4, Schedule B12, Page 55

Based on THESL's Health Index (HI) a rating of 31 to 50 is poor and a rating of less than 30 is very poor. AMPCO observes that THESL has three transformers selected for replacement with a poor rating and no transformers selected for replacement have an HI of less than 30.

a) Please explain why transformer stations with an HI rating of greater than 50 and DGA results with Condition ratings of 1 have been selected for replacement in the 2012 to 2014 timeframe.

RESPONSE:

a) THESL's transformer replacement program identifies the transformers that need to be replaced based on a combination of the following criteria:
   - Transformers with Poor category Health
   - Age of the transformer relative to typical end-of-life
   - Oil test results
   - Inspection results (including leakage)
   - Risk of failure and net benefit of replacement, calculated as per the FIM model

   Thus, there could be transformer stations with an HI rating of greater than 50 and DGA results with Condition ratings of 1 that have been selected for replacement in the 2012 to 2014 timeframe.

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Please also refer to the response to OEB Staff interrogatory 25 (Tab 6F, Schedule 1-45).

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INTERROGATORY 24:

Reference(s): **Tab 4, Schedule B13.1**

a) Please provide the number of customers affected and customer load served by switchgear.

RESPONSE:

a) Please see the table below.

Switchgear name	Number of Customers served	Customer Load served by switchgear (MVA)
Leslie MS switchgear	6,111	18.3*
Lawrence Golf switchgear	1,325	4.0*
Brian Elinor MS switchgear	953	2.9*
York MS switchgear	1,087	3.3
Brimley Bernadine MS switchgear	1,318	4.3*
Porterfield MS switchgear	986	3.6
Greencedar Lawrence MS switchgear	898	2.7*
Neilson Dr MS switchgear	1,199	3.7
Midland Lawrence MS switchgear	673	2.0*

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Switchgear name	Number of Customers served	Customer Load served by switchgear (MVA)
Pharmacy CPR MS switchgear	1,250	3.8*
Islington MS switchgear	1,944	6.9
Thornton MS switchgear	1,074	3.5

Note: * indicates that SCADA is not available at the MS and thus the value is estimated by assuming 3kW per customer.

b) Please explain why the work at Leslie MS and Thornton MS continues into the following year.

RESPONSE:

b) Leslie MS requires extensive civil work (new building) before the electrical work can be started. Although less extensive, Thornton MS also requires civil work before the electrical work can commence.

c) Please provide the failure rates for switchgears for the years 2009, 2010, 2011 and 2012 year to date.

RESPONSE:

c) The table below shows the number of switchgear failures at municipal stations from 2009 to present.

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YEAR	2009	2010	2011	2012 (YTD)
Number of switchgear failures	0	1	1	0

d) Please provide the number of switchgears replaced in 2009, 2010, 2011 and 2012 year-to-date.

RESPONSE:

d) The table below shows the number of switchgear replacements at municipal stations per year since 2009.

Year	2009	2010	2011	2012
Number of MS switchgears Replaced	0	1	0	0

e) Please provide the Health Index of the switchgears selected for replacement.

RESPONSE:

e) As identified in the 2012 Asset Condition Assessment Audit report prepared by Kinectrics, the majority of MS switchgear (approximately 67%) do not have health indices. THESL is working to close this gap, including reviewing current health index formulations. The switchgear identified for replacement in this portfolio were selected based on age (all except for Leslie MS are greater than 50 years old), condition (from field inspection data), obsolescence (i.e., use of oil breakers),

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operational issues (the reclosing issue described within the business case) and safety (non-arc proof design). With that said, where they are available, switchgear health indices are listed below.

Switchgear name	Health Index
York MS switchgear	50
Porterfield MS switchgear	50
Greencedar Lawrence MS switchgear	50
Neilson Dr MS switchgear	50

f) Please provide the individual optimal intervention timing results for each of the 12 switchgear assets.

RESPONSE:

f) Optimal intervention times (OIT) are calculated based the health index score of the specific asset. As discussed in (e), THESL is working to improve the availability of health index scores for this asset class however at this point health index data for the majority of the assets, and thus OIT, are unavailable. Below THESL provides OIT for those assets where it can be directly calculated.

THESL did not rely on optimal intervention times when determining the need to replace the identified switchgear. Rather, completion of the work outlined in this program is necessary for the reasons described in the business case and restated above in (e).

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Switchgear	Job Year	OIT (years)
York MS	2012	0
Porterfield MS	2012	0
Greencedar Lawrence MS	2013	0
Neilson Drive MS	2013	0

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INTERROGATORY 25:

Reference(s): Tab 4, Schedule B13.2

a) Please provide the total number of transformer station switchgears in THESL's system.

RESPONSE:

a) The total number of TS switchgears in THESL system is 51.

b) Please provide an age profile (quantity vs years) for switchgear TS assets.

RESPONSE:

b) Please see the graph below.

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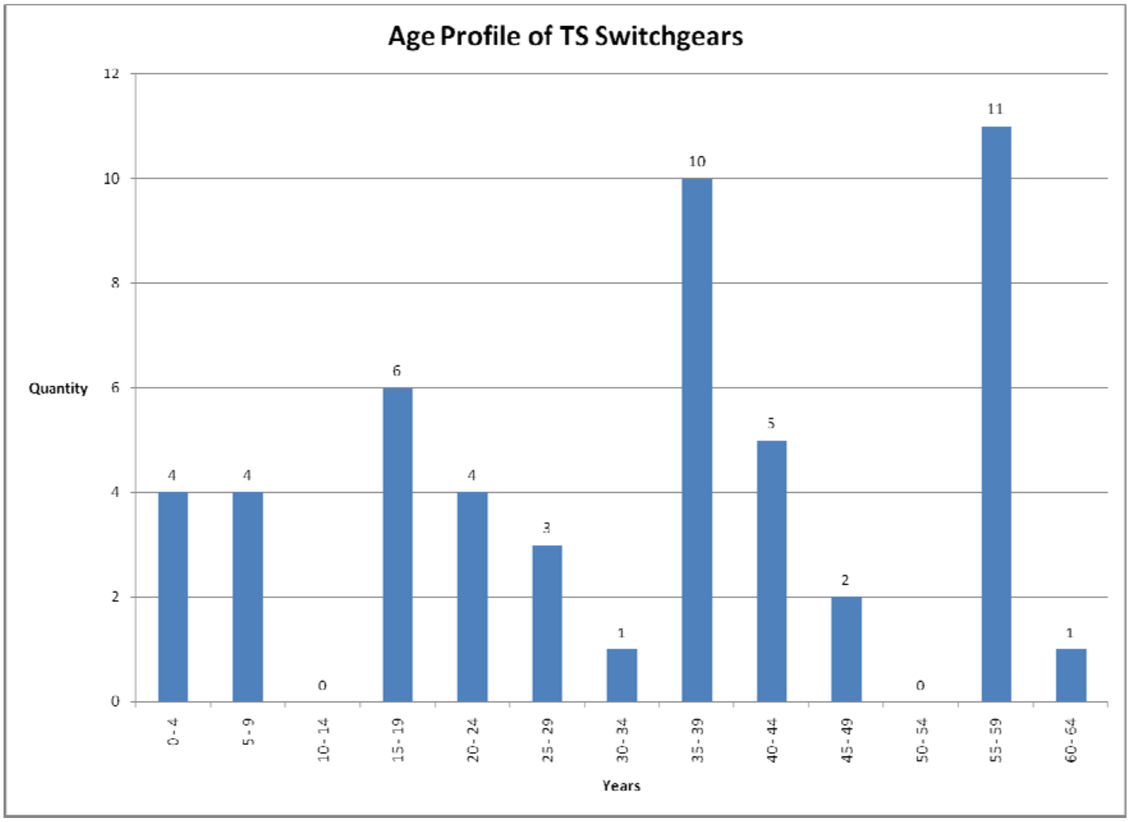

c) Please provide the number of customers served by each switchgear.

RESPONSE:

c) Please see the table below for the number of customers served for each switchgear replacement identified in this segment.

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Station	Switchgear	Number of Customers
Strachan	A7-8	4,270
Carlaw	6-7E	9,266
Wiltshire	A3-4	3,515
Windsor	A5-6	79
Wiltshire	A5-6	9,406
Duplex	A5-6	5,637

d) Please provide the failure rates for transformer stations switchgears for the years 2009, 2010, 2011 and 2012 year to date.

RESPONSE:

d) The table below shows the number of switchgear failures per year from 2009 to 2012 (year to date).

Year	2009	2010	2011	2012
# of Failures	4	1	1	1

e) Please provide the failure rates for the 12 transformer station switchgears selected for replacement for the years 2009, 2010, 2011 and 2012 year to date.

RESPONSE:

e) There were no failures of the switchgear selected for replacement in 2009-2012.

f) Please provide the Health Index range for very poor to very good for switchgears.

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RESPONSE:

f) Health index ranges for switchgear are the same as those for all other assets:

Very Poor:	0-30
Poor:	31-50
Fair:	51-70
Good:	71-85
Very Good:	86-100

The health index distribution for switchgear is provided in Tab 4, Schedule D1, pp. 25-26 of THESL's evidence.

g) A Health Index was not provided for the switchear at Duplex TS. Please provide.

RESPONSE:

g) The Duplex A5-6 switchgear has a Health Index of 67.

h) Please provide the latest Health Index for each switchgear selected for replacement from the Asset Condition Assesment [sic] (ACA) update report in 2011 and 2012.

RESPONSE:

h) The switchgears selected for replacement and their respective health indices are presented below.

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Switchgear Name	Health Index
Strachan A7-8	43
Carlaw A6-7	57
Wiltshire A3-4	43
Witlshire A5-6	43
Windsor A5-6	50
Duplex A5-6	67

i) Please provide the individual optimal intervention timing results for each of the 6 switchgear TS assets.

RESPONSE:

i) The calculated optimal intervention times are presented in the table below.

Switchgear	Project Year	Current Optimal Intervention Time
Strachan A7-8	2013	1
Carlaw A6-7	2012	0
Wiltshire A3-4	2012	0
Wiltshire A5-6	2014	0
Windsor A5-6	2014	0
Duplex A5-6	2013	0

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INTERROGATORY 26:

Reference(s): **Tab 4, Schedule B14**

a) Figure 1 on page 5 shows zero outdoor-mounted circuit breakers in the range 42 to 47 years. Table 2 on Page 4 shows three circuit breakers (Fairchild TS) with an age of 42 years. Please explain.

RESPONSE:

a) There is an error in the graph submitted as Figure 1. Please see a revised version of Figure 1 below.

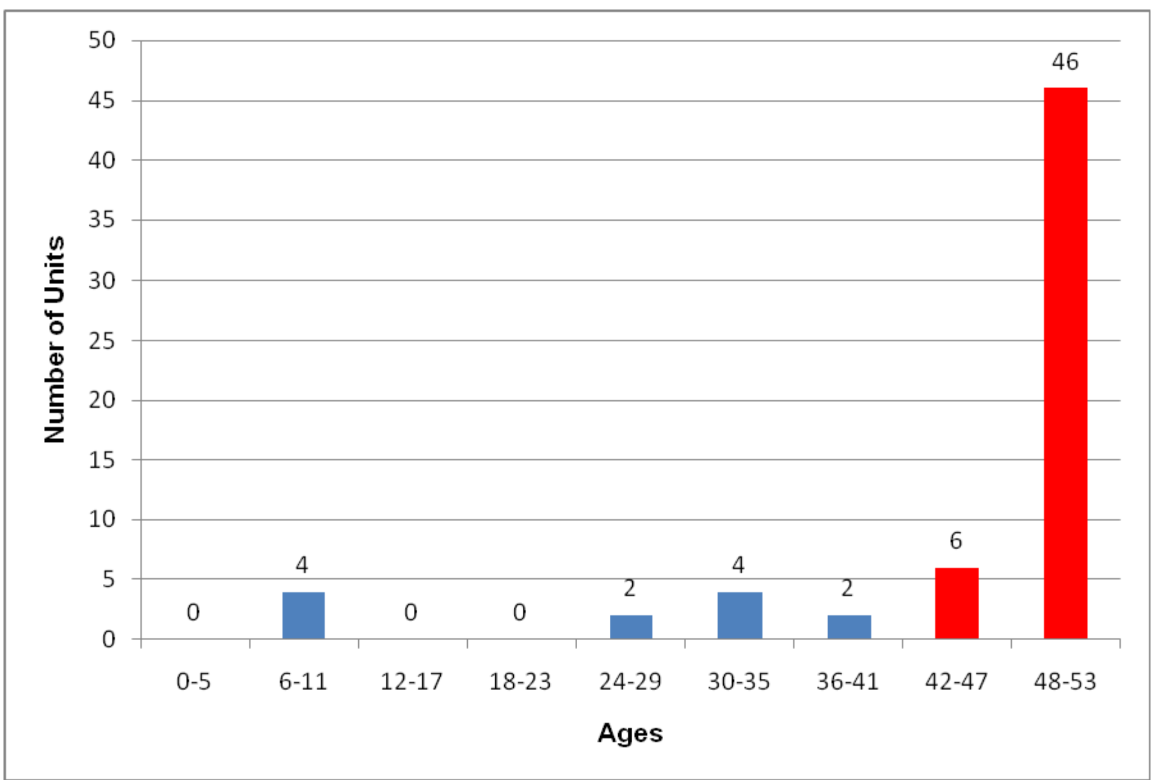

Figure 1 - Age profile of outdoor-mounted KSO circuit breakers

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Also please note that the number of KSO oil breakers was mistakenly listed as 66. The actual total (consistent with the 2012 Asset Condition Assessment Audit report from Kinectrics, Tab 4, Schedule D1) is 64.

b) Please provide the number of interruptions by year since 2000 attributed to station circuit breakers.

RESPONSE:

b) The number of interruptions attributed to circuit breakers is equal to the number of failures. Please see the response in part c).

c) Please provide the failure rates since 2000 (number of failures by year) for station circuit breakers.

RESPONSE:

c) The table below lists the number of circuit breaker failures in each year since 2000.

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
#	4	8	6	2	2	2	3	3	2	1	4	6

d) Please provide the latest Asset Condition Assessment results and Health Index for each circuit breaker selected for replacement.

RESPONSE:

d) As identified in the 2012 Asset Condition Assessment Audit report from Kinectrics (Tab 4, Schedule D1), the majority of oil KSO breakers (approximately 70%) do not

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have health index scores. THESL is working to close this gap and to review health index formulations for this asset class in general. Where available, the health index has been used as one of the criteria in prioritizing replacements, along with field inspection results and impact of failure. The table below presents the health indices of breakers selected for replacement for which such information is available.

Breaker	Health Index
80M1	62
80M3	69
80M5	64
80M9	70
85M1	54
85M2	59
85M4	54
85M25	44

e) Please provide the individual optimal intervention timing results for each of the circuit breaker assets.

RESPONSE:

e) The optimal intervention time is (OIT) calculated based on the health index score. As discussed in (d), the majority of oil KSO breakers do not have health index scores so OIT cannot be directly calculated for them. For those KSO breakers with health index scores, OIT is presented in the Table below.

The calculated optimal intervention times were not used by THESL to select breakers for replacement. Rather, breakers were prioritized based on health index (if

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available), field inspection results, age and impact of failure. Replacement of oil KSO breakers in general is necessary due to condition, age, and the high impact of collateral damage should a failure occur.

Job Title	Breaker	Forecasted Job Year	OIT
S12036 Fairchild TS: Replace KSO CB (80M1)	80M1	2012	0
S12037 Fairchild TS: Replace KSO CB (80M3)	80M3	2012	0
S12043 Fairchild TS: Replace KSO CB (80M5)	80M5	2012	0
S12044 Fairchild TS: Replace KSO CB (80M9)	80M9	2012	5
S14055 Bathurst TS : Replace 85M1 KSO CB	85M1	2014	0
S14057 Bathurst TS: Replace 85M2 KSO CB	85M2	2014	0
S14056 Bathurst TS: Replace 85M4 KSO CB	85M4	2014	0
S14059 Bathurst TS: Replace 85M25 KSO CB	85M25	2014	0

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INTERROGATORY 27:

Reference(s): **Tab 4, Schedule B15**

a) Please indicate the measure used to track the performance of the SONET system and MOSCAD system.

RESPONSE:

a) The performance of the SONET system is monitored 24/7 by General Electric VistaNet software and the number and nature of failures is tracked and measured.

Similarly, the MOSCAD radio system performance is monitored 24/7 by SCADA system and the number and nature of failures is tracked and measured.

b) The evidence indicates there were approximately 50 entries in defective equipment tracking related to Etobicoke RTUs equipment and three MOSCAD systems experienced communication failure in 2011. Please provide these results for 2009 and 2010.

RESPONSE:

b) For 2009, there were 107 entries in the Defective Equipment Tracking System (DETS) related to Etobicoke RTUs equipment and nine MOSCAD system communication failures. For 2010, there were 78 entries in DETS related to Etobicoke RTUs equipment and 14 MOSCAD system communication failures.

c) Please provide the useful life of the SONET communication system and the Motorola radio communication system.

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RESPONSE:

c) The useful life for a new SONET system is approximately 15 years. The useful life for a new radio communication system similar to the one THESL currently has in place is approximately ten years.

d) Please provide the rationale for choosing the specific projects detailed under 1.1.1 to 1.1.6 on Pages 5 to 9.

RESPONSE:

d) Please see the table below.

Project	Rationale for Choice as Project
Improve SONET Redundancy: 14 Carlton to George and Duke MS and Esplanade TS	Lack of existing redundancy and high impact of failure (lack of communication with certain stations)
Improve SONET Redundancy: Malvern TS to Sheppard TS	Lack of existing redundancy and high impact of failure (lack of communication with certain stations)
Improve SONET Redundancy: Split Toronto SONET ring	Improved operational flexibility and flexibility of downtown SONET system by splitting it into smaller rings
Improve SONET Redundancy: Sheppard TS to Ellesmere TS	Lack of existing redundancy and high impact of failure (lack of communication with certain stations)
Upgrade OC3 to OC12	Lack of available bandwidth and vendor support with current system

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Project	Rationale for Choice as Project
Improve SONET Redundancy: Duplex TS to Fairbank TS and Warden TS to Bermondsey TS	Lack of existing redundancy and high impact of failure (lack of communication with certain stations)

e) Please confirm the rationale for choosing the five MS SCADA RTU locations under 2.1.3 on Pages 12 to 13 and 2.1.5 on Page 15.

RESPONSE:

e) The specific locations for SCADA RTU installation were selected based on the following criteria:

- Remote monitoring and control are not currently available at these locations.
- These locations are not scheduled to be decommissioned.
- Remote control/monitoring of these locations will provide significant value from both an operations and an asset management perspective.

f) Please confirm why THESL believes these projects qualify as a non-discretionary cost that is appropriate for recovery through an ICM?

RESPONSE:

f) Reliable SONET and SCADA/RTU communication systems are critical to the reliable operation and management of the THESL's distribution system. These communication systems allow for THESL to efficiently perform switching operations and monitor the real time state of the system. Without the ability to remotely monitor system state and operate switches, SAIDI will increase as these operations will need to take place manually in the field. Many of the existing components are no longer

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supported by the manufacturer (MOSCAD radios, OC3) and/or are at an increased risk of failure, negatively impacting the overall reliability of the system. Please also refer to Section 2 in Tab 4, Schedule B15, pages 2-3 for more details.

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INTERROGATORY 28:

Reference(s): Tab 4, Schedule B16

a) Please summarize the risks identified at six of the 15 downtown stations.

RESPONSE:

a) The risks can be summarized as:

- Loss of Hydro One supply
- Catastrophic failure of Hydro One and/or THESL station equipment
- Station unavailability due to natural disaster, impact of inadvertent action by external agencies and deliberate destructive activities

b) Please provide the number of customers served by each feeder.

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RESPONSE:

b) The customer count by feeder at the time of submission is as follows:

Feeder	Customer Count	Feeder	Customer Count
A13DN	5	A34W	1
A1B	4	A35DN	5
A203BN	195	A35W	2
A204BN	1,536	A36DN	22
A240GD	755	A38DN	2
A256DN	2,141	A4B	4
A273DN	494	A57W	1
A2B	3	A67W	4
A30DN	9	A6B	6
A31DN	10		

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INTERROGATORY 29:

Reference(s): Tab 4, Schedule C1

a) Please reproduce Table 1 on Page 1 to include data for 2009 to 2011.

RESPONSE:

a) Please see the table below.

Operations Capital Budget 2009-2011 ($ M)

Project Name	2009	2010	2011
Engineering Capital	25.80	34.50	23.60
Worst Performing Feeder	*see Note 1*	16.70	19.30
Customer Connections (net of Customer Contributions)	14.20	16.00	28.40
Reactive Capital	20.70	25.10	28.60
Continuing Projects and Emerging Issues Portfolio	*see Note 2*	*see Note 2*	*see Note 2*
TOTAL	60.70	92.30	99.90

Note 1: 2009 Spending in Worst Performing Feeder

THESL introduced the Worst Performing Feeder portfolio at the beginning of 2010 to ensure the continued improvement in system reliability. This portfolio was not tracked prior to 2010. Therefore, THESL is unable to provide 2009 capital expenditure for the Worst Performing Feeder portfolio.

Note 2: 2009-2011

Spending in the Continuing Projects and Emerging Issues Portfolio

THESL developed the "Emerging Issues" portfolio in May of 2012 as part of the change to IRM regulatory framework to address urgent and non-discretionary projects

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that emerge throughout the year that require short term attention. Historically, under Cost of Service (COS), THESL did not have a unique portfolio to keep track of Emerging issues as such projects were spread in other portfolios such as Customer Connection, Worse Performing Feeder, Overhead Infrastructure, Underground Infrastructure, etc. Therefore, THESL is unable to provide historical capital expenditure for the Emerging portfolio.

THESL has advised the OEB and intervenors that it will be filing an update to its pre-filed evidence. THESL believes that its pending update will fundamentally affect THESL's response to this interrogatory. Accordingly, THESL is not is a position to reproduce the 2012 to 2014 elements of this table until after its forthcoming evidentiary update.

b) Please provide a breakdown of the Continuing projects from 2011 into 2012 in Table 6 on Page 9.

RESPONSE:

b) Please see the response in OEB Staff interrogatory 71 (Tab 6F, Schedule 1-71).

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INTERROGATORY 30:

Reference(s): Tab 4, Schedule C2

a) Please provide a breakdown of the 2011 Carryover Projects into 2012 in Table 1 on Page 1.

RESPONSE:

a) Please see the table below.

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PROJECT	Cost ($M)	Description
CUSTOMER SELF SERVICE	$2.40	Projects to meet the growing needs and expectations of tech savvy customers and improve online presence. THESL is enhancing customer experience via online self serve features (such as customer profile creation/change/deletion and access to time of use rate information).
REGULATORY REQUIREMENTS	$2.50	The project also implements solutions to address changing regulatory requirements mainly the use of 'register' data instead of 'interval' data for time-of-use billing and suite meter automated reading.
PLANNED WORK AUTOMATION ENHANCEMENT	$0.80	Includes the development of reports and analytics to support the distribution of work to field crews. The solution automates the customer service order process which enables crews to generate and report on reactive work in the field.
WAREHOUSE MANAGEMENT	$1.60	The warehouse management project enables barcode scanning technology to minimize data entry errors and reduce input time. The project also enables asset inventory tracking as well as analytical reporting via integration with THESL's enterprise resource planning system.
LOGGING, DATA LOSS PREVENTION AND GOVERNANCE RISK CONSOLE	$0.85	The project delivers a security and event information management solution consisting of log aggregation, event correlation, analytics and reporting. It also focuses on creating clearly defined technical rules (technology system policies) which are monitored from a security perspective and evaluated via incidents where necessary actions would be identified.
TIME & ATTENDANCE	$0.80	Implements a unified time and attendance system providing improved controls, better governance and accurate reporting. the project automates timekeeping data entry, approval, verification, processing, storage and reporting as well as exceptions, such as vacation or other absences.
TOTAL	**$8.75**	

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b) Please provide the useful life for IT hardware assets.

RESPONSE:

b) Please see the table below.

IT Hardware Asset Category	Asset Useful Life (Years)
Servers	6
Storage and Backup	6
Network and Telephony	6
Printers and Plotters	5
User Endpoints (e.g. desktops, laptops etc.)	4
Security Appliances (e.g. Firewall System, Enterprise Data Warehouse etc.)	4

Please also refer to response to OEB Staff interrogatory 72 (Tab 6F, Schedule 1-72).

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INTERROGATORY 31:

Reference(s): **Tab 4, Schedule C3**

a) Please provide the useful life and age for each of the vehicles listed in table 1.

RESPONSE:

a) Please see the tables below.

2012			
Replacement Vehicle Type	Vehicle Year	Age (yrs) in Planned Year of Replacement	Typical Useful Life (yrs)
Car/Light Truck	2004	8	5
Car/Light Truck	2003	9	5
Car/Light Truck	2006	6	5
Car/Light Truck	2005	7	5
Car/Light Truck	2005	7	5
Cube Van	2002	10	7
Cube Van	2002	10	7
Cube Van	2002	10	7
Cube Van	2002	10	7
Cube Van	2002	10	7
Cube Van	2002	10	7
Cube Van	2002	10	7
Cube Van	2002	10	7
Cube Van	2002	10	7
Cube Van	2002	10	7
Cube Van	2002	10	7
Derrick	1997	15	10
Derrick	1997	15	10
Fork lift	??	??	> 10
Water Truck	1999	13	7
Water Truck	1999	13	7

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2013			
Replacement Vehicle Type	Vehicle Year	Age (yrs) in Year of Replacement	Typical Useful Life (yrs)
Cube Van	2002	11	7
Cube Van	2002	11	7
Cube Van	2002	11	7
Cube Van	2002	11	7
Cube Van	2002	11	7
Cube Van	2002	11	7
Cube Van	2002	11	7
Cube Van	2002	11	7
Cube Van	2002	11	7
Cube Van	2002	11	7
Bucket Truck (Various Designs)	2002	11	10
Bucket Truck (Various Designs)	2003	10	10
Bucket Truck (Various Designs)	1997	16	10
Bucket Truck (Various Designs)	2003	10	10

2014			
Replacement Vehicle Type	Vehicle Year	Age (yrs) in Year of Replacement	Typical Useful Life (yrs)
Cube Van	2002	12	7
Cube Van	2000	14	7
Cube Van	2002	12	7
Bucket Truck (Various Designs)	2002	12	10
Bucket Truck (Various Designs)	2002	12	10
Bucket Truck (Various Designs)	1998	16	10
Bucket Truck (Various Designs)	2003	11	10
Bucket Truck (Various Designs)	2002	12	10
Bucket Truck (Various Designs)	2002	12	10

RESPONSES TO ASSOCIATION OF MAJOR POWER CONSUMERS IN ONTARIO INTERROGATORIES ON ISSUE 2.2

INTERROGATORY 32:

Reference(s): **Tab 4, Schedule C4**

a) Please provide the historical capital spending for 2009 to 2011 on buildings and facilities.

RESPONSE:

a) Please see OEB Staff Interrogatory 74 (Tab 6F, Schedule 1-74).

RESPONSES TO ASSOCIATION OF MAJOR POWER CONSUMERS IN ONTARIO INTERROGATORIES ON ISSUE 2.2

INTERROGATORY 33:

Reference(s): **Tab 4, Schedule D1, THESL Asset Condition Assessment Audit**

a) Please explain further how the BI Calculator facilitates decision making with respect to capital projects and expenditures.

RESPONSE:

a) The BI Calculator utilizes a multi-criteria analysis, including maintenance records, inspection life grade assessment and diagnostic test reports, to determine a heath index for a particular asset. This facilitates decision making as the heath index shows how an asset ranks within the total population of a particular asset category. This ranking allows THESL to better predict how many assets can be expected to fail, and thus must be replaced over the next several years. Using this information, THESL develops long term replacement or refurbishment strategies.

In addition, by establishing a relationship between an asset's probability of failure and its health index, a more refined risk cost can be calculated compared to only using age to determine probability of failure. THESL uses this refined risk cost to determine the optimum point where action—such as replacement or refurbishment—is required. By using the optimum intervention time to execute a capital project, total expenditures (risk cost + capital cost+ maintenance cost) is minimized.

b) Please explain why Underground Cables and Network Protectors have not been incorporated in to the calculator.

RESPONSES TO ASSOCIATION OF MAJOR POWER CONSUMERS IN ONTARIO INTERROGATORIES ON ISSUE 2.2

RESPONSE:

b) The BI Calculator utilizes data from THESL's ERP system, Ellipse, to perform the Health Index (HI) calculation for each asset. Underground cable data is currently stored in THESL's GIS system, GEAR. In order to incorporate underground cables into the BI Calculator, either underground cable data would first have to be migrated from GEAR to Ellipse, or the BI Calculator would require significant programming modifications to perform HI calculations on GEAR data. THESL has attempted the migration of some cable data from GEAR to Ellipse. However, this exercise demonstrated that migrating cable data from GEAR to Ellipse is not feasible.

THESL does not apply the Asset Condition Assessment methodology to Fibertop Network Units. As described in the application, the inherent design of the Fibertop protector makes it a high risk asset. Given this identification, THESL has classified all Fibertop Network Units as being in "very poor" condition.

RESPONSES TO ASSOCIATION OF MAJOR POWER CONSUMERS IN ONTARIO INTERROGATORIES ON ISSUE 2.2

INTERROGATORY 34:

Reference(s): Tab 4, Schedule B5, page 1

Preamble: THESL describes the box construction program as a proactive program.

a) Please explain why THESL believes this program qualifies as a non-discretionary cost that is appropriate for recovery through an ICM?

RESPONSE:

a) As fully described in the "Need" section of the box construction evidence (Tab 4, Schedule B5, pages 10-18), THESL believes that this project is "non-discretionary" for the following reasons:

- Safety (pages 10-11 of Tab 4, Schedule B5) – The safety needs addressed by this project include increased complexity and difficult access, difficulty in conforming to the working clearances defined in Electrical Utilities Safety Rules (EUSR) rule 129 and the presence of legacy equipment that does not comport with current safe work practices.
- Loading/Capacity (pages 11-12 of Tab 4, Schedule B5) – The 4kV box construction feeders have less capacity and are less efficient when compared to the 13.8kV feeders that replace them. Also situations have arisen where 4kV box construction feeders are inadequate to supply new large customers. Given the construction boom in Toronto, flexibility is increasingly needed to connect new larger customers.
- Clearance (pages 12-13 of Tab 4, Schedule B5) – Box construction creates ongoing issues with maintaining the three-metre clearance requirement found in

RESPONSES TO ASSOCIATION OF MAJOR POWER CONSUMERS IN ONTARIO INTERROGATORIES ON ISSUE 2.2

ESA and THESL standards. This is particularly true as buildings are replaced or rebuilt.

- Reliability (pages 13-15 of Tab 4, Schedule B5) – Box construction in generally between 40 and 60 years old and thus includes a significant number of assets that have past or are approaching the end of their useful lives. In addition, 4 kV box construction feeders have more frequent outages than 13.8kV overhead feeders and the average outage duration of these outages is twice as long.
- Aging 4kV Stations (page15 of Tab 4, Schedule B5) – Conversion of some 4kV box construction feeders is necessary to allow decommissioning of legacy 4kV stations.

Other benefits of converting 4kV box construction feeders are discussed on pages 16-18 of Tab 4, Schedule B5.

RESPONSES TO CANADIAN UNION OF PUBLIC EMPLOYEES, LOCAL ONE INTERROGATORIES ON ISSUE 2.2

INTERROGATORY 2:

Reference(s): **Tab 2 – Manager's Summary, Appendix 4, Pages 1 - 7**

Please reconcile the Applicant's reported good reliability results in its Annual Information Return with the statement within the application that reliability results are declining?

RESPONSE:

There is no apparent relationship between the reference given, or the preamble, and the question posed in this interrogatory.

Nevertheless, while THESL's reliability indicators are below (i.e., better than) the composite Canada-wide averages as reported by the CEA and noted in THESL's Annual Information Form, THESL does not consider these statistics as indicating that THESL's reliability is currently at an acceptable level. In addition, contrary to what was implied, THESL has not and does not consider its current reliability results as "good." Furthermore, average reliability statistics mask reliability degradations in specific locations that are essential to address.

RESPONSES TO CANADIAN UNION OF PUBLIC EMPLOYEES, LOCAL ONE INTERROGATORIES ON ISSUE 2.2

INTERROGATORY 3:

Reference(s): **Tab 2 – Manager's Summary, Page 23, Line 18**
Page 24, Line 10

Explain whether any of the projects referenced in the Manager's Summary that THESL plans not to complete are in any way related to the Ministry of Labour order requiring THESL to create an inventory of asbestos materials. In addition, explain how and when THESL plans to complete any projects that create safety risks to employees and/or the public. Please provide a copy of THESL's asbestos inventory.

RESPONSE:

The interrogatory does not reference a specific order, and the projects referenced in the Manager's Summary do not appear to be related to any order that discusses requirements to create an asbestos inventory. THESL maintains information on the location of asbestos-containing material in its system and is actively consolidating such information into a comprehensive inventory, which is not yet available.

Of the projects not included in this application as referenced on page 23 of the Revised Manager's Summary, none were directed at the creation of the comprehensive asbestos inventory.

The timelines and objectives of the projects in this application – a number of which include maintaining worker and/or public safety – are set out in the material business cases (Tab 4). To the extent that this question seeks information about projects that *address* potential safety risks, please see the Manager's Summary section entitled, "Safety Considerations Pertinent to Need" (Tab 2, pages 18-19).

RESPONSES TO CANADIAN UNION OF PUBLIC EMPLOYEES, LOCAL ONE INTERROGATORIES ON ISSUE 2.2

INTERROGATORY 6:

Reference(s): Tab 4 - ICM Business Case, Schedule B4, Pages 1 - 180

a) The ICM Business Case section shown in Tab 4 of the application shows various references to the need to replace overhead infrastructure, such as wood poles, CSP transformers and porcelain switches on the basis that they pose safety and reliability risks. Please provide a detailed explanation as to how many failures in each of these areas have occurred in 2010, 2011, and year-to-date for 2012 and how many of those totals have resulted in safety incidents.

RESPONSE:

a) As illustrated in the table below the number of failures has been presented along with the number of reported incidents for wood poles, CSP transformers, and porcelain switches. Wood poles have experienced one reported incident in 2011, CSP transformers have experience no reported incidents, and porcelain switches have experienced one reported incident in 2011 and one reported incident in 2012.

Asset Type	Category	2010	2011	2012
Wood Poles	# of Failures	4	8	6
	# of Incidents	0	1	0
CSP Transformers	# of Failures	64	33	19
	# of Incidents	0	0	0
Porcelain Switches	# of Failures	56	69	39
	# of Incidents	0	1	1

RESPONSES TO CANADIAN UNION OF PUBLIC EMPLOYEES, LOCAL ONE INTERROGATORIES ON ISSUE 2.2

b) If there is an impact on safety what have impacts on frequency and severity been with these three types of replacements? What are the anticipated improvements to the safety if they are replaced?

RESPONSE:

b) As can be seen in the below table, the frequency of pole failures has been increasing since 2010, the frequency of CSP transformers has been decreasing, and the porcelain switches have increased from 2010 to 2011 and has the potential to continue increasing by the end of 2012.

Year	2010	2011	2012
Wood Poles	4	8	6
CSP Transformers	64	33	19
Porcelain Switches	56	69	39

In terms of severity, the table below shows the severity of the equipment failures in terms of number of customers interrupted and the total customer hours interrupted. Note that the 2012 values are year-to-date and thus could increase by year-end.

Asset Type	Category	2010	2011	2012
Pole	CI	569	14,043	8,850
	CHI	391	25,907	5,579
CSP Transformer	CI	9,126	3,226	771
	CHI	8,777	2,774	1,702
Porcelain Switches	CI	50,520	36,447	53,921
	CHI	13,249	26,197	30,525

RESPONSES TO CANADIAN UNION OF PUBLIC EMPLOYEES, LOCAL ONE INTERROGATORIES ON ISSUE 2.2

The anticipated safety improvement is a reduction in the number of safety incidents caused by these assets by proactively removing these known "high risk for failure" assets from the system.

c) Can you provide the risk assessments for these three types of replacements? Is there a deteriorating failure trend with these types of planned replacements?

RESPONSE:

c) The risk assessments for CSP transformer replacements, porcelain disconnect replacements and wood pole replacements are listed in the tables below.

CSP TX	
2012	$ 9,369,902.68
2015 (PV)	$ 17,803,490.54
Avoided Risk Cost	$ 8,433,587.86
Disconnect (Porcelain)	
2012	$ 2,401,617.08
2015 (PV)	$ 20,802,415.62
Avoided Risk Cost	$ 18,400,798.53
Wood Poles	
2012	$526,631,920.83
2015 (PV)	$755,491,719.50
Avoided Risk Cost	$228,859,798.68

Yes, there is a deteriorating trend of customer hours interrupted by these failures. Note, that 2012 is not a complete year and there is potential that more customer hours of interruption will be experienced by the end of the year.

RESPONSES TO CANADIAN UNION OF PUBLIC EMPLOYEES, LOCAL ONE INTERROGATORIES ON ISSUE 2.2

Deteriorating Trend - Customer Hours Interrupted				
Year	2009	2010	2011	2012
Wood Poles	7,430	391	25,907	5,579
Porcelain Switches	24,844	13,249	26,197	30,525
CSP Transformers	4,062	8,777	2,774	1,702

d) What are the anticipated improvements to SAIDI, SAIFI and CAIDI as a result of these proposed replacements?

RESPONSE:

d) The table below lists the forecasted mitigated reliability if the proposed equipment is replaced.

Mitigated Reliability From Proposed Replacements			
Asset Type	SAIFI	SAIDI	CAIDI
Wood Poles	0.0298	1.2776	42.8571
Switches	0.0099	0.2305	23.1943
CSP Transformers	0.0021	0.0852	40.0000

e) What is the industry standard for replacement of CSP transformers? Are other utilities initiating plans to replace all CSP transformers?

RESPONSE:

e) It is generally known throughout the industry that CSPs can have an adverse effect on the distribution system's reliability; however THESL is not aware of an industry standard for CSP replacement strategy.

RESPONSES TO CANADIAN UNION OF PUBLIC EMPLOYEES, LOCAL ONE INTERROGATORIES ON ISSUE 2.2

Yes, THESL is aware that Duke Energy has a program to remove CSP transformers from their system. As of 2010 Duke has removed 18,000 CSPs resulting in a 25% SAIFI improvement.

f) What percentage of the switches in THESL's overhead system are porcelain and what percentage are polymer? What are the failure rates of both types of switches?

RESPONSE:

f) There are 9,665 porcelain switches (57%) and 7,311 polymer switches (43%) in the THESL system.

Overhead Switch Failures (Manually Operated Disconnects and Loadbreak)			
	2010	2011	2012
Porcelain	57	69	39
Polymer	0	2	1

RESPONSES TO CONSUMERS COUNTIL OF CANADA INTERROGATORIES ON ISSUE 2.2

INTERROGATORY 17:

Reference(s): **Tab 2/p. 15**

Please rank the proposed projects in terms of which are the most important to ensure that THESL maintains its current level of safety and reliability. Within each project please do the same with respect to the "segments".

RESPONSE:

Please see THESL's response to OEB Staff interrogatory 26 b (Tab 6F, Schedule 1-26).

RESPONSES TO CONSUMERS COUNCIL OF CANADA INTERROGATORIES ON ISSUE 2.2

INTERROGATORY 18:

Reference(s): **Tab 2/p. 16**
Tab 4/Schedule A/Appendix 1

The evidence states that "Every project addresses a well-defined need that must be met in the short-term, i.e. over the three-year period." With respect to each of the listed projects please provide evidence as to why these projects cannot be undertaken over a longer period of time.

RESPONSE:

As detailed throughout the application evidence (including that relating to individual projects (see Tab 4), THESL's view is not that the projects cannot be undertaken over a longer period of time, but that to do so would likely create potential unnecessary risks of serious negative consequences on system reliability, safety, and costs.

RESPONSES TO ENERGY PROBE RESEARCH FOUNDATION INTERROGATORIES ON ISSUE 2.2

INTERROGATORY 11:

Reference(s): Manager's Summary Tab 2, Page 8, Lines 6-17

Please explain the distinction between the financing of capital projects (through depreciation, retained earnings and borrowing) and the cost of the investment referred to on line 12, i.e. if the interest cost of borrowing, depreciation expense and return on equity are all in the rates, what remains to be recovered?

RESPONSE:

'Financing' here refers to the source of cash used to directly pay the invoices and salaries related to a capital project. For long lived capital projects, the upfront payment made by a utility can be on the order of ten times the associated revenue requirement, or 'cost', of making that investment in the distribution system. THESL agrees that if an investment is made, is included in ratebase, and attracts the capital-related components of revenue requirement (depreciation, interest cost, equity return and taxes) and corresponding rates, the 'cost' of that investment is covered i.e., 'funded'.

THESL would not agree that a utility having the financing capability to make an investment means that the 'cost' of doing so is covered.

Please also see THESL's response to CCC interrogatory 14 (Tab 6C, Schedule 6-14).

RESPONSES TO ENERGY PROBE RESEARCH FOUNDATION INTERROGATORIES ON ISSUE 2.2

INTERROGATORY 12:

Reference(s): **Manager's Summary Tab 2, Page 9, Lines 16-20**

a) Has THESL started notice and consultation activities with residents in areas proposed for replacement of underground cable and for rebuilding of back lot overhead lines with front lot underground cables?

RESPONSE:

a) Yes, THESL communicates with all customers affected by underground and rear-lot conversion projects. The City of Toronto permitting process is outlined in the Municipal Consent Requirements (MCR), which is Appendix A to the response to EP interrogatory 22 (Tab 6F, Schedule 7-22). The MCR requires THESL to communicate with all customers who will be receiving new equipment and customers who are within the line of sight of new above ground equipment. THESL also provides a General Letter to all affected customers. This General Letter includes the basic scope of work, construction schedule and a THESL contact person if further information is required. City Councillors, Business Improvement Areas and Residential Associations are briefed on projects and, if appropriate, customers are invited to a THESL Project Information session. Continuous customer updates are sent throughout the project and included on a public website.

b) If yes, please provide copies of typical notice and consultation materials sent to residents for these two types of projects.

RESPONSES TO ENERGY PROBE RESEARCH FOUNDATION INTERROGATORIES ON ISSUE 2.2

RESPONSE:

b) The customer communication is intended to provide project information and is not positioned as consultation materials. Sample customer notification letters are attached as Appendix A to this interrogatory.

Toronto Hydro-Electric System Limited
EB-2012-0064
Tab 6F
Schedule 7-12
Filed: 2012 Oct 5
(5 pages)

Important Notice

We're upgrading electrical service in your neighbourhood

powerUp

August 2012

To our valued customer:

IMPORTANT NOTICE: Overhead/Underground Construction Project ______________________

Toronto Hydro-Electric System is in the process of planning a significant upgrade to the electrical system in your neighbourhood. The project boundries are within Westlake Road (north), Guildwood Parkway (south), Galloway Road (east), and Livingston Road (west).

The current electrical system is located at the back or 'rear lot' of your homes. When storms occur, these 'rear lot' configurations often take longer to repair and the area can experience longer than normal outages.

We are proposing to upgrade the electrical equipment to an **underground distribution system located in the street allowance** in front of your homes. This modern system will ensure a more reliable service. In addition, the relocation of the system will be safer for our crews, easier to access during supply failures and interruptions, resulting in faster restoration times.

In order to perform and plan the work successfully, Toronto Hydro staff or its authorized contractors, Aecon / Stantec Consulting Ltd, will need access to the your property. They will be inspecting equipment and/or, making necessary alterations and modifications to meters to allow for continued reliable services. The civil construction is expected to begin in February 2011 and the electrical installations to follow in June until October 2011.

Our staff and/or contractors will be carrying proper identification when they are on your property. If you need more information regarding the project please call 416.542.3366 or email at capitalprojects@torontohydro.com and reference **Project ______________________.**

Regards,

Joe Smith
Customer Operations Representative

Project ______________

Ward

Ward 43

Activity

Overhead/ Underground Rebuild

Timeline

February – October 2011

PREPARATION | CONSTRUCTION | RESTORATION

For further information on the powerUp initiative please visit:

poweruptoronto.ca

Contact **capitalprojects@torontohydro.com** or call the powerUp line at **416.542.3366** to speak to a Customer Operations Representative directly.

TORONTO HYDRO

Important Notice

We're upgrading electrical service in your neighbourhood

September 7, 2012

Dear Valued Customer:

IMPORTANT CONSTRUCTION NOTICE: Toronto Hydro Equipment Installation

Project __________

Toronto Hydro-Electric System Limited ("Toronto Hydro") is planning to rebuild the aging underground electrical system in your community. The rebuild includes the replacement of the existing electrical cables and transformers. As a result, a**n above-ground, green padmounted switching cubicle will be installed within the line of sight of your property at 400 Walmer Road.** The equipment dimensions are approximately 1.9 metres by 2.3 metres by 1.4 metres in height.

This project is expected to start by **early November, 2012** with an approximate completion month of **late May, 2013.** The boundaries include **Tichester Road** (North), **Spadina Road** (East), **St. Clair Avenue West** (South), and **Bathurst Street** (West).

Once construction begins, Toronto Hydro crews and contractors will take extra care and precautions to minimize inconveniences. The portion of the driveway and other areas affected by our work will be replaced to pre-construction conditions. Repair work will be completed as season, weather and scheduling permits.

We appreciate your cooperation and ask that you exercise caution around construction areas. For further information on Project _______and the PowerUp initiative, please reference the contact information below. We look forward to working with you.

Sincerely,

Joe Smith
Customer Operations Representative

Project ________

Ward

St. Paul's
(Ward 21)

Activity

Underground

Timeline

November 2012 –
May 2013

PREPARATION | CONSTRUCTION | RESTORATION

For further information on the powerUp initiative please visit:

poweruptoronto.ca

Contact **capitalprojects@torontohydro.com** or call the powerUp line at **416.542.3366** to speak to a Customer Operations Representative directly.

Important Notice

We're upgrading electrical service in your neighbourhood

powerUp

September 7, 2012

Dear Valued Customer:

IMPORTANT CONSTRUCTION NOTICE: Toronto Hydro Equipment Installation

Project ______________ X11444

Toronto Hydro-Electric System Limited ("Toronto Hydro") is planning to rebuild the aging underground electrical system in your community. The rebuild includes the replacement of the existing electrical cables and transformers. As a result, an **underground splice vault with a visible green lid will be installed within the City of Toronto's public property allowance on your street.** The equipment dimensions are approximately 3.0 metres by 1.9 metres.

This project is expected to start by **early November, 2012** with an approximate completion month of **late May, 2013.** The boundaries include ______________ **Road** (North), **Spadina Road** (East), **St. Clair Avenue West** (South), and **Bathurst Street** (West). Throughout Project ______________ power interruptions may be necessary to switch from the old to the new electrical system. Toronto Hydro will provide you with advance notice prior to any planned outages.

Once construction begins, Toronto Hydro crews and contractors will take extra care and precautions to help minimize any inconveniences. The portion of the driveway and other areas affected by our work will be replaced to pre-construction conditions. Upon project completion, repair work will be completed as season, weather and schedule permits.

We appreciate your cooperation and ask that you exercise caution around construction areas. For further information on Project ______________ and the PowerUp initiative, please reference the contact information below. We look forward to working with you.

Sincerely,

Joe Smith, Customer Operations

Project _______

Ward

St. Paul's
(Ward 21)

Activity

Underground

Timeline

November 2012 –
May 2013

PREPARATION | CONSTRUCTION | RESTORATION

For further information on the powerUp initiative please visit:

poweruptoronto.ca

Contact **capitalprojects@torontohydro.com** or call the powerUp line at **416.542.3366** to speak to a Customer Operations Representative directly.

TORONTO HYDRO

Important Notice

We're upgrading electrical service in your neighbourhood

powerUp

August 2012

Project ________

Ward

Ward 44

Activity

Underground Rebuild

Timeline

August 2012- April 2013

To our valued customer:

IMPORTANT NOTICE: Underground Construction Project ______________

Toronto Hydro-Electric System Limited is planning to rebuild the underground electrical system in your neighbourhood. The existing system is nearing the end of its life expectancy and this project will improve service reliability and reduce the frequency of outages. Our plan is to replace the existing underground primary cables, transformers, and splice vaults within the public road allowance.

This project is expected to start in August 2012 with an approximate completion date of April 2013. The boundaries include Blacktoft Drive (North), Red River Crescent (East), Sudbury Hall Drive (South), and Farmhill Court (West).

Throughout Project ____________, power interruptions are necessary to switch from the old to the new equipment. Toronto Hydro will give you advanced notice of any planned outages.

Once construction begins, Toronto Hydro crews and contractors will take extra care and precautions to minimize inconveniences. Upon project completion, affected areas will be restored to pre-construction conditions. This repair work will be done as weather and scheduling permits.

Thank you in advance for your co-operation and understanding in this matter. Should you require additional information, please contact the PowerUp office at 416-542-3366 or capitalprojects@torontohydro.com and Project ______________.

Regards,

Joe Smith
Customer Operations Representative

PREPARATION | CONSTRUCTION | RESTORATION

For further information on the powerUp initiative please visit:

poweruptoronto.ca

Contact **capitalprojects@torontohydro.com** or call the powerUp line at **416.542.3366** to speak to a Customer Operations Representative directly.

TORONTO HYDRO

Important Notice

We're upgrading electrical service in your neighbourhood

powerUp

September 7, 2012

Dear Valued Customer:

IMPORTANT CONSTRUCTION NOTICE: Toronto Hydro Equipment Installation

Project __________

Toronto Hydro-Electric System Limited ("Toronto Hydro") is planning to rebuild the aging underground electrical system in your community. The rebuild includes the replacement of the existing electrical cables and transformers. As a result, a**n above-ground, green padmounted switching cubicle will be installed within the line of sight of your property at 400 Walmer Road.** The equipment dimensions are approximately 1.9 metres by 2.3 metres by 1.4 metres in height.

This project is expected to start by **early November, 2012** with an approximate completion month of **late May, 2013.** The boundaries include **Tichester Road** (North), **Spadina Road** (East), **St. Clair Avenue West** (South), and **Bathurst Street** (West).

Once construction begins, Toronto Hydro crews and contractors will take extra care and precautions to minimize inconveniences. The portion of the driveway and other areas affected by our work will be replaced to pre-construction conditions. Repair work will be completed as season, weather and scheduling permits.

We appreciate your cooperation and ask that you exercise caution around construction areas. For further information on Project _______and the PowerUp initiative, please reference the contact information below. We look forward to working with you.

Sincerely,

Joe Smith
Customer Operations Representative

Project ________

Ward

St. Paul's
(Ward 21)

Activity

Underground

Timeline

November 2012 –
May 2013

PREPARATION | CONSTRUCTION | RESTORATION

For further information on the powerUp initiative please visit:

poweruptoronto.ca

Contact **capitalprojects@torontohydro.com** or call the powerUp line at **416.542.3366** to speak to a Customer Operations Representative directly.

TORONTO HYDRO

RESPONSES TO ENERGY PROBE RESEARCH FOUNDATION INTERROGATORIES ON ISSUE 2.2

INTERROGATORY 13:

Reference(s): Manager's Summary Tab 2, Page 9, Lines 29-30 and Page 10, Lines 1-4

a) Please provide a copy of contracts that THESL uses for replacement of underground residential cables and for rebuilding rear lot overhead with front lot underground.

RESPONSE:

a) There are no contracts for replacement of underground residential cables or for rebuilding rear lot overhead with front lot underground as such; THESL's contracts are not based on individual jobs, but are structured as competitively bid unit prices for all types of work activities the contractor can undertake within THESL jobs.

b) If these are not firm price contracts, please explain why a different type of contract is used and the safeguards THESL has in place to ensure that it is not overcharged for a project.

RESPONSE:

b) Contract pricing is competitively bid and fixed for each unit of work for the term of the contracts, regardless of volume.

c) Please describe the fixed costs of labour and other resources referred to in line 2.

RESPONSES TO ENERGY PROBE RESEARCH FOUNDATION INTERROGATORIES ON ISSUE 2.2

RESPONSE:

c) The fixed costs refer to the contractors' costs to run their businesses, including elements such as administration, facilities, training, accounting, legal, and so on.

RESPONSES TO ENERGY PROBE RESEARCH FOUNDATION INTERROGATORIES ON ISSUE 2.2

INTERROGATORY 14:

Reference(s): Manager's Summary Tab 2, Page 10, Lines 6-13

a) Please explain the distinction between "stable volume of work" and "level of work".

RESPONSE:

a) "Level of work" refers to the size of the total expenditure for all jobs that make up the work program in a given year. "Stable volume of work" relates to how much that level of work fluctuates year-over-year.

b) Please provide examples of specific work that has been refused by contractors having existing contracts with THESL, the reasons why it was refused and what THESL did to get the work done.

RESPONSE:

b) Contractors do not refuse work. They may, however, have difficulty undertaking work if they lack available labour resources or specific required skill-sets. (For example, labour resources with skills in PILC cable installation and jointing or in working on overhead box construction are typically difficult to obtain.) Rather, they provide their available level of resources, and THESL provides priority work to the limits of those resources, or until the work is depleted, whichever occurs first.

c) Why does THESL have contracts that give the contractor the option of refusing the work offered?

RESPONSES TO ENERGY PROBE RESEARCH FOUNDATION INTERROGATORIES ON ISSUE 2.2

RESPONSE:

c) THESL's contracts are built with no guaranteed minimum or maximum amount of work. Contractors typically take on work to the limits of their resources under the fixed price terms of the contracts.

THESL uses fixed price contracts because:

- They allow THESL to be more agile, issuing work under the contract terms rather than undertaking the lengthy process of tendering each individual job.
- They achieve better pricing since the terms are over several years, rather than job by job, allowing the contractors to scale up.
- They lead to more stable and hence more experienced workers within the contractor firms.
- They allow the contractors to build local expertise with THESL's drawing conventions, nomenclature, engineering standards, and equipment types.

d) Please provide examples of short term contracts for specific jobs that entailed significantly higher prices.

RESPONSE:

d) All contract work to date has been done under the existing unit price contracts.

RESPONSES TO ENERGY PROBE RESEARCH FOUNDATION INTERROGATORIES ON ISSUE 2.2

INTERROGATORY 15:

Reference(s): Manager's Summary Tab 2, Page 20, Lines 25-29

For each major category of distribution assets please estimate the percentage of assets that either have already or will soon reach end of life.

RESPONSE:

The following table lists the major categories of distribution assets along with an estimated percentage of assets that are past useful life as of 2011, as well as those assets that will be past useful life in 2014.

Asset	% of Assets Past Useful Life (2011)	% of Assets Past Useful Life (2014)
OH Primary Conductor	0.0%	0.2%
OH Secondary Conductor	0.0%	0.8%
UG Primary Cable - DB Unjacketed	71.6%	75.2%
UG Primary Cable - DB Jacketed	20.8%	40.2%
UG Primary Cable - Conduit, Unjacketed	5.1%	21.7%
UG Primary Cable - Concrete, Unjacketed	5.9%	17.8%
UG Primary Cable - Concrete, Jacketed	10.2%	18.1%
UG Primary Cable - Conduit, Jacketed	5.9%	8.8%
UG Primary Cable - PILC	0.0%	0.0%
UG Secondary Cable	56.7%	59.3%
Poles	24.4%	30.8%
OH Switch - Load Break	29.3%	32.2%
OH Switch - Disconnect	33.2%	46.4%
OH Switch - SCADAMATE	0.7%	0.7%
UG Switch - PMH	4.5%	6.1%

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Asset	% of Assets Past Useful Life (2011)	% of Assets Past Useful Life (2014)
UG Switch - SF6	16.1%	20.6%
UG Switch - Minirupter	14.4%	19.5%
OH TX	31.1%	34.0%
UG TX - Pad-Mounted	20.4%	22.0%
UG TX - Submersible	22.6%	27.1%
UG TX - Vault	35.1%	39.6%
UG Network Units - Fibertop	87.7%	90.6%
UG Network Units - Semi-Dust-Type	61.8%	66.0%
UG Network Units - Submersible	0.0%	0.0%
Stations - Switchgear Enclosures	37.0%	43.8%
Stations - DC Batteries	0.9%	1.5%
Stations - Power TX	48.0%	57.8%
CB - Air Blast	83.8%	84.8%
CB - Magnetic Air	29.1%	51.1%
CB - SF6	1.7%	1.7%
CB - Vacuum	5.8%	9.5%
CB - Oil	69.4%	73.5%
Civil - Station Buildings	5.9%	5.9%
Civil - Network Vaults	1.7%	54.8%
Civil - Cable Chambers	0.2%	0.9%

RESPONSES TO ENERGY PROBE RESEARCH FOUNDATION INTERROGATORIES ON ISSUE 2.2

INTERROGATORY 16:

Reference(s): Managers Summary Tab 2, Page 15, Table 2

a) Please describe how the procurement process will work to ensure that most competitive prices will be obtained. For example, will each category of project be bid, or contractors allowed to bid across project categories?

RESPONSE:

a) THESL went out for competitive bids (via RFP), currently for the term January 1, 2012 to December 31, 2014, as per our procurement policy. The contractors were chosen based on predetermined evaluation criteria. The contracts are structured based on specific work units that represent the various tasks in the annual work program, and the contractors bid fixed prices for each unit of work. There is no guaranteed minimum or maximum amount of work to any/all contractors.

THESL uses fixed price contracts because:

- They allow THESL to be more agile, issuing work under the contract terms rather than undertaking the lengthy process of tendering each individual job;
- They achieve better pricing since the terms are over several years, rather than job by job, allowing the contractors to scale up;
- They lead to more stable and hence more experienced workers within the contractor firms; and
- They allow the contractors to build local expertise with THESL's drawing conventions, nomenclature, engineering standards, and equipment types.

RESPONSES TO ENERGY PROBE RESEARCH FOUNDATION INTERROGATORIES ON ISSUE 2.2

b) Will existing programs be rebid or given to existing contractors such as PowerLine? Please discuss.

RESPONSE:

b) Contracts are already in force with certain contractors, and those contractors will take on work under the terms of these contracts.

RESPONSES TO ENERGY PROBE RESEARCH FOUNDATION INTERROGATORIES ON ISSUE 2.2

INTERROGATORY 17:

Reference(s): Managers Summary Tab 2, Appendix4 – FIM calculations

a) Please provide sample calculations for an actual project using the FIM for comparing Back Lot feeder replacement vs. front lot undergrounding:

i. 2012

ii. 2015.

RESPONSE:

a)

i. Please see the results below for the "Albion F1 Silverstone Rear Lot Conversion" project (#W11168) (Tab 4, Schedule B6, pages 54-55). Please note that the civil construction costs previously expended for this project are not included in the FIM because they are considered sunk costs.

Business Case Element	Cost (in Millions)
OPTION 1	
Cost of Ownership of Existing Rear Lot Construction (COO_E)	
Projected risk cost of existing rear lot (NPV)	$0.32
Projected non-asset risk cost of existing rear lot (NPV)	$2.48
Maintenance cost of existing rear lot	$0.03
TOTAL (COO_E)	$2.83

RESPONSES TO ENERGY PROBE RESEARCH FOUNDATION INTERROGATORIES ON ISSUE 2.2

OPTION 2	
Cost of Ownership of New Standardized O/H Rear Lot (COO_{RL})	
Projected risk cost of new rear lot (NPV)	$0.07
Projected non-asset risk cost of new rear lot (NPV)	$2.48
Maintenance cost of new rear lot	$0.03
TOTAL (COO_{RL})	**$2.58**
PROJECT $COST_{RL}$	**$0.55**
OPTION 4	
Cost of Ownership of New Standardized Underground Front Lot Construction (COO_{UG})	
Projected risk cost of underground front lot (NPV)	$0.13
Projected non-asset risk cost of underground front lot (NPV)	$0.00
Maintenance cost of underground front lot	$0.02
TOTAL (COO_{UG})	**$0.15**
PROJECT $COST_{UG}$	**$1.87**
(Option 2 - Option 1): ((COO_E - COO_{RL}) - PROJECT $COST_{RL}$)	-$0.30
(Option 4 - Option 1): ((COO_E - COO_{UG}) - PROJECT $COST_{UG}$)	$0.81

Figure 1 – Sample Calculations for “Albion F1 Silverstone Rear Lot Conversion” in 2012

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ii.

Business Case Element	Cost (in Millions)
OPTION 1	
Cost of Ownership of Existing Rear Lot Construction (COO_E)	
Projected risk cost of existing rear lot (NPV)	$0.33
Projected non-asset risk cost of existing rear lot (NPV)	$2.48
Maintenance cost of existing rear lot	$0.03
Risk cost due to 3-year delay	$0.25
Maintenance cost due to 3-year delay	$0.10
TOTAL (COO_E)	**$3.09**
OPTION 2	
Cost of Ownership of New Standardized O/H Rear Lot (COO_{RL})	
Projected risk cost of new rear lot (NPV)	$0.07
Projected non-asset risk cost of new rear lot (NPV)	$2.48
Maintenance cost of new rear lot	$0.03
TOTAL (COO_{RL})	**$2.58**
PROJECT $COST_{RL}$	**$0.65**

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OPTION 4	
Cost of Ownership of New Standardized Underground Front Lot Construction (COO_{UG})	
Projected risk cost of underground front lot (NPV)	$0.13
Projected non-asset risk cost of underground front lot (NPV)	$0.00
Maintenance cost of underground front lot	$0.02
TOTAL (COO_{UG})	$0.15
PROJECT $COST_{UG}$	$1.97
(Option 2 - Option 1): ((COO_E - COO_{RL}) - PROJECT $COST_{RL}$)	-$0.14
(Option 4 - Option 1): ((COO_E - COO_{UG}) - PROJECT $COST_{UG}$)	$0.97

Figure 2 – Sample Calculations for "Albion F1 Silverstone Rear Lot Conversion" in 2015

b) Please provide complete notes on all input assumptions, including customer cost impacts and calculation steps.

RESPONSE:

b) Non-in-kind projects such as rear lot conversion are evaluated based on the 'cost of ownership' between the existing state and new state. In order to establish the 'cost of ownership' of a single asset, the estimated annualized risk is plotted along with its 'Equivalent Annual Cost' (EAC), as shown in Figure 3. Note that the EAC is the minimum life cycle cost of the asset, including both capital cost as well as future risk. The EAC defines the cost that is incurred every year, for the ownership of the asset, in a specific design for all future years. For the existing asset, only the risk is taken into account since the replacement cost is a sunk cost. As such, the asset follows its

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risk cost curve until it reaches its optimal replacement timing, at which point it should be replaced and thus, begins to follow the EAC line. The net present value of these costs from the current age onwards, over a 100-year period, represents the asset-related 'Cost of Ownership' of an asset in a particular design. The cost of ownership is represented by the region shaded blue in Figure 3.

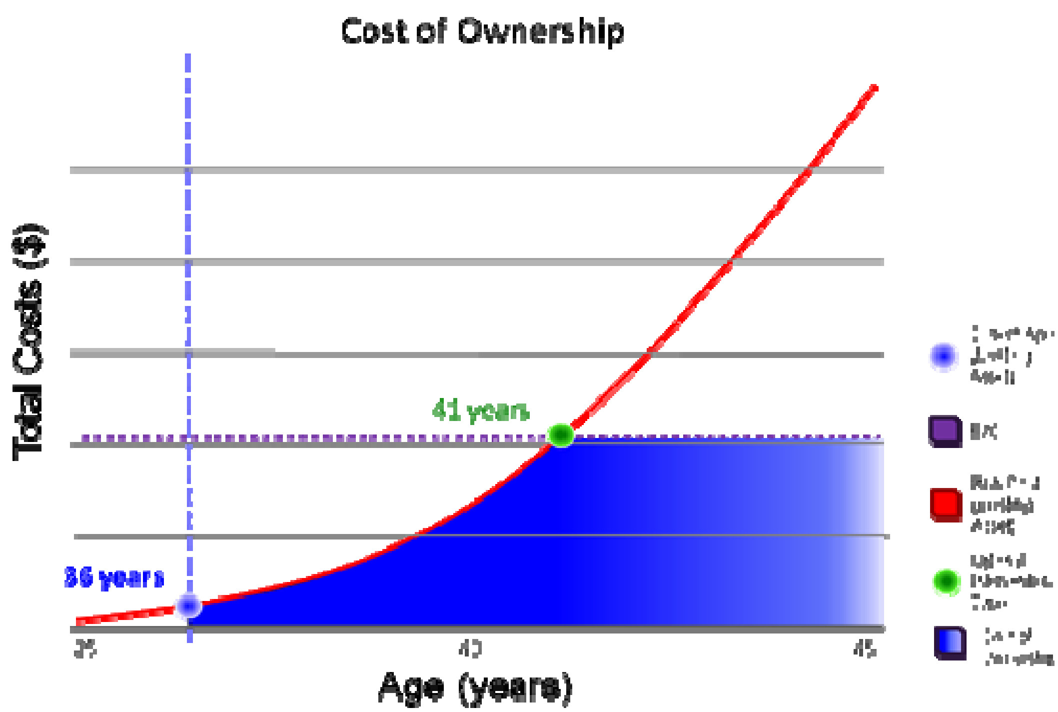

Figure 3: Cost of Ownership

The total cost of ownership for an asset is the sum of the net present value of the asset-related costs and the non asset risk. The sum of the individual costs of ownership of all assets involved is then the 'cost of ownership' of the project under a particular design or state.

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By comparing the cost of ownership of a proposed future state against the current state, the benefits of establishing the future state are determined. As previously mentioned, asset-related cost include the direct and indirect costs associated with asset replacement and resulting outage impacts to customers, while non-asset risks include the risks associated with weather, animal and human-related events.

Therefore, the final project net present value is calculated by determining the difference in Cost of Ownership from the Existing State to the New State, and subtracting this from the Project Cost, as shown in Figure 1.

c) Please provide graphical output to assist in visual understanding of the results

RESPONSE:

c) The results from for the "Albion F1 Silverstone Rear Lot Conversion" project (#W11168) executed in 2012 and 2015 are provided graphically below.

RESPONSES TO ENERGY PROBE RESEARCH FOUNDATION INTERROGATORIES ON ISSUE 2.2

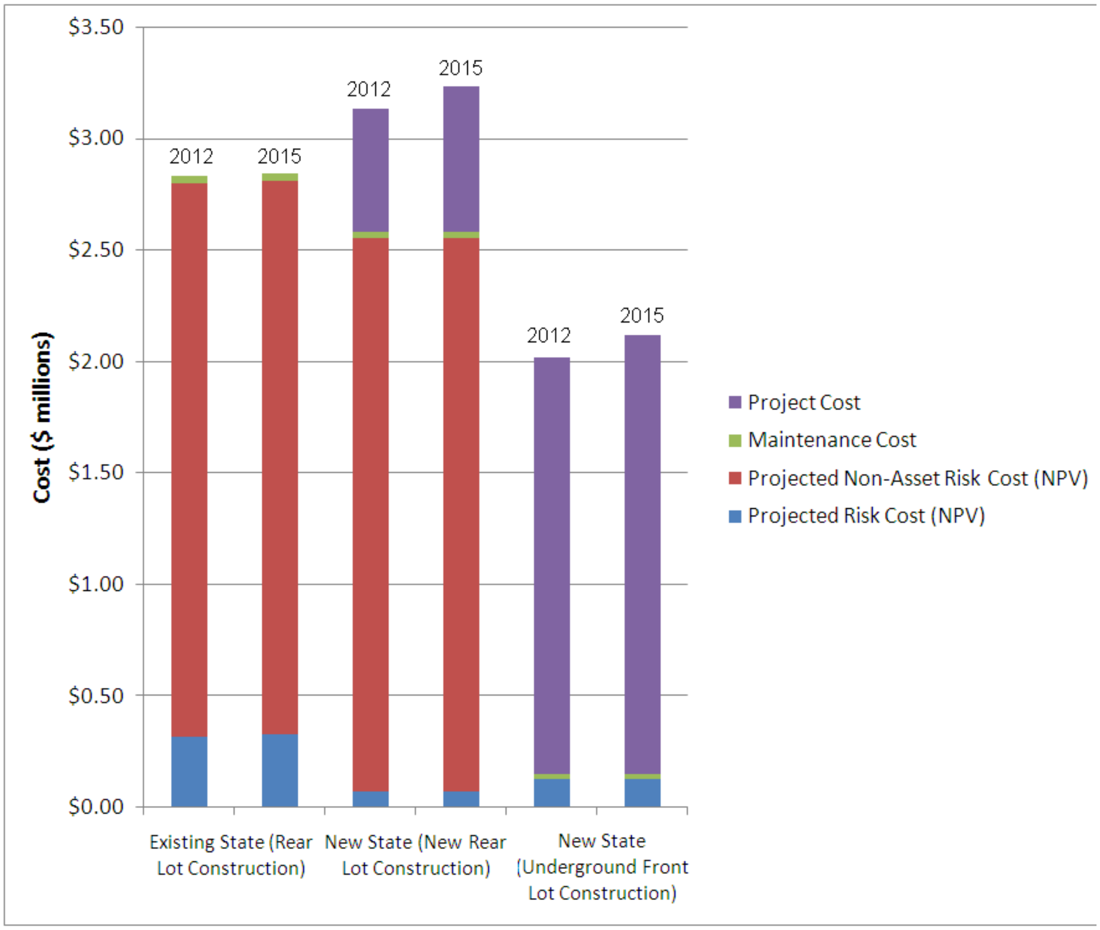

Figure 4: Graphical Display of Results between Existing and New State in 2012 and 2015

RESPONSES TO ENERGY PROBE RESEARCH FOUNDATION INTERROGATORIES ON ISSUE 2.2

INTERROGATORY 18:

Reference(s): **Tab 4 Sch. B1 – ICM Project – Underground Infrastructure and Cable &**
Tab 4 Sch. D1 Kinetrics Asset Condition Assessment Audit

Page 5 of the first reference describes the increasing failure rate of air-insulated padmounted switches. Page 62 of the second reference describes the health index for padmounted switches noting in figure 19-2 that about 85% of switches have a good or very good health index.

a) Please explain why more of these switches are failing when the great majority appear to be in good or very good condition.

RESPONSE:

a) As described in Tab 4, Schedule B1, pages 120-122, air-insulated pad-mounted switches are prone to premature failure because external contaminants can enter the switch cubicle through the ventilation louver and accumulate on the surfaces of live components in a short period of time. When combined with condensation resulting from trapped moisture in the switch cubicle and variation of ambient temperature, the contamination ultimately leads to surface tracking and a flashover, potentially resulting in catastrophic failure of the unit.

Toronto Hydro has an annual inspection program for air-insulated pad-mounted switches and performs CO_2 washing of air-insulated pad-mounted switches found with excessive build up of contamination. The condition, and resulting health index, of an air-insulated pad-mounted switch is determined through these inspections.

RESPONSES TO ENERGY PROBE RESEARCH FOUNDATION INTERROGATORIES ON ISSUE 2.2

However, because contamination and moisture can build up in a very short period of time, an air-insulated pad-mounted switch that is given a "good" or "very good" health index may still fail in a short period of time.

As mentioned in Tab 4, Schedule B1, pages 136-137, it is suspected that the process of micro-thermal shock during the CO_2 washing process causes damage to the insulator surface by removing its micro coating. Repetitive CO_2 washing could therefore result in deterioration of the insulation, allowing surface tracking to occur more easily, and resulting in more frequent failures.

For additional discussion, please see the response to OEB Staff interrogatory 33d (Tab 6F, Schedule 1-33, part d).

b) Is the health index a good predictor of failure rate in this category of assets?

RESPONSE:

b) Health index is based on the condition of the asset at a certain point in time. As discussed in part (a), contamination and moisture can accumulate and cause failure in a short period of time. Consequently, an air-insulated pad-mounted switch that is given a good or very good health index after an inspection can fail due to the build-up of contamination and moisture before its next inspection. Hence, health index is not a good predictor of failure for air-insulated pad-mounted switchgear.

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INTERROGATORY 19:

Reference(s): Tab 4, Sch. B1 – ICM Project – Underground Infrastructure and Cable

Page 9, Lines 18-21, state that CI and CHI data exclude loss of supply, major event days and planned outages to more accurately reflect the reliability of the distribution assets.

Please explain what constitutes a loss of supply condition in this context and what the definition of a major event day is in this context.

RESPONSE:

"Loss of Supply" occurs when there is an interruption of the power supplied to THESL's distribution system from another system such as Hydro One Network's transmission system. In such cases, the cause of the interruption cannot be linked to THESL assets.

A "Major Event Day" or "MED" is a day in which the daily SAIDI (System Average Interruption Duration Index) exceeds a calculated threshold value, which is calculated at the end of each year for the next year. This threshold value is determined by the IEEE Guide for Electric Power Distribution Reliability Indices (IEEE standard 1366). Identifying MEDs enables the separation of major outage events (such as an ice storm) from typical or "normal" operations, thereby allowing more effective analysis of interruption indices in order to improve reliability.

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INTERROGATORY 20:

Reference(s): **Tab 4, Sch. B1**

Figure 44 on page 117 compares CI of Direct Buried cable with CI of all other UG assets.

a) How much of the underground system is direct buried cable?

RESPONSE:

a) As stated in Tab 4, Schedule B1, Page 110, Lines 8-9, direct buried cables total approximately 877 conductor kilometres, representing approximately 7% of the underground primary cable in THESL's distribution grid. Please note that the references to "circuit kilometres" in Tab 4, Schedule B1, Page 4, Lines 10-11 and Tab 4, Schedule B1, Page 110, Lines 9-10 should refer to "conductor kilometres".

b) How are the other UG assets protected?

RESPONSE:

b) Other underground primary cables are protected by concrete-encased ducts. Submersible transformers are contained in steel-reinforced concrete vaults with metal lids. Pad-mounted transformers and pad-mounted switches are enclosed in metal housings and mounted on top of steel reinforced concrete pads.

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INTERROGATORY 21:

Reference(s): **Tab 4, Sch. B1**

Page 118 lines 1-4 state that in 2011 57% of CI and 43% of CHI for U/G asset failure were attributable to DB cables. This would mean that 43% of CI and 57% of CHI were attributable to all other U/G assets and suggests that DB failures take less time to repair than other non DB failures. Page 155 though suggests the opposite. Lines 27 to 31 state that "it takes significantly longer time, work effort and cost to repair faulted cables installed in direct buried configurations". Lines 30-31 and line 1 on page 156 say "when faults occur on cables installed in ducts, the faulted cables can be replaced more conveniently and the power restored with greater speed and lower cost.

a) **Please explain the apparent contradiction.**

RESPONSE:

a) There is no contradiction. For an outage, CHI represents the total customer hours interrupted during the outage. CHI does not necessarily represent how long it takes to repair the faulted equipment that caused the outage.

   For example, in some cases when a fault occurs, all customers on the feeder experience an interruption (due to the operation of the circuit breaker at the station) until the faulted equipment is located and isolated. Once the faulted equipment is located and isolated, power is restored to all customers except those fed from the faulted equipment. The customers fed from the faulted equipment remain without power until the faulted equipment is repaired or replaced. In such cases, CI and CHI would include all of the customers interrupted as a result of the faulted equipment,

RESPONSES TO ENERGY PROBE RESEARCH FOUNDATION INTERROGATORIES ON ISSUE 2.2

not only the customers interrupted during the repair or replacement of the faulted equipment.

Therefore, a direct correlation cannot be made between CI or CHI and the length of time it takes to repair direct buried cable failures.

b) If the explanation is that non DB assets feed more customers than DB assets and therefore cause more CHI when a fault does occur, please explain what significance the comparison in Figure 45 page 117 between CHI for DB and non DB assets has.

RESPONSE:

b) Not applicable because the response to question (a) is not that direct buried assets feed less customers than non-direct buried assets.

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INTERROGATORY 22:

Reference(s): **Tab 4, Sch. B1**

Page 126 sets out four options for correcting the problems with direct buried cables.

a) Why wasn't the option of replacing U/G with O/H considered?

RESPONSE:

a) The benefits of underground infrastructure over overhead infrastructure can be broken down into three categories: reliability; public image and acceptability; and City of Toronto requirements. Each category is discussed in Table 1 below. Replacing underground service with overhead service is not a feasible option for the reasons provided in the Table 1 under the categories Public Image and Acceptability and City of Toronto.

Table 1: Benefits of underground infrastructure over overhead infrastructure

Reliability	• Underground infrastructure provides higher reliability because it is not affected by many of the leading causes of overhead outages such as tree contacts, weather, lightning, animal contacts and vehicle accidents. • The most common causes of momentary interruptions are weather, and tree and animal contacts. These are not applicable for underground infrastructure. • Ability to maintain facilities at ground level rather than from poles and bucket trucks

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Public Image and Acceptability	• Increased customer acceptance for new projects • The virtual impossibility of gaining approval to move from underground to overhead facilities because of community resistance from people who purchased or rented dwellings or businesses with underground service. • Increase in customer and public goodwill due to aesthetics • Visually pleasing to customers and residents • Helps to create positive community relations by mitigating visual impact
City of Toronto	• The City of Toronto has additional approval requirements specific to above-ground projects.[1] Among these are the following: o "Applications or drawings that include proposed above-ground plant shall include an explanation of the reason why this plant cannot be installed below ground." (page 25). o "The Applicant shall provide written notification to all adjacent properties, and all properties that will face or will have a line of sight to the proposed plant. Such notification shall outline the nature of the work and clearly describe the size, appearance and location of the proposed plant. The notice shall include the phone number of a contact person at the Applicant's office." (page 26). o The General Manager may require that the applicant submit additional information and/or meet with staff and stakeholders during the application review process based on the nature and details of the proposed work. Where a proposed above-ground installation or the proposed esthetic treatment is not satisfactory, the General Manager will provide the Applicant with a detailed written explanation of the reason for denial of the permit application." (page 27). As a result of these and other requirements, installing underground

[1] See Appendix A to this response, which is titled Municipal Consent Requirements for the Installation of Plant Within City of Toronto Streets.

RESPONSES TO ENERGY PROBE RESEARCH FOUNDATION INTERROGATORIES ON ISSUE 2.2

	infrastructure requires less review and is therefore more efficient from a coordination and construction perspective • In dense urban areas, installing overhead distribution may not be realistic and further adds to the congestion

b) What is cost difference between:

1. **Direct buried U/G and O/H, and**
2. **Concrete encased duct U/G and O/H.**

RESPONSE:

b) Table 2 below is a modified version of Table 3 on page 134 of in Tab 4, Schedule B1, and shows the costs of replacing existing direct buried cable through planned work with:

1. Direct buried cable
2. Cable in concrete encased ducts
3. Overhead conductor and poles

Options 1 and 2 in Table 2 are for a length of 100 metres of cable. Option 3 is for a length of 114 metres of overhead poles and conductors (based on three spans of 38 metres).

The costs do not include transformers or switchgear. Including these components would not provide a realistic picture of the associated costs since not all projects proposed by THESL require transformers or switchgear. To this end, only the

RESPONSES TO ENERGY PROBE RESEARCH FOUNDATION INTERROGATORIES ON ISSUE 2.2

common components of all projects have been included for the purposes of this analysis.

As noted by footnote 3 to Table 2, some of these costs are corrections to those previously included in Table 3 on page 134 of Tab 4, Schedule B1.

Table 2: Direct buried cable replacement cost comparison

Option	Material / Injection Cost	Electrical Labour Cost	Civil Cost	Total Installation/ Rejuvenation Cost
1. Replace existing XLPE direct buried cables with new #1/0 Al strand-filled TR-XLPE direct buried cables	$13.41 (per meter) (3)	$1,822.24 (3)	$240.18 (per trench meter) (3)	$27,181.33 (3)
2. Replace existing XLPE direct buried cables with new #1/0 Al strand-filled TR-XLPE cables in concrete-encased ducts	$13.41 (per meter) (3)	$2,162.90 (3)	$380.40 (per meter) (3)	$41,544.32 (3)
3. Replace existing XLPE direct buried cables with new #3/0 ACSR overhead conductors and poles	$350.00 (per 38m span)	$8,912.08 (1)	$24,203.30 (2)	$34,165.38

Notes to the Table:

1) The Electrical Labour Cost for option 3 includes grounding of existing direct buried cable, switching, conductor stringing, primary risers and pole framing and guying.

2) The Civil Labour Cost for option 3 includes splice pits required for grounding and abandoning existing direct buried underground cable, tree trimming, pole holes, 45’ poles, delivery of poles to site, and pole installation and anchoring.

RESPONSES TO ENERGY PROBE RESEARCH FOUNDATION INTERROGATORIES ON ISSUE 2.2

3) These costs are different from what was included in Table 3 on page 134 of Tab 4, Schedule B1. The costs in these cells in Table 3 on page 134 of Tab 4, Schedule B1 are incorrect.

While option 1 involves a lower total cost than options 2 and 3, THESL does not consider this option to be prudent, as discussed in Tab 4, Schedule B1. Option 3 also has a lower cost than option 2, but replacing direct buried cable with overhead poles and conductor: (i) is usually not feasible due to the reasons mentioned in Table 1 above; (ii) results in an increase of exposure to outages as discussed in Table 1 above; and (iii); means abandoning existing underground civil infrastructure such as splice chambers.

Toronto Hydro-Electric System Limited
EB-2012-0064
Tab 6F
Schedule 7-22
Appendix A
Filed: 2012 Oct 5
(61 pages)

Municipal Consent Requirements

for the Installation of Plant Within City of Toronto Streets

TORONTO

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Municipal Consent Requirements:
www.toronto.ca/engineering/mcr

July 2012

Table of Contents

Appendixes

Chapter 1 – Introduction

The Municipal Consent Requirements (MCR) provide for the efficient review of applications pertaining to installations within city of Toronto streets.

Adherence to these requirements will protect the interests of the City of Toronto, the community, and utilities occupying the right-of-way. To this end, all applications are reviewed with consideration to their impact on the physical and social environment and the City's infrastructure. It is important that these objectives are taken into consideration in the planning and design of all work being proposed and carried out within the streets.

The impact on the physical and social environment is controlled through the establishment of pedestrian and vehicular traffic restrictions, setting out the timing and physical extent of the work, and the strict enforcement of the City's noise and air quality bylaws. Protection of the surface infrastructure is achieved through implementation and enforcement of the pavement cut repair standards established by the City. Protection of the underground infrastructure is achieved through the implementation and enforcement of drawing and construction standards established by the City, circulation of drawings for planned construction to all affected stakeholders and adherence to minimum clearances and depths.

All work within the streets requires consent from the General Manager of Transportation Services division.

This document applies to all utility companies, commissions, agencies, boards, associations, municipal departments and private stakeholder applicants proposing to undertake work within city of Toronto streets.

Chapter 2 – Order of Precedence

In the event of any inconsistency or conflict in the contents of the following documents, such documents shall take precedence and govern in the following order:

1 Negotiated and legislated agreements, including municipal access agreements (MAA)

2 City of Toronto bylaws

3 Permit

4 Municipal Consent Requirements (MCR).

Chapter 3 – Permit Application Requirements

Conditions of Permit Application

Permits are issued by the General Manager to allow an Applicant to perform work related to the installation and maintenance of plant within the streets.

A permit is required whenever the Applicant's proposed work includes:

- performing maintenance to existing plant
- installing new plant
- making additions or upgrades/alterations to existing plant
- excavating, directional boring and/or drilling within the right-of-way

By submitting an application to perform work within the public right-of-way, the Applicant agrees to:

- Indemnify and hold harmless the City and its elected officials, officers, directors, employees, representatives, successors and assigns collectively, the Indemnitees for injury or damage including legal costs, howsoever arising, due to the construction, operation and/or maintenance of the work or temporary repairs referred to in this application unless such injury or damage was caused by the negligence or wilful misconduct of the City.
- Indemnify and hold harmless the Indemnitees from all claims and actions resulting from any preserved or perfected lien under the *Construction Lien Act (Ontario)* in connection with the construction, operation and/or maintenance of the work or temporary repairs referred to in this application. The Applicant shall cause any such lien or claim which may be filed or made to be released, vacated or otherwise discharged within five days of receiving notice of the lien or claim by the City or otherwise. If the Applicant fails to release, vacate or discharge any such lien or claim, the City may, but is not obligated to, obtain a discharge or release of the lien or claim or otherwise deal with the lien or

claim, and the Applicant shall pay all costs and expenses, including legal fees, incurred by the City in so doing.

- Conform to and comply with all applicable laws and regulations including, but not limited to, the *Occupational Health and Safety Act (*OHSA). The Applicant will indemnify and hold harmless the City of Toronto from and against all liability resulting from any and all failures to meet the responsibilities referred to in the OHSA, including any fine(s) levied against the City of Toronto as a result of any breach of the responsibilities of the employer for the project, to the extent attributable to the Applicant's failure to fulfil its obligations.
- Perform all work in accordance with any legislated or negotiated agreements, such as municipal access agreements, applicable bylaws, the permit and this document.

Extension of Permit Duration

If the work arising out of an application will not be completed by the expiry date of the permit, the Applicant will be required to apply for an extension of the permit. Any such request for extension must be submitted to the General Manager no less than seven days prior to the expiry of the existing permit. Only one extension may be granted for any permit.

Extension approval shall be at the sole discretion of the General Manager based on:

- a review of the proposed work
- the progress of the work up to the date of the extension request
- the performance of the Applicant during the period of the existing permit
- a review of any potential conflict with other planned or ongoing work which may be affected by the requested extension, and
- the safety and convenience of the public

Expired permits may not be renewed if an application for extension has not been received within seven calendar days of the expiry of the existing permit. The Applicant must submit a new application in accordance with the requirements of this document, including, but not limited to, updated circulations, sign-offs and notifications. Documentation from previous applications will not be accepted.

Moratorium on Newly Improved Streets

To ensure the long-term sustainability of the City's infrastructure, the General Manager enforces a moratorium on all newly improved streets.

The moratorium ensures that the integrity of the pavement structure is protected and also serves to minimise the disruptions and inconvenience to the public resulting from repeated construction activity.

Scope

The moratorium applies to the enhancement, maintenance, repair or replacement of existing plant and construction of new plant which may undermine the integrity of the newly improved street infrastructure. Unless otherwise stated the moratorium applies to the whole street, from property line to property line. The expiry of the moratorium shall be measured from December 31 of the calendar year in which the improvement was performed.

Duration

The moratorium shall apply:

Within three years from the date of:

- maintenance or repair work undertaken on roads, curbs, sidewalks, and boulevards
- construction, reconstruction, maintenance or repair of embankments, handrails of highway bridges, rail bridges, pedestrian bridges and culverts

Within five years from the date of the:

- construction or reconstruction of roads, curbs, sidewalks, and boulevards
- full resurfacing of streets including base repairs

- construction, reconstruction, maintenance or repair of abutment walls, piers, un-waterproofed bridge approaches, slope protection of highway bridges, rail bridges and pedestrian bridges
- construction, reconstruction, maintenance or repair of culverts

Within 10 years from the date of:

- construction, reconstruction, maintenance or repair of bridge decks, sidewalks, parapet walls, asphalt wearing surface, deck waterproofing, superstructure, bearings, expansion joints, ballast walls, and foundations of highway bridge and pedestrian bridges
- construction, reconstruction, maintenance or repair of decks, parapet walls, superstructure, bearings, expansion joints, ballast walls, and foundations of railway bridges

Exceptions

While these requirements represent the General Manager’s current policy, it is recognised that, under certain circumstances, such as emergency work, providing service to a new customer, or construction identified by the General Manager as being necessary to ensure public safety, an exception to the moratorium may be made. Exemptions may be made, at the sole discretion of the General Manager, provided that the Applicant has investigated and evaluated all other options and can demonstrate that they are not feasible or practical.

When such exceptions are granted, the Applicant shall exhaust all trenchless methods available to minimize the number and size of cuts in the street. The City, acting reasonably, may perform more extensive site restoration than would normally be expected, at the Applicant’s expense, in order to mitigate the concerns of public inconvenience and the premature degradation and aesthetics of newly improved streets.

Work Not Requiring Excavation – Temporary Street Occupation Permit

For temporary street occupation not requiring excavation, consent is required through a *Temporary Street Occupation Permit* issued by the appropriate permit office as indicated in Appendix A, *Permit Applications Offices.*

Site Services Permit

In view of the extensive networks of plant owned by utilities, as a requirement, the General Manager will issue a *Site Services Permit* – blanket *Temporary Street Occupation Permit* – to each utility company that is a member of the Toronto Public Utilities Coordination Committee (TPUCC). This permit is issued annually at the beginning of the year and will allow the Applicant to temporarily occupy portions of the public right-of-way in order to maintain existing plant, subject to the terms and conditions of the permit. The *Site Services Permit* does not authorise excavation or any surface cuts within any portion of the public right-of-way, and is not permitted to be used in conjunction with any other permit. This permit must be displayed at each work site at all times.

Information regarding the site services permit for all city districts can be obtained from the Toronto and East York district office at 416-392-6593.

Note: This permit will be renewed automatically by the General Manager in December of each year, prior to the expiration of the permit, and will be faxed to the respective permit holder.

Work Requiring Excavation – Cut Permit

For work involving excavation, consent is required through a cut permit issued by the appropriate permit office as indicated in Appendix A, *Permit Applications Offices.*

Cut permits will only be issued to Applicants having authority to construct, operate and maintain their plant within City streets, as established through legislation or the terms of a municipal access agreement or encroachment agreement.

Identification of Planned Work

Applications will be checked against the list of planned capital projects submitted to the TPUCC capital coordination subcommittee. For proposed work that is anticipated to cause a major disruption but was not identified on the list of planned capital projects, the Applicant may be required to submit an explanation of why the project was not identified at the time the list was prepared prior to the application being processed.

Identification of Plant

Where pole bases are used, each bay of sidewalk poured on top of the pole base shall bear a stamp with the name of the pole owner and the text Pole Base as a warning that there is buried infrastructure below. Where the sidewalk is reinforced with rebar, the stamp shall include the wording ‘Reinforced Bay’.

Alignments

Wherever possible, installation of plant should follow the alignments shown in the standard right-of-way cross sections in Appendix P, *Standard Utility Location in Greenfield Developments*

The City, in its sole discretion, may direct the Applicant to propose an alternate alignment if, in the opinion of the General Manager, the proposed alignment is not in the best interests of the efficient and organised usage of the right-of-way.

Services

Wherever possible, services and service drops shall be designed and constructed directly in front of the customer being serviced in a straight line perpendicular to the road. Where an application shows a service that is not in a straight line perpendicular to the road, the Applicant may be required to submit rationale explaining why this could not be achieved.

Clearance from Other Plant

Horizontal and vertical clearances shall be in compliance with Appendix O, *Vertical and Horizontal Clearance Guidelines*. The indicated clearances are minimums and shall be interpreted to be measured from the outermost edge of the existing plant to the outermost edge of the proposed plant.

Any encasement, steel plating or other non-excavatable material shall be considered to be part of the proposed plant and must meet the required clearance from existing plant.

Exemptions from the minimum clearances may be granted, at the discretion of the affected plant owners and the approval of the General Manager, acting reasonably. As a minimum, any consideration for exemption will require written consent from the affected plant owners giving explicit permission to the Applicant to reduce the clearance. To ensure the acceptability of the proposed reduction in clearance, the Applicant may be required to submit a detailed drawing identifying the existing and proposed plant.

Depth of Cover

The depth of cover for all installations shall meet the depths indicated below. Where there is a conflict at the proposed depth of cover, the Applicant shall plan to go deeper to accommodate the existing plant and meet the required clearances.

Where an Applicant demonstrates that the depth requirements cannot be met, exceptions may be granted on a case-by-case basis. Applicants should contact the City for such an exemption at the planning stage of their project, prior to submission of a permit application.

Under no circumstances shall plant be installed shallower than the minimum depths indicated without specific written consent from the General Manager.

The depths listed below are minimums. Where deemed necessary to accommodate other existing plant or future work, additional depth of cover may be required at the application review stage or during construction at the sole discretion of the General Manager.

Curbed Roads

For areas under the road, curb, the portion of the boulevard within one metre of the back of curb, and the entire right-of-way within thirty metres of an intersection, the minimum depth of cover on shall be one metre.

Uncurbed Roads

For the entire right-of-way, from street-line to street-line, on uncurbed roads, the minimum depth of cover shall be 1.3 metres below the centreline of the road, or 0.6 metres below the lowest point of the adjacent ditch, which ever is deeper.

Boulevards

Except where specified above, the minimum depth of cover on all streets shall be 600 milimetre.

Structures with Surface Access

For buried structures, including, but not limited to, vaults and chambers, the top of the structure shall conform to the minimum depths described above. Where such a structure requires access, it shall be designed so that only the access chimney protrudes to the surface.

Tree Protection Zone

For any means of construction other than directional boring, the minimum depth of Cover shall be a minimum of 1.5 m within the TPZ. If the installation of plant is executed via directional boring, the depth of cover may be reduced to a minimum of 1.2 m.

Cancelled Projects

The permit office must be notified of any cancelled projects for which an application has been submitted or a cut permit has been issued.

Structures with Surface Access

Any new buried structures which have surface access, with the exception of vaults where the structure roof is monolithic with the sidewalk or flush with the surrounding finish grade shall be constructed with the ability for fine adjustment of their elevation to accommodate future changes to surface grading. The amount of vertical adjustment available for lowering shall not be less than 300 millimetres.

Joint-Builds / Common Trenches

To make effective use of the limited space in the right-of-way, the General Manager may request that utility companies planning installations in close proximity to one another, or to service the same customer, enter into an agreement to share a common trench. Where the parties have agreed to construct in a common trench, one of the utilities companies shall be designated as the Applicant for purposes of obtaining a cut permit, adherence to permit conditions, completion of restoration, billing process, and submission of location certificates. Joint-builds shall be clearly identified as such, including the names of all participating utility companies, on both the application and the drawings.

Abandoned / Decommissioned Infrastructure

The utility company shall continue to be responsible and liable for all abandoned infrastructure and any issues that arise as a result of that abandoned infrastructure until such time that it has been completely removed from the right-of-way to the satisfaction of the General Manager.

Note: This responsibility shall include, but not be limited to, providing all available information for any abandoned or decommissioned plant as part of the Applicant's response to any request for information by the General Manager or other members of the TPUCC.

Installations on City Owned Lands Other than Streets

Installations on city owned land other than streets require the prior approval of the city division that has jurisdiction over that land. Any easement documents or licenses that may be required by the General Manager for work in these locations shall be submitted with the application.

Protected Locations

Areas of Archaeological Potential

The City of Toronto has identified areas of archaeological potential on a city-wide basis. These are general areas where archaeological resources may still exist. They will range from areas that are highly urbanized, to areas which include parkland, watercourses and residential neighbourhoods.

Depending upon the scale of the work undertaken by a utility company, a Stage 1 archaeological assessment—background research—may be required. These background studies examine the impact of the work and determine whether there is a probability that archaeological resources will be impacted by the work and whether or not further archaeological work would be required. work covering an extensive geographic area should be reviewed against the City of Toronto's potential mapping as identified on the following web link under *Archaeological Potential Mapping, City of Toronto, June 2006 – Mapping for East, Central and West* at: www.toronto.ca/heritage-preservation/archaeology.htm .

If a project falls within an archaeological potential zone, completing a Stage 1 archaeological assessment will avoid costly delays to the project in the long term and is highly recommended.

Archaeological Sensitive Areas

Archaeological Sensitive Areas (ASA) are areas of known archaeological potential. These areas are localised and limited in number, and include both known archaeological sites and areas which have yielded archaeological resources in the past.

Any work that will result in soil disturbance and is anticipated to take place in an ASA will require an archaeological assessment at the preliminary design phase of the project.

Note: Information provided on the location of Archaeological Sensitive Areas is strictly confidential and is for planning purposes only. The location of ASAs is not to be released to the any party.

Archaeological Assessments

When required as above, a consultant archaeologist licensed by the Ministry of Culture under the provisions of the *Ontario Heritage Act R.S.O 1990*, as amended, must be retained to carry out an archaeological assessment of the area of impact. The archaeologist shall make recommendations to mitigate, through preservation or resource removal and documentation, adverse impacts to any significant archaeological resources found. The assessment is to be completed in accordance with the *Standards and Guidelines for Consulting Archaeologists, September 2006, Ministry of Culture.*

Should the archaeological assessment process continue beyond a Stage 1 assessment, any recommendations for Stage 4—full excavation—mitigation strategies must be reviewed and approved by City Planning, Policy and Research — Heritage Preservation Services prior to commencement of the site mitigation.

The consultant archaeologist shall submit a copy of the relevant assessment reports to City Planning, Policy and Research — Heritage Preservation Services unit in both hard copy format and as an Adobe Acrobat PDF file on compact disc.

In the event that archaeological resources are encountered through the assessment process, no demolition, construction, grading or other soil disturbances shall take place on the subject property prior to City Planning – Heritage Preservation Services unit and the Ministry of Culture – Heritage Operations Unit confirming in writing that all archaeological licensing and technical review requirements have been satisfied.

For more information, contact: the supervisor special projects Archaeology, City Planning – Heritage Preservation Services, at 416-338-1096.

Exemptions

On a case by case basis, the Applicant may be given permission to proceed without an archaeological assessment within an ASA if the soil disturbance impact is highly restricted in scope, for example, a single street light unit replacement.

City Planning – Heritage Preservation Services should be consulted in such instances and will provide written confirmation that an archaeological assessment is not required by the utility company or service provider in these instances.

Heritage Properties

Prior to submitting an application for a cut permit, the Applicant shall verify whether their proposed work is located in front of, or immediately adjacent to, a heritage property.

The inventory of heritage properties can be found at: www.toronto.ca/heritage-preservation/heritage_properties_inventory.htm

The site is equipped with a search engine to assist the Applicant in identifying whether the proposed work location is located in front of a heritage property.

Note: Above-ground installations will not be permitted in front of, or immediately adjacent to, heritage properties without specific written consent from City Planning – Heritage Preservation Services.

When performing work in the vicinity of heritage property, the Applicant shall take extra care not to disturb any landscaping or architectural features. The Applicant shall exhaust all trenchless construction methods available to minimize the number and size of cuts and may also be required to perform more extensive site restoration than would normally be expected.

For further information on heritage properties, the Applicant may contact Heritage Preservation Services at 416-338-1077 or 416-338-1078 or by e-mail at heritagepreservation@toronto.ca.

Changes to Permit

Any request for changes to an issued cut permit and the applicable drawings must be reviewed and approved by the General Manager.

Depending on the nature and extent of the requested change, the Applicant may be required to:

- meet with the General Manager in the field to review the proposed change
- submit, in writing, an explanation of the proposed change
- submit a revised drawing highlighting the proposed change
- obtain sign-off from owners of affected plant
- submit a new application for the revised work

Chapter 4 – Application Streams

Emergency Work

Scope

The requirements and process for emergency work shall apply to work requiring a new excavation and be limited to the repairs or actions required in response to a failure of, or damage to, existing plant that results in, or has the potential to result in, danger to the public, a loss of an essential service, and/or damage to infrastructure or other utility plant.

Requirements

When emergency work is undertaken, the Applicant shall:

- Immediately notify Transportation Services dispatch at 416-392-5555 or e-mail tmcdisp@toronto.ca. Transportation Services dispatch will notify the appropriate city inspector, and where necessary, Emergency Medical Services (EMS).
- In the event that EMS or police assistance is required, call 911.
- Submit a cut permit application, clearly marked emergency, by the next business day to the appropriate district permit office with the field location and details of the repaired or replaced plant.
- Notify Transportation Services dispatch at 416-392-5555 or e-mail tmcdisp@toronto.ca immediately upon completion of the emergency work.

The cut permit application for the emergency work shall include the rationale for classifying the work as emergency work.

Short-Stream

Scope

Classification of work as short-stream shall be at the discretion of the General Manager.

In general, work to be submitted through the short-stream application process includes, but is not limited to:

- Exploratory work to investigate subsurface conditions.
- The construction of service drops or subsurface services connecting one or more individual users to the mainline distribution infrastructure, and not requiring the removal, relocation or alteration of adjacent infrastructure.
- The reconstruction or replacement of mainline infrastructure in the identical horizontal and vertical location and having similar dimensions—length, width, height, and capacity as the existing plant with the existing plant being removed as part of the construction.
- Replacement of a pole along its existing alignment within one metre of its existing location or to a location between two existing poles along the same alignment.
- The installation or relocation of anchoring or other supports on existing poles.
- Replacement of frame and cover for existing underground structure with surface access.
- The extension of mainline infrastructure at the discretion of the General Manager.

Submission Requirements

Cut permit applications for work defined as short-stream shall be made on the standard *Application for Installation of Services* form included in Appendix K, *Permit Application Form.*

Where the proposed work is not taking place directly in front of the customers' municipal address, the Applicant shall indicate the actual street and location impacted by the work.

The form shall be completed, in its entirety, and include a sketch conforming to the standards outlined in Appendix Q, *Permit Drawing Standards.*

The application shall include one copy of the form. Where a separate drawing or sketch is included, six copies should accompany the application.

The application should be submitted to the appropriate permit office as identified in Appendix A, *Permit Application Offices.* Incomplete or inaccurate applications will not be processed.

Application Review Period

Short-stream applications will normally be processed within five business days of receipt.

Full-Stream

Scope

In general, work to be submitted through the full-stream application process includes, but is not limited to:

- The construction of new underground or surface infrastructure involving the relocation, removal or alteration of adjacent infrastructure.
- Replacement of a pole where there is a change to the installation type, for example, replacing a direct buried pole with one bolted to a concrete pole base.
- Any work not classified as emergency or short-stream under the definitions provided herein.

Submission Requirements

A separate application form shall be fully completed and submitted for each street of the proposed work.

Cut permit applications for work defined as full-stream shall be made on the standard *Application for Installation of Services* form included in Appendix K, *Permit Application Form.*

Where the proposed work is not taking place directly in front of the customers' municipal address, the Applicant shall indicate the actual street and location impacted by the work.

The submission package should be submitted to the appropriate permit office as indicated in Appendix A, *Permit Application Offices*.

The submission package shall include:

- One copy of the application form, completed in its entirety.
- It is suggested that the applicant send the City two copies of the drawings initially. Six copies of the finalized drawings will be required before final issuance of the permit.
- One copy of the required sign-offs from impacted parties.
- The full stream utility cut fee.

Incomplete or non-compliant applications or applications submitted without the full stream utility cut fee will not be processed.

Full Stream Utility Cut Fee

In accordance with the Toronto Municipal Code Chapter 441 (Fees and Charges) and Chapter 743 (Streets and Sidewalks), all applications shall include the full stream utility cut fee.

Where a single application spans more than 1.0km length of road, the fee shall be submitted for each 1.0km.

Examples:

- Ducts on both sides of a block that is 700m in length - one application, one fee.
- Ducts on one side of a street with total length 2.5km - one application, three fees.
- Multiple isolated locations on a single street with a total application span of 700m - one application, one fee.
- Ducts on one street for 700m in length then continuing for 10m on a cross street - two streets, two applications, two fees.

Projects with Multiple Applications

The Applicant may choose to 'bundle' several applications together as a single project. For submission of a project, the applicant shall submit the appropriate number of applications as defined above. In the absence of any specific instructions, the project will be reviewed as a whole with permits for all applications being issued simultaneously or all applications being declined.

Circulation and Sign-Offs

Prior to submitting a full-stream application, the Applicant shall circulate drawings of their proposed work to all utility companies, agencies and commissions that may be impacted by the work. As a minimum, the Applicant shall circulate to each member of the Toronto Public Utilities Coordination Committee (TPUCC). For each party circulated to, the Applicant shall attach to their application a completed sign-off form. This form shall confirm that the party receiving the circulation:

- Has marked up the Applicant's drawing or provided the Applicant with an up-to-date location certificate of that party's infrastructure within the limits of the proposed work.
- Has communicated all its requirements to the Applicant.
- Does not object to the proposed work as described in the application.
- Has investigated and declined a joint-build venture with the Applicant.
- Project Sign-off.

Unless explicitly noted otherwise by the party providing the sign-off, a sign-off shall expire six months after the date it was signed.

Incomplete Applications

Full-stream applications that are not in strict conformance with the Municipal Consent Requirements (MCR), particularly with the drawing standards in Appendix Q, *Permit Drawing Standards* will not be reviewed. The Applicant will be notified by the General Manager via e-mail or telephone and informed of the specific parts of the MCR with which the application does not comply.

For the purposes of time tracking, the date of submission shall be the date on which a complete and compliant application is received at the permit office.

Application Review Period

The date of application will be the date on which the complete and compliant application is received at the permit office. Full-stream applications will normally be processed within 20 business days of receipt.

The time required for review of a full-stream application will vary depending on the nature, size and complexity of the proposed work and the completeness and clarity of the application form and drawings. Additionally, a high volume of applications at a permit office may occasionally cause delays in the issuance of cut permits. If the General Manager, acting reasonably, determines that there will be a delay in processing the application, the permit office will notify the Applicant as soon as the delay is identified.

Disputes

In the event of any dispute regarding the classification of a specific application, the General Manager shall make the final determination.

Chapter 5 – Above-Ground Plant

Location

The conditions outlined herein shall apply at all locations; however, in general, more scrutiny will be used in reviewing applications to install above-ground plant:

- On major or minor arterial streets.
- Within the downtown central area, defined in the Toronto Official Plan as the area bounded by: Bathurst Street to the west, the Don Valley lands to the east, Rosedale Valley Road from the Don Valley Parkway to Yonge Street then along the rail corridor north of Dupont Street to the north and Lake Ontario to the south.

Justification

Applications or drawings that include proposed above-ground plant shall include an explanation of the reason why this plant cannot be installed below ground.

Vibrant Streets

Any above-grade installations within the street shall conform to the Vibrant Streets Toronto's coordinated street furniture program. These guidelines are available on the City's website at:

www.toronto.ca/involved/projects/streetfurniture/pdf/vibrant_streets.pdf

Aesthetic Treatment

Permit applications for work defined as full-stream that include above-ground plant shall include consideration to reducing the negative visual impact to passing motorists, pedestrians and adjacent property owners while still allowing the Applicant to freely access and properly service the plant and provide its services to its customers.

Applications or drawings shall describe the proposed aesthetic treatment so that the General Manager can evaluate the suitability and potential impact.

Examples of aesthetic treatments include, but are not limited to: placement in locations of minimal visual impact; landscaping around the plant; painting the plant; decorative covers; placement of plant behind existing physical features. The treatment must be supplied and installed during the time of equipment installation. The Applicant shall be responsible for the maintenance of the aesthetic treatment to the satisfaction of the General Manager.

Notification

The Applicant shall provide written notification to all adjacent properties, and all properties that will face or will have a line of sight to the proposed plant. Such notification shall outline the nature of the work and clearly describe the size, appearance and location of the proposed plant. The notice shall include the phone number of a contact person at the Applicant's office.

A copy of the notification and a list of the addresses of all residents the notice has been sent to shall be submitted with the full-stream application. The General Manager may perform random spot checks on the list to ensure that the notification is being done.

Business Improvement Areas

If the proposed location of the plant falls within the boundaries of a Business Improvement Area (BIA), the Applicant shall ensure that they notify the BIA and address any objections regarding the proposed plant and its location in the following manner.

The Applicant shall notify the BIA, in writing, and outline the nature of the work, clearly describing the size, appearance and location of the proposed above ground plant. The notification shall include the phone number of a contact person at the Applicant's office and the phone number of the appropriate district permit office.

The notification shall include clear wording to indicate that a response from the BIA outlining the specifics of any objection to the propose plant is required within 15 calendar days and that no response shall be interpreted as the BIA having no objection to the work.

Where the BIA reasonably objects with the proposed work, and where the Applicant has exhausted all negotiation measures, the General Manager will attempt to work with the Applicant and the BIA to reach a mutually acceptable agreement. If an agreement cannot be reached, the General Manager will advise the Applicant on what escalation measures or other options may be available.

A copy of the notification and the BIA's response, if any, shall be submitted with the full-stream application. The General Manager may contact the BIA to confirm their receipt of the notification.

A listing of Toronto's BIAs can be found at:

www.toronto.ca/bia/toronto_bia.htm

Acceptance by the General Manager

The General Manager may require that the applicant submit additional information and/or meet with staff and stakeholders during the application review process based on the nature and details of the proposed work.

Where a proposed above-ground installation or the proposed esthetic treatment is not satisfactory, the General Manager will provide the Applicant with a detailed written explanation of the reason for denial of the permit application.

Pole Replacement

To ensure the timely removal of redundant poles, any application for the installation of a new pole which is intended to replace an existing pole shall include a detailed schedule showing, as a minimum:

- Installation date of the new pole;
- Relocation of the Applicant's plant;
- Relocation of each third-party attachment;
- Removal of the old pole; and
- Completion of temporary restoration.

The schedule shall be of sufficient detail to demonstrate that the work has been planned-out to the satisfaction of the General Manager. The time-period from installation of the new pole until completion of temporary restoration shall not exceed 12 months.

Pre-Application Review

To avoid the need for redesigns and resubmissions, and to speed up the review process, the General Manager will, within reasonable time and at no cost to the Applicant, attend a site meeting and conduct a preliminary review of the proposal before the Applicant finalises the design and submits the permit application.

Non-Compliant Installations

Where above-ground plant is found to be installed without a valid permit and/or in a location other than that approved by the General Manager, the Applicant may be required to remove the plant immediately, at its own expense. Restoration shall be performed in accordance with the procedures outlined in this document.

Chapter 6 – Construction Requirements

Scope

These requirements cover work performed by the Applicant within the city of Toronto's streets and describe the procedures to be followed before, during and after construction work is undertaken.

Work must be done according to the restrictions shown on posted signs, the conditions listed on the permit and the requirements outlined in this document. There shall be no deviation from the approved drawings for any part of the proposed installation without prior approval from the General Manager.

Insurance

Liability insurance for the construction, operation and maintenance of plant shall be provided as set out in the authority or agreement under which the Applicant occupies the right-of-way.

Site Meetings

Prior to the start of work the Applicant shall contact the General Manager's designated representative specified on the cut permit to schedule a site meeting. As a minimum, the site meeting must be attended by at least one representative directly employed by the Applicant and not solely by the Applicant's designated contractor.

Perimeter Warning Signs

Based on the impact to traffic and area residents, at the sole discretion of the General Manager, acting reasonably, advance notice perimeter warning signs may be required. The General Manager shall identify the requirement for such signs at the time of the site pre-construction meeting. Where such signs are required, the signs shall be manufactured and installed by the General Manager at the Applicant's cost. Typically, two weeks are required to manufacture and install the signs after the decision that the advance notice signs are required. Work shall not commence until the perimeter warning signs have been in place for at least one week.

Where the Applicant is planning work that will extend over a long period or where it is anticipated that the work will cause major disruption to traffic or residents, the Applicant is advised to contact the district permit office as soon as possible to make arrangements for to assess the requirements for signage.

Scheduling

To minimise disruption to vehicular traffic, the General Manager may, in its sole discretion, direct the Applicant to alter the start date of construction. In general, construction activity will not be permitted to occur simultaneously on parallel adjacent arterial roads or collector roads. The Applicant will be notified by the General Manager of a conflict with other work, and the requirement to adjust their start date to a mutually agreeable date, at the pre-construction site meeting.

Where such conflicts arise, the General Manager will work with the affected Applicants to coordinate a mutually agreeable schedule. All instances will be evaluated on a case-by-case basis; however, precedence will generally be given to the first Applicant to hold a site meeting and provide a firm start date to the General Manager.

Locates and Protection of Plant

Prior to the commencement of any excavation, the Applicant shall obtain locates from all owners of underground plant in the work area to determine the location of all such plant and shall comply with any standards and instructions from the plant owners when working near their plant. The Applicant shall comply with industry best practices when excavating, shoring, piling, backfilling and compacting around existing plant or as directed by the owner of the plant and the General Manager.

Notification to the City

The Applicant shall strictly adhere to the notification protocol indicated on the permit.

Following completion of the work the Applicant must immediately notify Transportation Services dispatch at 416-392-5555 or tmcdisp@toronto.ca.

Resident and Business Notification

For all non-emergency work, written notification stating the type and location of the proposed installation, duration of construction and phone number of the utility company undertaking the work shall be delivered to all residences and businesses abutting the work zone a minimum of 48 hours prior to commencement of work.

When the duration of the project is expected to be greater than seven calendar days, or if access to residences and businesses will be restricted in any way, the Applicant shall notify the local councillor and, where applicable, the Business Improvement Area (BIA) office at least 10 business days prior to commencement of construction. A copy of this notification shall be forwarded to the permit office.

A listing of Toronto's BIAs can be found at: www.toronto.ca/bia/toronto_bia.htm .

Documents Required to be On-Site

The Applicant shall ensure that, as a minimum, copies of the following documents are kept on-site at all times and shall make these documents available for viewing immediately upon being requested to do so by to the General Manager or the Toronto Police Service:

- cut permit or street occupation permit
- permit drawings
- notification to adjacent residences and businesses, where applicable
- notification to councillor and BIA offices, where applicable
- minutes of pre-construction meeting, where applicable
- any documents required to be kept on-site under other legislation

Working Hours

The Applicant shall comply with the City's Noise Bylaw, Chapter 591 of the Toronto Municipal Code available at: www.toronto.ca/legdocs/bylaws/2003/law0111.pdf .

In addition, the Applicant shall ensure the following:

- Equipment shall be maintained in a good working condition that does not leak fluids and prevents unnecessary noise, including but not limited to proper muffler systems, properly secured components and the lubrication of all moving parts.

- Idling of service equipment shall be restricted to the minimum necessary for the proper performance of the specified work.

Work may only take place during the times specified on the permit or as specified by General Manager. The Applicant should note that the restrictions may vary for different directions of travel on the same street and that work may be prohibited at specific times and dates in order to co-ordinate with or avoid other work or events in the area.

At most locations, typical working hours will be between the hours of 7 a.m.–7 p.m. from Monday to Friday and from 9 a.m.–7 p.m. on Saturday. Typically, no work will be permitted on Sunday or statutory holidays. On arterial roads, work will typically be limited to the hours of 9:30 a.m.–3:30 p.m. Specific exceptions to these typical times may be granted or required, at the sole discretion of the General Manager, depending on the circumstances of the individual work.

Project Information Sign

Street Occupation Permits

For work authorised under a street occupation permit, including site services permits, on any portion of the right-of-way, regardless of duration, or when material and equipment are left on-site unattended for any period of time, project information signs shall be prominently displayed.

A project information sign will not be required for work authorised under a street occupation permit only when all of the following conditions are met:

- A work vehicle is parked within 10 metres of the work area, bearing a sign identifying the name and corporate logo of the Applicant, their designated contractor undertaking the work, where applicable, and a 24 hour emergency contact phone number.

- The emergency contact phone number shall connect the caller to an office and contact person that will answer calls 24 hours a day seven days a week. Connection to a voice mail box is not acceptable.

- The site will not be left unattended for any period of time.

Cut Permits

For work authorised under a cut permit on any portion the right-of-way, regardless of duration, or when material and equipment are left on-site unattended for any period of time, project information signs shall be prominently displayed.

Signs must conform to the requirements of Appendix N, *Project Information Sign* and shall clearly identify the name and corporate logo of the Applicant, their designated contractor undertaking the work, where applicable, and a 24 hour emergency contact phone number.

The emergency contact phone number shall connect the caller to an office and contact person that will answer calls 24 hours a day, seven days a week. Connection to a voice mail box is not acceptable.

Signs shall be clearly legible to pedestrians and drivers passing the work site and shall be placed, as a minimum, at each end of a project so that traffic from both directions can easily view the details. For projects that extend across more than one block, additional signs may be required at intermittent intersections crossed by the project.

Traffic Control

The Applicant shall provide, place in service, maintain and remove all of the traffic control devices and certified traffic control person as required by the *Ministry of Transportation Ontario (MTO) Ontario Traffic Manual Book 7,* the *Occupational Health and Safety Act* (OHSA) and *Ontario Regulation 145/00* for Construction Projects, the *Highway Traffic Act* and all other applicable legislation and City of Toronto policies.

The Applicant shall also conform to the following minimum requirements:

- The Applicant shall have a copy of the location-specific traffic control plan for the protection of workers and the public on site at all times as per the Ministry of Labour regulations.

- On non-arterial roads, the Applicant may restrict traffic to one lane if a minimum of two certified traffic control persons are provided to ensure safe vehicular travel through the site or as deemed necessary by the General Manager.

- Vehicular access to commercial properties must be maintained at all times for the duration of the work. Any work across commercial driveways shall be done in a manner that will ensure continuous and unimpeded flow of vehicular traffic.

- All sidewalk cuts shall be backfilled or covered with a non-skid surface having sufficient strength to maintain pedestrian traffic and include warning signs for pedestrians.

- Sidewalks shall be maintained at a minimum width of 1.2 metres at all times. Where this cannot be achieved, a temporary sidewalk shall be required.

- Bicycle lanes shall be maintained at a minimum width of one metre at all times. Where this cannot be achieved, and where conditions permit, a temporary bicycle lane may be required.

- All open excavations on roads, when not under construction, are to be covered with non-skid steel plating, counter-sunk and set flush with the surface of the pavement. The counter-sunk plate should overlap the cut by no less than 300 millimetres on all sides. Appropriate signs shall be posted advising of the presence of the plates. The plates must be secured to the pavement and be of sufficient thickness and strength to support the traffic without movement or bouncing. The plates are to be placed on a layer of burlap to avoid any excessive noise. Asphalt mix shall be used to jam the plate tight into the pavement along all edges.

- Where it is not reasonable to cover an open excavation, the Applicant may request permission from the General Manager to leave the excavation uncovered. Where permission to do so has been granted, the excavation shall have the appropriate barriers, fencing and signage as per applicable legislation in addition to any further requirements imposed by the General Manager.

- For a traffic sign removal or relocation, the Applicant must place a request to Transportation Services dispatch at 416-392-5555 at least two business days in advance of the required removal or relocation. Under no circumstance is the Applicant to remove or relocate any traffic signs.

A static barrier may be permitted to close crosswalks at a signalised intersection depending on the pedestrian and vehicle volumes. This would be discussed at a site meeting. Yellow caution tape is not recognised as an acceptable barrier.

Additional traffic control or signage may be required as directed by the General Manager. The applicant shall be granted a reasonable amount of time to place these additional signs.

Access to Site / Inspection

Authorised representatives of the General Manager, having the required personal protective equipment, shall at all times have access to the work site to monitor the progress of the work to whatever extent they deem appropriate and to determine compliance with the Municipal Consent Requirements (MCR), permit requirements and any other instructions issued by an authorised representative of the General Manager. The Applicant is cautioned that lack of such compliance may result in a stop work order being issued or cancellation of the permit and that such violations will be documented and kept on file.

The Applicant shall immediately cease the work or any part thereof when directed to do so, verbally or in writing, by an authorised representative of the General Manager, or any other party having proper jurisdiction. Verbal orders shall be followed by written notification within 24 hours stating the reasons for the order to stop work. The work or affected part thereof shall not resume until any such violation has been rectified to the satisfaction of the General Manager.

Paid Duty Police Officers

The following information should be used to determine traffic control at permitted events or work sites.

1. Transportation Services has authority over the issuance of permits and the determination of traffic control required for permitted activities on all City roads. The Toronto Police Service, in conjunction with Transportation Services Road Inspectors, enforces this authority on behalf of Transportation Services.

Road Emergency Events

2. In the event of **ROAD EMERGENCY SERVICES** that have to be performed by City staff, City contractors or Utilities and which require assistance from Toronto Police Services for traffic control, on-duty officers should be requested through a phone call to the Toronto Police Service Communications Centre at (416) 808-2222, subject to the following criteria:

   ROAD EMERGENCY SERVICE is deemed to be any unscheduled maintenance where:

   - Public safety or health is threatened;
   - IMMEDIATE action is required;
   - The public is without an ESSENTIAL service.

   Examples:

     - Sewer or water main break;
     - Electrical failure (traffic lights, etc.);
     - Leaking of gas distribution system.

3. At any **ROAD EMERGENCY** work site, a representative of the affected work must respond to the site as soon as possible to assess the situation, determine the necessary repairs and establish the time frames required to complete these repairs. Police Officers will document any instance where a representative of the affected work fails to attend the location within 1.5 hours of the call being received by the Service and forward this information to the Unit Commander of Traffic Services.

4. In circumstances where the required work can be completed **within 3 hours** of the Toronto Police Service receiving a request to attend an emergency location, a **regular on-duty** police officer will protect the site, subject to exigencies of the Service. A large scale emergency may preclude the attendance of an on-duty officer. If the emergency repair is anticipated to take **more than 3 hours**, a **paid duty police officer** shall be ordered immediately and the regular **on-duty officer shall stay on site until the arrival of the paid duty officer**.

4a. Where a road emergency has occurred which, through its circumstances and conditions requires that the ensuing traffic control be provided be provided by a police officer, this traffic control shall be provided by an on-duty officer until the emergency has passed.

4b. If the emergency resolution will be lengthy and the on-duty officers are required for other service duties, then staff of the Toronto Transportation, Toronto Police Services and the associated contractor will collectively determine which subsequent traffic control can be provided by means other than an on-duty police officer.

All Other Emergencies

5. In the event of any other type of emergency which presents an immediate danger to the health or safety of any person, including but not limited to the failure of buildings or parts of buildings, due to events such as fire, explosions, circumstances resulting in the collapse of buildings or otherwise, and which result in the need for traffic control, the required traffic control shall be provide by on-duty police officers for the duration of the emergency.

   Where the City Division(s) having jurisdiction over and managing the emergency determine(s) that the emergency has passed in that the immediate danger to the health and safety of the persons is removed and the restoration of the site can be uninitiated, said Division(s) in conjunction with Toronto Police Services shall determine if continues traffic control is required, and if so, whether the continued traffic control should reasonably be provided by on-duty police officers or transferred to paid duty officers.

Scheduled Events

6. Traffic control for ALL SCHEDULED or REGULAR MAINTENANCE activities shall be determined by Transportation Services staff, in consultation with Toronto Police Services and the applicant and the nature of the traffic control will be specified in the appropriate road occupancy permit.

7. A Transportation Services representative, in consultation with the Toronto Police Service will determine the nature of traffic

control and if there is a need for police officers for all other activities on City roads.

8. Where the permitted road occupancy creates a disruption to the rules of the road, appropriate traffic control should be established to ensure that the safety of all road users is maintained for the extent of the road occupancy, based on the criteria in attached Table 1 to these guidelines.

9. Traffic Control Persons (TCP) should be considered to control locations with a single lane of one-way traffic flow. A TCP can also control pedestrian movements off the traveled portion of the roadway. A TCP can also control pedestrian movements at a signalized intersection if the signal indications are clearly visible and the TCP is not required to stop traffic. If more than one lane or direction of traffic flow is to be controlled or stopped, then a police officer will be required as per OTM Book 7.

10. Marshals should be considered to maintain road closures at permitted events.

11. A static barrier (i.e. crowd control barrier) may be acceptable to close crosswalks at a signalized intersection depending on the pedestrian and vehicle volumes. Yellow 'Caution Tape' is not recognized as an acceptable barrier.

12. If Paid Duty Officers are determined to be the required traffic control, these Officers shall be arranged through the Central Paid Duty Office by faxing your request to (416) 808-5042. If further assistance is required, the Central Paid Duty Office at (416) 808-5048 should be contacted.

13. The Ministry of Labour is the governing agency responsible for the safety of workers and the public. The Toronto Police Service, as part of their responsibility as the employer of Police Officers, is required to provide the training for, the equipping of, and ensuring the use by members of personal protective equipment.

14. The contractor is responsible for providing traffic control at a permitted road occupancy, as required in the conditions laid out in the activity permit.

15. **Should a dispute arise** between police officers on patrol with regards to the need for traffic control at a permitted road

occupancy site, a Toronto Police Services Sergeant and a representative of Transportation Services, shall consult to determine if additional traffic control measures are required at the permitted site.

The above guidelines do not preclude the need for a site meeting to discuss traffic safety related issues, hours of work, etc, with the Transportation Services and a Toronto Police Services representative and other agencies.

Table 1: Deployment of Traffic Control in Road Construction Activities

Conditions under which Traffic Control may be required	**Normal regulatory posted speed 60 km/h or lower, one lane or reduced to one lane**	**Normal regulatory posted speed 70 km/h to 90 km/h, one lane or reduced to one lane**	**Any speed, more than one lane in each direction**
To protect workers on public way	Traffic Control Persons (TCP) can be used	TCP can be used	Police presence is required
To protect construction vehicles crossing roadway	TCP can be used	TCP can direct construction traffic only, not public traffic	Police presence is required
To protect construction vehicles entering a roadway	TCP can be used	TCP can direct construction traffic only, not public traffic	Police presence is required
Electrical contractor work on traffic control signals	Police presence is required if there is an absence of traffic control device display and/or if the vehicle/pedestrian indication(s) are to display conflicting movement. If not, follow Ontario Traffic Manual Book 7 – Table 6 – Deployment of Traffic Control Persons (TCP). If the TCP conditions are not met, then police presence is required.		
Construction, Surface Maintenance, Utilities, Toronto Water	Follow Ontario Traffic Manual Book 7 – Table 6 – Deployment of Traffic Control Persons (TCP). If the TCP conditions are not met, then police presence is required.		

Note 1: Table 1 is a modified version of OTM Book 7 – Table 6: Deployment of Traffic Control Persons (TCP) that takes into consideration City of Toronto Operational Guidelines.

Note 2: See Occupational Health and Safety Act and Regulations for Construction Projects, R.S.O. 1990, Regulations 213/91 as amended by Regulations 631/94 and 145/00.

Note 3: If conditions under Ontario Traffic Manual Book 7 – Table 6 – Deployment of Traffic Control Persons (TCP) are satisfied, the TCP(s) must be positioned in a manner which will not conflict with the traffic control device operation. If this is not possible, police presence is required.

Note 4: For City of Toronto employees, contractors, and sub-contractors, traffic control work is performed in compliance with the provisions of: The City's Traffic Control policy and its guidelines; the Regulations for Construction Projects (sections 67-69, 104-106, and 186-187); the Ontario Traffic Manual for Temporary Conditions (OTM Book 7 and Field Edition); and the Handbook for Construction Traffic Control Persons.

Note 5: In reviewing traffic control measures related to road construction activities, Transportation Services, Toronto Police Services and the applicant must ensure that the safety of all road users is preserved.

Public Convenience and Safety

In carrying out the work, or any portion thereof, the convenience of the public must always be considered and provided for by the Applicant who must not obstruct any street, thoroughfare or pedestrian walkway longer or to any greater extent than is absolutely necessary in the opinion of the General Manager and shall in no case tear up or open more of any street than is approved by the General Manager or other body having jurisdiction over such closures or obstructions.

The Applicant is to provide safe, ample and convenient means of approach and entrance to adjoining lanes, driveways, buildings and property, both for vehicles and pedestrians, wherever necessary, and for passing along all roads and sidewalks, and for crossing the same where it is practicable to do so, both during the execution of the work as well as at other times, and for this purpose must construct and maintain, in good and serviceable condition, suitable and convenient platforms, approaches, structures, bridges, crossings or other works as necessary to maintain access.

The Applicant is to ensure that all residents have access to their properties at all times. If access will be blocked for any period of time, the Applicant must make arrangements with the occupants at least 48 hours in advance of any disruption. Particular attention will be required at night to ensure that safe access is maintained for all occupants. The Applicant shall be attentive to the needs of pedestrians that are visually or physically impaired, and the Applicant must be prepared at all times to assist in the safe and comfortable passage of these pedestrians.

Clean Work Site

The Applicant is responsible for maintaining the work site and surrounding area free of dust and mud. The Applicant shall clean the road and sidewalks as required to the satisfaction of the General Manager.

Prior to the start of any construction activity, filter cloth shall be placed between the frames and covers of all catch basins within the immediate area to prevent the entry of construction dirt and debris.

The Applicant shall keep the site and work in as tidy a condition as practicable and to the satisfaction of the General Manager. The Applicant shall not deposit any material on any portion of street, sidewalk, boulevard, grass plot, or other city or public property, without the permission of the General Manager, and shall remove same without delay when and as directed by the General Manager. Upon completion of the work, the Applicant shall remove all surplus materials as well as any rubbish accumulated on account of the work, make good any defects or damage and shall leave the site in a condition satisfactory to the General Manager.

Should the Applicant fail to comply with this requirement and maintain the street in a satisfactory condition, the General Manager, acting reasonably, without further notice, may issue a stop work order, cancel the permit, charge the Applicant under applicable bylaws and/or arrange for the site to be cleaned immediately by others. All costs incurred in cleaning the dust and mud resulting from the Applicant’s work shall be charged to the Applicant.

Material and Equipment Delivery and Storage

The Applicant shall plan and schedule the movements of construction and delivery vehicles to, from and within the work site to minimise the interference and interruptions to traffic. Where possible, access routes shall be established to allow vehicles to merge with traffic without crossing traffic lanes.

Storage of materials delivered to the work site shall be considered to be part of the work area and shall conform to the traffic management plan and the provisions of this document.

Stockpiled material and equipment must not obstruct pedestrian or vehicular traffic, obstruct pedestrian or vehicular sight-lines, or be allowed to runoff onto pavement or sidewalks or into storm sewers. Sites for material storage are to be approved by the General Manager at the pre-construction meeting. Material storage must adhere to the City's tree protection practices as outlined in Appendix F, *Tree Protection Policy.*

Notwithstanding the foregoing, the Applicant shall immediately rectify any situation involving equipment or material that, in the sole opinion of the General Manager, constitutes a hazard to vehicular traffic or to pedestrians.

Operation of Valves and Hydrants

The Applicant shall not operate watermain valves, service water valves and/or hydrants. If operation of any water supply vales is required, the Applicant should contact Toronto Water district operations at 416-392-8857.

Any unauthorised use of fire hydrants will be subject to penalties as set out under the Water Supply Bylaw, Chapter 851 of the Toronto Municipal Code dated January 1, 2008.

Working Around Trees

Any construction activity in the vicinity of trees shall be carried out in strict compliance with the tree protection policy in Appendix F, *Tree Protection Policy* of this document. Such activity includes, but is not limited to: delivery and storage of equipment and material; excavation; backfilling; plant installation; traffic control.

Working Around Mass Transit

The Applicant shall coordinate all staging with any transit commission, school or tour group known to the Applicant that may have a bus stop or travel, within the work area. Special attention shall be given to loading and unloading areas for disabled persons and school buses.

The Applicant shall maintain access to all existing bus stops within the work area. Where it is not practical to maintain access, the Applicant will be responsible for relocation and reinstatement of the bus stops, under the direction of the transit authority or the General Manager, unless other arrangements have been made.

Working in the Vicinity of Bridges

Any construction activity in the vicinity of bridges shall require the approval and review of the Structures and Expressways unit. The applicant may contact the structures and expressways unit, prior to their submission to the City, in order to determine the feasibility of their proposed design. The correspondence from the pre-consultation with the Structures and Expressways unit should be included in the submission package to the City, in order to expedite the review process.

In the case where the applicant submits a set of plans that includes proposed work in the vicinity of bridges with pre-consultation with the Structures and Expressways unit, the Utility and Third Party Review group will forward a set of drawings to the Structures and Expressways. The applicant is to note that the turnaround time maybe be significantly higher for such cases based on the complexity of the review.

Snow Removal and De-Icing

Where the Applicant's work impedes snow removal and de-icing by the City on areas where vehicular and pedestrian traffic are being maintained, as reasonably determined at the sole discretion of the General Manager, the Applicant shall be responsible for providing ice and snow removal services within the limits of the work site. Such areas shall be cleared of ice and snow to the satisfaction of the General Manager.

Should the Applicant fail to complete the required snow removal services and de-icing within the set deadlines, the General Manager, without any notice to the Applicant, may arrange for the snow and ice to be removed by others. All costs incurred by such removal shall be charged to the Applicant.

Contaminated Soil

If contaminated material is found when excavating, the Applicant shall immediately notify the General Manager and the Ontario Ministry of the Environment and comply with all applicable health and safety requirements. Contaminated material must not be used as backfill and must be disposed of according to ministry requirements at the Applicant’s expense.

Notification of the Location of Unidentified Plant

The Applicant shall immediately notify the General Manager of any plant encountered during the course of excavation which was not identified in any of the pre-construction circulations or locates. The Applicant shall contact all other utility companies and endeavour to determine the owner of the unidentified plant.

The Applicant shall include the location, depth, size and material of the unknown plant, clearly labelled as unidentified existing plant, with the location certificates submitted for that project.

Keyhole Excavation

Keyhole excavation shall be carried out in accordance with specification Appendix E, TS 4.70 – *Construction Specification For Keyhole Excavation and Permanent Reinstatement of Keyhole Cores,* as amended.

Trenchless Installations

Where the work is being undertaken using trenchless installation methods, pilot holes and any other damage to the street infrastructure shall be restored as per the requirements in this document. The location of the pilot holes and the measured depth of the existing plant must be clearly depicted on the location certificate.

Temporary Service Drops

Temporary service drops shall be permitted as a temporary means to supply servicing to a resident with the permanent service being installed at a future date.

Temporary service drops shall be subject to the following requirements:

- Installation of cables shall be performed in a manner that ensures the safety of residents, pedestrians, and vehicles and placed with due regard for aesthetics.
- When on the boulevard, a cable shall be buried such that it does not constitute a tripping hazard.
- Cables shall not cross sidewalks, driveways or walking paths along the surface.
- Cables shall not lie unprotected on the ground at any location.
- Cables shall not be strung using trees with a trunk diameter of less than 300 millimetres. When using a tree, the cable shall be affixed to the tree with tape or with minimal wrap-around. Under no circumstances shall cables be attached to trees using screws, nails or other destructive methods.
- When crossing a road, sidewalk, driveway or walking path, the height of the cable shall be no less than 4.5 metres.
- Cables shall enter and leave a utility pedestal at a 90 degree angle.
- A cable shall not cross over a property not being fed by this cable without consent of the affected property owner.
- Notification must be given to all residents of all properties affected by the temporary service connection including an estimated date of permanent service installation and removal of the temporary cable.
- All infrastructure including, but not limited to, utility pedestals, cables, supports and access points shall remain in a closed and safe condition at all times.

The Applicant shall make its best effort to install the permanent service as soon as possible. In the winter or early spring, frost conditions may delay the permanent installation; however, in general, temporary service drops shall be removed within 45 days.

Immediately upon installation of the permanent service, regardless of whether or not restoration has been completed, all materials and equipment associated with the temporary service drop shall be removed from the site.

Reporting Impact / Damage to Existing Plant

Any impact with existing plant including, but not limited to, the protective coating, support, cathodic protection or the housing of the plant, shall be reported to the General Manager and plant owner immediately. The plant shall remain exposed, with the excavation properly supported, until the plant owner has assessed the damage and made a repair or authorised the Applicant to proceed.

Note: This requirement shall not be limited to an impact that causes a visible weakening or the partial or complete destruction of the plant.

Non-Compliance

Should any construction begin that is not in strict compliance with the conditions of the permit and this document, the Applicant may be issued a stop-work order and may be required to perform temporary restoration and move all equipment and materials off-site until these requirements are met in-full and the permit may be cancelled, at the sole discretion of the General Manager.

Depending on the severity of the infraction, the issuance of new permits for some or all work by the same Applicant may be withheld or delayed, at the sole discretion of the General Manager, until the infraction has been addressed by Applicant to the satisfaction of the General Manager.

Chapter 7 – Backfill and Restoration

General

Backfilling and restoration shall be carried out in accordance with the conditions of this document, in particular, Appendix D, *TS 4.60 – Construction Specification for Utility Cut and Restoration.*

All restoration shall be completed at the expense of the Applicant.

Where the Applicant has completed temporary restoration, the permanent repairs shall be completed by the General Manager with all costs charged to the Applicant including the City's administrative cost recovery and, where applicable, a pavement degradation fee. Additional charges shall apply to overdue accounts.

The City will carry out permanent repairs and invoice the Applicant within 18 months of the date of permit expiry. When the repair can not be completed within 18 months, the City will notify the Applicant with an explanation and a revised completion date.

Keyhole Excavation

Backfilling and restoration of keyhole excavations shall be carried out in accordance with Appendix E, *TS 4.70 – Construction Specification for Keyhole Excavation and Permanent Reinstatement of Keyhole* Cores, as amended.

Deficiencies

Temporary Restoration

Upon being notified that the temporary restoration has not been carried out to the satisfaction of the General Manager, the Applicant shall rectify the deficiencies within 48 hours. The General Manager may, in its sole discretion, accept a request from the Applicant for another timeline where justified by the nature and extent of work required. If the deficiencies are not rectified by the required deadline, the General Manager may undertake remedial restoration, which may include complete excavation of the cut, and charge back all associated expenses, including mobilization costs, to the Applicant.

Permanent Restoration

Upon being notified by the City, in its sole discretion, that a permanent repair made by the Applicant is unacceptable, the Applicant shall, within 72 hours, investigate and respond in writing with a firm timeframe for rectification of the deficient work. The General Manager will have sole discretion regarding the acceptability of the proposed timeframe. If the Applicant cannot perform the rectification within the accepted timeframe, the General Manager may undertake remedial restoration, which may include complete excavation of the cut, and charge back all associated expenses, including mobilization costs, to the Applicant.

Emergency Repairs

Notwithstanding the above, if deficiencies in the temporary or permanent repair performed by the Applicant pose a safety hazard, the General Manager, in its sole discretion, may immediately undertake remedial restoration, which may include complete excavation of the cut, and charge back all associated expenses, including mobilization costs, to the Applicant.

Chapter 8 – Location Certificates

Preparation and Submission

Location certificates shall comply with the requirements outlined in Appendix R, *Minimum Location Certificate Requirements* within 90 days of the date of permit expiry, the Applicant shall submit location certificates electronically to the City Technical Services Survey and Mapping Services section.

Non-Compliance with Location Certificate Requirements

If the Applicant does not submit a compliant location certificate within 90 days of project completion, the General Manager may, in its sole discretion, arrange for a locator and survey crew to identify, locate and prepare a drawing accurately depicting the location of the Applicant's infrastructure. All costs associated with this work shall be charged to the Applicant. The issuance of new permits may be withheld or delayed, at the sole discretion of the General Manager, until the required location certificates have been submitted.

Accountability for Inaccurate Location Certificates

The submitted location certificates may be used for management of the right-of-way and for future designs. In the event that the actual constructed plant location differs from that shown on the location certificate, the Applicant will be held 100 percent responsible, and shall absolve all other occupiers of the street of any responsibility for all damages, liabilities, relocation costs, redesign costs and subsequent delay costs resulting from the Applicant's failure to provide an accurate location certificate.

Glossary

Alignment – A location specified or approved by the General Manager for locating equipment on, over, along, across, under, or in a street.

Applicant – A person applying for a permit or other consent under these requirements. This shall be extended, where applicable, to include the Applicant's direct employees and its agents, consultants and contractors.

Book 7 – *Ontario Traffic Manual*, *Book 7 – Temporary Conditions (Field Edition)* was developed to show how to apply traffic control devices in temporary construction, maintenance, and utility work zones, to help ensure worker safety, motorist safety, and motorist mobility. It has been prepared to assist works in the field by illustrating the appropriate signing and the channelization required for the most common types of roadway work operations.

Boulevard – That part of a public street that is not used, or intended to be used, for vehicle travel by the general public, and that is situated between the travelled portion of the road and the adjoining property line.

City – The City of Toronto—the corporation—and will be referred to as the City for the purposes of this document.

Emergency Work – Work within a street that must be completed immediately due to health or safety concerns or because the provision of essential services is endangered.

Equipment – Includes any machinery, vehicles, construction materials, poles, cables, pipes, conduits, ducts, pedestals, antennas, towers, wires, amplifiers, vaults, maintenance holes, hand holes, support structures or other appurtenances or ancillary facilities, structures or devices used to provide any public utility, including telecommunications, electrical energy, steam energy or water and waste water utility services.

Essential Services – Energy (including, but not limited to, natural gas, steam, and electricity), water, sanitary sewage, traffic control, and the following communication services: 911 service, communications for financial transactions, business networks, and Internet.

Excavating – The breaking, digging up, tearing up, tunnelling, boring, coring, cutting into or removing any portion of the surface or subsurface of the street, including pavement, sidewalk, curbs, gutter or landscaping.

General Manager – The person appointed by the City from time to time as the general manager of Transportation Services and his or her successors or his or her duly authorized representative.

Intersection – The area embraced within the prolongation or connection of the lateral curb lines or, if none, then of the lateral boundary lines of two or more streets or private driveways that join one another at an angle, whether or not one street or private driveway crosses the other.

Location Certificate – A drawing prepared according to the General Manager's specifications that, in the General Manager's opinion, is sufficient to accurately establish the location, elevation and distance of any equipment constructed, installed or reconstructed within a street.

Municipal Access Agreement (MAA) – A legal agreement, approved by City Council, which contains provisions for granting consent to a person to do work in the streets upon compliance by such person with all other applicable municipal requirements.

Mainline – Any plant that is not a service or service drop.

Municipal Consent Requirements (MCR) – This document, specifying the requirements for the installation of plant within city of Toronto streets.

Municipal Address – The city, street and number on the street by which a property is known.

OHSA – Occupational Health and Safety Act for the province of Ontario.

Permit – Written authorisation granted by the General Manager under the provisions of this document.

Person – One or more individuals, partnerships, corporate bodies, unincorporated organisations, governments, government agencies, trustees, executors, administrators or other legal representatives, other than the City or its legal representatives.

Plant – Any poles, cables, pipes, conduits, ducts, pedestals, regulators, antennas, towers, wires, amplifiers, vaults, maintenance holes, hand holes, support structures and or other appurtenances or ancillary facilities or structures used for the provision of telecommunications, internet, energy, water, waste water, steam, fuel and/or other materials. Any encasement, steel plating or other non-excavatable material shall be considered to be part of the plant.

Road – The portion of the street designed, improved and ordinarily used by vehicle traffic.

Service / Service Drop – A cable, pipe, conduit, or any other plant that provides service directly to a customer.

Sidewalk – That part of a public street located within the boulevard that is improved for the exclusive use of pedestrians.

Street – A common and public highway, street, avenue, parkway, driveway, square, place, bridge, viaduct or trestle, any part of which is intended for or used by the general public for the passage of vehicle and includes the area between the lateral property lines thereof. The terms City's public road allowance, right-of-way and highway shall have the same meaning as street.

Street Line – The property line indicating the boundary of the right-of-way and private property.

Toronto Public Utilities Coordinating Committee (TPUCC) – the organization, or any successor organization, comprised of member utility companies and the City who own and operate equipment in City streets.

Trunk – A watermain with an inside diameter equal to or greater than 400 millimetres; a storm sewer with an inside diameter equal to or greater than 750 millimetres; a sanitary or combined sewer with an inside diameter equal to or greater than 375 millimetres; any attachment to the aforementioned watermains/sewers including, but not limited to, maintenance holes, appurtenances, valve chambers, cathodic protection or other features.

Utility Company – A company owning, operating and maintaining plant in the public right-of-way.

Work – Includes any excavating in streets, and the installing, repairing, replacing, extending or operating and maintaining of any equipment, structure or device located on, over, along, across, under, or in streets.

RESPONSES TO ENERGY PROBE RESEARCH FOUNDATION INTERROGATORIES ON ISSUE 2.2

INTERROGATORY 23:

Reference(s): Tab 2, D3 and Tab 4, B1

The Navigant report in the first reference notes at Page 12 that directional boring combined with a flexible conduit is the preferred method used by survey participants for replacing single phase U/G lines.

a) Please provide a description of the construction steps needed for the directional boring method of replacing DB cables and for THESL's preferred alternative of concrete encased ducts.

RESPONSE:

a) Directional boring first requires a pit at the start and end of the drill run plus test holes along the run where the drill passes within one meter of existing utilities. Additional test holes may be required to ensure that the drill is maintaining the correct path. Pits may be required for bends in the line. The drilling process uses a series of six-meter rods where high pressure water is sent through to the drill bit to liquefy the soil, thereby creating a void. The path must be generally straight because bore rods only bend slightly. Once the drill gets to the end of its run, the conduit is attached to the drill and pulled back through the newly created tunnel. Test pit holes are then backfilled.

Concrete encased ducts require an open trench method of installation where a distance of trench (approximately 100 metres/day) is excavated. Ducts are installed into the trench, and then concrete is poured over the ducts to create the concrete-encased duct structure. This is followed by backfill.

RESPONSES TO ENERGY PROBE RESEARCH FOUNDATION INTERROGATORIES ON ISSUE 2.2

b) Please compare the physical disruption to a neighbourhood for the directional boring method vs. the concrete encased duct method of replacing DB cables.

RESPONSE:

b) Where feasible, the directional boring method is generally less disruptive to a neighbourhood than concrete encased duct installed by an open trench method. This is mainly due to the amount of excavation that needs to be done in both methods, as has been described in part (a). Part c) below describes situations where directional boring becomes more challenging.

c) Please explain why THESL prefers the concrete encased duct method over the directional boring with flexible duct method.

RESPONSE:

c) THESL's standard is to install primary underground cable in concrete encased ducts (where feasible), instead of in flexible ducts by directional boring, for the following reasons:

- Direct-buried ducts, including flexible ducts installed by directional boring, are prone to dig-ins, collapse or damage due to earth shifting. Concrete-encased ducts are protected by concrete and are therefore structurally stronger.
- Cables are more easily repaired when in concrete-encased ducts.
- There are often bends in the path of the cable installation, requiring more test pits to be dug. This makes the directional boring process more challenging, disruptive, and time consuming.
- During the boring operation, a clearance of one meter is required around the drill to prevent disruption of other utilities. If this clearance is not feasible, more test

RESPONSES TO ENERGY PROBE RESEARCH FOUNDATION INTERROGATORIES ON ISSUE 2.2

pits are required, thereby making the directional boring process more challenging, disruptive, and time consuming.

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INTERROGATORY 24:

Reference(s): **Tab 4, Sch. B1**

a) Please provide an expanded Table 2 on Page 133 showing advantages and disadvantages for two additional options:

1. Directional boring U/G with flexible conduit for primary, and

2. Overhead primary with U/G secondaries.

RESPONSE:

a) The table below is an expanded version of Table 2 on Page 133 of Tab 4, Schedule B1, and contains the requested information.

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1 **Table 1: Advantages and disadvantages of proposed mitigation options**

Option	Advantages	Disadvantages
1. Repair faults – defer all replacement capital work	• Lower capital spending in the short-term	• Higher overall capital costs (reactive plus near-term replacement) • More failures • Longer service recovery time due to • Difficulty locating faults • Trenching required to repair the cable • Premature hydrothermal aging due to nature of underground environment (deteriorating reliability) • Extremely vulnerable to dig-ins
2. Rejuvenate existing XLPE direct buried cables via cable injection	• Laboratory tests indicate that it prolongs the life of an aged cable for a few years	• Does not eliminate the need to replace the direct buried cables • Higher planned outage costs • Increased planned interruptions to the customer • Cable failures still occur on rejuvenated cable segments • Life is only extended by a few years
3. Replace existing XLPE direct buried cables with new strand-filled TR-XLPE direct buried cables	• Lower *initial* installation cost than option 4. • Longer service life than option 1 and 2.	• Higher replacement costs • Longer service recovery time due to o Difficulty locating faults o Trenching required to change the cable • Premature hydrothermal aging due to nature of underground environment • Extremely vulnerable to dig-ins • Higher risk of failure due to the effects of moisture on the splices • Aged cable further weakened due to the new joints installed

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Option	Advantages	Disadvantages
4. Replace existing XLPE direct buried cables with new strand-filled TR-XLPE cables in concrete-encased ducts	• Lowest future cable replacement costs • Reduced safety hazard to the public as now cable is protected from dig-ins • Ducts are protected from collapse due to shifting of the ground and other mechanical stresses • Cable is protected from premature hydrothermal aging • Quicker service recovery times to the customer • More efficient to repair than cable in flexible ducts	• Higher *initial* installation cost due to required civil infrastructure

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Option	Advantages	Disadvantages
5. Replace existing XLPE direct buried cables with new strand-filled TR-XLPE cables in flexible ducts using directional boring	• Lower future cable replacement costs • Cable is protected from premature hydrothermal aging • Quicker service recovery times to the customer • Efficient to maintain compared to direct buried cables • Generally lower initial installation cost than concrete encased ducts	• High *initial* installation cost due directional boring machine and vacuum suction equipment • Not effective for non-linear installations (i.e. path must be generally straight) because bore rods only bend slightly • Multiple open pits are required in the trench route • Aesthetically directional boring is not attractive in residential areas due to open pits required for bends and numerous test holes required for each new section to be bored • Ducts are not protected from collapse due to ground shifting and other mechanical stresses • Cables and ducts are not protected from dig-ins; safety hazard still exists • If duct is damaged, replacement costs must now include replacing cable and the damaged duct
6. Replace existing XLPE direct buried primary with OH primary and UG secondary	• Lower cost • Quicker fault locating and outage isolation	• Requires new infrastructure to be built, abandoning the use of existing splice chambers instead of making most optimum use of existing assets • Increased occurrence of sustained and momentary outages due to foreign interference such as tree contact, wind disturbance, lightning disturbance (adverse weather), animal contacts and vehicle accidents • Unacceptable to residents in neighbourhoods with existing underground infrastructure, resulting in customer opposition, reduced customer satisfaction and acceptance for new projects • Can be difficult to get approval from the City of Toronto for new above grade installations • Difficult to implement in already congested, dense urban areas

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Please refer to the response to interrogatory EP 22 (Tab 6F, Schedule 7-22) for further information on the benefits of underground infrastructure over overhead infrastructure, and the response to interrogatory EP 23 (Tab 6F, Schedule 7-23) for further information on directional boring.

b) Please provide an expanded Table 3 on Page 134 showing comparable costs for two additional options:

1. **Directional boring with flexible duct to house cable, and**
2. **O/H primary with pole mounted transformers and U/G secondaries. (Please update the installation costs in Option 4 of existing Table 3 to include submersible transformers, transformer vaults and cable chambers and secondaries.)**

RESPONSE:

c) Table 2 below is an expanded and updated version of Table 3 in Tab 4, Schedule B1, and includes the costs of replacing existing direct buried cable through planned work and outage restoration with overhead conductors and poles as well as new cable in direct buried duct via directional boring.

Important notes pertaining to Table 2 below:

- Options 1, 2, 3, 4 and 6 in Table 4 below are for a length of 100 metres of cable. Option 5 is for a length of 114 metres of overhead poles and conductors (based on three spans of 38 metres).
- #1/0 Al TR-XLPE cable is used in Options 1, 2, 3, 4 and 6. #3/0 ACSR conductor is used in Option 5.
- The costs for cable/conductor are for one phase only.

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- Options 4 and 6 assume a typical 2x3 duct configuration.
- Options 1 and 3 assume a typical trench depth of 1.2m.
- All options (1-6) assume a straight stretch of local road without any bends.
- All costs do not include transformers or switchgear. Including these components would not provide a realistic picture of the associated costs since not all projects proposed by THESL require transformers or switchgear. To this end, only the common components of all projects have been included for the purposes of this analysis.

As noted by footnote 3 to Table 2, some of these costs are corrections to those previously included in Table 3 in Tab 4, Schedule B1.

Table 2: Direct buried cable replacement cost comparison

	Estimated Installation / Rejuvenation Costs				Repair Due to Outage			
Option	**Material / Injection Cost (per metre)**	**Electrical Labour Cost (per segment)**	**Civil Cost (per metre)**	**Total Installation/ Rejuvenation Cost (1)**	**Electrical Material and Labour Cost**	**Civil Cost**	**Total Costs**	**Total Costs per metre**
1. Performing reactive work on the feeder (i.e., replace XLPE with strand-filled TR-XLPE)	$13.41 (per metre) (3)	$1,822.24 (3)	$240.18 (per trench metre) (3)	$27,181.33 (3)	$4,922.37 (3,4)	$1,244 (per splice-pit) (5)	$6,166.04 (3)	$6,166.04 (3)

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	Estimated Installation / Rejuvenation Costs				Repair Due to Outage			
Option	**Material / Injection Cost (per metre)**	**Electrical Labour Cost (per segment)**	**Civil Cost (per metre)**	**Total Installation/ Rejuvenation Cost (1)**	**Electrical Material and Labour Cost**	**Civil Cost**	**Total Costs**	**Total Costs per metre**
2. Rejuvenate existing XLPE direct buried cables via cable injection	$20.01 (per metre)	$3,352.08	$522.50 (per metre)	$57,603.08	$4,922.37 (3,4)	$1,244 (per splice-pit) (5)	$6,166.04 (3)	$6,166.04 (3)
3. Replace existing XLPE direct buried cables with new strand-filled TR-XLPE direct buried cables	$13.41 (per metre) (3)	$1,822.24 (3)	$240.18 (per trench metre) (3)	$27,181.33 (3)	$4,922.37 (3,4)	$1,244 (per splice-pit) (5)	$6,166.04 (3)	$6,166.04 (3)
4. Replace existing XLPE direct buried cables with new strand-filled TR-XLPE cables in concrete-encased ducts	$13.41 (per metre) (3)	$2,162.90 (3)	$380.40 (per metre) (3)	$41,544.32 (3)	$6,171.12 (3)	N/A	$6,171.12 (3)	$61.71 (3)

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	Installation / Rejuvenation Costs				**Repair Due to Outage**			
Option	**Material / Injection Cost (per metre)**	**Electrical Labour Cost (per segment)**	**Civil Cost (per metre)**	**Total Installation/ Rejuvenation Cost (1)**	**Electrical Material and Labour Cost**	**Civil Cost**	**Total Costs**	**Total Costs per metre**
5. Replace existing XLPE direct buried cables with overhead conductors and poles	$350.00 (per 38m span)	$8,912.08 (1)	$24,203.30 (2)	$34,165.38	$5,625.86 (6)	N/A	$5,625.86	$56.26
6. Replace existing XLPE cables with strand-filled TR-XLPE cables in flexible ducts via directional boring	$13.41 (per metre)	$2,162.90	$307.34 (per metre)	$32,896.57	$6,171.12 (7)	N/A	$6,171.12	$61.71

Notes to the Table:

1) The Electrical Labour Cost for option 5 includes grounding and abandoning existing direct buried cable, switching, conductor stringing, primary risers and pole framing and guying.
2) The Civil Labour Cost for option 5 includes splice pits required for grounding and abandoning direct buried cable, tree trimming, pole holes, 45' poles, delivery of poles to site, and pole installation and anchoring.

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3) These costs are different from what was included in Table 3 in Tab 4, Schedule B1. The costs in these cells in Table 3 in Tab 4, Schedule B1 are incorrect.
4) Each faulted cable will require two splices; this price reflects the cost of two splices plus labour.
5) This is assuming that the fault is located on the first try and only one splice pit is required, otherwise multiple pits may be needed and accounted for in the repair calculations.
6) This price assumes reactive work due to a typical outage caused by pole damage due to a vehicle.
7) This repair assumes ducts are intact. If ducts have been damaged, the cost of trenching, replacing duct and cable must be added to the replacement costs noted above.

While options 1 and 3 involve lower total costs than the other options, THESL does not consider these options to be prudent, as discussed in Tab 4, Schedule B1. Options 5 and 6 have lower costs than option 4, but THESL considers option 4 to be more prudent as discussed in the responses to EP 22 (Tab 6F, Schedule 7-22) and EP 23 (Tab 6F, Schedule 7-23), as well as in Table 1 above.

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INTERROGATORY 25:

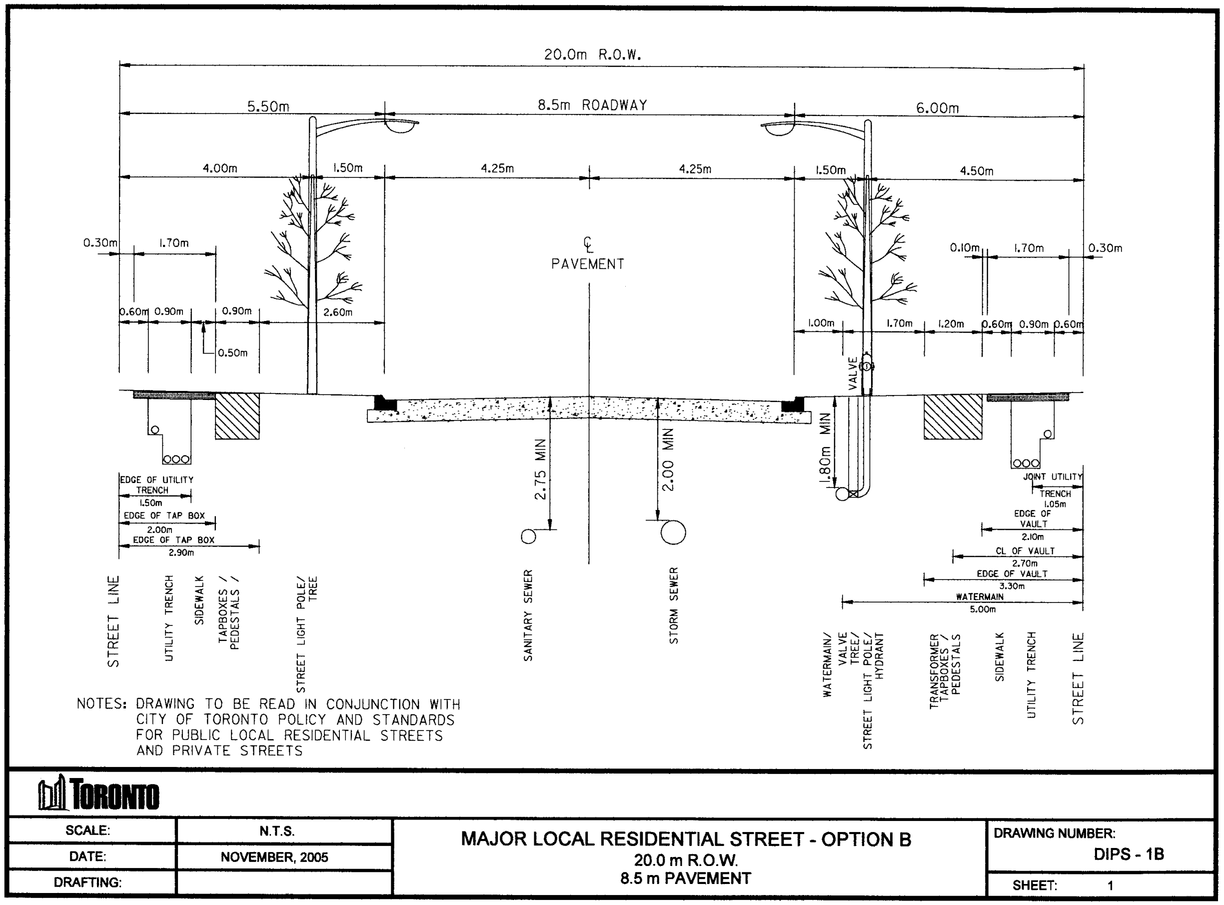
Reference(s): **Tab 4, Sch. B1**

Please provide typical cross section and plan view drawings of a residential subdivision road allowance showing right of way width, location and depth of burial of DB cables, cable TV, telephone cables and natural gas pipes. Please also show where the proposed concrete encased ducts and submersible transformer vaults would be located overlaid on the same drawings.

RESPONSE:

Please see the attached figures. Direct buried (DB) cable and proposed concrete-encased ducts are each expected to be located in the same utility trench illustrated in the figures. Submersible transformer vaults fall under the "transformers/tapboxes/pedestals" label in Figure 1.

RESPONSES TO ENERGY PROBE RESEARCH FOUNDATION INTERROGATORIES ON ISSUE 2.2



1 **Figure 1: Cross-sectional view of typical residential road**

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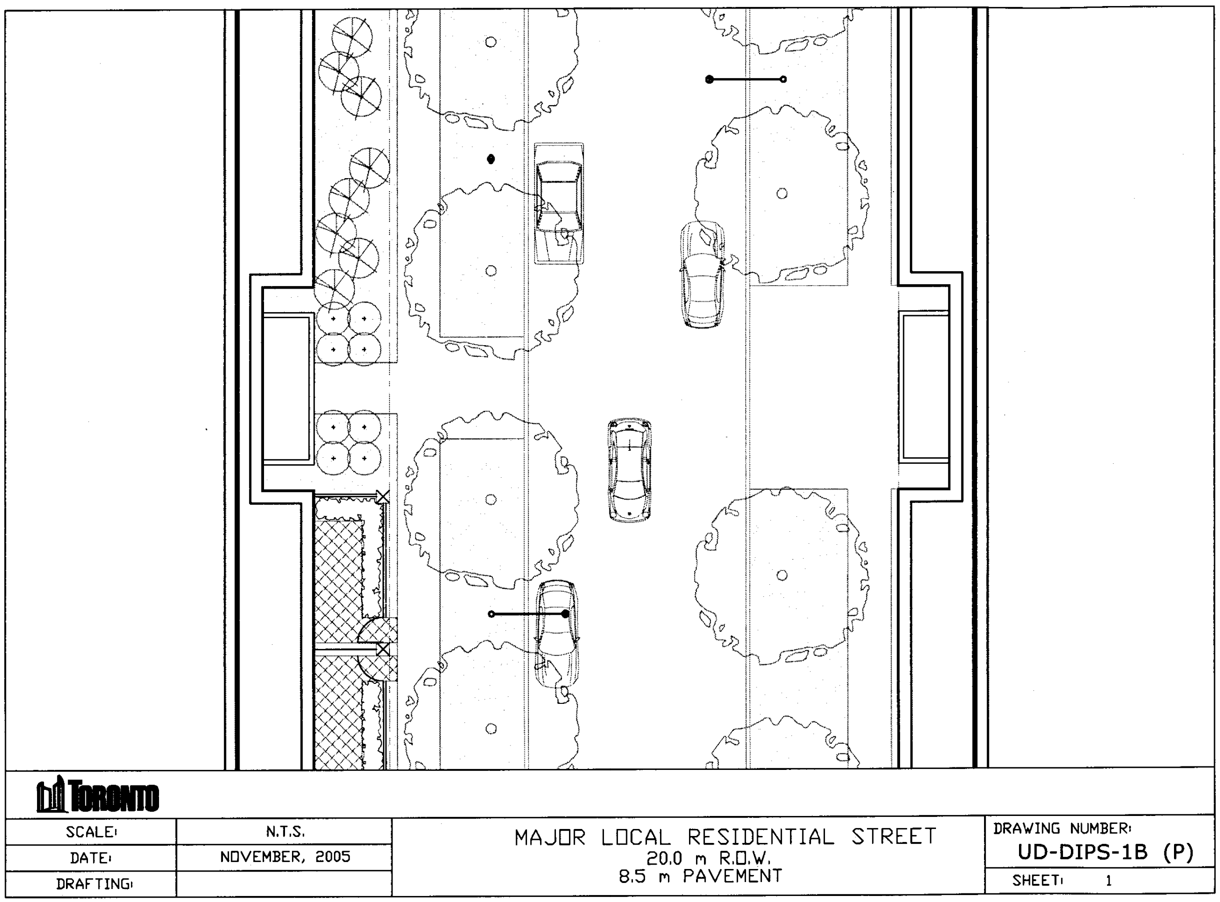

Figure 2: Plan view of typical residential road

Panel: Capital Projects

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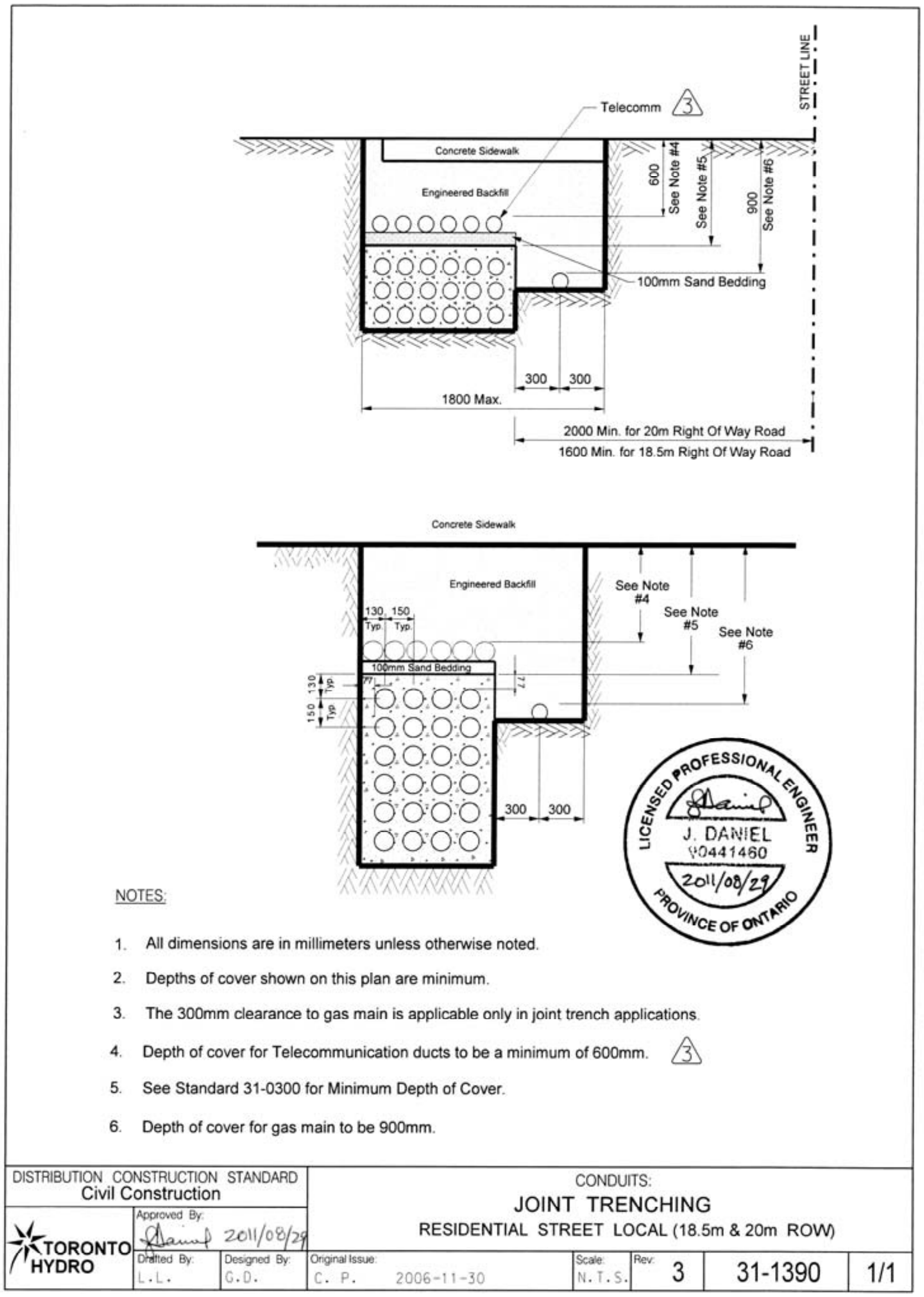

Figure 3: THESL joint trenching construction drawing

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INTERROGATORY 26:

Reference(s): Tab 4, Sch. B1

Please provide a Business Case Evaluation comparing the following three options to address the problems of direct buried cable in residential subdivisions:

1. Directional boring with flexible ducts for primary cables, submersible transformers and vaults, SF_6 switchgear.
2. Concrete encased ducts for primary cables, submersible transformers and vaults, SF_6 switchgear.
3. Overhead primary, pole mounted transformers, current THESL standard for fused disconnect, sectionalizing and feeder tie switches.

RESPONSE:

In the time available to respond to interrogatories, it is not possible to prepare the requested business case evaluation. Below, however, THESL lists the considerations that would inform this evaluation.

Outages, planned or unplanned, for any length of time, disturb the normal activities of residents and businesses, and are therefore considered to be at a minimum a nuisance and, depending on frequency and duration, a reduction in quality of life. Any form of reactive or proactive direct buried cable replacement strategy should be selected with the long-term intention of improving system reliability while reducing the overall cost of ownership. With this in mind, the selected approach should:

- Minimize the potential for outages
- Minimize the long term cost of maintenance
- Minimize accelerated aging due to existing underground conditions

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With these criteria in mind, the following three options can be examined:

1. Replacement of direct buried cable with new strand-filled TR-XLPE cable in concrete encased ducts
2. Replacement of direct buried cable with new strand-filled TR-XLPE cable in flexible ducts via directional boring
3. Replacement of direct buried cable with new overhead conductor and poles

Table 1 below illustrates how these approaches meet abovementioned criteria.

Table 1: Comparison of criteria against Options 1, 2 and 3

Criteria	Option 1 (concrete encased ducts)	Option 2 (directional boring)	Option 3 (UG to OH)
Minimize the risk of outages due to vegetation (including tree contacts)	yes	yes	no
Minimize the risk of outages due to weather (including high winds, storms, lightning surges)	yes	yes	no
Minimize the risk of outages due to animal contacts	yes	yes	no
Minimize the risk of outages due to vehicular accidents	yes	yes	no
Minimize the risk of outages due to dig-ins	yes	no	no
Minimize the long term cost of repair	yes	no	no
Minimize accelerated aging due to existing underground conditions	yes	yes	yes

Replacement of direct buried cable with new strand-filled TR-XLPE cable in concrete encased ducts is the only option that meets the defined criteria.

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More specifically, based on the information provided in the responses to EP interrogatories 22, 23 and 24 (Tab 6F, Schedules 7-22, 7-23 and 7-24 respectively), the following summary is provided:

- Replacing direct buried cable with overhead conductor and cable:
  - Is often not feasible due to City of Toronto requirements and customer pushback;
  - Results in increased likelihood of outages; and,
  - Means abandoning existing underground civil infrastructure such as splice chambers and transformer vaults.
- Replacing direct buried cable with cable in ducts installed via directional boring:
  - Does not provide long-term mechanical protection for the ducts;
  - Does not address the safety hazard associated with dig-ins; and
  - Is often not efficient due to the number of test pits that need to be dug during the directional boring process.

Considering the abovementioned criteria and summary, and given the cost comparison provided in the response to EP interrogatory 24 (Tab 6F, Schedules 7-24), THESL's position is that replacing direct buried cable with cable in concrete-encased ducts is the most prudent option.

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INTERROGATORY 27:

Reference(s): **Tab 4, Sch. B3 Handwell replacements**

Page 1 Lines 26-28 refer to City Moratoriums on excavating sidewalks and pavement thereby preventing THESL from replacing handwells.

a) Please provide a map showing where these moratoriums are in effect.

RESPONSE:

a) Please see the attached spreadsheet provided by the City of Toronto. The City does not provide the information in a map format.

b) How long does THESL expect the moratoriums to last?

RESPONSE:

b) Please see the Municipal Consent Requirements document, which is Appendix A to the response to EP interrogatory 22 (Tab 6F, Schedule 7-22), at pages 7 and 8 for the duration of road moratoriums.

c) Is the Electrical Safety Authority aware that THESL cannot address a potential public safety issue? If yes, what was the ESA's response and/or advice to THESL. If not, shouldn't THESL make the ESA aware?

RESPONSES TO ENERGY PROBE RESEARCH FOUNDATION INTERROGATORIES ON ISSUE 2.2

RESPONSE:

c) The Electrical Safety Authority is aware both that THESL has a handwell replacement program and that THESL is also using other mitigation measures to ensure public safety is maintained during the duration of the handwell replacement program. The ESA has not made any comment to THESL on the schedule for handwell replacement.

d) What measures can THESL take to mitigate the risks of contact voltage in areas where the handwells cannot be replaced?

RESPONSE:

d) THESL is undertaking measures such as the use of mobile surveying described on Tab 4, Schedule B3, page 9, lines 25-29.

2012 MORATORIUM LIST OF ROADS

For Moratorium conditions refer to: http://www.toronto.ca/engineering/mcr/pdf/mcr_municipal_consent_requirements.pdf

Expiration Date is December 31, YEAR

WARD		SECTION	LOCATION			COMPLETED		FUNCTIONAL	REMARKS	DISTRICT	EXPIRATION
Even	Odd	ID	Street	From	To	YEAR	WORK	CLASS	(for carry over, deferred, delayed work)		DATE
17-Davenport	17-Davenport	12343.200	[106.70 m N] LINDNER ST	MILLER ST	[32 m W] MILLER ST	2010	Reconstruction	Laneway		Etobicoke York	2015
19-Trinity-Spadina	19-Trinity-Spadina	11564.000	[107.80 m S] HARBORD ST	MANNING AVE (TO)	CLINTON ST	2011	Resurfacing	Laneway		Toronto and East York	2016
11-York South-Weston	11-York South-Weston	35297.000	[133 m N] LAMBTON AVE	[28 m E] WESTON RD	WESTON RD	2009	Reconstruction	Laneway		Etobicoke York	2014
20-Trinity-Spadina	20-Trinity-Spadina	11433.000	[138.70 m W] BATHURST ST	VERMONT AVE	DUPONT ST	2011	Resurfacing	Laneway		Toronto and East York	2016
11-York South-Weston	11-York South-Weston	35111.000	[191 m E] JANE ST	CORBETT AVE	[34 m N] CORBETT AVE	2010	Reconstruction	Laneway		Etobicoke York	2015
18-Davenport	18-Davenport	11943.000	[22.90 m E] BROCK AVE	[23.20 m S] MIDDLETON ST	MIDDLETON ST	2009	Reconstruction	Laneway		Toronto and East York	2014
28-Toronto Centre-Rosedale	28-Toronto Centre-Rosedale	10647.000	[25.90 m E] BRIGHT ST	[33.50 m N] KING ST E	[48.80 m N] KING ST E	2007	Reconstruction	Laneway		Toronto and East York	2012
17-Davenport	17-Davenport	12329.000	[26 m N] ADRIAN AVE	WILTSHIRE AVE	[36.60 m W] WILTSHIRE AVE	2009	Resurfacing	Laneway		Etobicoke York	2014
06-Etobicoke-Lakeshore	06-Etobicoke-Lakeshore	55047.000	[26 m N] LAKE SHORE BLVD W	SEVENTEENTH ST	SIXTEENTH ST	2009	Resurfacing	Laneway		Etobicoke York	2014
20-Trinity-Spadina	20-Trinity-Spadina	11314.030	[27.40 m E] DENISON AVE	[45.70 m S] WALES AVE	[17.40 m S] WALES AVE	2007	Reconstruction	Laneway		Toronto and East York	2012
17-Davenport	17-Davenport	12124.010	[27.40 m N] ST CLAIR AVE W	WESTMOUNT AVE	DUFFERIN ST	2009	Resurfacing	Laneway		Etobicoke York	2014
20-Trinity-Spadina	20-Trinity-Spadina	10954.000	[27.40 m S] RICHMOND ST W	DUNCAN ST	[34.40 m W] DUNCAN ST	2011	Resurfacing	Laneway		Toronto and East York	2016
20-Trinity-Spadina	20-Trinity-Spadina	11321.000	[27.40 m S] WALES AVE	AUGUSTA AVE	[42.70 m W] AUGUSTA AVE	2007	Reconstruction	Laneway		Toronto and East York	2012
20-Trinity-Spadina	20-Trinity-Spadina	10953.000	[27.40 m W] DUNCAN ST	[25 m N] ADELAIDE ST W	NELSON ST (TO)	2011	Resurfacing	Laneway		Toronto and East York	2016
17-Davenport	17-Davenport	11897.000	[28.30 m S] ST CLAIR AVE W	WESTMOUNT AVE	DUFFERIN ST	2009	Resurfacing	Laneway		Etobicoke York	2014
30-Toronto-Danforth	30-Toronto-Danforth	10353.000	[28.40 m N] ENDEAN AVE	JONES AVE	LESLIE ST (TO)	2007	Reconstruction	Laneway		Toronto and East York	2012
21-St. Paul's	21-St. Paul's	11444.400	[29.30 m N] ALCINA AVE	[27 m W] BATHURST ST	[60 m W] BATHURST ST	2009	Resurfacing	Laneway		Toronto and East York	2014
28-Toronto Centre-Rosedale	28-Toronto Centre-Rosedale	10659.000	[29.60 m N] KING ST E	[40.50 m W] BRIGHT ST	BRIGHT ST	2007	Reconstruction	Laneway		Toronto and East York	2012
11-York South-Weston	11-York South-Weston	55149.000	[30 m W] WESTON RD	MAPLE BUSH AVE	DEE AVE	2009	Reconstruction	Laneway		North York	2014
28-Toronto Centre-Rosedale	28-Toronto Centre-Rosedale	10649.000	[30.20 m E] ST PAUL ST	[29.90 m N] KING ST E	[36.60 m S] QUEEN ST E	2007	Reconstruction	Laneway		Toronto and East York	2012
18-Davenport	18-Davenport	12008.000	[30.50 m E] BROCK AVE	CHESLEY AVE	COBOURG AVE	2010	Reconstruction	Laneway		Toronto and East York	2015
14-Parkdale-High Park	14-Parkdale-High Park	11906.000	[30.50 m E] CLOSE AVE	SPRINGHURST AVE	[41.10 m N] SPRINGHURST AVE	2007	Reconstruction	Laneway		Toronto and East York	2012
19-Trinity-Spadina	19-Trinity-Spadina	11716.000	[30.50 m E] DOVERCOURT RD	ARGYLE ST	FOXLEY ST	2009	Resurfacing	Laneway		Toronto and East York	2014
18-Davenport	18-Davenport	11721.000	[30.50 m N] ARGYLE ST	LISGAR ST	BEACONSFIELD AVE	2010	Reconstruction	Laneway		Toronto and East York	2015
18-Davenport	18-Davenport	12078.000	[30.50 m N] LAPPIN AVE	ST CLARENS AVE	LANSDOWNE AVE (TO)	2010	Resurfacing	Laneway		Toronto and East York	2015
18-Davenport	18-Davenport	12081.000	[30.50 m S] DUPONT ST	ST CLARENS AVE	LANSDOWNE AVE (TO)	2010	Resurfacing	Laneway		Toronto and East York	2015
20-Trinity-Spadina	20-Trinity-Spadina	10956.000	[30.50 m S] QUEEN ST W	SIMCOE ST	DUNCAN ST	2009	Resurfacing	Laneway		Toronto and East York	2014
30-Toronto-Danforth	30-Toronto-Danforth	10277.000	[30.50 m S] QUEEN VICTORIA ST	SEYMOUR AVE	[30.50 m E] SEYMOUR AVE	2007	Reconstruction	Laneway		Toronto and East York	2012
17-Davenport	17-Davenport	11892.000	[30.50 m S] ST CLAIR AVE W	ALBERTA AVE	OAKWOOD AVE	2011	Reconstruction	Laneway		Etobicoke York	2016
14-Parkdale-High Park	14-Parkdale-High Park	12288.000	[30.50 m W] DUNDAS ST W	CHELSEA AVE	GLENLAKE AVE	2010	Resurfacing	Laneway		Toronto and East York	2015
17-Davenport	17-Davenport	12387.000	[30.50 m W] ROSETHORN AVE	TURNBERRY AVE	ROWNTREE AVE	2011	Reconstruction	Laneway		Etobicoke York	2016
17-Davenport	17-Davenport	12155.000	[30.50 m W] SELLERS AVE	HOPE ST	MORRISON AVE	2011	Resurfacing	Laneway		Etobicoke York	2016
31-Beaches-East York	31-Beaches-East York	25074.000	[31 m N] DANFORTH AVE	ELDON AVE	SIBLEY AVE	2007	Reconstruction	Laneway		Toronto and East York	2012
11-York South-Weston	11-York South-Weston	35282.000	[31 m S/E] HUMBER BLVD (YK	AVON AVE	[30 m N] AVON AVE	2010	Reconstruction	Laneway		Etobicoke York	2015
17-Davenport	17-Davenport	12126.000	[31.40 m N] ST CLAIR AVE W	[33.50 m W] ST CLAIR GDNS	BOON AVE	2010	Resurfacing	Laneway		Etobicoke York	2015
17-Davenport	17-Davenport	12134.000	[31.40 m S] ST CLAIR AVE W	HARVIE AVE	[36.60 m W] HARVIE AVE	2010	Resurfacing	Laneway		Toronto and East York	2015
28-Toronto Centre-Rosedale	28-Toronto Centre-Rosedale	10711.010	[31.60 m N] GERRARD ST E	ONTARIO ST	[31.40 m E] ONTARIO ST	2009	Reconstruction	Laneway		Toronto and East York	2014
17-Davenport	17-Davenport	12385.000	[31.70 m W] SILVERTHORN AVE	TURNBERRY AVE	ROWNTREE AVE	2009	Resurfacing	Laneway		Etobicoke York	2014
29-Toronto-Danforth	29-Toronto-Danforth	25056.000	[32 m E] DONLANDS AVE	PLAINS RD	COSBURN AVE	2009	Reconstruction	Laneway		Toronto and East York	2014
26-Don Valley West	26-Don Valley West	25050.000	[33 m N] EGLINTON AVE	LAIRD DR	SUTHERLAND AVE	2011	Resurfacing	Laneway		Toronto and East York	2016
19-Trinity-Spadina	19-Trinity-Spadina	12148.100	[33.5 m W] DAY AVE	HOPE ST	MORRISON AVE	2011	Resurfacing	Laneway		Toronto and East York	2016
28-Toronto Centre-Rosedale	28-Toronto Centre-Rosedale	10658.000	[33.50 m N] KING ST E	BRIGHT ST	[25.90 m E] BRIGHT ST	2007	Reconstruction	Laneway		Toronto and East York	2012
17-Davenport	17-Davenport	12123.000	[33.50 m W] ST CLAIR GDNS	[31.40 m N] ST CLAIR AVE W	ASCOT AVE	2010	Resurfacing	Laneway		Etobicoke York	2015
11-York South-Weston	11-York South-Weston	35110.000	[34 m N] CORBETT AVE	[28 m W] ROCKCLIFFE BLVD	JANE ST	2010	Reconstruction	Laneway		Etobicoke York	2015
17-Davenport	17-Davenport	11882.000	[34.40 m W] WESTMOUNT AVE	ROSEMOUNT AVE (TO)	[28.30 m S] ST CLAIR AVE W	2009	Resurfacing	Laneway		Etobicoke York	2014
20-Trinity-Spadina	20-Trinity-Spadina	11359.440	[35 m N] ULSTER ST	[38 m W] MAJOR ST	BRUNSWICK AVE	2007	Reconstruction	Laneway		Toronto and East York	2012
12-York South-Weston	12-York South-Weston	35275.000	[35 m W] FAILSWORTH AVE	[38 m S] AILEEN AVE	AILEEN AVE	2011	Reconstruction	Laneway		Etobicoke York	2016
18-Davenport	18-Davenport	12007.000	[35.10 m N] CHESLEY AVE	[83.40 m E] BROCK AVE	[30.50 m E] BROCK AVE	2010	Reconstruction	Laneway		Toronto and East York	2015
19-Trinity-Spadina	19-Trinity-Spadina	11634.000	[35.10 m N] YARMOUTH RD	MILES PL	[150 m W] MILES PL	2011	Resurfacing	Laneway		Toronto and East York	2016
30-Toronto-Danforth	30-Toronto-Danforth	10323.000	[35.70 m N] QUEEN ST E	BROOKLYN AVE	[32.30 m E] BROOKLYN AVE	2009	Resurfacing	Laneway		Toronto and East York	2014
13-Parkdale-High Park	13-Parkdale-High Park	35073.000	[36 m W] BROOKSIDE AVE	ST JOHNS RD	[42 m S] DUNDAS ST W	2011	Reconstruction	Laneway		Etobicoke York	2016
26-Don Valley West	26-Don Valley West	25044.000	[36 m W] SUTHERLAND DR	LEA AVE	MARKHAM AVE	2007	Construction	Laneway		Toronto and East York	2012
11-York South-Weston	11-York South-Weston	35030.000	[36 m W] WESTON RD	EGLINTON AVE W	[31 m S] GLENVALLEY DR	2008	Reconstruction	Laneway		Etobicoke York	2013
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	11040.000	[36.30 m E] AVENUE RD	[51.80 m S] MACPHERSON AVE	MACPHERSON AVE	2009	Resurfacing	Laneway		Toronto and East York	2014
30-Toronto-Danforth	30-Toronto-Danforth	10249.000	[36.60 m E] HASTINGS AVE	[30.50 m N] GERRARD ST E	[36.60 m S] HARRIET ST	2010	Reconstruction	Laneway		Toronto and East York	2015
29-Toronto-Danforth	29-Toronto-Danforth	10566.000	[36.60 m E] LOGAN AVE	[30.50 m N] DANFORTH AVE	AINSWORTH RD	2009	Reconstruction	Laneway		Toronto and East York	2014
17-Davenport	17-Davenport	12149.000	[36.60 m N] ASCOT AVE	EARLSCOURT AVE	NAIRN AVE	2009	Resurfacing	Laneway		Etobicoke York	2014
21-St. Paul's	21-St. Paul's	10014.010	[36.60 m N] EGLINTON AVE W	BATHURST ST	HILLTOP RD	2010	Reconstruction	Laneway		Toronto and East York	2015
20-Trinity-Spadina	20-Trinity-Spadina	11160.000	[36.60 m N] GRANGE AVE	[37 m E] HURON ST	HURON ST	2010	Resurfacing	Laneway		Toronto and East York	2015
19-Trinity-Spadina	19-Trinity-Spadina	11281.000	[36.60 m N] QUEEN ST W	MARKHAM ST	PALMERSTON AVE	2007	Reconstruction	Laneway		Toronto and East York	2012
17-Davenport	17-Davenport	12140.000	[36.60 m S] ASCOT AVE	NAIRN AVE	HARVIE AVE	2010	Reconstruction	Laneway		Etobicoke York	2015
17-Davenport	17-Davenport	12162.000	[36.60 m S] HOPE ST	EARLSCOURT AVE	NAIRN AVE	2009	Resurfacing	Laneway		Etobicoke York	2014
28-Toronto Centre-Rosedale	28-Toronto Centre-Rosedale	10660.000	[36.60 m S] QUEEN ST E	ST PAUL ST	[30.20 m E] ST PAUL ST	2007	Reconstruction	Laneway		Toronto and East York	2012
21-St. Paul's	21-St. Paul's	10001.100	[36.60 m W] SPADINA RD (TO	MONTCLAIR AVE	[39.60 m S] LONSDALE RD	2010	Reconstruction	Laneway		Toronto and East York	2015
18-Davenport	18-Davenport	12072.000	[36.60 m W] ST CLARENS AVE	[30.50 m N] LAPPIN AVE	[30.50 m S] DUPONT ST	2010	Resurfacing	Laneway		Toronto and East York	2015
17-Davenport	17-Davenport	12324.000	[36.60 m W] WILTSHIRE AVE	[26 m N] ADRIAN AVE	[48.80 m S] DAVENPORT RD	2009	Resurfacing	Laneway		Etobicoke York	2014
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	11015.000	[36.60 m W] YONGE ST	SCOLLARD ST	DAVENPORT RD	2008	Reconstruction	Laneway		Toronto and East York	2013
20-Trinity-Spadina	20-Trinity-Spadina	11152.000	[37 m E] HURON ST	[36.60 m N] GRANGE AVE	DUNDAS ST W	2010	Resurfacing	Laneway		Toronto and East York	2015
11-York South-Weston	11-York South-Weston	35005.000	[37 m S] WESTON RD	BELLEVUE CRES	[61 m W] BELLEVUE CRES	2010	Reconstruction	Laneway		Etobicoke York	2015
31-Beaches-East York	31-Beaches-East York	25067.000	[37 m W] SIBLEY AVE	COLEMAN AVE	DENTONIA PARK AVE	2007	Reconstruction	Laneway		Toronto and East York	2012
26-Don Valley West	26-Don Valley West	25043.000	[37 m W] SUTHERLAND DR	MCRAE DR	MARKHAM AVE	2007	Reconstruction	Laneway		Toronto and East York	2012
18-Davenport	18-Davenport	11836.000	[37.20 m N] BLOOR ST W	BARTLETT AVE	GLADSTONE AVE	2010	Resurfacing	Laneway		Toronto and East York	2015
19-Trinity-Spadina	19-Trinity-Spadina	11550.000	[37.5 m W] MANNING AVE (TO)	[197.80 m S] HARBORD ST	HARBORD ST	2011	Resurfacing	Laneway		Toronto and East York	2016
18-Davenport	18-Davenport	11729.000	[37.80 m E] NORTHCOTE AVE	[30.50 m N] ARGYLE ST	[30.50 m S] AFTON AVE	2009	Resurfacing	Laneway		Toronto and East York	2014
31-Beaches-East York	31-Beaches-East York	25070.000	[38 m N] DANFORTH AVE	THYRA AVE	ELDON AVE	2007	Reconstruction	Laneway		Toronto and East York	2012
19-Trinity-Spadina	19-Trinity-Spadina	11608.000	[38.10 m E] SHAW ST	BARTON AVE	PENDRITH ST	2011	Resurfacing	Laneway		Toronto and East York	2016
18-Davenport	18-Davenport	12308.000	[38.10 m W] CAMPBELL AVE	ANTLER ST	DUPONT ST	2010	Resurfacing	Laneway		Toronto and East York	2015
14-Parkdale-High Park	14-Parkdale-High Park	12238.000	[38.10 m W] SORAUREN AVE	[38.70 m N] WESTMINSTER AVE	GEOFFREY ST	2009	Resurfacing	Laneway		Toronto and East York	2014
5-Etobicoke-Lakeshore	5-Etobicoke-Lakeshore	55131.000	[39 m S] BLOOR ST W	PRINCE EDWARD DR (ETBK)	GRENVIEW (S) BLVD	2010	Reconstruction	Laneway		Etobicoke York	2015
30-Toronto-Danforth	30-Toronto-Danforth	10238.000	[39 m W] HASTINGS AVE	[33.50 m N] QUEEN ST E	DUNDAS ST E	2009	Resurfacing	Laneway		Toronto and East York	2014
19-Trinity-Spadina	19-Trinity-Spadina	11717.000	[39.30 m N] ARGYLE ST	FOXLEY PL	[30.50 m E] DOVERCOURT RD	2009	Resurfacing	Laneway		Toronto and East York	2014
20-Trinity-Spadina	20-Trinity-Spadina	11079.000	[39.40 m W] WIDMER ST	[48.70 m N] KING ST W	ADELAIDE ST W	2010	Resurfacing	Laneway		Toronto and East York	2015
20-Trinity-Spadina	20-Trinity-Spadina	11179.000	[39.60 m N] DUNDAS ST W	[54.90 m E] AUGUSTA AVE	AUGUSTA AVE	2009	Resurfacing	Laneway		Toronto and East York	2014
20-Trinity-Spadina	20-Trinity-Spadina	11424.000	[39.60 m N] VERMONT AVE	[36.60 m W] BATHURST ST	[138.70 m W] BATHURST ST	2011	Resurfacing	Laneway		Toronto and East York	2016
19-Trinity-Spadina	19-Trinity-Spadina	11518.000	[39.60 m W] MANNING AVE (T	[82.30 m S] COLLEGE ST (TO)	[40.80 m S] COLLEGE ST (TO)	2010	Resurfacing	Laneway		Toronto and East York	2015
26-Don Valley West	26-Don Valley West	25042.000	[40 m E] BAYVIEW AVE	FLEMING CRES	MILLWOOD RD	2007	Construction	Laneway		Toronto and East York	2012
31-Beaches-East York	31-Beaches-East York	25069.000	[40 m E] ELDON AVE	DENTONIA PARK AVE	[214 m S] DENTONIA PARK AVE	2009	Reconstruction	Laneway		Toronto and East York	2014
19-Trinity-Spadina	19-Trinity-Spadina	11802.100	[40.20 m W] DOVERCOURT RD	[53.90 m S] HEPBOURNE ST	[36 m S] HEPBOURNE ST	2010	Reconstruction	Laneway		Toronto and East York	2015
19-Trinity-Spadina	19-Trinity-Spadina	11528.000	[40.80 m S] COLLEGE ST (TO	MANNING AVE (TO)	CLINTON ST	2010	Resurfacing	Laneway		Toronto and East York	2015
12-York South-Weston	12-York South-Weston	35281.000	[41 m W] KEELE ST	[30 m N] GILPIN AVE	NASHVILLE AVE	2007	Reconstruction	Laneway		Etobicoke York	2012
14-Parkdale-High Park	14-Parkdale-High Park	11908.000	[41.50 m W] CLOSE AVE	SPRINGHURST AVE	[175.60 m N] SPRINGHURST AVE	2007	Reconstruction	Laneway		Toronto and East York	2012
21-St. Paul's	21-St. Paul's	11446.000	[42.70 m N] ALCINA AVE	[60 m W] BATHURST ST	WYCHWOOD AVE	2009	Resurfacing	Laneway		Toronto and East York	2014
13-Parkdale-High Park	13-Parkdale-High Park	10028.000	[42.70 m N] BLOOR ST W	OLD MILL DR	[48.60 m E] OLD MILL DR [CITY LIMITS]	2009	Reconstruction	Laneway		Etobicoke York	2014
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	11024.000	[44 m N] ROXBOROUGH ST W	MOLSON ST	[39.30 m E] AVENUE RD	2009	Resurfacing	Laneway		Toronto and East York	2014
20-Trinity-Spadina	20-Trinity-Spadina	11106.000	[44.10 m N] KING ST W	WIDMER ST	PETER ST	2010	Resurfacing	Laneway		Toronto and East York	2015
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	11022.000	[44.80 m N] ROXBOROUGH ST W	[30.50 m W] YONGE ST	MOLSON ST	2009	Resurfacing	Laneway		Toronto and East York	2014
19-Trinity-Spadina	19-Trinity-Spadina	11613.000	[45.4 m N] BARTON AVE	PENDRITH LANE	[38.10 m E] SHAW ST	2011	Resurfacing	Laneway		Toronto and East York	2016
32-Beaches-East York	32-Beaches-East York	10031.000	[45.70 m E] BEECH AVE	[143.80 m S] CEDAR AVE	CEDAR AVE	2011	Resurfacing	Laneway		Toronto and East York	2016

2012 MORATORIUM LIST OF ROADS

For Moratorium conditions refer to: http://www.toronto.ca/engineering/mcr/pdf/mcr_municipal_consent_requirements.pdf

Expiration Date is December 31, YEAR

WARD		SECTION	LOCATION			COMPLETED		FUNCTIONAL	REMARKS	DISTRICT	EXPIRATION
Even	Odd	ID	Street	From	To	YEAR	WORK	CLASS	(for carry over, deferred, delayed work)		DATE
17-Davenport	17-Davenport	12343.200	[106.70 m N] LINDNER ST	MILLER ST	[32 m W] MILLER ST	2010	Reconstruction	Laneway		Etobicoke York	2015
19-Trinity-Spadina	19-Trinity-Spadina	11564.000	[107.80 m S] HARBORD ST	MANNING AVE (TO)	CLINTON ST	2011	Resurfacing	Laneway		Toronto and East York	2016
20-Trinity-Spadina	20-Trinity-Spadina	11589.000	[45.70 m W] CLINTON ST	[35.10 m N] BLOOR ST W	[33.50 m S] BARTON AVE	2010	Resurfacing	Laneway		Toronto and East York	2015
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	10838.000	[47.20 m N] MAITLAND ST	[42.70 m E] CHURCH ST	[109.70 m E] CHURCH ST	2009	Resurfacing	Laneway		Toronto and East York	2014
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	10838.410	[47.20 m N] MAITLAND ST	[109.70 m E] CHURCH ST	[57 m W] JARVIS ST	2009	Resurfacing	Laneway		Toronto and East York	2014
14-Parkdale-High Park	14-Parkdale-High Park	11903.000	[48 m N] SPRINGHURST AVE	[47.90 m E] CLOSE AVE	[32 m E] CLOSE AVE	2007	Reconstruction	Laneway		Toronto and East York	2012
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	11004.000	[48.80 m N] BLOOR ST W	BAY ST	BELLAIR ST	2009	Resurfacing	Laneway		Toronto and East York	2014
19-Trinity-Spadina	19-Trinity-Spadina	11825.000	[48.80 m N] BLOOR ST W	[30.20 m W] DELAWARE AVE	[59.40 m W] DELAWARE AVE	2010	Reconstruction	Laneway		Toronto and East York	2015
19-Trinity-Spadina	19-Trinity-Spadina	11827.000	[48.80 m N] BLOOR ST W	[59.40 m W] DELAWARE AVE	DOVERCOURT RD	2010	Reconstruction	Laneway		Toronto and East York	2015
20-Trinity-Spadina	20-Trinity-Spadina	11157.000	[48.80 m N] GRANGE AVE	GRANGE PL	[37 m E] HURON ST	2010	Resurfacing	Laneway		Toronto and East York	2015
17-Davenport	17-Davenport	12331.000	[48.80 m S] DAVENPORT RD	[36.60 m W] WILTSHIRE AVE	SYMINGTON AVE	2009	Resurfacing	Laneway		Etobicoke York	2014
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	10838.200	[51.90 m N] MAITLAND ST	[25 m E] MAITLAND TER	[34.70 m E] MAITLAND TER	2009	Resurfacing	Laneway		Toronto and East York	2014
11-York South-Weston	11-York South-Weston	35004.000	[59 m N] BELLEVUE CRES	[39 m S] WESTON RD	[14 m N] HICKORY TREE RD	2010	Reconstruction	Laneway		Etobicoke York	2015
13-Parkdale-High Park	13-Parkdale-High Park	10028.200	[64 m N] BLOOR ST W	RIVERVIEW GDNS	[48.60 m E] OLD MILL DR	2009	Reconstruction	Laneway		Etobicoke York	2014
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	10772.000	[68.60 m N] DALE AVE (TO)	GLEN RD	[42.40 m W] POWELL AVE	2007	Reconstruction	Laneway		Toronto and East York	2012
11-York South-Weston	11-York South-Weston	35021.000	[73 m E] RALPH ST	LAWRENCE AVE	BOYD AVE	2009	Reconstruction	Laneway		Etobicoke York	2014
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	10834.400	[76 m S] MAITLAND ST	MUTUAL ST	[26 m E] MUTUAL ST	2009	Resurfacing	Laneway		Toronto and East York	2014
32-Beaches-East York	32-Beaches-East York	10036.000	[91.4 m N] QUEEN ST E	[45.7 m E] BEECH AVE	WILLOW AVE	2011	Resurfacing	Laneway		Toronto and East York	2016
18-Davenport	18-Davenport	11727.000	[99.10 m N] ARGYLE ST	BEACONSFIELD AVE	NORTHCOTE AVE	2009	Resurfacing	Laneway		Toronto and East York	2014
20-Trinity-Spadina	20-Trinity-Spadina	04947.200	[E] LOWER SPADINA AVE [BRANCH]	QUEENS QUAY W	[S] LAKE SHORE BLVD W [BRANCH]	2011	TTC Track Replacement & Major Road Resurfacing	Major Arterial		Toronto and East York	2016
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	05457.100	[E] MOUNT PLEASANT RD [RAMP]	BLOOR ST E	MOUNT PLEASANT RD	2009	Resurfacing	Collector		Toronto and East York	2014
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	05463.000	[E] MOUNT PLEASANT RD [RAMP]	CRESCENT RD	MOUNT PLEASANT RD	2009	Resurfacing	Local		Toronto and East York	2014
28-Toronto Centre-Roseda	28-Toronto Centre-Rosedal	07692.000	[E] SUMACH ST [BRANCH]	EASTERN AVE DIVERSION	[N] SUMACH ST [END]	2011	Resurfacing	Local		Toronto and East York	2016
22-St. Paul's	22-St. Paul's	00962.100	[E-W] BOULTON DR [LEG]	RUSSELL HILL RD	BOULTON DR	2010	Resurfacing	Collector		Toronto and East York	2015
2-Etobicoke North	2-Etobicoke North	208400	[E-W] GOLFWOOD HT [LEG]	[N-S] GOLFWOOD HT [LEG]	[360 m W] GOLFWOOD HT [CUL-DE-SAC]	2010	Resurfacing	Local		Etobicoke York	2015
17-Davenport	17-Davenport	03617.000	[E-W] GREENLAW AVE [LEG]	ASHBURNHAM RD	GREENLAW AVE	2007	Reconstruction	Local		Etobicoke York	2012
22-St. Paul's	22-St. Paul's	05656.100	[E-W] OAKLANDS AVE [LEG]	OAKLANDS AVE	AVENUE RD	2010	Resurfacing	Local		Toronto and East York	2015
27-Toronto Centre-Roseda	27-Toronto Centre-Rosedal	06705.300	[E-W] ROSE PARK CRES [LEG]	[N-S] ROSE PARK CRES [LEG]	INGLEWOOD DR	2010	Resurfacing	Local		Toronto and East York	2015
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	06965.100	[E-W] SCHOLFIELD AVE [LEG]	SCHOLFIELD AVE	EDGAR AVE (TO)	2012	Resurfacing	Collector	carry over from 2011 to 2012	Toronto and East York	2017
13-Parkdale-High Park	13-Parkdale-High Park	07231.010	[N/E] SOUTH KINGSWAY [RAMP]	[N] THE QUEENSWAY [BRANCH]	SOUTH KINGSWAY	2008	Reconstruction	Major Arterial		Etobicoke York	2013
13-Parkdale-High Park	13-Parkdale-High Park	07233.000	[N/W] SOUTH KINGSWAY [RAMP]	[N] THE QUEENSWAY [BRANCH]	SOUTH KINGSWAY	2008	Reconstruction	Major Arterial		Etobicoke York	2013
27-Toronto Centre-Ros	27-Toronto Centre-Ros	03975.000	[N] HILLSBORO AVE [BR	[84 m E] DAVENPORT RD	DAVENPORT RD	2009	Resurfacing	Local		Toronto and East York	2014
01-Etobicoke North	01-Etobicoke North	014603	[N] HUMBER COLLEGE BLVD	HWY 27	FINCH AVE W	2011	Resurfacing	Minor Arterial		Etobicoke York	2016
20-Trinity-Spadina	20-Trinity-Spadina	06416.200	[N] QUEENS QUAY W [BRANCH]	[168 m E] REES ST	[60 m E] REES ST	2011	TTC Special Track Work	Minor Arterial		Toronto and East York	2016
21-St. Paul's	21-St. Paul's	07414.200	[N] ST CLAIR AVE W [BRANCH]	TWEEDSMUIR AVE	[88.40 m E] WELLS HILL AVE	2009	Resurfacing	Major Arterial		Toronto and East York	2014
21-St. Paul's	21-St. Paul's	07416.100	[N] ST CLAIR AVE W [BRANCH]	WELLS HILL AVE	[38 m W] HILTON AVE	2009	Resurfacing	Major Arterial		Toronto and East York	2014
15-Eglinton-Lawrence	15-Eglinton-Lawrence	021-11	[NB] WILLIAM R ALLEN RD [BRANCH]	LAWRENCE AVE W	[152 m] CLANTON PARK RD	2009	Resurfacing	Expressway		North York	2014
16-Eglinton-Lawrence	16-Eglinton-Lawrence	00112.100	[N-S] ALEXANDRA BLVD [LEG]	ALEXANDRA BLVD	LYTTON BLVD	2009	Resurfacing	Local		North York	2014
28-Toronto Centre-Roseda	28-Toronto Centre-Rosedal	01008.075	[N-S] BREMNER BLVD [BRANCH	LAKE SHORE BLVD W	BREMNER BLVD	2011	Reconstruction	Local		Toronto and East York	2016
16-Eglinton-Lawrence	16-Eglinton-Lawrence	01762.100	[N-S] CORTLEIGH BLVD [BRANCH]	CORTLEIGH CRES	CORTLEIGH BLVD	2011	Resurfacing	Local		North York	2016
2-Etobicoke North	2-Etobicoke North	203600	[N-S] GOLFWOOD HT [LEG]	DIXON RD	[E-W] GOLFWOOD HT [LEG]	2010	Resurfacing	Local		Etobicoke York	2015
30-Toronto-Danforth	30-Toronto-Danforth	3667.100	[N-S] GREIG AVE [LEG]	GREIG AVE	[N] GREIG AVE [END]	2007	Reconstruction	Laneway		Toronto and East York	2012
27-Toronto Centre-Roseda	27-Toronto Centre-Rosedal	04211.000	[N-S] INGLEWOOD DR [LEG]	ST CLAIR AVE E (TO)	GLENROSE AVE	2010	Resurfacing	Collector		Toronto and East York	2015
27-Toronto Centre-Roseda	27-Toronto Centre-Rosedal	04212.000	[N-S] INGLEWOOD DR [LEG]	GLENROSE AVE	INGLEWOOD DR	2010	Resurfacing	Collector		Toronto and East York	2015
31-Beaches-East York	31-Beaches-East York	20972.000	[N-S] MERRITT RD [LEG]	[N] MERRITT RD [LEG]	VALOR BLVD	2007	Reconstruction	Local		Toronto and East York	2012
27-Toronto Centre-Roseda	27-Toronto Centre-Rosedal	06705.200	[N-S] ROSE PARK CRES [LEG]	HEATH ST E	[E-W] ROSE PARK CRES [LEG]	2010	Resurfacing	Local		Toronto and East York	2015
13-Parkdale-High Park	13-Parkdale-High Park	07230.100	[S/E] SOUTH KINGSWAY [RAMP]	[S] THE QUEENSWAY [BRANCH]	SOUTH KINGSWAY	2008	Reconstruction	Major Arterial		Etobicoke York	2013
13-Parkdale-High Park	13-Parkdale-High Park	07230.500	[S/W] SOUTH KINGSWAY [RAMP]	SOUTH KINGSWAY	[S] THE QUEENSWAY [BRANCH]	2008	Reconstruction	Major Arterial		Etobicoke York	2013
30-Toronto-Danforth	30-Toronto-Danforth	02627.100	[S] EASTERN AVE [LEG]	BROADVIEW AVE	EASTERN AVE	2011	Resurfacing	Local		Toronto and East York	2016
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	03974.000	[S] HILLSBORO AVE [BRANCH]	[84 m E] DAVENPORT RD	DAVENPORT RD	2010	Resurfacing	Local		Toronto and East York	2015
13-Parkdale-High Park	13-Parkdale-High Park	04654.000	[S] LAKE SHORE BLVD W [BRA	COLBORNE LODGE DR	ELLIS AVE	2010	Resurfacing	Major Arterial		Etobicoke York	2015
13-Parkdale-High Park	13-Parkdale-High Park	04656.000	[S] LAKE SHORE BLVD W [BRA	ELLIS AVE	WINDERMERE AVE	2010	Resurfacing	Major Arterial		Etobicoke York	2015
21-St. Paul's	21-St. Paul's	07414.100	[S] ST CLAIR AVE W [BRANCH]	ESTEN RD	[88.40 m E] WELLS HILL AVE	2009	Resurfacing	Major Arterial		Toronto and East York	2014
21-St. Paul's	21-St. Paul's	07416.000	[S] ST CLAIR AVE W [BRANCH]	WELLS HILL AVE	HILTON AVE	2009	Resurfacing	Major Arterial		Toronto and East York	2014
21-St. Paul's	21-St. Paul's	07417.000	[S] ST CLAIR AVE W [BRANCH]	HILTON AVE	[38 m W] HILTON AVE	2009	Resurfacing	Major Arterial		Toronto and East York	2014
15-Eglinton-Lawrence	15-Eglinton-Lawrence	021-16	[SB] WILLIAM R ALLEN RD [BRANCH]	LAWRENCE AVE W	YORKDALE RD	2009	Resurfacing	Expressway		North York	2014
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	00546.100	[W] BAY ST [BRANCH]	QUEEN ST W	BAY ST	2010	Resurfacing	Major Arterial		Toronto and East York	2015
20-Trinity-Spadina	20-Trinity-Spadina	04947.000	[W] LOWER SPADINA AVE [BRANCH]	QUEENS QUAY W	[S] LAKE SHORE BLVD W [BRANCH]	2011	TTC Track Replacement & Major Road Resurfacing	Major Arterial		Toronto and East York	2016
4-Etobicoke Centre	4-Etobicoke Centre	210203	ABIGAIL PL	WATERBURY DR	[73 m N] WATERBURY DR [CUL-DE-SAC]	2010	Resurfacing	Local		Etobicoke York	2015
04-Etobicoke Centre	04-Etobicoke Centre	204909	ABNER PL	LEARMONT DR	[50 m N] LEARMONT DR [CUL-DE-SAC]	2011	Resurfacing	Local		Etobicoke York	2016
5-Etobicoke-Lakeshore	5-Etobicoke-Lakeshore	312502	ACORN AVE	DUNDAS ST W	BLOOR ST W	2010	Resurfacing	Local		Etobicoke York	2015
20-Trinity-Spadina	20-Trinity-Spadina	00062.000	ADMIRAL RD	BERNARD AVE	[E-W] ADMIRAL RD [LEG]	2011	Resurfacing	Local		Toronto and East York	2016
02-Etobicoke North	02-Etobicoke North	203501	ADRIATIC RD	LEMSFORD RD	[142 m N] LEMSFORD RD	2011	Resurfacing	Local		Etobicoke York	2016
04-Etobicoke Centre	04-Etobicoke Centre	306109	AINSLEY GDNS	ISLINGTON AVE	[85 m W] ISLINGTON AVE [END]	2009	Cold In Place Recycle	Local		Etobicoke York	2014
21-St. Paul's	21-St. Paul's	00078.000	ALBANY AVE	BRIDGMAN AVE	[90 m N] BRIDGMAN AVE	2011	Reconstruction	Local		Toronto and East York	2016
21-St. Paul's	21-St. Paul's	00078.1000	ALBANY AVE	[90 m N] BRIDGMAN AVE	DAVENPORT RD	2011	Reconstruction	Local		Toronto and East York	2016
30-Toronto-Danforth	30-Toronto-Danforth	00080.000	ALBEMARLE AVE	[43.60 m E] HAMPTON AVE	LOGAN AVE	2007	Reconstruction	Local		Toronto and East York	2012
06-Etobicoke-Lakeshor	06-Etobicoke-Lakeshor	409204	ALBERT AVE	LAKESHORE BLVD	CAVELL AVE (ETBK)	2009	Resurfacing	Local		Etobicoke York	2014
21-St. Paul's	21-St. Paul's	00093.000	ALCINA AVE	BATHURST ST	WYCHWOOD AVE	2009	Resurfacing	Local		Toronto and East York	2014
29-Toronto-Danforth	29-Toronto-Danforth	20015.000	ALDWYCH AVE	PAPE AVE	MURIEL AVE	2012	Resurfacing	Local	carry over from 2011 to 2012	Toronto and East York	2017
29-Toronto-Danforth	29-Toronto-Danforth	20016.000	ALDWYCH AVE	MURIEL AVE	EATON AVE	2012	Resurfacing	Local	carry over from 2011 to 2012	Toronto and East York	2017
29-Toronto-Danforth	29-Toronto-Danforth	20017.000	ALDWYCH AVE	EATON AVE	WOODYCREST AVE	2012	Resurfacing	Local	carry over from 2011 to 2012	Toronto and East York	2017
16-Eglinton-Lawrence	16-Eglinton-Lawrence	00112.000	ALEXANDRA BLVD	ROSEWELL AVE	[N-S] ALEXANDRA BLVD [LEG]	2009	Resurfacing	Local		North York	2014
37-Scarborough Centre	37-Scarborough Centre	DS0010	ALISSA PL	FREY CRES	[76 m W] FREY CRES [CUL-DE-SAC]	2009	Resurfacing	Local		Scarborough	2014
4-Etobicoke Centre	4-Etobicoke Centre	005801	ALLANHURST DR	EDENBRIDGE DR	WOODCREST DR	2010	Resurfacing	Local		Etobicoke York	2015
4-Etobicoke Centre	4-Etobicoke Centre	005802	ALLANHURST DR	WOODCREST DR	FEATHERWOOD PL	2010	Resurfacing	Local		Etobicoke York	2015
4-Etobicoke Centre	4-Etobicoke Centre	005803	ALLANHURST DR	FEATHERWOOD PL	ROYAL YORK RD	2010	Resurfacing	Local		Etobicoke York	2015
4-Etobicoke Centre	4-Etobicoke Centre	302800	ALLANHURST DR	ROYAL YORK RD	EDENVALE CRES	2010	Resurfacing	Local		Etobicoke York	2015
33-Don Valley East	33-Don Valley East	10370	ALLENWOOD CRES	ALAMOSA DR	APPIAN DR	2010	Resurfacing	Local		North York	2015
01-Etobicoke North	01-Etobicoke North	100601	ALMAYO CRES	SILVERSTONE DR	BUCKSBURN RD	2011	Resurfacing	Local		Etobicoke York	2016
34-Don Valley East	34-Don Valley East	10480	ALVARDO PL	LAURENTIDE DR	N END	2010	Resurfacing	Local		North York	2015
10-York Centre	10-York Centre	10500	AMBASSADOR PL	JOEL SWIRSKY BLVD	[165 m W] JOEL SWIRSKY BLVD [CUL-DE-SAC]	2011	Resurfacing	Local		North York	2016
28-Toronto Centre-Rosedale	28-Toronto Centre-Rosedale	00133.000	AMELIA ST	PARLIAMENT ST	METCALFE ST	2012	Resurfacing	Local	carry over from 2011 to 2012	Toronto and East York	2017
28-Toronto Centre-Rosedale	28-Toronto Centre-Rosedale	00134.000	AMELIA ST	METCALFE ST	SACKVILLE ST	2012	Resurfacing	Local	carry over from 2011 to 2012	Toronto and East York	2017
28-Toronto Centre-Rosedale	28-Toronto Centre-Rosedale	00135.000	AMELIA ST	SACKVILLE ST	RAWLINGS AVE	2012	Resurfacing	Local	carry over from 2011 to 2012	Toronto and East York	2017
28-Toronto Centre-Rosedale	28-Toronto Centre-Rosedale	00136.000	AMELIA ST	RAWLINGS AVE	SUMACH ST	2012	Resurfacing	Local	carry over from 2011 to 2012	Toronto and East York	2017
37-Scarborough Centre	37-Scarborough Centre	EP0020	APPLEFIELD DR	BRIMLEY RD	BRIMLEY RD	2011	Resurfacing	Local		Scarborough	2016
6-Etobicoke-Lakeshore	6-Etobicoke-Lakeshore	409903	ARCADIAN CRCL	[N] TWENTY EIGHTH ST	[N] TWENTY EIGHTH ST	2011	Resurfacing	Local		Etobicoke York	2016
35-Scarborough Southwest	35-Scarborough Southwest	BT0010	ARDELL AVE	LEYTON AVE	PATTERSON AVE	2010	Resurfacing	Local		Scarborough	2015
36-Scarborough Southwest	36-Scarborough Southwest	CM0040	ARGO RD	LAWNDALE RD	LAWNDALE RD	2011	Resurfacing	Local		Scarborough	2016
09-York Centre	09-York Centre	10940	ARLETA AVE	SHEPPARD AVE E	CLUBHOUSE CRT	2009	Resurfacing	Collector		North York	2014
13-Parkdale-High Park	13-Parkdale-High Park	00220.000	ARMADALE AVE	LARKIN AVE	BLOOR ST W	2009	Resurfacing	Local		Etobicoke York	2014
37-Scarborough Centre	37-Scarborough Centre	DS0020	ARNHAM RD	FREY CRES	[137 m N] FREY CRES [END]	2009	Resurfacing	Local		Scarborough	2014
37-Scarborough Centre	37-Scarborough Centre	DT0020	ARNHAM RD	FREY CRES	[137m N] FREY CRES [	2009	Resurfacing	Local		Scarborough	2014
29-Toronto-Danforth	29-Toronto-Danforth	00234.000	ARUNDEL AVE	DANFORTH AVE	AINSWORTH RD	2012	Resurfacing	Local	carry over from 2011 to 2012	Toronto and East York	2017
29-Toronto-Danforth	29-Toronto-Danforth	00235.000	ARUNDEL AVE	AINSWORTH RD	BROWNING AVE	2012	Resurfacing	Local	carry over from 2011 to 2012	Toronto and East York	2017
29-Toronto-Danforth	29-Toronto-Danforth	00236.000	ARUNDEL AVE	BROWNING AVE	FULTON AVE	2012	Resurfacing	Local	carry over from 2011 to 2012	Toronto and East York	2017
29-Toronto-Danforth	29-Toronto-Danforth	00237.000	ARUNDEL AVE	FULTON AVE	[40.4 m N] FULTON AVE [CITY LIMITS]	2012	Resurfacing	Local	carry over from 2011 to 2012	Toronto and East York	2017

2012 MORATORIUM LIST OF ROADS — Expiration Date is December 31, YEAR

For Moratorium conditions refer to: http://www.toronto.ca/engineering/mcr/pdf/mcr_municipal_consent_requirements.pdf

WARD		SECTION	LOCATION			COMPLETED		FUNCTIONAL	REMARKS	DISTRICT	EXPIRATION
Even	Odd	ID	Street	From	To	YEAR	WORK	CLASS	(for carry over, deferred, delayed work)		DATE
17-Davenport	17-Davenport	12343.200	[106.70 m N] LINDNER ST	MILLER ST	[32 m W] MILLER ST	2010	Reconstruction	Laneway		Etobicoke York	2015
19-Trinity-Spadina	19-Trinity-Spadina	11564.000	[107.80 m S] HARBORD ST	MANNING AVE (TO)	CLINTON ST	2011	Resurfacing	Laneway		Toronto and East York	2016
29-Toronto-Danforth	29-Toronto-Danforth	20026.000	ARUNDEL AVE	[40.4 m N] FULTON AVE [CITY LIMITS]	NEALON AVE	2012	Resurfacing	Local	carry over from 2011 to 2012	Toronto and East York	2017
29-Toronto-Danforth	29-Toronto-Danforth	20027.000	ARUNDEL AVE	NEALON AVE	MORTIMER AVE	2012	Resurfacing	Local	carry over from 2011 to 2012	Toronto and East York	2017
38-Scarborough Centre	38-Scarborough Centre	DN0030	ASCOLDA BLVD	[167 m S] ALDER CRES [CUL-DE-SAC W/ BULB]	[75 m N] TORRANCE RD [CUL-DE-SAC]	2009	Resurfacing	Local		Scarborough	2014
6-Etobicoke-Lakeshore	6-Etobicoke-Lakeshore	409901	ASH CRES	TWENTY EIGHTH ST	THIRTY FIRST ST	2010	Resurfacing	Local		Etobicoke York	2015
6-Etobicoke-Lakeshore	6-Etobicoke-Lakeshore	411500	ASH CRES	TWENTY SEVENTH ST	TWENTY EIGHTH ST	2011	Resurfacing	Local		Etobicoke York	2016
37-Scarborough Centre	37-Scarborough Centre	DR0010	ASHDEAN DR	FLINTRIDGE RD	MCGREGOR RD	2010	Resurfacing	Local		Scarborough	2015
37-Scarborough Centre	37-Scarborough Centre	DR0020	ASHDEAN DR	MCGREGOR RD	HOLLINGWORTH DR	2010	Resurfacing	Local		Scarborough	2015
37-Scarborough Centre	37-Scarborough Centre	DS0030	ASHTONBEE RD	WARDEN AVE	BIRCHMOUNT RD	2011	Grind & Pave	Collector	Grind & Pave under the U-cut repair contracts.	Scarborough	2014
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	00258.000	ASQUITH AVE	CHURCH ST	ST PAULS SQ	2011	Resurfacing	Collector		Toronto and East York	2016
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	00259.000	ASTLEY AVE	DOUGLAS DR	GOVERNOR'S RD	2011	Resurfacing	Collector		Toronto and East York	2016
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	00260.000	ASTLEY AVE	GOVERNOR'S RD	STANDISH AVE	2011	Resurfacing	Local		Toronto and East York	2016
27-Toronto Centre-Roseda	27-Toronto Centre-Rosedal	00261.000	ASTLEY AVE	STANDISH AVE	[N] ASTLEY AVE [END]	2010	Resurfacing	Local		Toronto and East York	2015
6-Etobicoke-Lakeshore	6-Etobicoke-Lakeshore	411501	ATHERTON CRES	ARCADIAN CRCL	ASH CRES	2011	Resurfacing	Local	carry over from 2010 to 2011	Etobicoke York	2016
21-St. Paul's	21-St. Paul's	30111.000	ATLAS AVE	HURSTING AVE	EARLSDALE AVE	2011	Resurfacing	Local		Toronto and East York	2016
02-Etobicoke North	02-Etobicoke North	014901	ATTWELL (S) DR	[10 m S] BELFIELD RD	[30 m N] BELFIELD RD	2009	Resurfacing	Minor Arterial		Etobicoke York	2014
02-Etobicoke North	02-Etobicoke North	014901@	ATTWELL (S) DR	[30 m N] BELFIELD RD	[161 m N] BELFIELD RD	2009	Reconstruction	Local		Etobicoke York	2014
02-Etobicoke North	02-Etobicoke North	014902	ATTWELL (S) DR	[161 m N] BELFIELD RD	DISCO RD	2009	Reconstruction	Collector		Etobicoke York	2014
30-Toronto-Danforth	30-Toronto-Danforth	00275.000	AUDLEY AVE	PAPE AVE	[E] AUDLEY AVE [END]	2012	Resurfacing	Local	carry over from 2011 to 2012	Toronto and East York	2017
20-Trinity-Spadina	20-Trinity-Spadina	00277.000	AUGUSTA AVE	QUEEN ST W	WOLSELEY ST	2009	Resurfacing	Collector		Toronto and East York	2014
20-Trinity-Spadina	20-Trinity-Spadina	00278.000	AUGUSTA AVE	WOLSELEY ST	[126 m N] WOLSELEY ST	2009	Resurfacing	Collector		Toronto and East York	2014
20-Trinity-Spadina	20-Trinity-Spadina	00278.100	AUGUSTA AVE	[126 m N] WOLSELEY ST	GRANGE AVE	2009	Resurfacing	Collector		Toronto and East York	2014
20-Trinity-Spadina	20-Trinity-Spadina	00280.000	AUGUSTA AVE	GRANGE AVE	[N] AUGUSTA AVE [END]	2009	Resurfacing	Local		Toronto and East York	2014
30-Toronto-Danforth	30-Toronto-Danforth	00287.000	AUSTIN AVE	PAPE AVE	MARJORY AVE	2010	Resurfacing	Local		Toronto and East York	2015
21-St. Paul's	21-St. Paul's	30000.000	AVENAL DR	CHILTERN HILL RD	HILL PL	2011	Reconstruction	Local		Toronto and East York	2016
21-St. Paul's	21-St. Paul's	30001.000	AVENAL DR	HILL PL	GLEN CEDAR RD	2011	Reconstruction	Local		Toronto and East York	2016
21-St. Paul's	21-St. Paul's	30130.000	AVENAL DR	PEVERIL HILL S	CHILTERN HILL RD	2011	Reconstruction	Local		Toronto and East York	2016
21-St. Paul's	21-St. Paul's	30131.000	AVENAL DR	BATHURST ST	PEVERIL HILL S	2011	Reconstruction	Local		Toronto and East York	2016
11-York South-Weston	11-York South-Weston	30002.000	AVON AVE	HUMBER BLVD (YK)	PORTER AVE	2010	Resurfacing	Local		Etobicoke York	2015
11-York South-Weston	11-York South-Weston	30005.000	AVON AVE	PORTER AVE	AVON CRES	2010	Resurfacing	Local		Etobicoke York	2015
31-Beaches-East York	31-Beaches-East York	00365.000	AVONLEA BLVD	COLEMAN AVE	[12 m S] DENTONIA PAR	2009	Resurfacing	Local		Toronto and East York	2014
31-Beaches-East York	31-Beaches-East York	20034.000	AVONLEA BLVD	[12 m S] DENTONIA PARK AVE [CITY LIMITS]	[E] DENTONIA PARK AVE [BRANCH]	2009	Resurfacing	Local		Toronto and East York	2014
31-Beaches-East York	31-Beaches-East York	20036.000	AVONLEA BLVD	[E] DENTONIA PARK AVE	[W] DENTONIA PARK AVE	2009	Resurfacing	Local		Toronto and East York	2014
12-York South-Weston	12-York South-Weston	11350	AZROCK RD	VEERLAND DR	BURR AVE	2011	Resurfacing	Local		Etobicoke York	2016
38-Scarborough Centre	38-Scarborough Centre	EN0030	BAINHART CRES	BRANTWOOD DR	BRIMORTON DR	2009	Resurfacing	Local		Scarborough	2014
38-Scarborough Centre	38-Scarborough Centre	EN0040	BAINHART CRES	BRIMORTON DR	BAYBROOK CRES	2011	Resurfacing	Local		Scarborough	2016
31-Beaches-East York	31-Beaches-East York	00395.000	BALFOUR AVE	BARRINGTON AVE	PALMER ST	2011	Resurfacing	Local		Toronto and East York	2016
31-Beaches-East York	31-Beaches-East York	00396.000	BALFOUR AVE	PALMER ST	DAWES RD	2011	Resurfacing	Local		Toronto and East York	2016
22-St. Paul's	22-St. Paul's	00423.000	BANFF RD	SOUDAN AVE	EGLINTON AVE E	2009	Resurfacing	Local		Toronto and East York	2014
25-Don Valley West	25-Don Valley West	11630	BANNATYNE DR	LESLIE ST (N YK)	STUBBS DR	2009	Resurfacing	Collector		North York	2014
25-Don Valley West	25-Don Valley West	11640	BANNATYNE DR	STUBBS DR	VYNER RD	2009	Resurfacing	Collector		North York	2014
25-Don Valley West	25-Don Valley West	11650	BANNATYNE DR	DUNLACE DR	WOODSWORTH RD	2009	Resurfacing	Local		North York	2014
01-Etobicoke North	01-Etobicoke North	111009	BAROLO RD	CASSIS DR	CASSIS DR	2009	Resurfacing	Local		Etobicoke York	2014
02-Etobicoke North	02-Etobicoke North	104803	BARRHEAD CRES	COPPERMILL DR	COPPERMILL DR	2009	Resurfacing	Local		Etobicoke York	2014
33-Don Valley East	33-Don Valley East	11980	BATHFORD CRES	CHASE RD	CHASE RD	2010	Resurfacing	Local		North York	2015
7-York West	20-Trinity-Spadina	00459.000	BATHURST ST	FLEET ST	HOUSEY ST	2009	TTC Track Replacement	Major Arterial		Toronto and East York	2014
21-St. Paul's	21-St. Paul's	00496.000	BATHURST ST	DAVENPORT RD	AUSTIN TER	2011	Grind & Pave	Major Arterial	Grind & Pave under the U-cut repair contracts.	Toronto and East York	2014
21-St. Paul's	21-St. Paul's	00497.000	BATHURST ST	AUSTIN TER	BURNSIDE DR	2011	Grind & Pave	Major Arterial	Grind & Pave under the U-cut repair contracts.	Toronto and East York	2014
21-St. Paul's	21-St. Paul's	00499.000	BATHURST ST	BURNSIDE DR	NINA ST	2011	Grind & Pave	Major Arterial	Grind & Pave under the U-cut repair contracts.	Toronto and East York	2014
21-St. Paul's	16-Eglinton-Lawrence	00524.000	BATHURST ST	SHALLMAR BLVD	ROSELAWN AVE	2007	Reconstruction	Major Arterial		Toronto and East York	2012
21-St. Paul's	16-Eglinton-Lawrence	00525.500	BATHURST ST	ROSELAWN AVE	[N] ELM RIDGE DR [BRANCH]	2007	Reconstruction	Major Arterial		Toronto and East York	2012
21-St. Paul's	16-Eglinton-Lawrence	00526.000	BATHURST ST	[N] ELM RIDGE DR [BRANCH]	CASTLEFIELD AVE	2007	Reconstruction	Major Arterial		Toronto and East York	2012
21-St. Paul's	16-Eglinton-Lawrence	00526.500	BATHURST ST	CASTLEFIELD AVE	FOREST RIDGE DR	2007	Reconstruction	Major Arterial		Toronto and East York	2012
21-St. Paul's	16-Eglinton-Lawrence	00527.000	BATHURST ST	FOREST RIDGE DR	ST CLEMENTS AVE	2007	Reconstruction	Major Arterial		Toronto and East York	2012
21-St. Paul's	16-Eglinton-Lawrence	00527.500	BATHURST ST	ST CLEMENTS AVE	RIDELLE AVE	2007	Reconstruction	Major Arterial		Toronto and East York	2012
21-St. Paul's	16-Eglinton-Lawrence	00528.000	BATHURST ST	RIDELLE AVE	BRIAR HILL AVE	2007	Reconstruction	Major Arterial		Toronto and East York	2012
21-St. Paul's	16-Eglinton-Lawrence	00529.000	BATHURST ST	BRIAR HILL AVE	[33.60 m N] BRIAR HILL AVE [CITY LIMITS]	2007	Reconstruction	Major Arterial		Toronto and East York	2012
15-Eglinton-Lawrence	16-Eglinton-Lawrence	00529.010	BATHURST ST	[33.60 m N] BRIAR HILL AVE [CITY LIMITS]	HILLHURST BLVD	2007	Reconstruction	Major Arterial		North York	2012
15-Eglinton-Lawrence	16-Eglinton-Lawrence	00529.1	BATHURST ST	HILLHURST BLVD	GLENCAIRN AVE	2007	Reconstruction	Major Arterial		North York	2012
15-Eglinton-Lawrence	16-Eglinton-Lawrence	00529.11	BATHURST ST	GLENCAIRN AVE	LAWRENCE AVE W	2007	Reconstruction	Major Arterial		North York	2012
40-Scarborough-Agincourt	40-Scarborough-Agincourt	GT0040	BATTERSWOOD DR	BRIDLEWOOD BLVD	HUNTINGWOOD DR	2010	Resurfacing	Local		Scarborough	2015
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	00547.000	BAY ST	QUEEN ST W	[37.60 m N] QUEEN ST W	2010	Resurfacing	Major Arterial		Toronto and East York	2015
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	00547.100	BAY ST	[37.60 m N] QUEEN ST W	ALBERT ST	2010	Resurfacing	Major Arterial		Toronto and East York	2015
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	00549.000	BAY ST	ALBERT ST	HAGERMAN ST	2010	Resurfacing	Major Arterial		Toronto and East York	2015
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	00552.100	BAY ST	HAGERMAN ST	DUNDAS ST W	2010	Resurfacing	Major Arterial		Toronto and East York	2015
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	00553.000	BAY ST	DUNDAS ST W	EDWARD ST	2007	Reconstruction	Major Arterial		Toronto and East York	2012
10-York Centre	10-York Centre	12030	BAYHAMPTON CRT	CEDAR SPRINGS GRV	CEDAR SPRINGS GRV	2009	Resurfacing	Local		North York	2014
3-Etobicoke Centre	3-Etobicoke Centre	300701	BECKWITH DR	ERINGATE DR	WELLESWORTH DR	2010	Resurfacing	Local		Etobicoke York	2015
16-Eglinton-Lawrence	16-Eglinton-Lawrence	00615.000	BEDFORD PARK AVE	JEDBURGH RD	GREER RD	2009	Cold In Place Recycle	Local		North York	2014
32-Beaches-East York	32-Beaches-East York	00638.000	BEECH AVE	BALSAM AVE	KINGSTON RD	2011	Resurfacing	Local		Toronto and East York	2016
44-Scarborough East	44-Scarborough East	EG0030	BEECHGROVE DR	LAWRENCE AVE E	KINGSTON RD	2011	Resurfacing	Collector		Scarborough	2016
02-Etobicoke North	02-Etobicoke North	002800@	BELFIELD RD	[30 m E] ATTWELL DR	ATTWELL DR	2009	Reconstruction	Minor Arterial		Etobicoke York	2014
02-Etobicoke North	02-Etobicoke North	002901	BELFIELD RD	MARTIN GROVE RD	[60 m W] MARTIN GROVE RD	2009	Resurfacing	Minor Arterial		Etobicoke York	2014
02-Etobicoke North	02-Etobicoke North	002902	BELFIELD RD	[60 m W] MARTIN GROVE RD	HWY 27 N BELFIELD E RAMP	2009	Resurfacing	Minor Arterial		Etobicoke York	2014
02-Etobicoke North	02-Etobicoke North	002903	BELFIELD RD	HWY 27 N BELFIELD E RAMP	HIGHWAY 27 S	2009	Resurfacing	Minor Arterial		Etobicoke York	2014
02-Etobicoke North	02-Etobicoke North	003001	BELFIELD RD	KIPLING AVE	[60 m E] MARTIN GROVE RD	2009	Resurfacing	Minor Arterial		Etobicoke York	2014
02-Etobicoke North	02-Etobicoke North	003002	BELFIELD RD	[60 m E] MARTIN GROVE RD	MARTIN GROVE RD	2009	Resurfacing	Minor Arterial		Etobicoke York	2014
02-Etobicoke North	02-Etobicoke North	02800.000	BELFIELD RD	HIGHWAY 27 S	[30 m E] ATTWELL DR	2009	Reconstruction	Minor Arterial		Etobicoke York	2014
3-Etobicoke Centre	3-Etobicoke Centre	300700	BELGATE PL	SIGMONT RD	BECKWITH RD	2010	Resurfacing	Local		Etobicoke York	2015
15-Eglinton-Lawrence	15-Eglinton-Lawrence	30148.000	BELGRAVIA AVE	MARLEE AVE	TIMES RD	2009	Resurfacing	Local		North York	2014
15-Eglinton-Lawrence	15-Eglinton-Lawrence	30149.000	BELGRAVIA AVE	TIMES RD	LOCKSLEY AVE	2009	Resurfacing	Local		North York	2014
15-Eglinton-Lawrence	15-Eglinton-Lawrence	30150.000	BELGRAVIA AVE	LOCKSLEY AVE	DUFFERIN ST	2009	Resurfacing	Local		North York	2014
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	00645.000	BELLAIR ST	BLOOR ST.W	CRITCHLEY LN	2011	Grind & Pave	Local	Grind & Pave under the U-cut repair contracts.	Toronto and East York	2014
36-Scarborough Southwest	36-Scarborough Southwest	CM0050	BELLAMY RD S	KINGSTON RD	KINGSTON RD (GO Transit Access)	2011	Resurfacing	Collector		Scarborough	2016
38-Scarborough Centre	38-Scarborough Centre	EN0070	BELLECHASSE ST	MCCOWAN RD	BENSHIRE DR	2010	Resurfacing	Local		Scarborough	2015
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	00665.000	BELLMONT AVE	YONGE ST	SARAH ST	2011	Grind & Pave	Local	Grind & Pave under the U-cut repair contracts.	Toronto and East York	2014
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	00666.000	BELLMONT AVE	SARAH ST	MC MURRICH ST	2011	Grind & Pave	Local	Grind & Pave under the U-cut repair contracts.	Toronto and East York	2014
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	00667.000	BELLMONT AVE	MC MURRICH ST	DAVENPORT RD	2011	Grind & Pave	Local	Grind & Pave under the U-cut repair contracts.	Toronto and East York	2014
21-St. Paul's	21-St. Paul's	00691.000	BENSON AVE	WYCHWOOD AVE	CHRISTIE ST	2009	Resurfacing	Local		Toronto and East York	2014
37-Scarborough Centre	37-Scarborough Centre	ER0030	BERGEN RD	MARRYFIELD DR	ELLENDALE DR	2011	Resurfacing	Local		Scarborough	2016
28-Toronto Centre-Rosedale	28-Toronto Centre-Rosedale	00721.000	BERKELEY ST	GERRARD ST E	CARLTON ST	2008	Reconstruction	Local		Toronto and East York	2013
34-Don Valley East	34-Don Valley East	12470	BERMONDSEY RD	SUNRISE AVE	EGLINTON AVE E	2011	Resurfacing	Minor Arterial		North York	2016
31-Beaches-East York	31-Beaches-East York	20117.000	BERMONDSEY RD	CRANFIELD RD	NORTHLINE RD	2010	Resurfacing	Minor Arterial		Toronto and East York	2015
31-Beaches-East York	31-Beaches-East York	20118.000	BERMONDSEY RD	NORTHLINE RD	SUNRISE AVE	2010	Resurfacing	Minor Arterial		Toronto and East York	2015
02-Etobicoke North	02-Etobicoke North	107000	BERRY CREEK DR	CLEARBROOKE CRCL	MONCRIEFF DR	2009	Resurfacing	Local		Etobicoke York	2014
05-Etobicoke-Lakeshore	05-Etobicoke-Lakeshore	008202	BERRY RD	[30 m W] PARK LAWN RD	PRINCE EDWARD DR (ETBK)	2007	Reconstruction	Collector		Etobicoke York	2012
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	00733.000	BERRYMAN AVE	DAVENPORT RD	YORKVILLE	2011	Grind & Pave	Local	Grind & Pave under the U-cut repair contracts.	Toronto and East York	2014

2012 MORATORIUM LIST OF ROADS

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WARD		SECTION	LOCATION			COMPLETED		FUNCTIONAL	REMARKS	DISTRICT	EXPIRATION
Even	Odd	ID	Street	From	To	YEAR	WORK	CLASS	(for carry over, deferred, delayed work)		DATE
17-Davenport	17-Davenport	12343.200	[106.70 m N] LINDNER ST	MILLER ST	[32 m W] MILLER ST	2010	Reconstruction	Laneway		Etobicoke York	2015
19-Trinity-Spadina	19-Trinity-Spadina	11564.000	[107.80 m S] HARBORD ST	MANNING AVE (TO)	CLINTON ST	2011	Resurfacing	Laneway		Toronto and East York	2016
12-York South-Weston	12-York South-Weston	12490	BERRYTON AVE	VEERLAND DR	BURR AVE	2011	Resurfacing	Local		Etobicoke York	2016
44-Scarborough East	44-Scarborough East	DF0050	BETHLEY DR	BEECHGROVE DR	JANELLAN TER	2009	Resurfacing	Local	Carryover from 2008 to 2009	Scarborough	2014
2-Etobicoke North	2-Etobicoke North	002300	BETHRIDGE RD	HWY 27	PRECISION RD	2010	Resurfacing	Collector		Etobicoke York	2015
2-Etobicoke North	2-Etobicoke North	002400	BETHRIDGE RD	PRECISION RD	MARTIN GROVE RD	2010	Resurfacing	Collector		Etobicoke York	2015
04-Etobicoke Centre	04-Etobicoke Centre	212806	BETHWIN PL	BRAMPTON RD	LEARMONT DR	2011	Resurfacing	Local		Etobicoke York	2016
23-Willowdale	23-Willowdale	12560	BEVDALE RD	YORKVIEW DR (N YK)	EDITHVALE DR	2011	Resurfacing	Local		North York	2016
38-Scarborough Centre	38-Scarborough Centre	DO0060	BILTMORE CRT	KILBRIDE RD	[61 m N] KILBRIDE RD [CUL-DE-SAC]	2009	Resurfacing	Local		Scarborough	2014
32-Beaches-East York	32-Beaches-East York	00754.000	BINGHAM AVE	[67 m N] KINGSTON RD	WOODALE AVE	2010	TTC Special Track Work	Local		Toronto and East York	2015
40-Scarborough-Agincourt	40-Scarborough-Agincourt	FS0070@	BIRCHARD ST	MARLBANK RD	CORUNDUM CRES	2011	Resurfacing	Local		Scarborough	2016
04-Etobicoke Centre	04-Etobicoke Centre	306107	BIRCHCROFT RD	BYWOOD DR	RATHBURN RD	2009	Reconstruction	Local		Etobicoke York	2014
6-Etobicoke-Lakeshore	6-Etobicoke-Lakeshore	409800	BIRCHLEA AVE	ARCADIAN CRCL	THIRTY FIRST ST	2011	Resurfacing	Local		Etobicoke York	2016
11-York South-Weston	11-York South-Weston	30181.000	BLACK CREEK BLVD	SANDCLIFFE RD	STONEY BROOKE DR	2011	Reconstruction	Local		Etobicoke York	2016
11-York South-Weston	11-York South-Weston	30182.000	BLACK CREEK BLVD	STONEY BROOKE DR	ROSE VALLEY CRES	2011	Reconstruction	Local		Etobicoke York	2016
11-York South-Weston	11-York South-Weston	30183.000	BLACK CREEK BLVD	ROSE VALLEY CRES	WOODGATE DR	2011	Reconstruction	Local		Etobicoke York	2016
11-York South-Weston	11-York South-Weston	30184.000	BLACK CREEK BLVD	WOODGATE DR	BLACK CREEK BLVD [END]	2011	Reconstruction	Local		Etobicoke York	2016
30-Toronto-Danforth	30-Toronto-Danforth	00767.000	BLACKBURN ST	MOUNTSTEPHEN ST	GERRARD ST E	2010	Resurfacing	Local		Toronto and East York	2015
42-Scarborough-Rouge Riv	42-Scarborough-Rouge Rive	GJ0010	BLACKWATER CRES	WICKSON TRL	WICKSON TRL	2010	Resurfacing	Local		Scarborough	2015
25-Don Valley West	25-Don Valley West	12810	BLAINE DR	LAWRENCE AVE E	BANBURY RD	2010	Resurfacing	Local		North York	2015
30-Toronto-Danforth	30-Toronto-Danforth	00776.000	BLAKE ST	BOULTBEE AVE	STRATHCONA AVE	2011	Resurfacing	Local		Toronto and East York	2016
43-Scarborough East	43-Scarborough East	CK0020	BLEDLOW MANOR DR	CATALINA DR	LIVINGSTON RD	2011	Resurfacing	Local		Scarborough	2016
26-Don Valley West	26-Don Valley West	00787.000	BLOOR ST E	YONGE ST	ROY'S SQ	2009	Reconstruction	Major Arterial	Carryover from 2008 to 2009	Toronto and East York	2014
26-Don Valley West	26-Don Valley West	00788.000	BLOOR ST E	ROY'S SQ	ROY'S SQ (73.20 m E of)	2009	Reconstruction	Major Arterial	Carryover from 2008 to 2009	Toronto and East York	2014
26-Don Valley West	26-Don Valley West	00790.000	BLOOR ST E	PARK RD	CHURCH ST	2009	Reconstruction	Major Arterial	Carryover from 2008 to 2009	Toronto and East York	2014
26-Don Valley West	26-Don Valley West	00791.000	BLOOR ST E	CHURCH ST	ST. PAUL'S SQ	2009	Resurfacing	Major Arterial	Carryover from 2008 to 2009	Toronto and East York	2014
26-Don Valley West	26-Don Valley West	00801.000	BLOOR ST W	YONGE ST	MAYFAIR MEWS	2009	Reconstruction	Major Arterial	Carryover from 2008 to 2009	Toronto and East York	2014
26-Don Valley West	26-Don Valley West	00801.010	BLOOR ST W	MAYFAIR MEWS	BALMUTO ST	2009	Reconstruction	Major Arterial	Carryover from 2008 to 2009	Toronto and East York	2014
26-Don Valley West	26-Don Valley West	00802.000	BLOOR ST W	BALMUTO ST	BAY ST	2009	Reconstruction	Major Arterial	Carryover from 2008 to 2009	Toronto and East York	2014
26-Don Valley West	26-Don Valley West	00803.000	BLOOR ST W	BAY ST	BELLAIR ST	2009	Reconstruction	Major Arterial	Carryover from 2008 to 2009	Toronto and East York	2014
26-Don Valley West	26-Don Valley West	00804.000	BLOOR ST W	BELLAIR ST	ST THOMAS ST	2009	Reconstruction	Major Arterial	Carryover from 2008 to 2009	Toronto and East York	2014
26-Don Valley West	26-Don Valley West	00805.000	BLOOR ST W	ST THOMAS ST	QUEEN'S PARK	2009	Reconstruction	Major Arterial	Carryover from 2008 to 2009	Toronto and East York	2014
14-Parkdale-High Park	14-Parkdale-High Park	00862.000	BLOOR ST W	DUNDAS ST W	[61 m W] DUNDAS ST W	2010	Resurfacing	Major Arterial		Toronto and East York	2015
14-Parkdale-High Park	14-Parkdale-High Park	00863.000	BLOOR ST W	[61 m W] DUNDAS ST W	ALHAMBRA AVE	2010	Resurfacing	Major Arterial		Toronto and East York	2015
14-Parkdale-High Park	14-Parkdale-High Park	00864.000	BLOOR ST W	ALHAMBRA AVE	DORVAL RD	2010	Resurfacing	Major Arterial		Toronto and East York	2015
14-Parkdale-High Park	14-Parkdale-High Park	00865.000	BLOOR ST W	DORVAL RD	[N] INDIAN RD [BRANCH]	2010	Resurfacing	Major Arterial		Toronto and East York	2015
14-Parkdale-High Park	14-Parkdale-High Park	00865.010	BLOOR ST W	[N] INDIAN RD [BRANCH]	[S] INDIAN RD [BRANCH]	2010	Resurfacing	Major Arterial		Toronto and East York	2015
14-Parkdale-High Park	14-Parkdale-High Park	00866.000	BLOOR ST W	[S] INDIAN RD [BRANCH]	[S] INDIAN GRV [BRANCH]	2010	Resurfacing	Major Arterial		Toronto and East York	2015
14-Parkdale-High Park	14-Parkdale-High Park	00866.100	BLOOR ST W	[S] INDIAN GRV [BRANCH]	[N] INDIAN GRV [BRANCH]	2010	Resurfacing	Major Arterial		Toronto and East York	2015
14-Parkdale-High Park	14-Parkdale-High Park	00867.000	BLOOR ST W	[N] INDIAN GRV [BRANCH]	PARKSIDE DR	2010	Resurfacing	Major Arterial		Toronto and East York	2015
13-Parkdale-High Park	13-Parkdale-High Park	00875.000	BLOOR ST W	CLENDENAN AVE	ELLIS PARK RD	2011	Resurfacing	Major Arterial		Etobicoke York	2016
13-Parkdale-High Park	13-Parkdale-High Park	00876.000	BLOOR ST W	ELLIS PARK RD	KENNEDY PARK RD	2011	Resurfacing	Major Arterial		Etobicoke York	2016
13-Parkdale-High Park	13-Parkdale-High Park	00877.000	BLOOR ST W	KENNEDY PARK RD	HARCROFT RD	2011	Resurfacing	Major Arterial		Etobicoke York	2016
13-Parkdale-High Park	13-Parkdale-High Park	00878.000	BLOOR ST W	HARCROFT RD	GLENDONWYNNE RD	2011	Resurfacing	Major Arterial		Etobicoke York	2016
13-Parkdale-High Park	13-Parkdale-High Park	00879.000	BLOOR ST W	GLENDONWYNNE RD	[N] KENNEDY AVE [BRANCH]	2011	Resurfacing	Major Arterial		Etobicoke York	2016
13-Parkdale-High Park	13-Parkdale-High Park	00879.010	BLOOR ST W	[N] KENNEDY AVE [BRANCH]	[S] KENNEDY AVE [BRANCH]	2011	Resurfacing	Major Arterial		Etobicoke York	2016
13-Parkdale-High Park	13-Parkdale-High Park	00880.000	BLOOR ST W	[S] KENNEDY AVE [BRANCH]	RUNNYMEDE RD	2011	Resurfacing	Major Arterial		Etobicoke York	2016
13-Parkdale-High Park	13-Parkdale-High Park	00881.000	BLOOR ST W	RUNNYMEDE RD	[S] BERESFORD AVE [BRANCH]	2011	Resurfacing	Major Arterial		Etobicoke York	2016
13-Parkdale-High Park	13-Parkdale-High Park	00882.000	BLOOR ST W	[S] BERESFORD AVE [BRANCH]	[N] BERESFORD AVE [BRANCH]	2011	Resurfacing	Major Arterial		Etobicoke York	2016
13-Parkdale-High Park	13-Parkdale-High Park	00883.000	BLOOR ST W	[N] BERESFORD AVE [BRANCH]	[S] DURIE ST [BRANCH]	2011	Resurfacing	Major Arterial		Etobicoke York	2016
13-Parkdale-High Park	13-Parkdale-High Park	00884.000	BLOOR ST W	[S] DURIE ST [BRANCH]	[N] DURIE ST [BRANCH]	2011	Resurfacing	Major Arterial		Etobicoke York	2016
13-Parkdale-High Park	13-Parkdale-High Park	00885.000	BLOOR ST W	[N] DURIE ST [BRANCH]	WINDERMERE AVE	2011	Resurfacing	Major Arterial		Etobicoke York	2016
13-Parkdale-High Park	13-Parkdale-High Park	00886.000	BLOOR ST W	WINDERMERE AVE	WILLARD AVE (TO)	2011	Resurfacing	Major Arterial		Etobicoke York	2016
13-Parkdale-High Park	13-Parkdale-High Park	00887.000	BLOOR ST W	WILLARD AVE (TO)	ARMADALE AVE	2011	Resurfacing	Major Arterial		Etobicoke York	2016
13-Parkdale-High Park	13-Parkdale-High Park	00888.000	BLOOR ST W	ARMADALE AVE	JANE ST	2011	Resurfacing	Major Arterial		Etobicoke York	2016
10-York Centre	10-York Centre	12970	BLUE FLAG GT	BATHURST ST	CARSCADDEN DR	2011	Resurfacing	Local		North York	2016
8-York West	06-Etobicoke-Lakeshor	420400	BLUE GOOSE ST	CAVELL AVE (ETBK)	MANCHESTER ST	2009	Resurfacing	Local		Etobicoke York	2014
25-Don Valley West	25-Don Valley West	00901.000	BLYTHWOOD RD	YONGE ST	BLYTHWOOD GDNS	2009	Resurfacing	Collector		North York	2014
25-Don Valley West	25-Don Valley West	00902.000	BLYTHWOOD RD	BLYTHWOOD GDNS	ST HILDA'S AVE	2009	Resurfacing	Collector		North York	2014
25-Don Valley West	25-Don Valley West	00902.100	BLYTHWOOD RD	ST HILDA'S AVE	BLYTHWOOD CRES	2009	Resurfacing	Collector		North York	2014
25-Don Valley West	25-Don Valley West	00903.000	BLYTHWOOD RD	BLYTHWOOD CRES	[109.70 m E] BLYTHWOOD CRES	2009	Resurfacing	Collector		North York	2014
25-Don Valley West	25-Don Valley West	00903.100	BLYTHWOOD RD	[109.70 m E] BLYTHWOOD CRES	MOUNT PLEASANT RD	2009	Resurfacing	Collector		North York	2014
14-Parkdale-High Park	14-Parkdale-High Park	00914.000	BODWIN AVE	INDIAN GRV	[W] BODWIN AVE. [END]	2012	Resurfacing	Local	carry over from 2011 to 2012	Toronto and East York	2017
30-Toronto-Danforth	30-Toronto-Danforth	00930.000	BOOTH AVE	QUEEN ST E	COLGATE AVE	2009	Resurfacing	Local		Toronto and East York	2014
30-Toronto-Danforth	30-Toronto-Danforth	00931.000	BOOTH AVE	COLGATE AVE	PAISLEY AVE	2009	Resurfacing	Local		Toronto and East York	2014
22-St. Paul's	22-St. Paul's	00961.000	BOULTON DR	COTTINGHAM RD	[20 m N] COTTINGHAM RD	2010	Resurfacing	Collector		Toronto and East York	2015
22-St. Paul's	22-St. Paul's	00961.100	BOULTON DR	[20 m N] COTTINGHAM RD	[154 m N] COTTINGHAM RD	2010	Resurfacing	Collector		Toronto and East York	2015
22-St. Paul's	22-St. Paul's	00962.000	BOULTON DR	[154 m N] COTTINGHAM RD	[E-W] BOULTON DR [LEG]	2010	Resurfacing	Collector		Toronto and East York	2015
12-York South-Weston	12-York South-Weston	13250	BOURDON AVE	MAPLE LEAF DR	BURR AVE	2011	Resurfacing	Local		Etobicoke York	2016
40-Scarborough-Agincourt	40-Scarborough-Agincourt	GT0050	BOWATER DR	WARDEN AVE	BRIDLEWOOD BLVD	2010	Resurfacing	Local		Scarborough	2015
30-Toronto-Danforth	30-Toronto-Danforth	00965.000	BOWDEN ST	HOGARTH AVE	WOLFREY AVE	2012	Resurfacing	Local	carry over from 2011 to 2012	Toronto and East York	2017
30-Toronto-Danforth	30-Toronto-Danforth	00966.000	BOWDEN ST	WOLFREY AVE	FAIRVIEW BLVD	2012	Resurfacing	Local	carry over from 2011 to 2012	Toronto and East York	2017
30-Toronto-Danforth	30-Toronto-Danforth	00967.000	BOWDEN ST	FAIRVEW BLVD	DEARBOURNE AVE	2012	Resurfacing	Local	carry over from 2011 to 2012	Toronto and East York	2017
30-Toronto-Danforth	30-Toronto-Danforth	00968.000	BOWDEN ST	DEARBOURNE AVE	DANFORTH AVE	2012	Resurfacing	Local	carry over from 2011 to 2012	Toronto and East York	2017
21-St. Paul's	21-St. Paul's	00984.000	BRACONDALE HILL RD	DAVENPORT RD	HILLCREST DR	2010	Reconstruction	Local		Toronto and East York	2015
21-St. Paul's	21-St. Paul's	00985.000	BRACONDALE HILL RD	HILLCREST DR	[102 m N] HILLCREST DR	2010	Reconstruction	Local		Toronto and East York	2015
21-St. Paul's	21-St. Paul's	00985.100	BRACONDALE HILL RD	[102 m N] HILLCREST DR	FRANK CRES	2010	Reconstruction	Local		Toronto and East York	2015
21-St. Paul's	21-St. Paul's	00986.000	BRACONDALE HILL RD	FRANK CRES	TURNER RD	2010	Reconstruction	Local		Toronto and East York	2015
44-Scarborough East	44-Scarborough East	EF0030	BRAMBER RD	DEEP DENE DR	DEEP DENE DR	2011	Resurfacing	Local		Scarborough	2016
04-Etobicoke Centre	04-Etobicoke Centre	018600	BRAMPTON RD	CLEMENT RD	THE WESTWAY	2011	Resurfacing	Local		Etobicoke York	2016
04-Etobicoke Centre	04-Etobicoke Centre	205000	BRAMPTON RD	THE WESTWAY	LEARMONT DR	2011	Resurfacing	Local		Etobicoke York	2016
04-Etobicoke Centre	04-Etobicoke Centre	205300	BRAMPTON RD	CLEMENT RD	[201 m S] CLEMENT RD [CUL-DE-SAC]	2011	Resurfacing	Local		Etobicoke York	2016
7-York West	7-York West	13470	BRAZIL GT	ISLINGTON AVE	SOMBRERO CRT	2010	Resurfacing	Local		Etobicoke York	2015
42-Scarborough-Rouge River	42-Scarborough-Rouge River	FI0010	BRECKON GATE	MURISON BLVD	SHEPPARD AVE E	2011	Resurfacing	Local		Scarborough	2016
26-Don Valley West	26-Don Valley West	20163.000	BRENTCLIFFE RD	WICKSTEED AVE	RESEARCH RD	2008	Reconstruction	Minor Arterial		North York	2013
26-Don Valley West	26-Don Valley West	20164.000	BRENTCLIFFE RD	RESEARCH RD	VANDERHOOF AVE	2008	Reconstruction	Minor Arterial		North York	2013
26-Don Valley West	26-Don Valley West	20165.000	BRENTCLIFFE RD	VANDERHOOF AVE	EGLINTON AVE E	2008	Reconstruction	Minor Arterial		North York	2013
37-Scarborough Centre	37-Scarborough Centre	ET0090	BRIAN AVE	ELINOR AVE	TOWER DR	2009	Resurfacing	Collector		Scarborough	2014
25-Don Valley West	25-Don Valley West	13570	BRIAN CLIFF DR	LAWRENCE AVE E	BANBURY RD	2011	Resurfacing	Local		North York	2016
21-St. Paul's	21-St. Paul's	01022.000	BRIAR HILL AVE	BATHURST ST	MANITOU BLVD	2011	Resurfacing	Local		Toronto and East York	2016
21-St. Paul's	21-St. Paul's	01024.000	BRIAR HILL AVE	MANITOU BLVD	LAWNHURST BLVD	2011	Resurfacing	Local		Toronto and East York	2016
21-St. Paul's	21-St. Paul's	01025.000	BRIAR HILL AVE	LAWNHURST BLVD	OLD PARK RD	2011	Resurfacing	Local		Toronto and East York	2016
21-St. Paul's	21-St. Paul's	01026.000	BRIAR HILL AVE	OLD PARK RD	MARWOOD RD	2011	Resurfacing	Local		Toronto and East York	2016
21-St. Paul's	21-St. Paul's	01027.000	BRIAR HILL AVE	MARWOOD RD	MARWOOD CRT	2011	Resurfacing	Local		Toronto and East York	2016
21-St. Paul's	21-St. Paul's	01028.000	BRIAR HILL AVE	MARWOOD CRT	NEWGATE RD	2011	Resurfacing	Local		Toronto and East York	2016
15-Eglinton-Lawrence	15-Eglinton-Lawrence	30233.000	BRIAR HILL AVE	MARLEE AVE	DANESBURY AVE	2010	Resurfacing	Local		North York	2015
15-Eglinton-Lawrence	15-Eglinton-Lawrence	30234.000	BRIAR HILL AVE	DANESBURY AVE	TIMES RD	2010	Resurfacing	Local		North York	2015
15-Eglinton-Lawrence	15-Eglinton-Lawrence	30235.000	BRIAR HILL AVE	TIMES RD	LOCKSLEY AVE	2010	Resurfacing	Local		North York	2015

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Even	Odd	ID	Street	From	To	YEAR	WORK	CLASS	(for carry over, deferred, delayed work)		DATE
17-Davenport	17-Davenport	12343.200	[106.70 m N] LINDNER ST	MILLER ST	[32 m W] MILLER ST	2010	Reconstruction	Laneway		Etobicoke York	2015
19-Trinity-Spadina	19-Trinity-Spadina	11564.000	[107.80 m S] HARBORD ST	MANNING AVE (TO)	CLINTON ST	2011	Resurfacing	Laneway		Toronto and East York	2016
15-Eglinton-Lawrence	15-Eglinton-Lawrence	30236.000	BRIAR HILL AVE	LOCKSLEY AVE	DUFFERIN ST	2010	Resurfacing	Local		North York	2015
25-Don Valley West	25-Don Valley West	13660	BRIDLE PATH THE	SUNCREST DR	SAINTFIELD AVE	2009	Cold In Place Recycle	Local		North York	2014
40-Scarborough-Agincourt	40-Scarborough-Agincourt	GT0070	BRIDLEWOOD BLVD	SHEPPARD AVE E	HUNTINGWOOD DR	2011	Resurfacing	Collector		Scarborough	2016
30-Toronto-Danforth	30-Toronto-Danforth	01038.000	BRIGHTON AVE	PAPE AVE	[E] BRIGHTON AVE [END]	2011	Resurfacing	Local		Toronto and East York	2016
36-Scarborough Southwest	36-Scarborough Southwest	CL0030	BRINLOOR BLVD	HILL CRES	SERVICE RD	2011	Resurfacing	Local		Scarborough	2016
42-Scarborough-Rouge	42-Scarborough-Rouge	GJ0020	BRISBOURNE GRV	BURKWOOD CRES	[50 m S] BURKWOOD CRE	2011	Resurfacing	Local		Scarborough	2016
30-Toronto-Danforth	32-Beaches-East York	01047.000	BROADVIEW AVE	DUNDAS ST.E	KINTYRE AVE	2011	Grind & Pave	Arterial		Toronto and East York	2014
4-Etobicoke Centre	4-Etobicoke Centre	306800	BROMLEY CRES	HILLDOWNTREE RD	ISLINGTON AVE	2010	Resurfacing	Local		Etobicoke York	2015
4-Etobicoke Centre	4-Etobicoke Centre	306803	BROMLEY W LEG CRES	BROMLEY CRES	DRUMOAK RD	2010	Resurfacing	Local		Etobicoke York	2015
16-Eglinton-Lawrence	16-Eglinton-Lawrence	13980	BROOKE AVE	DE VERE GDNS	YONGE BLVD	2008	Reconstruction	Local		North York	2013
4-Etobicoke Centre	4-Etobicoke Centre	205503	BROUGHAM CRES	WINCOTT DR	THE WESTWAY	2010	Resurfacing	Local		Etobicoke York	2015
01-Etobicoke North	01-Etobicoke North	100603	BROWNRIDGE CRES	WESTMORE DR	WESTMORE DR	2011	Resurfacing	Local		Etobicoke York	2016
39-Scarborough-Agincourt	39-Scarborough-Agincourt	GQ0080	BUENA VISTA AVE	SOUTHLAWN DR	BELLBROOK RD	2010	Resurfacing	Local		Scarborough	2015
32-Beaches-East York	32-Beaches-East York	01160.000	BULLER AVE	[W] BULLER AVE [END]	KIPPENDAVIE AVE	2009	Resurfacing	Local		Toronto and East York	2014
24-Willowdale	24-Willowdale	14250	BURBANK DR	SHEPPARD AVE E	BLITHFIELD AVE	2010	Resurfacing	Collector		North York	2015
42-Scarborough-Rouge	42-Scarborough-Rouge	GJ0030	BURKWOOD CRES	QUANTRELL TRL	WICKSON TRL	2011	Resurfacing	Local		Scarborough	2016
29-Toronto-Danforth	29-Toronto-Danforth	20220.000	BURLEY AVE	GOWAN RD	BATER AVE	2008	Resurfacing	Local		Toronto and East York	2013
35-Scarborough Southwest	35-Scarborough Southwest	BT0070	BURN HILL RD	APT DRIVEWAY	WARDEN AVE	2007	Reconstruction	Local		Scarborough	2012
03-Etobicoke Centre	05-Etobicoke-Lakeshore	040-02	BURNHAMTHORPE RD	MARTINGROVE RD	THE EAST MALL	2012	Reconstruction	Major Arterial		Etobicoke York	2017
03-Etobicoke Centre	05-Etobicoke-Lakeshore	040-03	BURNHAMTHORPE RD	THE EAST MALL	THE WEST MALL	2011	Resurfacing	Major Arterial		Etobicoke York	2016
21-St. Paul's	21-St. Paul's	01175.000	BURNSIDE DR	BATURST ST	BURNSIDE DR	2011	Grind & Pave	Local	Grind & Pave under the U-cut repair contracts.	Toronto and East York	2014
21-St. Paul's	21-St. Paul's	01176.000	BURNSIDE DR	BURNSIDE DR	BURNSIDE DR	2011	Grind & Pave	Local	Grind & Pave under the U-cut repair contracts.	Toronto and East York	2014
21-St. Paul's	21-St. Paul's	01177.000	BURNSIDE DR	BURNSIDE DR	BURNSIDE DR	2011	Grind & Pave	Local	Grind & Pave under the U-cut repair contracts.	Toronto and East York	2014
21-St. Paul's	21-St. Paul's	01178.000	BURNSIDE DR	BURNSIDE DR	BURNSIDE DR	2011	Grind & Pave	Local	Grind & Pave under the U-cut repair contracts.	Toronto and East York	2014
21-St. Paul's	21-St. Paul's	01179.000	BURNSIDE DR	BURNSIDE DR	BATHURST ST	2011	Grind & Pave	Local	Grind & Pave under the U-cut repair contracts.	Toronto and East York	2014
12-York South-Weston	12-York South-Weston	14440	BURR AVE	CULFORD RD	LISCOMBE RD	2011	Resurfacing	Local		Etobicoke York	2016
41-Scarborough-Rouge Riv	41-Scarborough-Rouge Rive	HP0100	BUSHMILLS SQ	ALEXMUIR BLVD	BUSHMILLS SQ	2011	Resurfacing	Local		Scarborough	2016
7-York West	7-York West	14460	BUTTERCUP CRT	HUSBAND DR	[42 m N] HUSBAND DR [CUL-DE-SAC]	2010	Resurfacing	Local		Etobicoke York	2015
29-Toronto-Danforth	29-Toronto-Danforth	01189.000	BUTTERNUT ST	ELLERBECK ST	PLAYTER BLVD	2012	Resurfacing	Local	carry over from 2011 to 2012	Toronto and East York	2017
29-Toronto-Danforth	29-Toronto-Danforth	01190.000	BUTTERNUT ST	PLAYTER BLVD	JACKMAN AVE	2012	Resurfacing	Local	carry over from 2011 to 2012	Toronto and East York	2017
30-Toronto-Danforth	30-Toronto-Danforth	01192.000	BYRON AVE	CHATHAM AVE	DANFORTH AVE	2012	Resurfacing	Local	carry over from 2011 to 2012	Toronto and East York	2017
7-York West	7-York West	14520	CABANA DR	PLUNKETT RD	PLUNKETT RD	2010	Resurfacing	Local		Etobicoke York	2015
01-Etobicoke North	01-Etobicoke North	425960	CABERNET CRCL	CASSIS DR	BRUNELLO GT	2009	Resurfacing	Collector		Etobicoke York	2014
01-Etobicoke North	01-Etobicoke North	425990	CABERNET CRCL	[78 m N] CHIANTI SQ	[23 m S] ST EMILION WY	2009	Resurfacing	Collector		Etobicoke York	2014
01-Etobicoke North	01-Etobicoke North	426000	CABERNET CRCL	[23 m S] ST EMILION WY	ROYALCREST RD	2009	Resurfacing	Collector		Etobicoke York	2014
16-Eglinton-Lawrence	16-Eglinton-Lawrence	01198.000	CALDOW RD	ROSELAWN AVE	CASTLEFIELD AVE	2011	Reconstruction	Local		North York	2016
17-Davenport	17-Davenport	01206.000	CALEDONIA RD	[44 m N] ST CLAIR AVE W	LAMBERT AVE	2007	Reconstruction	Minor Arterial		Etobicoke York	2012
17-Davenport	17-Davenport	01207.000	CALEDONIA RD	LAMBERT AVE	NORMAN AVE	2007	Reconstruction	Minor Arterial		Etobicoke York	2012
17-Davenport	17-Davenport	01208.000	CALEDONIA RD	NORMAN AVE	INNES AVE	2007	Reconstruction	Minor Arterial		Etobicoke York	2012
17-Davenport	17-Davenport	01209.000	CALEDONIA RD	INNES AVE	[117.80 m N] INNES AVE [CITY LIMITS]	2007	Reconstruction	Minor Arterial		Etobicoke York	2012
14-Parkdale-High Park	14-Parkdale-High Park	01210.000	CALLENDER ST	QUEEN ST W	HARVARD AVE	2007	Reconstruction	Local		Toronto and East York	2012
39-Scarborough-Agincourt	39-Scarborough-Agincourt	HS0070	CALORA CRT	LA PEER BLVD	[230 m W] LA PEER BLVD [CUL-DE-SAC W	2010	Resurfacing	Local		Scarborough	2015
11-York South-Weston	11-York South-Weston	30272.000	CAMEO CRES	DALRYMPLE DR	DALRYMPLE DR	2011	Resurfacing	Local		Etobicoke York	2016
12-York South-Weston	12-York South-Weston	30276.000	CAMERON AVE	SILVERTHORN AVE	LACEY AVE	2007	Reconstruction	Local		Etobicoke York	2012
03-Etobicoke Centre	03-Etobicoke Centre	320700	CANEROUTH DR	[296 m S/E] RATHBURN RD [CUL-DE-SAC]	RATHBURN RD	2011	Resurfacing	Local		Etobicoke York	2016
39-Scarborough-Agincourt	39-Scarborough-Agincourt	GQ0090	CARDWELL AVE	KENNEDY RD	REIDMOUNT AVE	2010	Resurfacing	Local		Scarborough	2015
10-York Centre	10-York Centre	15090	CARNIVAL CRT	HIDDEN TRL	STEELES AVE E	2010	Resurfacing	Local		North York	2015
41-Scarborough-Rouge Riv	41-Scarborough-Rouge Rive	HP0130	CAROLBREEN SQ	ALEXMUIR BLVD	CAROLBREEN SQ	2011	Resurfacing	Local		Scarborough	2016
10-York Centre	10-York Centre	15150	CARSCADDEN DR	BATHURST ST	DENMARK CRES	2011	Resurfacing	Local		North York	2016
40-Scarborough-Aginco	40-Scarborough-Aginco	FS0100	CASS AVE	WARDEN AVE	ARAGON AVE	2009	Resurfacing	Local		Scarborough	2014
37-Scarborough Centre	37-Scarborough Centre	DS0050	CASTILLE AVE	WARDEN AVE	[274 m E] WARDEN AVE [CUL-DE-SAC]	2009	Resurfacing	Local		Scarborough	2014
40-Scarborough-Agincourt	40-Scarborough-Agincourt	GT0090	CASTLEDENE CRES	BATTERSWOOD DR	BATTERSWOOD DR	2010	Resurfacing	Local		Scarborough	2015
16-Eglinton-Lawrence	16-Eglinton-Lawrence	30286.000	CASTLEFIELD AVE	MARLEE AVE	DANESBURY AVE	2011	Resurfacing	Local		North York	2016
16-Eglinton-Lawrence	16-Eglinton-Lawrence	30287.000	CASTLEFIELD AVE	DANESBURY AVE	TIMES RD	2011	Resurfacing	Local		North York	2016
16-Eglinton-Lawrence	16-Eglinton-Lawrence	30288.000	CASTLEFIELD AVE	TIMES RD	LOCKSLEY AVE	2011	Resurfacing	Local		North York	2016
23-Willowdale	06-Etobicoke-Lakeshor	409201	CAVELL AVE (ETBK)	BLUE GOOSE ST	ROYAL YORK RD	2009	Resurfacing	Local		Etobicoke York	2014
8-York West	06-Etobicoke-Lakeshor	416300	CAVELL AVE (ETBK)	BURLINGTON ST	BLUE GOOSE ST	2009	Resurfacing	Local		Etobicoke York	2014
10-York Centre	10-York Centre	15320	CEDAR SPRINGS GRV	WILMINGTON AVE	WILMINGTON AVE	2009	Resurfacing	Local		North York	2014
04-Etobicoke Centre	04-Etobicoke Centre	306106	CEDARLAND DR	BYWOOD DR	RATHBURN RD	2009	Reconstruction	Local		Etobicoke York	2014
05-Etobicoke-Lakeshore	05-Etobicoke-Lakeshore	021500	CENTRAL PARK RD	ISLINGTON AVE	CORDOVA AVE	2009	Reconstruction	Collector		Etobicoke York	2014
01-Etobicoke North	01-Etobicoke North	107601	CHANNING PL	BROWNRIDGE CRES	COUNTRYMAN CRCL	2011	Resurfacing	Local		Etobicoke York	2016
43-Scarborough East	43-Scarborough East	DJ0100	CHANTREY CRT	[76 m W] GALLOWAY RD [CUL-DE-SAC]	GALLOWAY RD	2009	Resurfacing	Local		Scarborough	2014
40-Scarborough-Agincourt	40-Scarborough-Agincourt	GU0050	CHARADE CRT	BRANTFORD DR	BRANTFORD DR	2011	Resurfacing	Local		Scarborough	2016
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	01395.000	CHARLES ST.W	BALMUTO ST	LA SCALA LANE	2011	Grind & Pave	Local	Grind & Pave under the U-cut repair contracts.	Toronto and East York	2014
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	01395.100	CHARLES ST.W	LA SCALA LANE	BAY ST	2011	Grind & Pave	Local	Grind & Pave under the U-cut repair contracts.	Toronto and East York	2014
33-Don Valley East	33-Don Valley East	15580	CHASE RD	APPIAN DR	BATHFORD CRES	2010	Resurfacing	Local		North York	2015
30-Toronto-Danforth	30-Toronto-Danforth	01403.000	CHATHAM AVE	PHIN AVE	BYRON AVE	2012	Resurfacing	Local	carry over from 2011 to 2012	Toronto and East York	2017
30-Toronto-Danforth	30-Toronto-Danforth	01404.000	CHATHAM AVE	BYRON AVE	GREENWOOD AVE	2012	Resurfacing	Local	carry over from 2011 to 2012	Toronto and East York	2017
42-Scarborough-Rouge Riv	42-Scarborough-Rouge Rive	GK0070	CHEATHAM PL	BERNER TRL	[152 m E] BERNER TRL [CUL-DE-SAC W/	2010	Resurfacing	Local		Scarborough	2015
35-Scarborough Southwest	35-Scarborough Southwest	CS0030	CHESTNUT CRES	ANACONDA AVE	ANACONDA AVE	2010	Resurfacing	Local		Scarborough	2015
01-Etobicoke North	01-Etobicoke North	111004	CHIANTI SQ	CABERNET CRCL	[30 m W] CABERNET CRCL [END]	2009	Resurfacing	Local		Etobicoke York	2014
25-Don Valley West	25-Don Valley West	15810	CHIEFTAIN CRES	FIFESHIRE RD	FIFESHIRE RD	2011	Resurfacing	Local		North York	2016
38-Scarborough Centre	38-Scarborough Centre	DO0100	CHILLERY AVE	BRIMLEY RD	BRIMLEY RD	2011	Reconstruction	Local		Scarborough	2016
36-Scarborough Southwest	36-Scarborough Southwest	BP0040	CHINE DR	KINGSTON RD	ST CLAIR AVE E (SC)	2010	Resurfacing	Local	Carryover from 2009 to 2010	Scarborough	2015
12-York South-Weston	12-York South-Weston	15860	CHISWICK ST	TRETHEWEY DR	HEARST CRCL	2010	Resurfacing	Local		Etobicoke York	2015
12-York South-Weston	12-York South-Weston	15870	CHISWICK ST	HEARST CRCL	HARDING AVE	2010	Resurfacing	Local		Etobicoke York	2015
12-York South-Weston	12-York South-Weston	15880	CHISWICK ST	HARDING AVE	LAWRENCE AVE W	2010	Resurfacing	Local		Etobicoke York	2015
28-Toronto Centre-Rosedale	28-Toronto Centre-Rosedale	01494.000	CHURCH ST	KING ST E	COURT ST	2009	Resurfacing	Minor Arterial		Toronto and East York	2014
28-Toronto Centre-Rosedale	28-Toronto Centre-Rosedale	01495.000	CHURCH ST	COURT ST	ADELAIDE ST E	2009	Resurfacing	Minor Arterial		Toronto and East York	2014
28-Toronto Centre-Rosedale	28-Toronto Centre-Rosedale	01496.000	CHURCH ST	ADELAIDE ST E	LOMBARD ST	2009	Resurfacing	Minor Arterial		Toronto and East York	2014
28-Toronto Centre-Rosedale	28-Toronto Centre-Rosedale	01497.000	CHURCH ST	LOMBARD ST	RICHMOND ST E	2009	Resurfacing	Minor Arterial		Toronto and East York	2014
28-Toronto Centre-Rosedale	28-Toronto Centre-Rosedale	01498.000	CHURCH ST	RICHMOND ST E	QUEEN ST E	2009	Resurfacing	Minor Arterial		Toronto and East York	2014
27-Toronto Centre-Ros	27-Toronto Centre-Ros	01499.000	CHURCH ST	QUEEN ST E	SHUTER ST	2009	TTC Track Replacement & Major Road Resurfacing	Minor Arterial		Toronto and East York	2014
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	01500.000	CHURCH ST	SHUTER ST	DUNDAS ST E	2009	Resurfacing	Minor Arterial		Toronto and East York	2014
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	01501.000	CHURCH ST	DUNDAS ST E	GOULD ST	2009	Resurfacing	Major Arterial		Toronto and East York	2014
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	01502.000	CHURCH ST	GOULD ST	GERRARD ST E	2009	Resurfacing	Minor Arterial		Toronto and East York	2014
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	01503.000	CHURCH ST	GERRARD ST E	MC GILL ST	2009	Resurfacing	Minor Arterial		Toronto and East York	2014
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	01504.000	CHURCH ST	MC GILL ST	GRANBY ST	2009	Resurfacing	Minor Arterial		Toronto and East York	2014
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	01505.000	CHURCH ST	GRANBY ST	CARLTON ST	2009	Resurfacing	Minor Arterial		Toronto and East York	2014
4-Etobicoke Centre	4-Etobicoke Centre	204800	CLARION RD	WATERBURY DR	REDGRAVE DR	2010	Resurfacing	Local		Etobicoke York	2015
44-Scarborough East	44-Scarborough East	EB0110	CLARK SECOR PL	EAST AVE (SC)	[65 m E] EAST AVE (SC) [CUL-DE-SAC W	2010	Resurfacing	Local		Scarborough	2015
30-Toronto-Danforth	30-Toronto-Danforth	01539.000	CLARK ST	GRANT ST	HOWIE AVE	2009	Resurfacing	Local		Toronto and East York	2014
30-Toronto-Danforth	30-Toronto-Danforth	01540.000	CLARK ST	HOWIE AVE	BOULTON AVE	2009	Resurfacing	Local		Toronto and East York	2014
12-York South-Weston	12-York South-Weston	30355.000	CLAYBROOKE ST	LONBOROUGH AVE	BEECHBOROUGH AVE	2009	Resurfacing	Local		Etobicoke York	2014
12-York South-Weston	12-York South-Weston	30356.000	CLAYBROOKE ST	BEECHBOROUGH AVE	STRATHNAIRN AVE	2009	Resurfacing	Local		Etobicoke York	2014
36-Scarborough Southwest	36-Scarborough Southwest	BP0050	CLIFFCREST CRES	SCARBORO CRES	CLIFFCREST DR	2010	Resurfacing	Local		Scarborough	2015

2012 MORATORIUM LIST OF ROADS

Expiration Date is December 31, YEAR

For Moratorium conditions refer to: http://www.toronto.ca/engineering/mcr/pdf/mcr_municipal_consent_requirements.pdf

WARD		SECTION	LOCATION			COMPLETED		FUNCTIONAL	REMARKS	DISTRICT	EXPIRATION
Even	Odd	ID	Street	From	To	YEAR	WORK	CLASS	(for carry over, deferred, delayed work)		DATE
17-Davenport	17-Davenport	12343.200	[106.70 m N] LINDNER ST	MILLER ST	[32 m W] MILLER ST	2010	Reconstruction	Laneway		Etobicoke York	2015
19-Trinity-Spadina	19-Trinity-Spadina	11564.000	[107.80 m S] HARBORD ST	MANNING AVE (TO)	CLINTON ST	2011	Resurfacing	Laneway		Toronto and East York	2016
36-Scarborough Southwest	36-Scarborough Southwest	BP0060	CLIFFCREST DR	SCARBORO CRES	[284 m E] SCARBORO CRES [END]	2010	Resurfacing	Local		Scarborough	2015
36-Scarborough Southwest	36-Scarborough Southwest	BP0070	CLIFFCREST DR	CLIFFCREST DR	GLENRIDGE RD	2010	Resurfacing	Local		Scarborough	2015
27-Toronto Centre-Roseda	27-Toronto Centre-Rosedal	01567.000	CLIFTON RD	ROSE PARK DR	HEATH ST E	2010	Resurfacing	Local		Toronto and East York	2015
27-Toronto Centre-Roseda	27-Toronto Centre-Rosedal	01568.000	CLIFTON RD	HEATH ST E	MOORE AVE	2010	Resurfacing	Local		Toronto and East York	2015
19-Trinity-Spadina	19-Trinity-Spadina	01570.000	CLINTON AVE	MANSFIELD AVE	HENDERSON AVE	2012	Resurfacing	Local	carry over from 2011 to 2012	Toronto and East York	2017
19-Trinity-Spadina	19-Trinity-Spadina	01571.000	CLINTON AVE	HENDERSON AVE	GORE ST	2012	Resurfacing	Local	carry over from 2011 to 2012	Toronto and East York	2017
19-Trinity-Spadina	19-Trinity-Spadina	01572.000	CLINTON AVE	GORE ST	COLLEGE ST	2012	Resurfacing	Local	carry over from 2011 to 2012	Toronto and East York	2017
19-Trinity-Spadina	19-Trinity-Spadina	01570.000	CLINTON ST	MANSFIELD AVE	HENDERSON AVE	2011	Resurfacing	Local		Toronto and East York	2016
19-Trinity-Spadina	19-Trinity-Spadina	01571.000	CLINTON ST	HENDERSON AVE	GORE ST	2011	Resurfacing	Local		Toronto and East York	2016
19-Trinity-Spadina	19-Trinity-Spadina	01572.000	CLINTON ST	GORE ST	COLLEGE ST (TO)	2011	Resurfacing	Local		Toronto and East York	2016
44-Scarborough East	44-Scarborough East	EE0100	CLOSSON DR	LAWSON RD	EVENWOOD AVE	2010	Resurfacing	Local		Scarborough	2015
11-York South-Weston	11-York South-Weston	30369.000	CLOUSTON AVE	CENTRE RD (YK)	DENISON RD W	2010	Reconstruction	Local		Etobicoke York	2015
17-Davenport	17-Davenport	01588.000	CLOVERLAWN AVE	[61 m E] DUFFERIN ST [CITY	DUFFERIN ST	2010	Resurfacing	Local		Etobicoke York	2015
17-Davenport	17-Davenport	30374.000	CLOVERLAWN AVE	LAUDER AVE	NORTHCLIFFE BLVD	2010	Resurfacing	Local		Etobicoke York	2015
17-Davenport	17-Davenport	30375.000	CLOVERLAWN AVE	NORTHCLIFFE BLVD	WESTMOUNT AVE	2010	Resurfacing	Local		Etobicoke York	2015
17-Davenport	17-Davenport	30376.000	CLOVERLAWN AVE	WESTMOUNT AVE	[61 m E] DUFFERIN ST [CITY LIMITS]	2010	Resurfacing	Local		Etobicoke York	2015
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	01590.000	CLUNY AVE	CLUNY DR	ROSEDALE RD	2009	Resurfacing	Local		Toronto and East York	2014
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	01591.000	CLUNY DR	ROSEDALE RD	[E] CLUNY AVE [BRANCH]	2009	Resurfacing	Local		Toronto and East York	2014
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	01591.100	CLUNY DR	[E] CLUNY AVE [BRANCH]	[W] CLUNY AVE [BRANCH]	2009	Resurfacing	Local		Toronto and East York	2014
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	01592.000	CLUNY DR	[W] CLUNY AVE [BRANCH]	CRESCENT RD	2009	Resurfacing	Local		Toronto and East York	2014
34-Don Valley East	34-Don Valley East	16600	CODECO CRT	RAILSIDE RD	[150 m W] RAILSIDE RD [CUL-DE-SAC]	2009	Resurfacing	Local		North York	2014
31-Beaches-East York	31-Beaches-East York	01627.000	COLEMAN AVE	DAWES RD	MARYLAND BLVD	2011	Resurfacing	Local		Toronto and East York	2016
31-Beaches-East York	31-Beaches-East York	01628.000	COLEMAN AVE	MARYLAND BLVD	AVONLEA BLVD	2011	Resurfacing	Local		Toronto and East York	2016
31-Beaches-East York	31-Beaches-East York	01629.000	COLEMAN AVE	AVONLEA BLVD	[33.70 m E] AVONLEA BLVD [CITY LIMIT	2011	Resurfacing	Local		Toronto and East York	2016
31-Beaches-East York	31-Beaches-East York	20281.000	COLEMAN AVE	[33.70 m E] AVONLEA BLVD [C	SIBLEY AVE	2011	Resurfacing	Local		Toronto and East York	2016
30-Toronto-Danforth	30-Toronto-Danforth	01630.000	COLGATE AVE	BOOTH AVE	LOGAN AVE	2009	Resurfacing	Local		Toronto and East York	2014
19-Trinity-Spadina	19-Trinity-Spadina	01640.200	COLLEGE PL	[35.40 m N] DUNDAS ST W	[197.80 m N] DUNDAS ST W	2010	Reconstruction	Laneway		Toronto and East York	2015
19-Trinity-Spadina	19-Trinity-Spadina	01640.300	COLLEGE PL	[197.80 m N] DUNDAS ST W	[218 m N] DUNDAS ST W	2010	Reconstruction	Laneway		Toronto and East York	2015
22-St. Paul's	22-St. Paul's	01699.000	COLLEGE VIEW AVE	ELMSTHORPE AVE	DUNCANNON DR	2007	Reconstruction	Local		Toronto and East York	2012
22-St. Paul's	22-St. Paul's	01700.000	COLLEGE VIEW AVE	DUNCANNON DR	TARLTON RD	2007	Reconstruction	Local		Toronto and East York	2012
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	01702.000	COLLIER ST	CHURCH ST	PARK RD	2011	Resurfacing	Collector		Toronto and East York	2016
42-Scarborough-Rouge River	42-Scarborough-Rouge River	FJ0010	COLTMAN CRES	PARSELL SQ	MURISON BLVD	2011	Resurfacing	Local		Scarborough	2016
24-Willowdale	24-Willowdale	16790	COLWICK DR	GEMINI RD	TOLLERTON AVE	2011	Resurfacing	Local		North York	2016
40-Scarborough-Agincourt	40-Scarborough-Agincourt	FU0290	COMMONS DR	[48 m S] MEADOWACRES DR [END]	MEADOWACRES DR	2009	Resurfacing	Local		Scarborough	2014
40-Scarborough-Agincourt	40-Scarborough-Agincourt	FU0300	COMMONS DR	MEADOWACRES DR	FARMCREST DR	2009	Resurfacing	Local		Scarborough	2014
35-Scarborough Southwest	35-Scarborough Southwest	CP0070	COMMONWEALTH AVE	WOLFE AVE	EGLINTON AVE E	2011	Resurfacing	Local		Scarborough	2016
26-Don Valley West	26-Don Valley West	16955	CONCORDE GT	DVP N WYNFORD DR	CONCORDE PL	2009	Resurfacing	Collector		North York	2014
26-Don Valley West	26-Don Valley West	16960	CONCORDE PL	WYNFORD DR	[315 m N] WYNFORD DR [CUL-DE-SAC]	2009	Resurfacing	Collector		North York	2014
30-Toronto-Danforth	30-Toronto-Danforth	01728.000	CONDOR AVE	HUNTER ST	SHUDELL AVE	2012	Resurfacing	Local	carry over from 2011 to 2012	Toronto and East York	2017
30-Toronto-Danforth	30-Toronto-Danforth	01729.000	CONDOR AVE	SHUDELL AVE	DAWSON AVE	2012	Resurfacing	Local	carry over from 2011 to 2012	Toronto and East York	2017
30-Toronto-Danforth	30-Toronto-Danforth	01730.000	CONDOR AVE	DAWSON AVE	QUEEN VICTORIA ST	2012	Resurfacing	Local	carry over from 2011 to 2012	Toronto and East York	2017
30-Toronto-Danforth	30-Toronto-Danforth	01731.000	CONDOR AVE	QUEEN VICTORIA ST	BAIRD AVE	2012	Resurfacing	Local	carry over from 2011 to 2012	Toronto and East York	2017
30-Toronto-Danforth	30-Toronto-Danforth	01732.000	CONDOR AVE	BAIRD AVE	[N] CONDOR AVE [END]	2012	Resurfacing	Local	carry over from 2011 to 2012	Toronto and East York	2017
21-St. Paul's	21-St. Paul's	30395.000	CONNAUGHT CRCL	[W] CONNAUGHT CRCL [BRANCH]	HEATHDALE RD	2011	Reconstruction	Local		Toronto and East York	2016
11-York South-Weston	11-York South-Weston	30406	CORDELLA AVE	LANGDEN AVE	CLIFF ST	2011	Grind & Pave	Local	Grind & Pave under the U-cut repair contracts.	Etobicoke York	2014
05-Etobicoke-Lakeshore	05-Etobicoke-Lakeshore	021601	CORDOVA AVE	ISLINGTON AVE	OVERPASS	2009	Resurfacing	Collector		Etobicoke York	2014
05-Etobicoke-Lakeshore	05-Etobicoke-Lakeshore	021602	CORDOVA AVE	OVERPASS	CENTRAL PARK RDWY	2009	Resurfacing	Collector		Etobicoke York	2014
05-Etobicoke-Lakeshore	05-Etobicoke-Lakeshore	021603	CORDOVA AVE	CENTRAL PARK RDWY	DUNDAS ST	2009	Resurfacing	Collector		Etobicoke York	2014
32-Beaches-East York	32-Beaches-East York	01754.000	CORLEY AVE	WOODBINE AVE	GOLFVIEW AVE	2009	Resurfacing	Local		Toronto and East York	2014
32-Beaches-East York	32-Beaches-East York	01755.000	CORLEY AVE	GOLFVIEW AVE	FIRSTBROOKE RD	2009	Resurfacing	Local		Toronto and East York	2014
32-Beaches-East York	32-Beaches-East York	01756.000	CORLEY AVE	FIRSTBROOKE RD	BROOKSIDE DR	2009	Resurfacing	Local		Toronto and East York	2014
32-Beaches-East York	32-Beaches-East York	01757.000	CORLEY AVE	BROOKSIDE DR	GLENMOUNT PARK RD	2009	Resurfacing	Local		Toronto and East York	2014
44-Scarborough East	44-Scarborough East	DH0031	CORONATION DR	MORNINGSIDE AVE (SC)	SHOREVIEW DR	2007	Reconstruction	Collector		Scarborough	2012
16-Eglinton-Lawrence	16-Eglinton-Lawrence	01763.000	CORTLEIGH BLVD	[N-S] CORTLEIGH BLVD [BRANCH]	AVENUE RD	2011	Resurfacing	Local		North York	2016
16-Eglinton-Lawrence	16-Eglinton-Lawrence	01768.000	CORTLEIGH CRES	[S] CORTLEIGH CRES END	HILLHURST BLVD	2011	Resurfacing	Local		North York	2016
16-Eglinton-Lawrence	16-Eglinton-Lawrence	01768.100	CORTLEIGH CRES	HILLHURST BLVD	[E] CORTLEIGH BLVD [BRANCH]	2011	Resurfacing	Local		North York	2016
40-Scarborough-Agincourt	40-Scarborough-Agincourt	GU0080	CORTON GT	CORINTHIAN BLVD	ORANGEWOOD CRES	2011	Resurfacing	Local		Scarborough	2016
22-St. Paul's	22-St. Paul's	01774.000	COTTINGHAM ST	[E] COTTINGHAM ST [END]	OAKLANDS AVE	2010	Resurfacing	Local		Toronto and East York	2015
22-St. Paul's	22-St. Paul's	01776.000	COTTINGHAM ST	OAKLANDS AVE	SIDNEY ST	2010	Resurfacing	Local		Toronto and East York	2015
22-St. Paul's	22-St. Paul's	01777.000	COTTINGHAM ST	SIDNEY ST	AVENUE RD	2010	Resurfacing	Local		Toronto and East York	2015
11-York South-Weston	11-York South-Weston	30410.000	COULTER AVE	WESTON RD	RECTORY RD	2010	Resurfacing	Local		Etobicoke York	2015
11-York South-Weston	11-York South-Weston	30411.000	COULTER AVE	RECTORY RD	CROSS ST (YK)	2010	Resurfacing	Local		Etobicoke York	2015
11-York South-Weston	11-York South-Weston	30412.000	COULTER AVE	CROSS ST (YK)	KING GEORGE RD	2010	Resurfacing	Local		Etobicoke York	2015
01-Etobicoke North	01-Etobicoke North	107602	COUNTRYMAN CRCL	WESTMORE DR	WESTMORE DR	2011	Resurfacing	Local		Etobicoke York	2016
9-York Centre	9-York Centre	17320	COURAGE AVE	DOLORES RD	JANE ST	2011	Resurfacing	Local		North York	2016
35-Scarborough Southwest	35-Scarborough Southwest	AT0110	COVENTRY ST	LEYTON AVE	[152 m W] LEYTON AVE [CUL-DE-SAC]	2009	Resurfacing	Local		Scarborough	2014
22-St. Paul's	22-St. Paul's	10902.000	COWBELL LANE	SOUDAN AVE	EGLINTON AVE E	2009	Reconstruction	Laneway		Toronto and East York	2014
32-Beaches-East York	32-Beaches-East York	01800.000	COXWELL AVE	CASCI AVE	RAILWAY LANDS-CNR	2011	Grind & Pave	Arterial	Grind & Pave under the U-cut repair contracts.	Toronto and East York	2014
32-Beaches-East York	32-Beaches-East York	01801.000	COXWELL AVE	RAILWAY LANDS-CNR	HANSON ST	2011	Grind & Pave	Arterial	Grind & Pave under the U-cut repair contracts.	Toronto and East York	2014
32-Beaches-East York	32-Beaches-East York	01802.000	COXWELL AVE	HANSON ST	CURRIE AVE	2011	Grind & Pave	Arterial	Grind & Pave under the U-cut repair contracts.	Toronto and East York	2014
32-Beaches-East York	32-Beaches-East York	01803.000	COXWELL AVE	CURRIE AVE	EARLHAIG AVE	2011	Grind & Pave	Arterial	Grind & Pave under the U-cut repair contracts.	Toronto and East York	2014
32-Beaches-East York	32-Beaches-East York	01804.000	COXWELL AVE	EARLHAIG AVE	WOODROW AVE	2011	Grind & Pave	Arterial	Grind & Pave under the U-cut repair contracts.	Toronto and East York	2014
32-Beaches-East York	32-Beaches-East York	01805.000	COXWELL AVE	WOODROW AVE	DANFORTH AVE	2011	Grind & Pave	Arterial	Grind & Pave under the U-cut repair contracts.	Toronto and East York	2014
42-Scarborough-Rouge Riv	42-Scarborough-Rouge Rive	GK0080	COXWORTH CRES	BLACKWELL AVE	BLACKWELL AVE	2010	Resurfacing	Local		Scarborough	2015
16-Eglinton-Lawrence	16-Eglinton-Lawrence	01814.000	CRANBROOKE AVE	JEDBURGH RD	GREER RD	2011	Resurfacing	Local		North York	2016
16-Eglinton-Lawrence	16-Eglinton-Lawrence	01815.000	CRANBROOKE AVE	GREER RD	ELM RD	2011	Resurfacing	Local		North York	2016
16-Eglinton-Lawrence	16-Eglinton-Lawrence	01816.000	CRANBROOKE AVE	ELM RD	[135.40 m W] ELM RD [CITY LIMITS]	2011	Resurfacing	Local		North York	2016
16-Eglinton-Lawrence	16-Eglinton-Lawrence	17420	CRANBROOKE AVE	[140m E] AVENUE RD [CITY L	AVENUE RD	2011	Resurfacing	Local		North York	2016
5-Etobicoke-Lakeshore	5-Etobicoke-Lakeshore	312202	CRANSTON RD	PETERLEE AVE	REDCAR AVE	2010	Resurfacing	Local		Etobicoke York	2015
30-Toronto-Danforth	30-Toronto-Danforth	01822.000	CRAVEN RD	HANSON ST	MOUNTJOY AVE	2010	Resurfacing	Local		Toronto and East York	2015
30-Toronto-Danforth	30-Toronto-Danforth	01822.700	CRAVEN RD	MOUNTJOY AVE	AZZARELLO LANE	2010	Resurfacing	Local		Toronto and East York	2015
30-Toronto-Danforth	30-Toronto-Danforth	01823.000	CRAVEN RD	AZZARELLO LANE	DANFORTH AVE	2010	Resurfacing	Local		Toronto and East York	2015
2-Etobicoke North	2-Etobicoke North	102402	CROMARTY DR	PAKENHAM DR	ELMHURST DR	2010	Resurfacing	Local		Etobicoke York	2015
32-Beaches-East York	32-Beaches-East York	05805.000	CROSSOVERS ST	WILLIAM HANCOX AVE	TED REEVE DR	2009	Construction	Local		Toronto and East York	2014
21-St. Paul's	21-St. Paul's	30425.000	CROYDON RD	BATHURST ST	CHILTERN HILL RD	2011	Reconstruction	Local		Toronto and East York	2016
6-Etobicoke-Lakeshore	6-Etobicoke-Lakeshore	409906	CRYSTAL CRES	LAKE PROMENADE	[131 m N] LAKE PROMENADE [END]	2011	Resurfacing	Local	carry over from 2010 to 2011	Etobicoke York	2016
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	01864.000	CUMBERLAND ST	YONGE ST	BAY ST	2011	Grind & Pave	Collector	Grind & Pave under the U-cut repair contracts.	Toronto and East York	2014
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	01865.000	CUMBERLAND ST	BAY ST	BELLAIR AVE	2011	Grind & Pave	Collector	Grind & Pave under the U-cut repair contracts.	Toronto and East York	2014
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	01866.000	CUMBERLAND ST	BELLAIR AVE	AVENUE RD	2011	Grind & Pave	Collector	Grind & Pave under the U-cut repair contracts.	Toronto and East York	2014
30-Toronto-Danforth	30-Toronto-Danforth	01868.000	CUMMINGS ST	DE GRASSI ST	WARDELL ST	2009	Resurfacing	Local		Toronto and East York	2014
42-Scarborough-Rouge River	42-Scarborough-Rouge River	FI0060	CURTIS CRES	MURISON BLVD	MURISON BLVD	2011	Resurfacing	Local		Scarborough	2016
24-Willowdale	24-Willowdale	17770	CUSACK CRT	SHEPPARD AVE E	[46 m S] SHEPPARD AVE E [CUL-DE-SAC]	2009	Resurfacing	Local		North York	2014
43-Scarborough East	43-Scarborough East	DH0040	CUSHENDUN RD	FORDOVER DR	FINTONA AVE	2010	Resurfacing	Local		Scarborough	2015
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	01882.000	DALE AVE (TO)	GLEN RD	POWELL AVE	2007	Reconstruction	Local		Toronto and East York	2012
11-York South-Weston	11-York South-Weston	30433.000	DALRYMPLE DR	ALLIANCE AVE	DALRYMPLE DR	2011	Resurfacing	Local		Etobicoke York	2016
11-York South-Weston	11-York South-Weston	30434.000	DALRYMPLE DR	DALRYMPLE DR	CAMEO CRES [E LEG]	2011	Resurfacing	Local		Etobicoke York	2016

2012 MORATORIUM LIST OF ROADS

Expiration Date is December 31, YEAR

For Moratorium conditions refer to: http://www.toronto.ca/engineering/mcr/pdf/mcr_municipal_consent_requirements.pdf

WARD		SECTION	LOCATION			COMPLETED		FUNCTIONAL	REMARKS	DISTRICT	EXPIRATION
Even	Odd	ID	Street	From	To	YEAR	WORK	CLASS	(for carry over, deferred, delayed work)		DATE
17-Davenport	17-Davenport	12343.200	[106.70 m N] LINDNER ST	MILLER ST	[32 m W] MILLER ST	2010	Reconstruction	Laneway		Etobicoke York	2015
19-Trinity-Spadina	19-Trinity-Spadina	11564.000	[107.80 m S] HARBORD ST	MANNING AVE (TO)	CLINTON ST	2011	Resurfacing	Laneway		Toronto and East York	2016
11-York South-Weston	11-York South-Weston	30436.000	DALRYMPLE DR	CAMEO CRES [E LEG]	CAMEO CRES [W LEG]	2011	Resurfacing	Local		Etobicoke York	2016
11-York South-Weston	11-York South-Weston	30437.000	DALRYMPLE DR	CAMEO CRES [W LEG]	JANE ST	2011	Resurfacing	Local		Etobicoke York	2016
15-Eglinton-Lawrence	15-Eglinton-Lawrence	30439.000	DANESBURY AVE	ROSELAWN AVE	CASTLEFIELD AVE	2011	Resurfacing	Local		North York	2016
15-Eglinton-Lawrence	15-Eglinton-Lawrence	30440.000	DANESBURY AVE	CASTLEFIELD AVE	RIDELLE AVE	2011	Resurfacing	Local		North York	2016
15-Eglinton-Lawrence	15-Eglinton-Lawrence	30441.000	DANESBURY AVE	RIDELLE AVE	BRIAR HILL AVE	2011	Resurfacing	Local		North York	2016
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	01963.000	DAVENPORT RD	YONGE ST	MC MURRICH ST	2008	Reconstruction	Major Arterial		Toronto and East York	2013
21-St. Paul's	21-St. Paul's	01984.000	DAVENPORT RD	KENDAL AVE	DARTNELL AVE	2011	Grind & Pave	Major Arterial	Grind & Pave under the U-cut repair contracts.	Toronto and East York	2014
21-St. Paul's	21-St. Paul's	01985.000	DAVENPORT RD	DARTNELL AVE	HOWLAND AVE	2011	Grind & Pave	Major Arterial	Grind & Pave under the U-cut repair contracts.	Toronto and East York	2014
21-St. Paul's	21-St. Paul's	01986.000	DAVENPORT RD	HOWLAND AVE	ALBANY AVE	2011	Grind & Pave	Major Arterial	Grind & Pave under the U-cut repair contracts.	Toronto and East York	2014
21-St. Paul's	21-St. Paul's	01987.000	DAVENPORT RD	ALBANY AVE	BATHURST ST	2011	Grind & Pave	Major Arterial	Grind & Pave under the U-cut repair contracts.	Toronto and East York	2014
38-Scarborough Centre	38-Scarborough Centre	EM0140	DAVENTRY RD	WANTANOPA CRES	SEDGEMOUNT DR	2011	Resurfacing	Local		Scarborough	2016
38-Scarborough Centre	38-Scarborough Centre	EM0150	DAVENTRY RD	SEDGEMOUNT DR	AMBERJACK BLVD	2011	Resurfacing	Local		Scarborough	2016
31-Beaches-East York	31-Beaches-East York	20395.000	DAWES RD	FERRIS RD	VICTORIA PARK AVE	2011	Reconstruction	Minor Arterial		Scarborough	2016
31-Beaches-East York	31-Beaches-East York	20392.000	DAWES RD (W SIDE)	[100 m S] GOWER ST	GOWER ST	2011	Reconstruction	Minor Arterial		Scarborough	2016
31-Beaches-East York	31-Beaches-East York	20393.000	DAWES RD (W SIDE)	GOWER ST	[130 m N] GOWER ST	2011	Reconstruction	Minor Arterial		Scarborough	2016
02-Etobicoke North	02-Etobicoke North	202504	DAYBAR AVE	MCCULLOCH AVE	[95 m W] MCCULLOCH AV	2009	Resurfacing	Local		Etobicoke York	2014
7-York West	7-York West	18110	DAYSTROM DR	LINDYLOU RD	LINDYLOU RD	2010	Reconstruction	Local		Etobicoke York	2015
30-Toronto-Danforth	30-Toronto-Danforth	02065.100	DE GRASSI ST	QUEEN ST E	[50 m N] QUEEN ST E	2009	Resurfacing	Local		Toronto and East York	2014
30-Toronto-Danforth	30-Toronto-Danforth	02065.200	DE GRASSI ST	[50 m N] QUEEN ST E	WARDELL ST	2009	Resurfacing	Local		Toronto and East York	2014
30-Toronto-Danforth	30-Toronto-Danforth	02065.300	DE GRASSI ST	WARDELL ST	CUMMINGS ST	2009	Resurfacing	Local		Toronto and East York	2014
30-Toronto-Danforth	30-Toronto-Danforth	02065.400	DE GRASSI ST	CUMMINGS ST	DUNDAS ST E	2009	Resurfacing	Local		Toronto and East York	2014
16-Eglinton-Lawrence	16-Eglinton-Lawrence	18150	DE VERE GDNS	BROOKE AVE	FELBRIGG AVE	2008	Reconstruction	Local		North York	2013
44-Scarborough East	44-Scarborough East	DH0080	DEANSCROFT SQ	MANSE RD	DEANSCROFT SQ	2009	Resurfacing	Local		Scarborough	2014
26-Don Valley West	26-Don Valley West	18180	DEAUVILLE LANE	GRENOBLE DR	ROCHEFORT DR	2010	Resurfacing	Collector		North York	2015
3-Etobicoke Centre	3-Etobicoke Centre	324600	DECARIE CRCL	DALEGROVE CRES	ANTIOCH DR	2010	Resurfacing	Local		Etobicoke York	2015
3-Etobicoke Centre	3-Etobicoke Centre	324601	DECARIE CRCL	ANTIOCH DR	DECARIE CRCL	2010	Resurfacing	Local		Etobicoke York	2015
34-Don Valley East	34-Don Valley East	18290	DEERPATH RD	AVONWICK GT	RUSTYWOOD DR	2009	Resurfacing	Local		North York	2014
04-Etobicoke Centre	04-Etobicoke Centre	206100	DEETH DR	MCMANUS RD	[115 m W] MCMANUS RD	2011	Resurfacing	Local		Etobicoke York	2016
16-Eglinton-Lawrence	16-Eglinton-Lawrence	02104.000	DELORAINE AVE	ELM RD	[78 m W] ELM RD [CITY LIMITS]	2010	Resurfacing	Local		North York	2015
16-Eglinton-Lawrence	16-Eglinton-Lawrence	18440	DELORAINE AVE	CITY LIMIT	AVENUE RD	2010	Resurfacing	Local		North York	2015
11-York South-Weston	11-York South-Weston	30452.000	DENISON RD W	WESTON RD	SYKES AVE	2009	Reconstruction	Local		Etobicoke York	2014
11-York South-Weston	11-York South-Weston	30453.000	DENISON RD W	SYKES AVE	LIPPINCOTT ST W	2009	Reconstruction	Local		Etobicoke York	2014
11-York South-Weston	11-York South-Weston	30454.000	DENISON RD W	LIPPINCOTT ST W	CLOUSTON AVE	2009	Reconstruction	Local		Etobicoke York	2014
31-Beaches-East York	31-Beaches-East York	20399.000	DENTONIA PARK AVE	DAWES RD	MARYLAND BLVD	2009	Resurfacing	Local		Toronto and East York	2014
31-Beaches-East York	31-Beaches-East York	20401.000	DENTONIA PARK AVE	MARYLAND BLVD	AVONLEA BLVD	2009	Resurfacing	Local		Toronto and East York	2014
44-Scarborough East	44-Scarborough East	EF0100	DEREK DR	DEEP DENE DR	DEEP DENE DR	2011	Resurfacing	Local		Scarborough	2016
19-Trinity-Spadina	19-Trinity-Spadina	02129.000	DEWSON ST	CRAWFORD ST	SHAW ST	2012	Resurfacing	Local	carry over from 2011 to 2012	Toronto and East York	2017
19-Trinity-Spadina	19-Trinity-Spadina	02130.000	DEWSON ST	SHAW ST	ROXTON RD	2012	Resurfacing	Local	carry over from 2011 to 2012	Toronto and East York	2017
19-Trinity-Spadina	19-Trinity-Spadina	02131.000	DEWSON ST	ROXTON RD	OSSINGTON AVE	2012	Resurfacing	Local	carry over from 2011 to 2012	Toronto and East York	2017
19-Trinity-Spadina	19-Trinity-Spadina	02133.000	DEWSON ST	OSSINGTON AVE	CONCORD AVE	2012	Resurfacing	Local	carry over from 2011 to 2012	Toronto and East York	2017
3-Etobicoke Centre	3-Etobicoke Centre	300604	DIMPLEFIELD PL	ERINGATE DR	INVERDON RD	2010	Resurfacing	Local		Etobicoke York	2015
02-Etobicoke North	04-Etobicoke Centre	022-32.1	DIXON RD	[181.30 m W] BRIDESBURG DR	[318.90 m E] KELFIELD ST	2009	Reconstruction	Major Arterial		Etobicoke York	2014
9-York Centre	9-York Centre	18810	DOLORES RD	SPENVALLEY DR	WEDGE CRT	2011	Resurfacing	Local		North York	2016
9-York Centre	9-York Centre	18820	DOMBEY RD	CALICO DR	MAGELLAN DR	2010	Resurfacing	Local		North York	2015
33-Don Valley East	33-Don Valley East	045-06	DON MILLS RD	PARKWAY FOREST DR	SHEPPARD AVE E	2010	Resurfacing	Major Arterial		North York	2015
10-York Centre	10-York Centre	18840	DON RIVER BLVD	SHEPPARD AVE W	[58 m N] SHEPPARD AVE W	2011	Resurfacing	Local		North York	2016
10-York Centre	10-York Centre	18845	DON RIVER BLVD	[E] SHEPPARD AVE W [BRANCH]	[W] SHEPPARD AVE W [BRANCH]	2011	Resurfacing	Local		North York	2016
25-Don Valley West	25-Don Valley West	02163.000	DONCLIFFE DR	GLEN ECHO RD	GLEN ECHO RD (57.5 m N of)	2009	Reconstruction	Local	Carryover from 2008 to 2009	North York	2014
25-Don Valley West	25-Don Valley West	18880	DONINO AVE	BROOKFIELD RD	[151.94 m S] DONWOODS	2012	Reconstruction	Local	carry over from 2011 to 2012	North York	2017
25-Don Valley West	25-Don Valley West	18890	DONINO CRT	DONINO AVE	[60 m E] DONINO AVE [	2012	Reconstruction	Local	carry over from 2011 to 2012	North York	2017
18-Davenport	18-Davenport	02172.000	DORA AVE	ST HELEN'S AVE	[W] DORA AVE [END]	2009	Resurfacing	Local		Toronto and East York	2014
37-Scarborough Centre	37-Scarborough Centre	EP0120	DORCOT AVE	BRIMLEY RD	MIDLAND AVE	2011	Resurfacing	Collector		Scarborough	2016
38-Scarborough Centre	38-Scarborough Centre	FK0050	DORMINGTON DR	ELLESMERE RD	PEGASUS TRL	2011	Resurfacing	Local		Scarborough	2016
36-Scarborough Southwest	36-Scarborough Southwest	CO0160	DORSET RD	KINGSTON RD	HORFIELD AVE	2009	Resurfacing	Local		Scarborough	2014
14-Parkdale-High Park	14-Parkdale-High Park	02175.000	DORVAL RD	EDNA AVE	CHELSEA AVE	2008	Reconstruction	Local		Toronto and East York	2013
29-Toronto-Danforth	29-Toronto-Danforth	20495.000	DOUGLAS CRES	GOVERNORS BDGE	GOVERNOR'S RD	2011	Resurfacing	Local		Toronto and East York	2016
29-Toronto-Danforth	29-Toronto-Danforth	20496.000	DOUGLAS CRES	GOVERNOR'S RD	NESBITT DR	2011	Resurfacing	Local		Toronto and East York	2016
08-York West	08-York West	19230	DOVEHAVEN CRT	SHOREHAM DR	[94 m N] SHOREHAM DR [CUL-DE-SAC]	2009	Resurfacing	Local		North York	2014
18-Davenport	19-Trinity-Spadina	02207.000	DOVERCOURT RD	COLLEGE ST (TO)	DEWSON ST	2009	Resurfacing	Minor Arterial	Carryover from 2008 to 2009	Toronto and East York	2014
18-Davenport	19-Trinity-Spadina	02209.000	DOVERCOURT RD	DEWSON ST	HEPBOURNE ST	2009	Resurfacing	Minor Arterial	Carryover from 2008 to 2009	Toronto and East York	2014
18-Davenport	19-Trinity-Spadina	02210.000	DOVERCOURT RD	HEPBOURNE ST	BLOOR ST W	2009	Resurfacing	Minor Arterial	Carryover from 2008 to 2009	Toronto and East York	2014
39-Scarborough-Agincourt	39-Scarborough-Agincourt	GQ0120	DOWRY ST	REIDMOUNT AVE	[60 m E] REIDMOUNT AVE [END]	2010	Resurfacing	Local		Scarborough	2015
36-Scarborough Southwest	36-Scarborough Southwest	BP0080	DRAKE CRES	SCARBORO CRES	UNDERCLIFF DR	2009	Resurfacing	Local		Scarborough	2014
32-Beaches-East York	32-Beaches-East York	02230.000	DRAYTON AVE	WOODROW AVE	DANFORTH AVE	2011	Resurfacing	Local		Toronto and East York	2016
4-Etobicoke Centre	4-Etobicoke Centre	306804	DRUMOAK RD	BROMLEY CRES	ISLINGTON AVE	2010	Resurfacing	Local		Etobicoke York	2015
18-Davenport	18-Davenport	02236.000	DUBLIN ST	ST HELEN'S AVE	[61 m W] ST HELEN'S AVE	2009	Resurfacing	Local		Toronto and East York	2014
18-Davenport	18-Davenport	02270.000	DUFFERIN ST	BLOOR ST W	SHANLY ST	2009	Resurfacing	Major Arterial		Toronto and East York	2014
18-Davenport	18-Davenport	02272.000	DUFFERIN ST	SHANLY ST	WALLACE AVE	2009	Resurfacing	Major Arterial		Toronto and East York	2014
18-Davenport	18-Davenport	02273.000	DUFFERIN ST	WALLACE AVE	ARMSTRONG AVE	2009	Resurfacing	Major Arterial		Toronto and East York	2014
18-Davenport	18-Davenport	02274.000	DUFFERIN ST	ARMSTRONG AVE	MILLICENT ST	2009	Resurfacing	Major Arterial		Toronto and East York	2014
18-Davenport	18-Davenport	02275.000	DUFFERIN ST	MILLICENT ST	HALLAM ST	2009	Resurfacing	Major Arterial		Toronto and East York	2014
18-Davenport	18-Davenport	02276.000	DUFFERIN ST	HALLAM ST	LAPPIN AVE	2009	Resurfacing	Major Arterial		Toronto and East York	2014
18-Davenport	18-Davenport	02277.000	DUFFERIN ST	LAPPIN AVE	DUPONT ST	2009	Resurfacing	Major Arterial		Toronto and East York	2014
34-Don Valley East	34-Don Valley East	19580	DUMAS CRT	RUSTYWOOD DR	N END	2009	Resurfacing	Local		North York	2014
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	02312.000	DUNDAS ST E	YONGE ST	O'KEEFE LANE	2007	Reconstruction	Major Arterial		Toronto and East York	2012
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	02313.000	DUNDAS ST E	O'KEEFE LANE	VICTORIA ST (TO)	2007	Reconstruction	Major Arterial		Toronto and East York	2012
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	02314.000	DUNDAS ST E	VICTORIA ST (TO)	VICTORIA STREET LANE	2007	Reconstruction	Major Arterial		Toronto and East York	2012
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	02316.000	DUNDAS ST E	BOND ST	CHURCH ST	2007	Reconstruction	Major Arterial		Toronto and East York	2012
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	02317.000	DUNDAS ST E	CHURCH ST	DALHOUSIE ST	2007	Reconstruction	Major Arterial		Toronto and East York	2012
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	02318.000	DUNDAS ST E	DALHOUSIE ST	MUTUAL ST	2007	Reconstruction	Major Arterial		Toronto and East York	2012
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	02319.000	DUNDAS ST E	MUTUAL ST	JARVIS ST	2007	Reconstruction	Major Arterial		Toronto and East York	2012
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	02320.000	DUNDAS ST E	JARVIS ST	GEORGE ST (TO)	2007	Reconstruction	Major Arterial		Toronto and East York	2012
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	02321.000	DUNDAS ST E	GEORGE ST (TO)	PEMBROKE ST	2007	Reconstruction	Major Arterial		Toronto and East York	2012
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	02322.000	DUNDAS ST E	PEMBROKE ST	SHERBOURNE ST	2007	Reconstruction	Major Arterial		Toronto and East York	2012
28-Toronto Centre-Rosedale	28-Toronto Centre-Rosedale	02323.000	DUNDAS ST E	SHERBOURNE ST	SEATON ST	2007	Reconstruction	Major Arterial		Toronto and East York	2012
28-Toronto Centre-Rosedale	28-Toronto Centre-Rosedale	02324.000	DUNDAS ST E	SEATON ST	ONTARIO ST	2007	Reconstruction	Major Arterial		Toronto and East York	2012
28-Toronto Centre-Rosedale	28-Toronto Centre-Rosedale	02325.000	DUNDAS ST E	ONTARIO ST	MILAN ST	2007	Reconstruction	Major Arterial		Toronto and East York	2012
28-Toronto Centre-Rosedale	28-Toronto Centre-Rosedale	02326.000	DUNDAS ST E	MILAN ST	BERKELEY ST	2007	Reconstruction	Major Arterial		Toronto and East York	2012
28-Toronto Centre-Rosedale	28-Toronto Centre-Rosedale	02327.000	DUNDAS ST E	BERKELEY ST	POULETT ST	2007	Reconstruction	Major Arterial		Toronto and East York	2012
28-Toronto Centre-Rosedale	28-Toronto Centre-Rosedale	02328.000	DUNDAS ST E	POULETT ST	PARLIAMENT ST	2007	Reconstruction	Major Arterial		Toronto and East York	2012
28-Toronto Centre-Rosedale	28-Toronto Centre-Rosedale	02329.000	DUNDAS ST E	PARLIAMENT ST	ARNOLD AVE	2007	Reconstruction	Major Arterial		Toronto and East York	2012
28-Toronto Centre-Rosedale	28-Toronto Centre-Rosedale	02331.000	DUNDAS ST E	REGENT ST	PASHLER AVE	2007	Construction	Major Arterial		Toronto and East York	2012
28-Toronto Centre-Rosedale	28-Toronto Centre-Rosedale	02332.000	DUNDAS ST E	PASHLER AVE	SACKVILLE ST PVT	2007	Reconstruction	Major Arterial		Toronto and East York	2012
28-Toronto Centre-Rosedale	28-Toronto Centre-Rosedale	02333.000	DUNDAS ST E	SACKVILLE ST PVT	[W] BELSHAW PL [BRANCH]	2007	Reconstruction	Major Arterial		Toronto and East York	2012
28-Toronto Centre-Rosedale	28-Toronto Centre-Rosedale	02334.000	DUNDAS ST E	[E] BELSHAW PL [BRANCH]	SUMACH ST PVT	2007	Reconstruction	Major Arterial		Toronto and East York	2012
28-Toronto Centre-Rosedale	28-Toronto Centre-Rosedale	02335.000	DUNDAS ST E	SUMACH ST PVT	[W] WHITESIDE PL [LEG]	2007	Reconstruction	Major Arterial		Toronto and East York	2012

2012 MORATORIUM LIST OF ROADS

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Expiration Date is December 31, YEAR

WARD		SECTION	LOCATION			COMPLETED		FUNCTIONAL	REMARKS	DISTRICT	EXPIRATION
Even	Odd	ID	Street	From	To	YEAR	WORK	CLASS	(for carry over, deferred, delayed work)		DATE
17-Davenport	17-Davenport	12343.200	[106.70 m N] LINDNER ST	MILLER ST	[32 m W] MILLER ST	2010	Reconstruction	Laneway		Etobicoke York	2015
19-Trinity-Spadina	19-Trinity-Spadina	11564.000	[107.80 m S] HARBORD ST	MANNING AVE (TO)	CLINTON ST	2011	Resurfacing	Laneway		Toronto and East York	2016
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	02379.000	DUNDAS ST W	YONGE ST	BAY ST	2007	Reconstruction	Major Arterial		Toronto and East York	2012
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	02380.000	DUNDAS ST W	BAY ST	ELIZABETH ST (TO)	2007	Reconstruction	Major Arterial		Toronto and East York	2012
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	02381.000	DUNDAS ST W	ELIZABETH ST (TO)	CHESTNUT ST	2007	Reconstruction	Major Arterial		Toronto and East York	2012
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	02382.000	DUNDAS ST W	CHESTNUT ST	CENTRE AVE (TO)	2007	Reconstruction	Major Arterial		Toronto and East York	2012
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	02383.000	DUNDAS ST W	CENTRE AVE (TO)	[E] UNIVERSITY AVE [BRANCH]	2007	Reconstruction	Major Arterial		Toronto and East York	2012
20-Trinity-Spadina	20-Trinity-Spadina	02384.000	DUNDAS ST W	[E] UNIVERSITY AVE [BRANCH]	[W] UNIVERSITY AVE [BRANCH]	2007	Reconstruction	Major Arterial		Toronto and East York	2012
20-Trinity-Spadina	20-Trinity-Spadina	02385.000	DUNDAS ST W	[W] UNIVERSITY AVE [BRANCH]	SIMCOE ST	2007	Reconstruction	Major Arterial		Toronto and East York	2012
20-Trinity-Spadina	20-Trinity-Spadina	02386.000	DUNDAS ST W	SIMCOE ST	ST PATRICK ST	2007	Reconstruction	Major Arterial		Toronto and East York	2012
20-Trinity-Spadina	20-Trinity-Spadina	02387.000	DUNDAS ST W	ST PATRICK ST	MC CAUL ST	2007	Reconstruction	Major Arterial		Toronto and East York	2012
20-Trinity-Spadina	20-Trinity-Spadina	02388.000	DUNDAS ST W	MC CAUL ST	BEVERLEY ST	2007	Reconstruction	Major Arterial		Toronto and East York	2012
20-Trinity-Spadina	20-Trinity-Spadina	02389.000	DUNDAS ST W	BEVERLEY ST	GRANGE PL	2007	Reconstruction	Major Arterial		Toronto and East York	2012
20-Trinity-Spadina	20-Trinity-Spadina	02389.500	DUNDAS ST W	GRANGE PL	HURON ST	2007	Reconstruction	Major Arterial		Toronto and East York	2012
20-Trinity-Spadina	20-Trinity-Spadina	02390.000	DUNDAS ST W	HURON ST	LARCH ST	2007	Reconstruction	Major Arterial		Toronto and East York	2012
20-Trinity-Spadina	20-Trinity-Spadina	02391.000	DUNDAS ST W	LARCH ST	SPADINA AVE	2007	Reconstruction	Major Arterial		Toronto and East York	2012
20-Trinity-Spadina	20-Trinity-Spadina	02392.000	DUNDAS ST W	SPADINA AVE	KENSINGTON AVE (TO)	2007	Reconstruction	Major Arterial		Toronto and East York	2012
20-Trinity-Spadina	20-Trinity-Spadina	02393.000	DUNDAS ST W	KENSINGTON AVE (TO)	AUGUSTA AVE	2007	Reconstruction	Major Arterial		Toronto and East York	2012
20-Trinity-Spadina	20-Trinity-Spadina	02394.000	DUNDAS ST W	AUGUSTA AVE	DENISON AVE	2007	Reconstruction	Major Arterial		Toronto and East York	2012
20-Trinity-Spadina	20-Trinity-Spadina	02395.000	DUNDAS ST W	DENISON AVE	HICKORY ST	2007	Reconstruction	Major Arterial		Toronto and East York	2012
20-Trinity-Spadina	20-Trinity-Spadina	02397.000	DUNDAS ST W	CASIMIR ST	CARLYLE ST	2007	Reconstruction	Major Arterial		Toronto and East York	2012
20-Trinity-Spadina	20-Trinity-Spadina	02398.000	DUNDAS ST W	[W] CARLYLE ST [BRANCH]	BATHURST ST	2007	Reconstruction	Major Arterial		Toronto and East York	2012
19-Trinity-Spadina	19-Trinity-Spadina	02399.010	DUNDAS ST W	COLLEGE PL	MARKHAM ST	2011	Resurfacing	Major Arterial		Toronto and East York	2016
19-Trinity-Spadina	19-Trinity-Spadina	02400.000	DUNDAS ST W	MARKHAM ST	PALMERSTON AVE	2011	Resurfacing	Major Arterial		Toronto and East York	2016
19-Trinity-Spadina	19-Trinity-Spadina	02401.000	DUNDAS ST W	PALMERSTON AVE	EUCLID AVE (TO)	2011	Resurfacing	Major Arterial		Toronto and East York	2016
19-Trinity-Spadina	19-Trinity-Spadina	02402.000	DUNDAS ST W	EUCLID AVE (TO)	MANNING AVE (TO)	2011	Resurfacing	Major Arterial		Toronto and East York	2016
19-Trinity-Spadina	19-Trinity-Spadina	02403.000	DUNDAS ST W	MANNING AVE (TO)	CLAREMONT ST	2011	Resurfacing	Major Arterial		Toronto and East York	2016
19-Trinity-Spadina	19-Trinity-Spadina	02404.000	DUNDAS ST W	CLAREMONT ST	ST MATHIAS PL	2011	Resurfacing	Major Arterial		Toronto and East York	2016
19-Trinity-Spadina	19-Trinity-Spadina	02404.010	DUNDAS ST W	ST MATHIAS PL	BELLWOODS AVE	2011	Resurfacing	Major Arterial		Toronto and East York	2016
19-Trinity-Spadina	19-Trinity-Spadina	02405.000	DUNDAS ST W	BELLWOODS AVE	GORE VALE AVE	2011	Resurfacing	Major Arterial		Toronto and East York	2016
19-Trinity-Spadina	19-Trinity-Spadina	02406.000	DUNDAS ST W	GORE VALE AVE	GRACE ST (TO)	2011	Resurfacing	Major Arterial		Toronto and East York	2016
19-Trinity-Spadina	19-Trinity-Spadina	02407.000	DUNDAS ST W	GRACE ST (TO)	BEATRICE ST	2011	Resurfacing	Major Arterial		Toronto and East York	2016
19-Trinity-Spadina	19-Trinity-Spadina	02408.000	DUNDAS ST W	BEATRICE ST	MONTROSE AVE	2011	Resurfacing	Major Arterial		Toronto and East York	2016
19-Trinity-Spadina	19-Trinity-Spadina	02409.000	DUNDAS ST W	MONTROSE AVE	CRAWFORD ST	2011	Resurfacing	Major Arterial		Toronto and East York	2016
19-Trinity-Spadina	19-Trinity-Spadina	02410.000	DUNDAS ST W	CRAWFORD ST	SHAW ST	2011	Resurfacing	Major Arterial		Toronto and East York	2016
19-Trinity-Spadina	19-Trinity-Spadina	02411.000	DUNDAS ST W	SHAW ST	ROXTON RD	2011	Resurfacing	Major Arterial		Toronto and East York	2016
19-Trinity-Spadina	19-Trinity-Spadina	02412.000	DUNDAS ST W	ROXTON RD	OSSINGTON AVE	2011	Resurfacing	Major Arterial		Toronto and East York	2016
19-Trinity-Spadina	19-Trinity-Spadina	02413.000	DUNDAS ST W	OSSINGTON AVE	LAKEVIEW AVE	2011	Resurfacing	Minor Arterial		Toronto and East York	2016
19-Trinity-Spadina	19-Trinity-Spadina	02414.000	DUNDAS ST W	LAKEVIEW AVE	GROVE AVE	2011	Resurfacing	Minor Arterial		Toronto and East York	2016
19-Trinity-Spadina	19-Trinity-Spadina	02415.000	DUNDAS ST W	GROVE AVE	SKEY LANE	2011	Resurfacing	Minor Arterial		Toronto and East York	2016
19-Trinity-Spadina	19-Trinity-Spadina	02415.010	DUNDAS ST W	SKEY LANE	DOVERCOURT RD	2011	Resurfacing	Minor Arterial		Toronto and East York	2016
18-Davenport	18-Davenport	02416.000	DUNDAS ST W	DOVERCOURT RD	COOLMINE RD	2011	Resurfacing	Minor Arterial		Toronto and East York	2016
18-Davenport	18-Davenport	02417.000	DUNDAS ST W	COOLMINE RD	LISGAR ST	2011	Resurfacing	Minor Arterial		Toronto and East York	2016
18-Davenport	18-Davenport	02418.000	DUNDAS ST W	RUSHOLME RD	BEACONSFIELD AVE	2011	Resurfacing	Minor Arterial		Toronto and East York	2016
18-Davenport	18-Davenport	02419.000	DUNDAS ST W	BEACONSFIELD AVE	GLADSTONE AVE	2011	Resurfacing	Minor Arterial		Toronto and East York	2016
18-Davenport	18-Davenport	02420.000	DUNDAS ST W	GLADSTONE AVE	FEDERAL ST	2011	Resurfacing	Minor Arterial		Toronto and East York	2016
18-Davenport	18-Davenport	02421.000	DUNDAS ST W	FEDERAL ST	DUFFERIN ST	2011	Resurfacing	Minor Arterial		Toronto and East York	2016
18-Davenport	18-Davenport	02422.000	DUNDAS ST W	DUFFERIN ST	SHERIDAN AVE	2011	Resurfacing	Minor Arterial		Toronto and East York	2016
18-Davenport	18-Davenport	02423.000	DUNDAS ST W	SHERIDAN AVE	BROCK AVE	2011	Resurfacing	Minor Arterial		Toronto and East York	2016
18-Davenport	18-Davenport	02424.000	DUNDAS ST W	BROCK AVE	MARGUERETTA ST	2011	Resurfacing	Minor Arterial		Toronto and East York	2016
18-Davenport	18-Davenport	02425.000	DUNDAS ST W	MARGUERETTA ST	ST CLARENS AVE	2011	Resurfacing	Minor Arterial		Toronto and East York	2016
18-Davenport	18-Davenport	02427.000	DUNDAS ST W	ST CLARENS AVE	LANSDOWNE AVE (TO)	2011	Resurfacing	Minor Arterial		Toronto and East York	2016
18-Davenport	18-Davenport	02429.000	DUNDAS ST W	LANSDOWNE AVE (TO)	COLLEGE ST (TO)	2011	Resurfacing	Minor Arterial		Toronto and East York	2016
14-Parkdale-High Park	14-Parkdale-High Park	02436.000	DUNDAS ST W	SORAUREN AVE	PARKWAY AVE	2011	Resurfacing	Minor Arterial		Toronto and East York	2016
14-Parkdale-High Park	14-Parkdale-High Park	02437.000	DUNDAS ST W	PARKWAY AVE	MORROW AVE	2011	Resurfacing	Minor Arterial		Toronto and East York	2016
14-Parkdale-High Park	14-Parkdale-High Park	02438.000	DUNDAS ST W	MORROW AVE	LYND AVE	2011	Resurfacing	Minor Arterial		Toronto and East York	2016
14-Parkdale-High Park	14-Parkdale-High Park	02439.000	DUNDAS ST W	LYND AVE	HOWARD PARK AVE	2011	Resurfacing	Minor Arterial		Toronto and East York	2016
14-Parkdale-High Park	14-Parkdale-High Park	02443.100	DUNDAS ST W	BLOOR ST W	RONCESVALLES AVE	2011	Grind & Pave	Major Arterial	Grind & Pave under the U-cut repair contracts.	Toronto and East York	2014
20-Trinity-Spadina	20-Trinity-Spadina	20397.100	DUNDAS ST W	CARLYLE ST	[W] CARLYLE ST [BRANCH]	2007	Reconstruction	Major Arterial		Toronto and East York	2012
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	02474.000	DUNDONALD ST	CHURCH ST	YONGE ST	2011	Grind & Pave	Local	Grind & Pave under the U-cut repair contracts.	Toronto and East York	2014
25-Don Valley West	25-Don Valley West	19710	DUNLACE DR	BANNATYNE DR	DAVEAN DR	2009	Resurfacing	Local		North York	2014
22-St. Paul's	22-St. Paul's	02483.000	DUNLOE RD	ARCHER RD	OLD FOREST HILL RD	2010	Resurfacing	Local		Toronto and East York	2015
4-Etobicoke Centre	4-Etobicoke Centre	210205	DUNSANY CRES	WATERBURY DR	WATERBURY DR	2010	Resurfacing	Local		Etobicoke York	2015
22-St. Paul's	22-St. Paul's	02498.000	DUPLEX AVE	CHAPLIN CRES	IMPERIAL ST	2009	Resurfacing	Collector		Toronto and East York	2014
22-St. Paul's	22-St. Paul's	02500.000	DUPLEX AVE	GLEBE RD W	TRANMER AVE	2009	Resurfacing	Collector		Toronto and East York	2014
22-St. Paul's	22-St. Paul's	20499.000	DUPLEX AVE	IMPERIAL ST	GLEBE RD W	2009	Resurfacing	Collector		Toronto and East York	2014
32-Beaches-East York	32-Beaches-East York	02585.000	DUVERNET AVE	BELLHAVEN RD	NORMANDY BLVD	2009	Resurfacing	Local		Toronto and East York	2014
32-Beaches-East York	32-Beaches-East York	02586.000	DUVERNET AVE	NORMANDY BLVD	KINGSMOUNT PARK RD	2009	Resurfacing	Local		Toronto and East York	2014
32-Beaches-East York	32-Beaches-East York	02587.000	DUVERNET AVE	KINGSMOUNT PARK RD	GLENMORE RD	2009	Resurfacing	Local		Toronto and East York	2014
32-Beaches-East York	32-Beaches-East York	02588.000	DUVERNET AVE	GLENMORE RD	WOODBINE AVE	2009	Resurfacing	Local		Toronto and East York	2014
32-Beaches-East York	32-Beaches-East York	02589.000	DUVERNET AVE	WOODBINE AVE	GOLFVIEW AVE	2009	Resurfacing	Local		Toronto and East York	2014
25-Don Valley West	25-Don Valley West	19810	EALING DR	BANNATYNE DR	STUBBS DR	2009	Resurfacing	Local		North York	2014
30-Toronto-Danforth	30-Toronto-Danforth	02590.000	EARLGREY RD	SHUDELL AVE	DAWSON AVE	2012	Resurfacing	Local	carry over from 2011 to 2012	Toronto and East York	2017
30-Toronto-Danforth	30-Toronto-Danforth	02591.000	EARLGREY RD	DAWSON AVE	BAIRD AVE	2012	Resurfacing	Local	carry over from 2011 to 2012	Toronto and East York	2017
30-Toronto-Danforth	30-Toronto-Danforth	02592.000	EARLGREY RD	BAIRD AVE	RAVINA CRES	2012	Resurfacing	Local	carry over from 2011 to 2012	Toronto and East York	2017
05-Etobicoke-Lakeshore	05-Etobicoke-Lakeshore	314800	EARLINGTON AVE	GOVERNMENT RD	DUNDAS ST	2008	Reconstruction	Local		Etobicoke York	2013
17-Davenport	17-Davenport	02598.000	EARLSCOURT AVE	ASCOT AVE	HOPE ST	2010	Resurfacing	Collector		Etobicoke York	2015
17-Davenport	17-Davenport	02599.000	EARLSCOURT AVE	HOPE ST	MORRISON AVE	2010	Resurfacing	Local		Etobicoke York	2015
17-Davenport	17-Davenport	02600.000	EARLSCOURT AVE	MORRISON AVE	[23.30 m N] MORRISON AVE [CITY LIMIT	2010	Resurfacing	Local		Etobicoke York	2015
17-Davenport	17-Davenport	30534	EARLSCOURT AVE	[23.30 m N] MORRISON AVE [C	ROGERS RD	2010	Resurfacing	Local		Etobicoke York	2015
21-St. Paul's	21-St. Paul's	30539.000	EARLSDALE AVE	ARLINGTON AVE	WINNETT AVE	2009	Resurfacing	Local		Toronto and East York	2014
21-St. Paul's	21-St. Paul's	30540.000	EARLSDALE AVE	WINNETT AVE	ATLAS AVE	2009	Resurfacing	Local		Toronto and East York	2014
21-St. Paul's	21-St. Paul's	30541.000	EARLSDALE AVE	ATLAS AVE	WINONA DR	2009	Resurfacing	Local		Toronto and East York	2014
44-Scarborough East	44-Scarborough East	EB0131	EAST AVE	LAWRENCE AVE E	EAST WILLOW GT	2011	Resurfacing	Collector		Scarborough	2016
44-Scarborough East	44-Scarborough East	EB0135	EAST AVE	EAST WILLOW GT	RIDGEWOOD RD	2011	Resurfacing	Collector		Scarborough	2016
31-Beaches-East York	31-Beaches-East York	20511.000	EASTDALE AVE	SECORD AVE	GOODWOOD PARK CRES	2009	Resurfacing	Collector		Toronto and East York	2014
31-Beaches-East York	31-Beaches-East York	20512.000	EASTDALE AVE	GOODWOOD PARK CRES	LUMSDEN AVE	2009	Resurfacing	Collector		Toronto and East York	2014
28-Toronto Centre-Roseda	28-Toronto Centre-Rosedal	02618.000	EASTERN AVE	FRONT ST E	TRINITY ST	2012	Resurfacing	Minor Arterial	carry over from 2011 to 2012	Toronto and East York	2017
28-Toronto Centre-Roseda	28-Toronto Centre-Rosedal	02619.000	EASTERN AVE	TRINITY ST	GILEAD PL	2012	Resurfacing	Minor Arterial	carry over from 2011 to 2012	Toronto and East York	2017
28-Toronto Centre-Roseda	28-Toronto Centre-Rosedal	02620.000	EASTERN AVE	GILEAD PL	SACKVILLE ST	2012	Resurfacing	Minor Arterial	carry over from 2011 to 2012	Toronto and East York	2017
28-Toronto Centre-Roseda	28-Toronto Centre-Rosedal	02621.000	EASTERN AVE	SACKVILLE ST	CHERRY ST	2012	Resurfacing	Minor Arterial	carry over from 2011 to 2012	Toronto and East York	2017
28-Toronto Centre-Roseda	28-Toronto Centre-Rosedal	02622.000	EASTERN AVE	CHERRY ST	SUMACH ST	2012	Resurfacing	Minor Arterial	carry over from 2011 to 2012	Toronto and East York	2017
32-Beaches-East York	32-Beaches-East York	02661.000	EASTWOOD RD	COXWELL AVE	GAINSBOROUGH RD	2010	Reconstruction	Collector		Toronto and East York	2015
32-Beaches-East York	32-Beaches-East York	02662.000	EASTWOOD RD	GAINSBOROUGH RD	HIGHCROFT RD	2010	Reconstruction	Collector		Toronto and East York	2015
32-Beaches-East York	32-Beaches-East York	02663.000	EASTWOOD RD	HIGHCROFT RD	EDGEWOOD AVE	2010	Reconstruction	Collector		Toronto and East York	2015
32-Beaches-East York	32-Beaches-East York	02664.000	EASTWOOD RD	EDGEWOOD AVE	[19.30 m W] BOWMORE RD	2010	Reconstruction	Collector		Toronto and East York	2015
32-Beaches-East York	32-Beaches-East York	02664.100	EASTWOOD RD	[19.30 m W] BOWMORE RD	BOWMORE RD	2010	Resurfacing	Collector		Toronto and East York	2015
32-Beaches-East York	32-Beaches-East York	02665.000	EASTWOOD RD	BOWMORE RD	[N-S] EASTWOOD RD [LEG]	2010	Resurfacing	Collector		Toronto and East York	2015

2012 MORATORIUM LIST OF ROADS

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WARD Even	Odd	SECTION ID	LOCATION Street	From	To	COMPLETED YEAR	WORK	FUNCTIONAL CLASS	REMARKS (for carry over, deferred, delayed work)	DISTRICT	EXPIRATION DATE
17-Davenport	17-Davenport	12343.200	[106.70 m N] LINDNER ST	MILLER ST	[32 m W] MILLER ST	2010	Reconstruction	Laneway		Etobicoke York	2015
19-Trinity-Spadina	19-Trinity-Spadina	11564.000	[107.80 m S] HARBORD ST	MANNING AVE (TO)	CLINTON ST	2011	Resurfacing	Laneway		Toronto and East York	2016
32-Beaches-East York	32-Beaches-East York	02668.000	EASTWOOD RD	[N-S] EASTWOOD RD [LEG]	NORMANDY BLVD	2010	Resurfacing	Collector		Toronto and East York	2015
11-York South-Weston	11-York South-Weston	30550.000	EDINBOROUGH CRT	EDINBOROUGH CRT	EDINBOROUGH CRT	2010	Resurfacing	Local		Etobicoke York	2015
11-York South-Weston	11-York South-Weston	30551.000	EDINBOROUGH CRT	SCARLETT RD (YK)	EDINBOROUGH CRT	2010	Resurfacing	Local		Etobicoke York	2015
14-Parkdale-High Park	14-Parkdale-High Park	02701.000	EDNA AVE	DORVAL RD	INDIAN RD	2008	Reconstruction	Local		Toronto and East York	2013
26-Don Valley West	26-Don Valley West	018-10	EGLINTON AVE E	LAIRD DR	BAYVIEW AVE	2009	Resurfacing	Local		North York	2014
03-Etobicoke Centre	03-Etobicoke Centre	018-30	EGLINTON AVE.W	RENFORTH DR	ETOBICOKE CREEK	2011	Resurfacing	Major Arterial		Etobicoke York	2016
06-Etobicoke-Lakeshore	06-Etobicoke-Lakeshore	414307	EIGHTH ST	EMERALD CRES	LAKESHORE BLVD	2011	Resurfacing	Local		Etobicoke York	2016
21-St. Paul's	21-St. Paul's	02778.000	ELDERWOOD DR	ROSEMARY RD	RICHVIEW AVE	2011	Reconstruction	Local		Toronto and East York	2016
21-St. Paul's	21-St. Paul's	02779.000	ELDERWOOD DR	RICHVIEW AVE	BATHURST ST	2011	Reconstruction	Local		Toronto and East York	2016
37-Scarborough Centre	37-Scarborough Centre	DT0090	ELECTRO RD	SHERWOOD AVE (SC)	WAYNE AVE	2010	Reconstruction	Local		Scarborough	2015
40-Scarborough-Agincourt	37-Scarborough Centre	024-07	ELLESMERE RD	KENNEDY RD	WARDEN AVE	2007	Reconstruction	Major Arterial		Scarborough	2012
25-Don Valley West	25-Don Valley West	20180	ELLIOTWOOD CRT	WOODSWORTH RD	[150 m W] WOODSWORTH RD [CUL-DE-SAC	2009	Resurfacing	Local		North York	2014
27-Toronto Centre-Roseda	27-Toronto Centre-Rosedal	02862.400	ELM ST	YONGE ST	[116 m W] YONGE ST	2010	Resurfacing	Collector		Toronto and East York	2015
27-Toronto Centre-Roseda	27-Toronto Centre-Rosedal	02862.600	ELM ST	[116 m W] YONGE ST	BAY ST	2010	Resurfacing	Collector		Toronto and East York	2015
04-Etobicoke Centre	04-Etobicoke Centre	314301	ELMVIEW CRT	ALLANBROOKE DR	[54 m E] ALLANBROOKE DR [CUL-DE-SAC]	2009	Resurfacing	Local		Etobicoke York	2014
6-Etobicoke-Lakeshore	6-Etobicoke-Lakeshore	411502	ELTON CRES	LAKE PROMENADE	ARCADIAN CRCL	2011	Resurfacing	Local	carry over from 2010 to 2011	Etobicoke York	2016
18-Davenport	18-Davenport	02895.000	EMERSON AVE	WALLACE AVE	ARMSTRONG AVE	2008	Reconstruction	Collector		Toronto and East York	2013
18-Davenport	18-Davenport	02896.000	EMERSON AVE	ARMSTRONG AVE	MILLICENT ST	2008	Reconstruction	Collector		Toronto and East York	2013
18-Davenport	18-Davenport	02897.000	EMERSON AVE	MILLICENT ST	LAPPIN AVE	2008	Reconstruction	Collector		Toronto and East York	2013
23-Willowdale	23-Willowdale	20390	EMPRESS AVE	YONGE ST	DORIS AVE	2010	Resurfacing	Collector		North York	2015
23-Willowdale	23-Willowdale	20400	EMPRESS AVE	DORIS AVE	WILLOWDALE AVE	2010	Resurfacing	Collector		North York	2015
23-Willowdale	23-Willowdale	20410	EMPRESS AVE	WILLOWDALE AVE	BAYVIEW AVE	2010	Resurfacing	Collector		North York	2015
3-Etobicoke Centre	3-Etobicoke Centre	004900	ERINGATE DR	WELLESWORTH DR	RENFORTH DR	2010	Resurfacing	Collector		Etobicoke York	2015
3-Etobicoke Centre	3-Etobicoke Centre	018100	ERINGATE DR	ERINGATE E 427 C S RAMP	WELLESWORTH DR	2010	Resurfacing	Collector		Etobicoke York	2015
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	02911.000	ERRINGTON AVE	ROSEDALE HEIGHTS DR	GARFIELD AVE	2011	Resurfacing	Local	carry over from 2011 to 2012	Toronto and East York	2016
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	02912.000	ERRINGTON AVE	GARFIELD AVE	INGLEWOOD DR	2011	Resurfacing	Local	carry over from 2011 to 2012	Toronto and East York	2016
33- Don Valley East	33- Don Valley East	20650	ESTERBROOK RD	SHAUGHNESSY BLVD	200 m EAST (Approx)	2011	Grind & Pave	Arterial	Grind & Pave under the U-cut repair contracts.	North York	2014
40-Scarborough-Agincourt	40-Scarborough-Agincourt	GT0140	EVANSWAY ST	BRIDLEWOOD BLVD	RICHBOURNE CRT	2010	Resurfacing	Local		Scarborough	2015
10-York Centre	10-York Centre	20810	FAIRGATE CLSE	TILLINGHAM KEEP	[56 m S] TILLINGHAM KEEP [CUL-DE-SAC]	2011	Resurfacing	Local		North York	2016
15-Eglinton-Lawrence	15-Eglinton-Lawrence	20860	FAIRHOLME AVE	[80 m E] MARLEE AVE	MARLEE AVE	2009	Resurfacing	Local		North York	2014
16-Eglinton-Lawrence	16-Eglinton-Lawrence	02974.000	FAIRLAWN AVE	JEDBURGH RD	GREER RD	2011	Resurfacing	Collector		North York	2016
22-St. Paul's	22-St. Paul's	02991.000	FALCON ST	SOUDAN AVE	EGLINTON AVE E	2011	Resurfacing	Local		Toronto and East York	2016
16-Eglinton-Lawrence	16-Eglinton-Lawrence	21220	FELBRIGG AVE	JOICEY BLVD	GREER RD	2008	Reconstruction	Local		North York	2013
30-Toronto-Danforth	30-Toronto-Danforth	02997.000	FELSTEAD AVE	GREENWOOD AVE	[E] FELSTEAD AVE [END]	2011	Resurfacing	Collector		Toronto and East York	2016
30-Toronto-Danforth	30-Toronto-Danforth	02998.000	FELSTEAD AVE	[E] FELSTEAD AVE [END]	LAMB AVE	2011	Resurfacing	Collector		Toronto and East York	2016
30-Toronto-Danforth	30-Toronto-Danforth	03000.000	FELSTEAD AVE	LAMB AVE	GILLARD AVE	2011	Resurfacing	Collector		Toronto and East York	2016
25-Don Valley West	25-Don Valley West	21350	FENN AVE	YORK MILLS RD	OWEN BLVD	2007	Reconstruction	Collector		North York	2012
19-Trinity-Spadina	19-Trinity-Spadina	03003.000	FENNINGS ST	QUEEN ST. W	[31 m N] QUEEN ST. W	2012	Resurfacing	Local	carry over from 2011 to 2012	Toronto and East York	2017
19-Trinity-Spadina	19-Trinity-Spadina	03003.100	FENNINGS ST	[36.60 m N] QUEEN ST.W	HUMBERT ST	2012	Resurfacing	Local	carry over from 2011 to 2012	Toronto and East York	2017
14-Parkdale-High Park	14-Parkdale-High Park	03005.000	FERMANAGH AVE	SORAUREN AVE	RONCESVALLES AVE	2011	Resurfacing	Local		Toronto and East York	2016
36-Scarborough Southwest	36-Scarborough Southwest	CO0180	FERMOY RD	ST CLAIR AVE E (SC)	WILLAMERE DR	2010	Reconstruction	Local		Scarborough	2015
10-York Centre	10-York Centre	21460	FESTIVAL DR	CARNIVAL CRT	CARNIVAL CRT	2010	Resurfacing	Local		North York	2015
24-Willowdale	33-Don Valley East	030-07	FINCH AVE E	LESLIE ST (N YK)	[E] DON RIVER [BRANCH	2009	Grind & Pave	Major Arterial		North York	2014
24-Willowdale	24-Willowdale	030-08	FINCH AVE E	[E] DON RIVER [BRANCH	BAYVIEW AVE	2009	Grind & Pave	Major Arterial		North York	2014
24-Willowdale	23-Willowdale	030-09	FINCH AVE E	BAYVIEW AVE	YONGE ST	2011	Resurfacing	Major Arterial		North York	2016
42-Scarborough-Rouge River	42-Scarborough-Rouge River	GJ0071	FINCH AVE E	NEILSON RD	[300 m E] NEILSON RD	2008	Construction	Minor Arterial		Scarborough	2013
42-Scarborough-Rouge River	42-Scarborough-Rouge River	GJ0072	FINCH AVE E	[300 m E] NEILSON RD	STAINES RD	2008	Construction	Minor Arterial		Scarborough	2013
3-Etobicoke Centre	3-Etobicoke Centre	319200	FIRESTONE RD	HOLLISTER RD	WELLESWORTH DR	2010	Resurfacing	Local		Etobicoke York	2015
44-Scarborough East	44-Scarborough East	EB0170	FLAGSTONE TER	FRIENDSHIP AVE	FRIENDSHIP AVE	2009	Resurfacing	Local		Scarborough	2014
37-Scarborough Centre	37-Scarborough Centre	ER0270	FORBES RD	PORTSDOWN RD	BLAISDALE RD	2010	Resurfacing	Local		Scarborough	2015
25-Don Valley West	25-Don Valley West	21860	FOREST GLEN CRES	DONCLIFFE DR	MOUNT PLEASANT RD	2009	Reconstruction	Local	Carryover from 2008 to 2009	North York	2014
40-Scarborough-Agincourt	40-Scarborough-Agincourt	GT0160	FORESTBROOK CRES	BOWATER DR	BOWATER DR	2010	Resurfacing	Local		Scarborough	2015
22-St. Paul's	22-St. Paul's	03078.000	FOXBAR RD	AVENUE RD	[N-S] FOXBAR RD [LEG]	2012	Resurfacing	Local	carry over from 2011 to 2012	Toronto and East York	2017
22-St. Paul's	22-St. Paul's	03078.200	FOXBAR RD	[164 m S] ST CLAIR AVE W	[70 m S] ST CLAIR AVE W	2012	Resurfacing	Local	carry over from 2011 to 2012	Toronto and East York	2017
22-St. Paul's	22-St. Paul's	03079.000	FOXBAR RD	[70 m S] ST CLAIR AVE W	ST CLAIR AVE W	2012	Resurfacing	Local	carry over from 2011 to 2012	Toronto and East York	2017
05-Etobicoke-Lakeshore	05-Etobicoke-Lakeshore	310103	FRAME RD	HIGHGATE RD	BELVALE AVE	2011	Resurfacing	Local		Etobicoke York	2016
05-Etobicoke-Lakeshore	05-Etobicoke-Lakeshore	334300	FRAME RD	BELVALE AVE	WESTROSE AVE	2011	Resurfacing	Local		Etobicoke York	2016
28-Toronto Centre-Roseda	28-Toronto Centre-Rosedal	03113.000	FRONT ST E	PARLIAMENT ST	EASTERN AVE	2011	Resurfacing	Minor Arterial		Toronto and East York	2016
14-Parkdale-High Park	14-Parkdale-High Park	03137.000	FULLER AVE	QUEEN ST W	MARION ST	2008	Reconstruction	Local		Toronto and East York	2013
14-Parkdale-High Park	14-Parkdale-High Park	03138.000	FULLER AVE	MARION ST	PEARSON AVE	2008	Reconstruction	Local		Toronto and East York	2013
38-Scarborough Centre	38-Scarborough Centre	EO0160	GABLE PL	PACKARD BLVD	[91 m W] PACKARD BLVD [CUL-DE-SAC W/	2010	Resurfacing	Local		Scarborough	2015
11-York South-Weston	11-York South-Weston	22420	GARY DR	ACADEMY RD	YELLAND ST	2009	Resurfacing	Collector		Etobicoke York	2014
17-Davenport	17-Davenport	03184.000	GEARY AVE	OSSINGTON AVE	SOMERSET AVE	2010	Resurfacing	Collector		Etobicoke York	2015
17-Davenport	17-Davenport	03186.000	GEARY AVE	SOMERSET AVE	DELAWARE AVE N	2010	Resurfacing	Collector		Etobicoke York	2015
17-Davenport	17-Davenport	03187.000	GEARY AVE	DELAWARE AVE N	DOVERCOURT RD	2010	Resurfacing	Collector		Etobicoke York	2015
17-Davenport	17-Davenport	03189.000	GEARY AVE	DOVERCOURT RD	WESTMORELAND AVE N	2009	Resurfacing	Collector		Etobicoke York	2014
17-Davenport	17-Davenport	03191.000	GEARY AVE	WESTMORELAND AVE N	SALEM AVE N	2009	Resurfacing	Collector		Etobicoke York	2014
17-Davenport	17-Davenport	03192.000	GEARY AVE	SALEM AVE N	BARTLETT AVE N	2009	Resurfacing	Collector		Etobicoke York	2014
24-Willowdale	24-Willowdale	22530	GEMINI RD	[350 m S] TOLLERTON AVE [CUL-DE-SAC]	TOLLERTON AVE	2011	Resurfacing	Local		North York	2016
42-Scarborough-Rouge Riv	42-Scarborough-Rouge Rive	GJ0080	GEMSHAW CRES	WICKSON TRL	WICKSON TRL	2010	Resurfacing	Local		Scarborough	2015
31-Beaches-East York	31-Beaches-East York	20614.000	GEORGE WEBSTER RD	HALSEY AVE	CHAPMAN AVE	2009	Resurfacing	Local		Toronto and East York	2014
30-Toronto-Danforth	30-Toronto-Danforth	03242.000	GERRARD ST E	[W] DON RIVER [BRIDGE]	[E] DON RIVER [BRIDGE]	2011	TTC Track Replacement	Minor Arterial		Toronto and East York	2016
32-Beaches-East York	32-Beaches-East York	03299.000	GERRARD ST.E	PICKERING ST	LAWLOR AVE	2011	Grind & Pave	Arterial	Grind & Pave under the U-cut repair contracts.	Toronto and East York	2014
32-Beaches-East York	32-Beaches-East York	03300.000	GERRARD ST.E	LAWLOR AVE	DENGATE RD	2011	Grind & Pave	Arterial	Grind & Pave under the U-cut repair contracts.	Toronto and East York	2014
32-Beaches-East York	32-Beaches-East York	03300.500	GERRARD ST.E	DENGATE RD	SCARBOROUGH RD	2011	Grind & Pave	Arterial	Grind & Pave under the U-cut repair contracts.	Toronto and East York	2014
32-Beaches-East York	32-Beaches-East York	03301.000	GERRARD ST.E	SCARBOROUGH RD	KINGWOOD RD	2011	Grind & Pave	Arterial	Grind & Pave under the U-cut repair contracts.	Toronto and East York	2014
32-Beaches-East York	32-Beaches-East York	03302.000	GERRARD ST.E	KINGWOOD RD	BINGHAM AVE	2011	Grind & Pave	Arterial	Grind & Pave under the U-cut repair contracts.	Toronto and East York	2014
32-Beaches-East York	32-Beaches-East York	03303.000	GERRARD ST.E	BINGHAM RD	VICTORIA PARK	2011	Grind & Pave	Arterial	Grind & Pave under the U-cut repair contracts.	Toronto and East York	2014
17-Davenport	17-Davenport	30749.000	GILBERT AVE	SUMMIT AVE	[N] GILBERT AVE [END]	2010	Reconstruction	Local		Etobicoke York	2015
28-Toronto Centre-Ros	28-Toronto Centre-Ros	03321.000	GILEAD PL	EASTERN AVE	KING ST E	2009	Reconstruction	Local		Toronto and East York	2014
30-Toronto-Danforth	30-Toronto-Danforth	03323.000	GILLARD AVE	FELSTEAD AVE	MOUNTJOY AVE	2011	Resurfacing	Local		Toronto and East York	2016
44-Scarborough East	44-Scarborough East	FE0068	GILLINGHAM ST	[S] BONNYDON CRES [BRANCH]	[N] BONNYDON CRES [END]	2008	Reconstruction	Local		Scarborough	2013
9-York Centre	9-York Centre	22650	GILTSPUR DR	CALICO DR	JANE ST	2010	Resurfacing	Collector		North York	2015
37-Scarborough Centre	37-Scarborough Centre	DR0150	GIVENDALE RD	RANSTONE GDNS	FLORA DR	2010	Resurfacing	Local		Scarborough	2015
02-Etobicoke North	02-Etobicoke North	104806	GLADSMORE CRES	CLEARBROOKE CRCL	CLEARBROOKE CRCL	2009	Resurfacing	Local		Etobicoke York	2014
14-Parkdale-High Park	14-Parkdale-High Park	03474.000	GLENDALE AVE	PARKDALE AVE	GARDEN AVE	2011	Resurfacing	Local		Toronto and East York	2016
14-Parkdale-High Park	14-Parkdale-High Park	03475.000	GLENDALE AVE	GARDEN AVE	WRIGHT AVE	2011	Resurfacing	Local		Toronto and East York	2016
16-Eglinton-Lawrence	16-Eglinton-Lawrence	22950	GLENGARRY AVE	AVENUE RD	GREY RD	2007	Reconstruction	Local		North York	2012
16-Eglinton-Lawrence	16-Eglinton-Lawrence	22970	GLENGARRY AVE	LEDBURY ST	WELLAND RD	2011	Resurfacing	Local		North York	2016
16-Eglinton-Lawrence	16-Eglinton-Lawrence	22980	GLENGARRY AVE	WELLAND RD	BATHURST ST	2011	Resurfacing	Local		North York	2016
12-York South-Weston	12-York South-Weston	30770.000	GLENHAVEN ST	YORE RD	LONBOROUGH AVE	2009	Resurfacing	Local		Etobicoke York	2014
12-York South-Weston	12-York South-Weston	30771.000	GLENHAVEN ST	LONBOROUGH AVE	BEECHBOROUGH AVE	2009	Resurfacing	Local		Etobicoke York	2014
12-York South-Weston	12-York South-Weston	30772.000	GLENHAVEN ST	BEECHBOROUGH AVE	STRATHNAIRN AVE	2009	Resurfacing	Local		Etobicoke York	2014
25-Don Valley West	25-Don Valley West	23130	GLENORCHY RD	[40 m S] SUNCREST DR [END]	PARKLANE CRCL	2009	Cold In Place Recycle	Local		North York	2014
25-Don Valley West	25-Don Valley West	23140	GLENORCHY RD	[90 m S] PARKLANE CRCL	PARKLANE CRCL	2009	Cold In Place Recycle	Local		North York	2014
36-Scarborough Southwest	36-Scarborough Southwest	BP0110	GLENRIDGE RD	CLIFFCREST CRES	CHINE DR	2010	Resurfacing	Local		Scarborough	2015

2012 MORATORIUM LIST OF ROADS | Expiration Date is December 31, YEAR

For Moratorium conditions refer to: http://www.toronto.ca/engineering/mcr/pdf/mcr_municipal_consent_requirements.pdf

WARD Even	Odd	SECTION ID	LOCATION Street	From	To	COMPLETED YEAR	WORK	FUNCTIONAL CLASS	REMARKS (for carry over, deferred, delayed work)	DISTRICT	EXPIRATION DATE
17-Davenport	17-Davenport	12343.200	[106.70 m N] LINDNER ST	MILLER ST	[32 m W] MILLER ST	2010	Reconstruction	Laneway		Etobicoke York	2015
19-Trinity-Spadina	19-Trinity-Spadina	11564.000	[107.80 m S] HARBORD ST	MANNING AVE (TO)	CLINTON ST	2011	Resurfacing	Laneway		Toronto and East York	2016
27-Toronto Centre-Roseda	27-Toronto Centre-Rosedal	03539.000	GLENROSE AVE	CLIFTON RD	[E] GLENROSE AVE [END]	2010	Resurfacing	Local		Toronto and East York	2015
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	03540.000	GLENROSE AVE	MOUNT PLEASANT RD	WELLAND AVE	2010	Resurfacing	Local		Toronto and East York	2015
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	03541.000	GLENROSE AVE	WELLAND AVE	[E] GLENROSE AVE [END]	2010	Resurfacing	Local		Toronto and East York	2015
30-Toronto-Danforth	32-Beaches-East York	03543.000	GLENSIDE AVE	WALPOLE AVE	# 14 GLENSIDE AVE	2011	Grind & Pave	Local		Toronto and East York	2014
33-Don Valley East	33-Don Valley East	23240	GODSTONE RD	FAIRVIEW MALL DR	KINGSLAKE RD	2009	Resurfacing	Local		North York	2014
33-Don Valley East	33-Don Valley East	23250	GODSTONE RD	KINGSLAKE RD	DON MILLS RD	2009	Resurfacing	Local		North York	2014
42-Scarborough-Rouge Riv	42-Scarborough-Rouge Rive	GK0130	GOODLESS CRT	GRIFFEN DR	[183 m S] GRIFFEN DR [CUL-DE-SAC W/	2010	Resurfacing	Local		Scarborough	2015
01-Etobicoke North	01-Etobicoke North	108601	GOODMARK PL	STEINWAY BLVD	[358 m E] STEINWAY BLVD [CUL-DE-SAC]	2007	Reconstruction	Local		Etobicoke York	2012
5-Etobicoke-Lakeshore	5-Etobicoke-Lakeshore	312102	GORDON PARK DR	LATTON RD	THE EAST MALL	2010	Resurfacing	Local		Etobicoke York	2015
19-Trinity-Spadina	19-Trinity-Spadina	03574.000	GORE VALE AVE	QUEEN ST W	[487.70 m N] QUEEN ST W	2011	Resurfacing	Local		Toronto and East York	2016
19-Trinity-Spadina	19-Trinity-Spadina	03575.000	GORE VALE AVE	[487.70 m N] QUEEN ST W	DUNDAS ST W	2011	Resurfacing	Local		Toronto and East York	2016
19-Trinity-Spadina	19-Trinity-Spadina	03574.000	GORE VALE ST	QUEEN ST. W	[487.70 m N] QUEEN ST. W	2012	Resurfacing	Local	carry over from 2011 to 2012	Toronto and East York	2017
19-Trinity-Spadina	19-Trinity-Spadina	03575.000	GORE VALE ST	[487.70 m N] QUEEN ST.W	DUNDAS ST.W	2012	Resurfacing	Local	carry over from 2011 to 2012	Toronto and East York	2017
2-Etobicoke North	2-Etobicoke North	102401	GOSFIELD GT	ISLINGTON AVE	PAKENHAM DR	2010	Resurfacing	Local		Etobicoke York	2015
42-Scarborough-Rouge Riv	42-Scarborough-Rouge Rive	FK0090	GOSKIN CRT	BURROWS HALL BLVD	[120 m W] BURROWS HALL BLVD [CUL-DE-	2010	Resurfacing	Local		Scarborough	2015
29-Toronto-Danforth	29-Toronto-Danforth	20699.000	GOVERNORS BDGE	GOVERNORS BDGE	DOUGLAS CRES	2011	Resurfacing	Local		Toronto and East York	2016
29-Toronto-Danforth	29-Toronto-Danforth	20701.000	GOVERNOR'S RD	[S] DOUGLAS CRES [BRANCH]	[N] DOUGLAS CRES [BRANCH]	2011	Resurfacing	Local		Toronto and East York	2016
27-Toronto Centre-Roseda	27-Toronto Centre-Rosedal	03600.000	GRANBY ST	SHEARD ST	CHURCH ST	2010	Resurfacing	Local		Toronto and East York	2015
27-Toronto Centre-Roseda	27-Toronto Centre-Rosedal	03601.000	GRANBY ST	CHURCH ST	MUTUAL ST	2010	Resurfacing	Local		Toronto and East York	2015
20-Trinity-Spadina	20-Trinity-Spadina	03604.000	GRANGE AVE	HURON ST	LARCH ST	2011	Resurfacing	Local		Toronto and East York	2014
20-Trinity-Spadina	20-Trinity-Spadina	03607.000	GRANGE AVE	AUGUSTA AVE	DENISON AVE	2009	Resurfacing	Collector		Toronto and East York	2014
04-Etobicoke Centre	04-Etobicoke Centre	306104	GRAYWOOD DR	CEDARLAND DR	REMINGTON DR	2009	Reconstruction	Local		Etobicoke York	2014
04-Etobicoke Centre	04-Etobicoke Centre	306100	GREAT OAK DR	ISLINGTON AVE	CEDARLAND DR	2009	Reconstruction	Local		Etobicoke York	2014
04-Etobicoke Centre	04-Etobicoke Centre	306110	GREAT OAK DR	REMINGTON DR	KIPLING AVE	2009	Reconstruction	Local		Etobicoke York	2014
04-Etobicoke Centre	04-Etobicoke Centre	306100@	GREAT OAK DR	CEDARLAND DR	REMINGTON DR	2009	Reconstruction	Local		Etobicoke York	2014
12-York South-Weston	12-York South-Weston	30833.000	GREENACRES RD	YORE RD	IRVING RD	2008	Reconstruction	Local		Etobicoke York	2013
04-Etobicoke Centre	04-Etobicoke Centre	306102	GREENING CRES	GREAT OAK DR	KIPLING AVE	2009	Reconstruction	Local		Etobicoke York	2014
17-Davenport	17-Davenport	03619.000	GREENLAW AVE	PETERBOROUGH AVE	AUBURN AVE	2007	Reconstruction	Local		Etobicoke York	2012
17-Davenport	17-Davenport	03620.000	GREENLAW AVE	AUBURN AVE	ROSEMOUNT AVE (TO)	2007	Reconstruction	Local		Etobicoke York	2012
17-Davenport	17-Davenport	03622.000	GREENLAW AVE	MACKAY AVE	ST CLAIR AVE W	2007	Reconstruction	Local		Etobicoke York	2012
38-Scarborough Centre	38-Scarborough Centre	DN0180	GREENWICH SQ	GRACE ST (SC)	GREENWICH SQ	2009	Resurfacing	Local		Scarborough	2014
30-Toronto-Danforth	32-Beaches-East York	03630.000	GREENWOOD AVE	ATHLETIC AVE	RICHARD AVE	2011	Resurfacing	Minor Arterial		Toronto and East York	2016
30-Toronto-Danforth	32-Beaches-East York	03631.000	GREENWOOD AVE	RICHARD AVE	GERRARD ST E	2011	Resurfacing	Minor Arterial		Toronto and East York	2016
30-Toronto-Danforth	32-Beaches-East York	03632.000	GREENWOOD AVE	GERRARD ST	SANDFORD AVE	2011	Grind & Pave	Arterial		Toronto and East York	2014
30-Toronto-Danforth	32-Beaches-East York	03633.000	GREENWOOD AVE	SANDFORD AVE	BLOOMFIELD AVE	2011	Grind & Pave	Arterial		Toronto and East York	2014
30-Toronto-Danforth	32-Beaches-East York	03634.000	GREENWOOD AVE	BLOOMFIELD AVE	IVY AVE	2011	Grind & Pave	Arterial		Toronto and East York	2014
30-Toronto-Danforth	32-Beaches-East York	03635.000	GREENWOOD AVE	IVY AVE	WAGSTAFF DR	2011	Grind & Pave	Arterial		Toronto and East York	2014
30-Toronto-Danforth	32-Beaches-East York	03635.500	GREENWOOD AVE	WAGSTAFF DR	WALPOLE AVE	2011	Grind & Pave	Arterial		Toronto and East York	2014
16-Eglinton-Lawrence	16-Eglinton-Lawrence	23900	GREER RD	[50 m N] ROE AVE	HADDINGTON AVE	2008	Reconstruction	Local		North York	2013
42-Scarborough-Rouge Riv	42-Scarborough-Rouge Rive	GJ0110	GREYPOINT DR	WICKSON TRL	WICKSON TRL	2010	Resurfacing	Local		Scarborough	2015
14-Parkdale-High Park	14-Parkdale-High Park	03692.400	GWYNNE AVE	KING ST W	MELBOURNE AVE	2011	Resurfacing	Local		Toronto and East York	2016
14-Parkdale-High Park	14-Parkdale-High Park	03693.000	GWYNNE AVE	MELBOURNE AVE	MILKY WAY	2011	Resurfacing	Local		Toronto and East York	2016
14-Parkdale-High Park	14-Parkdale-High Park	03693.100	GWYNNE AVE	MILKY WAY	QUEEN ST W	2011	Resurfacing	Local		Toronto and East York	2016
3-Etobicoke Centre	3-Etobicoke Centre	300601	HAGERSVILLE CRT	RANGOON RD	RANGOON RD	2010	Resurfacing	Local		Etobicoke York	2015
31-Beaches-East York	31-Beaches-East York	20726.000	HALDON AVE	COSBURN AVE	HALDON AVE	2011	Sidewalk Reconstruction	Local	carry over from 2010 to 2011	Toronto and East York	2016
10-York Centre	10-York Centre	25490	HANITON ST	BARKEDALE AVE	CAVOTTI CRES	2011	Grind & Pave	Local	Grind & Pave under the U-cut repair contracts.	North York	2014
20-Trinity-Spadina	20-Trinity-Spadina	03747.000	HARBORD ST	SPADINA AVE	SUSSEX MEWS	2010	Resurfacing	Minor Arterial		Toronto and East York	2015
20-Trinity-Spadina	20-Trinity-Spadina	03747.100	HARBORD ST	SUSSEX MEWS	ROBERT ST	2010	Resurfacing	Minor Arterial		Toronto and East York	2015
20-Trinity-Spadina	20-Trinity-Spadina	03748.000	HARBORD ST	ROBERT ST	MAJOR ST	2010	Resurfacing	Minor Arterial		Toronto and East York	2015
20-Trinity-Spadina	20-Trinity-Spadina	03749.000	HARBORD ST	MAJOR ST	BRUNSWICK AVE	2010	Resurfacing	Minor Arterial		Toronto and East York	2015
20-Trinity-Spadina	20-Trinity-Spadina	03750.000	HARBORD ST	BRUNSWICK AVE	BORDEN ST	2010	Resurfacing	Minor Arterial		Toronto and East York	2015
20-Trinity-Spadina	20-Trinity-Spadina	03751.000	HARBORD ST	BORDEN ST	CROFT ST	2010	Resurfacing	Minor Arterial		Toronto and East York	2015
20-Trinity-Spadina	20-Trinity-Spadina	03752.000	HARBORD ST	CROFT ST	LIPPINCOTT ST	2010	Resurfacing	Minor Arterial		Toronto and East York	2015
20-Trinity-Spadina	20-Trinity-Spadina	03753.000	HARBORD ST	LIPPINCOTT ST	BATHURST ST	2010	Resurfacing	Minor Arterial		Toronto and East York	2015
19-Trinity-Spadina	19-Trinity-Spadina	03754.000	HARBORD ST	BATHURST ST	MARKHAM ST	2010	Resurfacing	Minor Arterial		Toronto and East York	2015
19-Trinity-Spadina	19-Trinity-Spadina	03755.000	HARBORD ST	MARKHAM ST	PALMERSTON BLVD	2010	Resurfacing	Minor Arterial		Toronto and East York	2015
19-Trinity-Spadina	19-Trinity-Spadina	03756.000	HARBORD ST	PALMERSTON BLVD	EUCLID AVE (TO)	2010	Resurfacing	Minor Arterial		Toronto and East York	2015
19-Trinity-Spadina	19-Trinity-Spadina	03757.000	HARBORD ST	EUCLID AVE (TO)	MANNING AVE (TO)	2010	Resurfacing	Minor Arterial		Toronto and East York	2015
19-Trinity-Spadina	19-Trinity-Spadina	03758.000	HARBORD ST	MANNING AVE (TO)	CLINTON ST	2010	Resurfacing	Minor Arterial		Toronto and East York	2015
19-Trinity-Spadina	19-Trinity-Spadina	03759.000	HARBORD ST	CLINTON ST	JERSEY AVE	2010	Resurfacing	Minor Arterial		Toronto and East York	2015
19-Trinity-Spadina	19-Trinity-Spadina	03760.000	HARBORD ST	JERSEY AVE	GRACE ST (TO)	2010	Resurfacing	Minor Arterial		Toronto and East York	2015
19-Trinity-Spadina	19-Trinity-Spadina	03761.000	HARBORD ST	GRACE ST (TO)	MONTROSE AVE	2010	Resurfacing	Minor Arterial		Toronto and East York	2015
19-Trinity-Spadina	19-Trinity-Spadina	03762.000	HARBORD ST	MONTROSE AVE	CRAWFORD ST	2010	Resurfacing	Minor Arterial		Toronto and East York	2015
19-Trinity-Spadina	19-Trinity-Spadina	03763.000	HARBORD ST	CRAWFORD ST	SHAW ST	2010	Resurfacing	Minor Arterial		Toronto and East York	2015
19-Trinity-Spadina	19-Trinity-Spadina	03764.000	HARBORD ST	SHAW ST	ROXTON RD	2010	Resurfacing	Minor Arterial		Toronto and East York	2015
19-Trinity-Spadina	19-Trinity-Spadina	03765.000	HARBORD ST	ROXTON RD	OSSINGTON AVE	2010	Resurfacing	Minor Arterial		Toronto and East York	2015
02-Etobicoke North	02-Etobicoke North	104805	HARDISTY DR	CLEARBROOKE CRCL	COPPERMILL DR	2009	Resurfacing	Local		Etobicoke York	2014
16-Eglinton-Lawrence	16-Eglinton-Lawrence	24311	HARLEY AVE	JOICEY BLVD	HADDINGTON AVE	2008	Reconstruction	Local		North York	2013
06-Etobicoke-Lakeshore	06-Etobicoke-Lakeshore	419400	HAROLD ST	JUDSON ST	SIMPSON AVE (ETBK)	2011	Resurfacing	Local		Etobicoke York	2016
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	03773.000	HARPER AVE	ROSEDALE HEIGHTS DR	INGLEWOOD DR	2010	Resurfacing	Local		Toronto and East York	2015
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	03774.000	HARPER AVE	INGLEWOOD DR	VALLEY VIEW	2010	Resurfacing	Local		Toronto and East York	2015
35-Scarborough Southwest	35-Scarborough Southwest	CU0090	HARRIS PARK DR	EDGE PARK AVE	[632 m N] EDGE PARK AVE [END]	2010	Resurfacing	Local		Scarborough	2015
17-Davenport	17-Davenport	03794.000	HARVIE AVE	ST CLAIR AVE W	ASCOT AVE	2010	Resurfacing	Local		Etobicoke York	2015
17-Davenport	17-Davenport	03795.000	HARVIE AVE	ASCOT AVE	HOPE ST	2010	Resurfacing	Local		Etobicoke York	2015
17-Davenport	17-Davenport	03796.000	HARVIE AVE	HOPE ST	MORRISON AVE	2010	Resurfacing	Local		Etobicoke York	2015
17-Davenport	17-Davenport	03797.000	HARVIE AVE	MORRISON AVE	[24 m N] MORRISON AVE [CITY LIMITS]	2010	Resurfacing	Local		Etobicoke York	2015
38-Scarborough Centre	38-Scarborough Centre	EO0170	HATHWAY DR	BRIMORTON DR	PACKARD BLVD	2010	Resurfacing	Local		Scarborough	2015
34-Don Valley East	34-Don Valley East	24480	HAUTEVIEW CRT	LAURENTIDE DR	W END	2010	Resurfacing	Local		North York	2015
22-St. Paul's	22-St. Paul's	03820.000	HAWARDEN CRES	RUSSELL HILL RD	DUNLOE RD	2007	Reconstruction	Local		Toronto and East York	2012
22-St. Paul's	22-St. Paul's	03821.000	HAWARDEN CRES	DUNLOE RD	SPADINA RD (TO)	2007	Reconstruction	Local		Toronto and East York	2012
24-Willowdale	24-Willowdale	24540	HAWKSBURY DR	SHEPPARD AVE E	FOXWARREN DR	2009	Resurfacing	Collector		North York	2014
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	03833.000	HAZELTON AVE	YORKVILLE ST	SCOLLARD ST	2011	Grind & Pave	Collector	Grind & Pave under the U-cut repair contracts.	Toronto and East York	2014
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	03834.000	HAZELTON AVE	SCOLLARD ST	BERRYMAN ST	2011	Grind & Pave	Collector	Grind & Pave under the U-cut repair contracts.	Toronto and East York	2014
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	03835.000	HAZELTON AVE	BERRYMAN ST	WEBSTER AVE	2011	Grind & Pave	Collector	Grind & Pave under the U-cut repair contracts.	Toronto and East York	2014
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	03836.000	HAZELTON AVE	WEBSTER AVE	DAVENPORT RD	2011	Grind & Pave	Collector	Grind & Pave under the U-cut repair contracts.	Toronto and East York	2014
12-York South-Weston	12-York South-Weston	24630	HEARST CRCL	KEMP SQ	KEMP SQ	2010	Resurfacing	Local		Etobicoke York	2015
12-York South-Weston	12-York South-Weston	24635	HEARST CRCL	[E] HEARST CRCL [BRANCH]	[W] HEARST CRCL [BRANCH]	2010	Resurfacing	Local		Etobicoke York	2015
10-York Centre	10-York Centre	24640	HEARTHSTONE CRES	CARSCADDEN DR	CARSCADDEN DR	2011	Resurfacing	Local		North York	2016
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	03845.000	HEATH ST E	CORNISH RD	[N] CLIFTON RD [BRANCH]	2010	Resurfacing	Local		Toronto and East York	2015
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	03845.100	HEATH ST E	[N] CLIFTON RD [BRANCH]	[S] CLIFTON RD [BRANCH]	2010	Resurfacing	Local		Toronto and East York	2015
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	03846.000	HEATH ST E	[S] CLIFTON RD [BRANCH]	MOUNT PLEASANT RD	2010	Resurfacing	Local		Toronto and East York	2015
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	03847.000	HEATH ST E	MOUNT PLEASANT RD	KINGSMERE RD	2010	Resurfacing	Local		Toronto and East York	2015
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	03848.000	HEATH ST E	KINGSMERE RD	WELLAND AVE	2010	Resurfacing	Local		Toronto and East York	2015
4-Etobicoke Centre	4-Etobicoke Centre	306802	HEATHROW CRT	BROMLEY CRES	ISLINGTON AVE	2010	Resurfacing	Local		Etobicoke York	2015
16-Eglinton-Lawrence	16-Eglinton-Lawrence	24750	HEDON AVE	ESGORE DR	SAUNDERS ST	2008	Reconstruction	Collector		North York	2013
14-Parkdale-High Park	14-Parkdale-High Park	03902.000	HEWITT AVE	RONCESVALLES AVE	INDIAN RD	2009	Resurfacing	Local		Toronto and East York	2014

2012 MORATORIUM LIST OF ROADS

For Moratorium conditions refer to: http://www.toronto.ca/engineering/mcr/pdf/mcr_municipal_consent_requirements.pdf

Expiration Date is December 31, YEAR

WARD		SECTION	LOCATION			COMPLETED		FUNCTIONAL	REMARKS	DISTRICT	EXPIRATION
Even	Odd	ID	Street	From	To	YEAR	WORK	CLASS	(for carry over, deferred, delayed work)		DATE
17-Davenport	17-Davenport	12343.200	[106.70 m N] LINDNER ST	MILLER ST	[32 m W] MILLER ST	2010	Reconstruction	Laneway		Etobicoke York	2015
19-Trinity-Spadina	19-Trinity-Spadina	11564.000	[107.80 m S] HARBORD ST	MANNING AVE (TO)	CLINTON ST	2011	Resurfacing	Laneway		Toronto and East York	2016
37-Scarborough Centre	37-Scarborough Centre	DS0090	HIGHWOOD AVE	WARDEN AVE	FREY CRES	2009	Resurfacing	Local		Scarborough	2014
36-Scarborough Southwest	36-Scarborough Southwest	CL0100	HILL CRES	MARKHAM RD	SCARBOROUGH GOLF CLUB RD	2011	Resurfacing	Collector		Scarborough	2016
16-Eglinton-Lawrence	16-Eglinton-Lawrence	03964.000	HILLHURST BLVD	CORTLEIGH CRES	AVENUE RD	2011	Resurfacing	Local		North York	2016
27-Toronto Centre-Ros	27-Toronto Centre-Ros	03973.000	HILLSBORO AVE	[E] HILLSBORO AVE [EN	[84 m E] DAVENPORT RD	2009	Resurfacing	Local		Toronto and East York	2014
06-Etobicoke-Lakeshore	06-Etobicoke-Lakeshore	408601	HILLSIDE AVE	ROYAL YORK RD	DWIGHT AVE	2007	Reconstruction	Local		Etobicoke York	2012
21-St. Paul's	21-St. Paul's	04000.000	HILTON AVE	NINA ST	MELGUND RD	2010	Resurfacing	Local		Toronto and East York	2015
37-Scarborough Centre	37-Scarborough Centre	DR0170	HOLLINGWORTH DR	MCGREGOR RD	ASHDEAN DR	2010	Resurfacing	Local		Scarborough	2015
3-Etobicoke Centre	3-Etobicoke Centre	300602	HOLLISTER RD	INVERDON RD	FIRESTONE RD	2010	Resurfacing	Local		Etobicoke York	2015
05-Etobicoke-Lakeshore	05-Etobicoke-Lakeshore	309510	HOLLOWAY RD	AVONHURST RD	ROYALAVON CRES	2011	Resurfacing	Local		Etobicoke York	2016
17-Davenport	17-Davenport	30963.000	HOLMESDALE CRES	HOLMESDALE RD	PRESTON RD	2010	Grind & Pave	Local		Etobicoke York	2015
17-Davenport	17-Davenport	30964.000	HOLMESDALE CRES	PRESTON RD	ENNERDALE RD	2010	Grind & Pave	Local		Etobicoke York	2015
17-Davenport	17-Davenport	30965.000	HOLMESDALE RD	DUFFERIN ST	HOLMESDALE CRES	2010	Grind & Pave	Local		Etobicoke York	2015
17-Davenport	17-Davenport	30966.000	HOLMESDALE RD	HOLMESDALE CRES	ENNERDALE RD	2010	Grind & Pave	Local		Etobicoke York	2015
35-Scarborough Southwest	35-Scarborough Southwest	CU0100	HOLSWADE RD	VICTORIA PARK AVE	HARRIS PARK DR	2010	Resurfacing	Local		Scarborough	2015
41-Scarborough-Rouge Riv	41-Scarborough-Rouge Rive	HP0230	HOMEDALE DR	ALEXMUIR BLVD	ALEXMUIR BLVD	2011	Resurfacing	Local		Scarborough	2016
44-Scarborough East	44-Scarborough East	DH0160	HOMESTEAD RD	DARLINGSIDE DR	CORONATION DR	2009	Resurfacing	Local		Scarborough	2014
44-Scarborough East	44-Scarborough East	DH0170	HOMESTEAD RD	CORONATION DR	LAWRENCE AVE E	2009	Resurfacing	Local		Scarborough	2014
27-Toronto Centre-Roseda	27-Toronto Centre-Rosedal	04017.000	HOMEWOOD AVE (TO)	CARLTON ST	MARIBETH AVE	2010	Resurfacing	Collector		Toronto and East York	2015
27-Toronto Centre-Roseda	27-Toronto Centre-Rosedal	04019.000	HOMEWOOD AVE (TO)	MARIBETH AVE	SUFFOLK ST	2010	Resurfacing	Collector		Toronto and East York	2015
27-Toronto Centre-Roseda	27-Toronto Centre-Rosedal	04020.000	HOMEWOOD AVE (TO)	SUFFOLK ST	MAITLAND PL	2010	Resurfacing	Collector		Toronto and East York	2015
27-Toronto Centre-Roseda	27-Toronto Centre-Rosedal	04021.000	HOMEWOOD AVE (TO)	MAITLAND PL	WELLESLEY ST E	2010	Resurfacing	Collector		Toronto and East York	2015
37-Scarborough Centre	37-Scarborough Centre	ET0200	HONEY DR	TOWER DR	LILIAN DR	2009	Resurfacing	Local		Scarborough	2014
8-York West	8-York West	25510	HOOVER CRES	DRIFTWOOD AVE	DRIFTWOOD AVE	2011	Resurfacing	Local		North York	2016
17-Davenport	17-Davenport	04026.000	HOPE ST	DAY AVE	BOON AVE	2010	Resurfacing	Collector		Etobicoke York	2015
17-Davenport	17-Davenport	04027.000	HOPE ST	BOON AVE	EARLSCOURT AVE	2010	Resurfacing	Collector		Etobicoke York	2015
17-Davenport	17-Davenport	04028.000	HOPE ST	EARLSCOURT AVE	NAIRN AVE	2010	Resurfacing	Collector		Etobicoke York	2015
17-Davenport	17-Davenport	04029.000	HOPE ST	NAIRN AVE	HARVIE AVE	2010	Resurfacing	Local		Etobicoke York	2015
29-Toronto-Danforth	29-Toronto-Danforth	20786.000	HOPEDALE AVE	O'CONNOR DR	STANHOPE AVE	2009	Resurfacing	Local		Toronto and East York	2014
29-Toronto-Danforth	29-Toronto-Danforth	20787.000	HOPEDALE AVE	STANHOPE AVE	MINTON PL	2009	Resurfacing	Local		Toronto and East York	2014
06-Etobicoke-Lakeshore	06-Etobicoke-Lakeshore	009611	HORNER AVE	[66 m W] KIPLING AVE	[215 m E] CPR	2011	Resurfacing	Minor Arterial		Etobicoke York	2016
06-Etobicoke-Lakeshore	06-Etobicoke-Lakeshore	009612	HORNER AVE	[220 m W] CPR	30TH ST	2011	Resurfacing	Minor Arterial		Etobicoke York	2016
06-Etobicoke-Lakeshore	06-Etobicoke-Lakeshore	009621	HORNER AVE	[215 m E] CPR	[220 m W] CPR	2011	Resurfacing	Minor Arterial		Etobicoke York	2016
06-Etobicoke-Lakeshore	06-Etobicoke-Lakeshore	009622	HORNER AVE	30TH ST	BETA ST	2011	Resurfacing	Minor Arterial		Etobicoke York	2016
06-Etobicoke-Lakeshore	06-Etobicoke-Lakeshore	009622@	HORNER AVE	BETA ST	BROWNS LINE	2011	Resurfacing	Minor Arterial		Etobicoke York	2016
28-Toronto Centre-Rosedale	28-Toronto Centre-Rosedale	04055.000	HOWARD ST	BLEECKER ST	GLEN RD	2012	Resurfacing	Collector	carry over from 2011 to 2012	Toronto and East York	2017
28-Toronto Centre-Rosedale	28-Toronto Centre-Rosedale	04056.000	HOWARD ST	GLEN RD	ONTARIO ST	2012	Resurfacing	Collector	carry over from 2011 to 2012	Toronto and East York	2017
28-Toronto Centre-Rosedale	28-Toronto Centre-Rosedale	04057.000	HOWARD ST	ONTARIO ST	EDGEDALE RD	2012	Resurfacing	Collector	carry over from 2011 to 2012	Toronto and East York	2017
28-Toronto Centre-Rosedale	28-Toronto Centre-Rosedale	04058.000	HOWARD ST	EDGEDALE RD	ROSE AVE	2012	Resurfacing	Collector	carry over from 2011 to 2012	Toronto and East York	2017
28-Toronto Centre-Rosedale	28-Toronto Centre-Rosedale	04059.000	HOWARD ST	ROSE AVE	PARLIAMENT ST	2012	Resurfacing	Collector	carry over from 2011 to 2012	Toronto and East York	2017
21-St. Paul's	21-St. Paul's	04071.000	HOWLAND AVE (TO)	BRIDGMAN AVE	DAVENPORT RD	2011	Reconstruction	Local		Toronto and East York	2016
22-St. Paul's	22-St. Paul's	04075.000	HOYLE AVE	SOUDAN AVE	EGLINTON AVE E	2009	Resurfacing	Local		Toronto and East York	2014
37-Scarborough Centre	37-Scarborough Centre	DS0100	HUGHES PL	KILPATRICK DR	[76 m E] KILPATRICK DR [CUL-DE-SAC]	2009	Resurfacing	Local		Scarborough	2014
01-Etobicoke North	01-Etobicoke North	014500	HUMBER COLLEGE BLVD	FINCH AVE W	CARRIER DR	2011	Resurfacing	Collector		Etobicoke York	2016
7-York West	7-York West	25700	HUMBER SUMMIT LANE	ISLINGTON AVE	PRIMULA CRES	2010	Resurfacing	Local		Etobicoke York	2015
30-Toronto-Danforth	30-Toronto-Danforth	04105.000	HUNTER ST	JONES AVE	CONDOR AVE	2007	Reconstruction	Local		Toronto and East York	2012
27-Toronto Centre-Roseda	27-Toronto Centre-Rosedal	04106.000	HUNTLEY ST	EARL ST	ISABELLA ST	2010	Resurfacing	Local		Toronto and East York	2015
27-Toronto Centre-Roseda	27-Toronto Centre-Rosedal	04107.000	HUNTLEY ST	ISABELLA ST	LINDEN ST	2010	Resurfacing	Collector		Toronto and East York	2015
27-Toronto Centre-Roseda	27-Toronto Centre-Rosedal	04108.000	HUNTLEY ST	LINDEN ST	SELBY ST	2010	Resurfacing	Collector		Toronto and East York	2015
27-Toronto Centre-Roseda	27-Toronto Centre-Rosedal	04109.000	HUNTLEY ST	SELBY ST	BLOOR ST E	2010	Resurfacing	Collector		Toronto and East York	2015
7-York West	7-York West	25730	HUSBAND DR	PRIMULA CRES	HUMBER SUMMIT LANE	2010	Resurfacing	Local		Etobicoke York	2015
22-St. Paul's	22-St. Paul's	04140.000	IMPERIAL ST	DUPLEX AVE	COLIN AVE	2012	Resurfacing	Local	carry over from 2011 to 2012	Toronto and East York	2017
22-St. Paul's	22-St. Paul's	04141.000	IMPERIAL ST	COLIN AVE	LASCELLES BLVD	2012	Resurfacing	Local	carry over from 2011 to 2012	Toronto and East York	2017
22-St. Paul's	22-St. Paul's	04142.000	IMPERIAL ST	LASCELLES BLVD	ORIOLE PKWY	2012	Resurfacing	Local	carry over from 2011 to 2012	Toronto and East York	2017
30-Toronto-Danforth	30-Toronto-Danforth	04204.000	INGHAM AVE	BAIN AVE	SPARKHALL AVE	2010	Resurfacing	Local		Toronto and East York	2015
30-Toronto-Danforth	30-Toronto-Danforth	04205.000	INGHAM AVE	SPARKHALL AVE	MILLBROOK CRES	2010	Resurfacing	Local		Toronto and East York	2015
30-Toronto-Danforth	30-Toronto-Danforth	04206.000	INGHAM AVE	MILLBROOK CRES	TENNIS CRES	2010	Resurfacing	Local		Toronto and East York	2015
30-Toronto-Danforth	30-Toronto-Danforth	04207.000	INGHAM AVE	TENNIS CRES	HOGARTH AVE	2010	Resurfacing	Local		Toronto and East York	2015
4-Etobicoke Centre	4-Etobicoke Centre	210202	INGLEPORT PL	WATERBURY DR	[32 m E] WATERBURY DR [RING]	2010	Resurfacing	Local		Etobicoke York	2015
27-Toronto Centre-Roseda	27-Toronto Centre-Rosedal	04213.000	INGLEWOOD DR	[N-S] INGLEWOOD DR [LEG]	MOUNT PLEASANT RD	2010	Resurfacing	Collector		Toronto and East York	2015
27-Toronto Centre-Roseda	27-Toronto Centre-Rosedal	04217.000	INGLEWOOD DR	WELLAND AVE	ERRINGTON AVE	2010	Resurfacing	Local		Toronto and East York	2015
27-Toronto Centre-Roseda	27-Toronto Centre-Rosedal	04218.000	INGLEWOOD DR	ERRINGTON AVE	HUDSON DR	2010	Resurfacing	Local		Toronto and East York	2015
27-Toronto Centre-Roseda	27-Toronto Centre-Rosedal	04219.000	INGLEWOOD DR	HUDSON DR	HARPER AVE	2010	Resurfacing	Local		Toronto and East York	2015
27-Toronto Centre-Roseda	27-Toronto Centre-Rosedal	04220.000	INGLEWOOD DR	HARPER AVE	ROSEDALE HEIGHTS DR	2010	Resurfacing	Local		Toronto and East York	2015
39-Scarborough-Agincourt	39-Scarborough-Agincourt	HS0140	INNISLAWN RD	MCNICOLL AVE	FUNDY BAY BLVD	2011	Resurfacing	Local		Scarborough	2016
13-Parkdale-High Park	13-Parkdale-High Park	31060.000	IRMAC CRT	VAN STASSEN BLVD	[N] IRMAC CRT [END]	2009	Reconstruction	Local		Etobicoke York	2014
05-Etobicoke-Lakeshore	05-Etobicoke-Lakeshore	063-07	ISLINGTON AVE	BLOOR ST W	CHESTNUT HILLS CRES	2009	Resurfacing	Major Arterial		Etobicoke York	2014
04-Etobicoke Centre	04-Etobicoke Centre	063-08	ISLINGTON AVE	CHESTNUT HILLS CRES	RATHBURN RD	2009	Resurfacing	Major Arterial		Etobicoke York	2014
04-Etobicoke Centre	04-Etobicoke Centre	063-09	ISLINGTON AVE	RATHBURN RD	PRINCE GEORGE DR	2009	Resurfacing	Major Arterial		Etobicoke York	2014
02-Etobicoke North	02-Etobicoke North	063-13	ISLINGTON AVE	DIXON RD	REXDALE BLVD	2011	Resurfacing	Major Arterial		Etobicoke York	2016
30-Toronto-Danforth	30-Toronto-Danforth	04240.000	IVY AVE	PRUST AVE	GREENWOOD AVE	2009	Resurfacing	Local		Toronto and East York	2014
03-Etobicoke Centre	03-Etobicoke Centre	320701	IVYBRIDGE DR	CANEROUTH DR	RATHBURN RD	2011	Resurfacing	Local		Etobicoke York	2016
14-Parkdale-High Park	14-Parkdale-High Park	04256.000	JAMESON AVE	SPRINGHURST AVE	KING ST W	2008	Reconstruction	Minor Arterial		Toronto and East York	2013
14-Parkdale-High Park	14-Parkdale-High Park	04257.000	JAMESON AVE	KING ST W	LEOPOLD ST	2008	Reconstruction	Minor Arterial		Toronto and East York	2013
14-Parkdale-High Park	14-Parkdale-High Park	04258.000	JAMESON AVE	LEOPOLD ST	LAXTON AVE	2008	Reconstruction	Minor Arterial		Toronto and East York	2013
14-Parkdale-High Park	14-Parkdale-High Park	04259.000	JAMESON AVE	LAXTON AVE	QUEEN ST W	2008	Reconstruction	Minor Arterial		Toronto and East York	2013
02-Etobicoke North	02-Etobicoke North	425930	JANDA CRT	PEDIGREE MEWS	QUINELLA DR	2009	Resurfacing	Local		Etobicoke York	2014
02-Etobicoke North	02-Etobicoke North	425931	JANDA CRT	QUEENS PLATE DR	FROST KING LANE	2009	Resurfacing	Local		Etobicoke York	2014
02-Etobicoke North	02-Etobicoke North	425932	JANDA CRT	FROST KING LANE	PEDIGREE MEWS	2009	Resurfacing	Local		Etobicoke York	2014
44-Scarborough East	44-Scarborough East	DF0130	JANELLAN TER	BEECHGROVE DR	BEECHGROVE DR (396 m E of)	2009	Resurfacing	Local	Carryover from 2008 to 2009	Scarborough	2014
6-Etobicoke-Lakeshore	6-Etobicoke-Lakeshore	410001	JASMINE AVE	TWENTY SEVENTH ST	ARCADIAN CRCL	2011	Resurfacing	Local	carry over from 2010 to 2011	Etobicoke York	2016
11-York South-Weston	11-York South-Weston	31134	JASPER AVE	WESTON RD	LANGDEN AVE	2011	Grind & Pave	Local	Grind & Pave under the U-cut repair contracts.	Etobicoke York	2014
11-York South-Weston	11-York South-Weston	31135	JASPER AVE	LANGDEN AVE	CLIFF ST	2011	Grind & Pave	Local	Grind & Pave under the U-cut repair contracts.	Etobicoke York	2014
11-York South-Weston	11-York South-Weston	31137	JASPER AVE	CLIFF ST	WEST END	2011	Grind & Pave	Local	Grind & Pave under the U-cut repair contracts.	Etobicoke York	2014
7-York West	7-York West	26110	JAYZEL DR	FINCH AVE (N YK)	LINDYLOU RD	2010	Reconstruction	Collector		Etobicoke York	2015
36-Scarborough Southwest	36-Scarborough Southwest	CP0160	JEANETTE ST	ST CLAIR AVE E (SC)	[259 m N] ST CLAIR AVE E (SC) [CUL-D]	2011	Reconstruction	Local		Scarborough	2016
10-York Centre	10-York Centre	26185	JOEL SWIRSKY BLVD	WILSON HEIGHTS BLVD	FAYWOOD BLVD	2011	Resurfacing	Local		North York	2016
42-Scarborough-Rouge River	42-Scarborough-Rouge River	GI0180	JOHN TABOR TRL	BRENYON WAY	MCLEVIN AVE	2011	Resurfacing	Collector		Scarborough	2016
16-Eglinton-Lawrence	16-Eglinton-Lawrence	26250	JOICEY BLVD	FELBRIGG AVE	HARLEY AVE	2008	Reconstruction	Local		North York	2013
34-Don Valley East	34-Don Valley East	26300	JONESVILLE CRES	EGLINTON AVE E	FOLKESTONE AVE	2009	Reconstruction	Local		North York	2014
37-Scarborough Centre	37-Scarborough Centre	ET0220	JOY DR	ELINOR AVE	TOWER DR	2009	Resurfacing	Local		Scarborough	2014
12-York South-Weston	12-York South-Weston	31156.000	JULIET CRES	YARROW RD	BICKNELL AVE	2011	Resurfacing	Local		Etobicoke York	2016
9-York Centre	9-York Centre	26410	KANARICK CRES	DOMBEY RD	MAGELLAN DR	2010	Resurfacing	Local		North York	2015
36-Scarborough Southwest	36-Scarborough Southwest	BP0140	KELSONIA AVE	MIDLAND AVE	SCARBORO CRES	2010	Resurfacing	Local		Scarborough	2015
36-Scarborough Southwest	36-Scarborough Southwest	BP0150	KELSONIA AVE	SCARBORO CRES	CHINE DR	2010	Resurfacing	Local		Scarborough	2015
12-York South-Weston	12-York South-Weston	26560	KEMP SQ	HEARST CRCL	[38 m N] HEARST CRCL [RING]	2010	Resurfacing	Local		Etobicoke York	2015
39-Scarborough-Agincourt	39-Scarborough-Agincourt	GQ0200	KENFIN AVE	KENNEDY RD	BELLEFONTAINE ST	2011	Resurfacing	Local		Scarborough	2016

2012 MORATORIUM LIST OF ROADS

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Expiration Date is December 31, YEAR

WARD		SECTION	LOCATION			COMPLETED		FUNCTIONAL	REMARKS	DISTRICT	EXPIRATION
Even	Odd	ID	Street	From	To	YEAR	WORK	CLASS	(for carry over, deferred, delayed work)		DATE
17-Davenport	17-Davenport	12343.200	[106.70 m N] LINDNER ST	MILLER ST	[32 m W] MILLER ST	2010	Reconstruction	Laneway		Etobicoke York	2015
19-Trinity-Spadina	19-Trinity-Spadina	11564.000	[107.80 m S] HARBORD ST	MANNING AVE (TO)	CLINTON ST	2011	Resurfacing	Laneway		Toronto and East York	2016
32-Beaches-East York	32-Beaches-East York	04403.000	KENILWORTH AVE	QUEEN ST E	[W] KENILWORTH AVE [BRANCH]	2007	Reconstruction	Local		Toronto and East York	2012
32-Beaches-East York	32-Beaches-East York	04407.000	KENILWORTH AVE	NORWAY AVE	KINGSTON RD	2011	Grind & Pave	Local	Grind & Pave under the U-cut repair contracts.	Toronto and East York	2014
41-Scarborough-Rouge River	41-Scarborough-Rouge River	HP0250	KENNALEY CRES	VALDOR DR	CLEADON RD	2011	Resurfacing	Local		Scarborough	2016
06-Etobicoke-Lakeshore	06-Etobicoke-Lakeshore	414700	KENNY AVE	NEWCASTLE ST	[54 m S] NEWCASTLE ST	2011	Resurfacing	Local		Etobicoke York	2016
42-Scarborough-Rouge Riv	42-Scarborough-Rouge Rive	GJ0160	KESSACK CRT	WICKSON TRL	[198 m S] WICKSON TRL [CUL-DE-SAC W/	2010	Resurfacing	Local		Scarborough	2015
22-St. Paul's	22-St. Paul's	04440.000	KILBARRY RD	LASCELLES BLVD	ORIOLE PKWY	2010	Resurfacing	Local		Toronto and East York	2015
37-Scarborough Centre	37-Scarborough Centre	DS0110	KILPATRICK DR	MINFORD AVE	CASTILLE AVE	2011	Resurfacing	Local		Scarborough	2016
37-Scarborough Centre	37-Scarborough Centre	DS0120	KILPATRICK PL	MINFORD AVE	[91 m S] MINFORD AVE	2011	Resurfacing	Local		Scarborough	2016
44-Scarborough East	44-Scarborough East	EB0240	KING ARTHURS CRT	FRIENDSHIP AVE	[46 m W] FRIENDSHIP AVE [CUL-DE-SAC]	2009	Resurfacing	Local		Scarborough	2014
11-York South-Weston	11-York South-Weston	31231.000	KING GEORGE RD	CHURCH ST (YK)	COULTER AVE	2010	Resurfacing	Local		Etobicoke York	2015
11-York South-Weston	11-York South-Weston	31228.000	KING ST	ROSEMOUNT AVE (YK)	ELM ST (YK)	2011	Resurfacing	Local		Etobicoke York	2016
11-York South-Weston	11-York South-Weston	31229.000	KING ST	PINE ST	ELM ST	2011	Resurfacing	Local		Etobicoke York	2016
11-York South-Weston	11-York South-Weston	31230.000	KING ST	JANE ST	PINE ST	2011	Resurfacing	Local		Etobicoke York	2016
28-Toronto Centre-Roseda	28-Toronto Centre-Rosedal	04471.000	KING ST E	BERKELEY ST	PARLIAMENT ST	2011	TTC Track Replacement	Major Arterial		Toronto and East York	2016
14-Parkdale-High Park	14-Parkdale-High Park	04524.000	KING ST W	CLOSE AVE	JAMESON AVE	2011	TTC Track Replacement & Major Road Resurfacing	Major Arterial		Toronto and East York	2016
14-Parkdale-High Park	14-Parkdale-High Park	04525.000	KING ST W	JAMESON AVE	MAYNARD AVE	2011	TTC Track Replacement & Major Road Resurfacing	Major Arterial		Toronto and East York	2016
14-Parkdale-High Park	14-Parkdale-High Park	04525.500	KING ST W	MAYNARD AVE	SPRINGHURST AVE	2011	TTC Track Replacement & Major Road Resurfacing	Major Arterial		Toronto and East York	2016
14-Parkdale-High Park	14-Parkdale-High Park	04526.000	KING ST W	SPRINGHURST AVE	DOWLING AVE	2011	TTC Track Replacement & Major Road Resurfacing	Major Arterial		Toronto and East York	2016
14-Parkdale-High Park	14-Parkdale-High Park	04527.000	KING ST W	DOWLING AVE	BEATY AVE	2011	TTC Track Replacement & Major Road Resurfacing	Major Arterial		Toronto and East York	2016
14-Parkdale-High Park	14-Parkdale-High Park	04528.000	KING ST W	BEATY AVE	WILSON PARK RD	2011	TTC Track Replacement & Major Road Resurfacing	Major Arterial		Toronto and East York	2016
14-Parkdale-High Park	14-Parkdale-High Park	04529.000	KING ST W	WILSON PARK RD	[57 m W] WILSON PARK RD	2011	TTC Track Replacement & Major Road Resurfacing	Major Arterial		Toronto and East York	2016
14-Parkdale-High Park	14-Parkdale-High Park	04529.100	KING ST W	[57 m W] WILSON PARK RD	TRILLER AVE	2011	TTC Track Replacement & Major Road Resurfacing	Major Arterial		Toronto and East York	2016
14-Parkdale-High Park	14-Parkdale-High Park	04530.000	KING ST W	TRILLER AVE	[S] THE QUEENSWAY [BRANCH]	2011	TTC Track Replacement & Major Road Resurfacing	Major Arterial		Toronto and East York	2016
14-Parkdale-High Park	14-Parkdale-High Park	04531.100	KING ST W	[S] THE QUEENSWAY [BRANCH]	QUEEN ST W	2011	TTC Track Replacement & Major Road Resurfacing	Major Arterial		Toronto and East York	2016
33-Don Valley East	33-Don Valley East	26970	KINGSLAKE RD	GODSTONE RD	VAN HORNE AVE	2009	Resurfacing	Local		North York	2014
32-Beaches-East York	32-Beaches-East York	04569.000	KINGSWOOD RD	KINGSTON RD	WOODALE AVE	2011	Grind & Pave	Local	Grind & Pave under the U-cut repair contracts.	Toronto and East York	2014
32-Beaches-East York	32-Beaches-East York	04570.000	KINGSWOOD RD	WOODALE AVE	SWANWICK AVE	2011	Grind & Pave	Local	Grind & Pave under the U-cut repair contracts.	Toronto and East York	2014
32-Beaches-East York	32-Beaches-East York	04571.000	KINGSWOOD RD	SWANWICK AVE	GERRARD ST	2011	Grind & Pave	Local	Grind & Pave under the U-cut repair contracts.	Toronto and East York	2014
2-Etobicoke North	2-Etobicoke North	102404	KINLOSS RD	KENNEBEC CRES	ELMHURST DR	2010	Resurfacing	Local		Etobicoke York	2015
38-Scarborough Centre	38-Scarborough Centre	DN0190	KINSMEN GT	GREENWICH SQ	NELSON ST (SC)	2009	Resurfacing	Local		Scarborough	2014
30-Toronto-Danforth	30-Toronto-Danforth	04572.000	KINTYRE AVE	[W] KINTYRE AVE [END]	[S] HAMILTON ST [BRANCH]	2009	Resurfacing	Local		Toronto and East York	2014
30-Toronto-Danforth	30-Toronto-Danforth	04573.000	KINTYRE AVE	[S] HAMILTON ST [BRANCH]	[N] HAMILTON ST [BRANCH]	2009	Resurfacing	Local		Toronto and East York	2014
30-Toronto-Danforth	30-Toronto-Danforth	04574.000	KINTYRE AVE	[N] HAMILTON ST [BRAN	BROADVIEW AVE	2009	Resurfacing	Local		Toronto and East York	2014
43-Scarborough East	43-Scarborough East	DI0215@	KITCHENER RD	CORONATION DR	KINGSTON RD	2011	Resurfacing	Local		Scarborough	2016
11-York South-Weston	11-York South-Weston	35015.000	KNG ST	ELM ST	ROSEMOUNT AVE	2011	Resurfacing	Local		Etobicoke York	2016
8-York West	8-York West	27150	KODIAC CRES	SHEPPARD AVE E	SHEPPARD AVE E	2011	Resurfacing	Collector		North York	2016
39-Scarborough-Agincourt	39-Scarborough-Agincourt	HS0160	LA PEER BLVD	BROOKMILL BLVD	MCNICOLL AVE	2010	Resurfacing	Collector		Scarborough	2015
04-Etobicoke Centre	04-Etobicoke Centre	004400	LA ROSE AVE	ROYAL YORK RD	ISLINGTON AVE	2011	Resurfacing	Local		Etobicoke York	2016
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	04589.100	LA SCALA LANE	ST MARY ST	CHARLES ST W	2007	Reconstruction	Laneway		Toronto and East York	2012
28-Toronto Centre-Rosedale	28-Toronto Centre-Rosedale	04591.000	LABATT AVE	RIVER ST	DEFRIES ST	2012	Resurfacing	Local	carry over from 2011 to 2012	Toronto and East York	2017
28-Toronto Centre-Rosedale	28-Toronto Centre-Rosedale	04592.000	LABATT AVE	DEFRIES ST	[E] LABATT AVE [END]	2012	Resurfacing	Local	carry over from 2011 to 2012	Toronto and East York	2017
3-Etobicoke Centre	3-Etobicoke Centre	300603	LACHINE CRT	INVERDON RD	HOLLISTER RD	2010	Resurfacing	Local		Etobicoke York	2015
43-Scarborough East	43-Scarborough East	FI0095	LAMPMAN DR	CINDY NICHOLAS DR	[83 m S] PICKTHALL TERR [END]	2008	Construction	Local		Scarborough	2013
35-Scarborough Southwest	35-Scarborough Southwest	BT0200	LANDRY AVE	LEYTON AVE	DANFORTH RD	2010	Resurfacing	Local		Scarborough	2015
11-York South-Weston	11-York South-Weston	31285	LANGDEN AVE	CLIFF ST	CLIFF ST	2011	Grind & Pave	Local	Grind & Pave under the U-cut repair contracts.	Etobicoke York	2014
11-York South-Weston	11-York South-Weston	31286	LANGDEN AVE	CLIFF ST	CORDELLA AVE	2011	Grind & Pave	Local	Grind & Pave under the U-cut repair contracts.	Etobicoke York	2014
18-Davenport	18-Davenport	04684.000	LANSDOWNE AVE (TO)	COLLEGE ST (TO)	LUMBERVALE AVE	2007	Reconstruction	Minor Arterial		Toronto and East York	2012
18-Davenport	18-Davenport	04687.000	LANSDOWNE AVE (TO)	WHYTOCK AVE	[39 m S] BLOOR ST W	2007	Reconstruction	Minor Arterial		Toronto and East York	2012
18-Davenport	18-Davenport	04689.000	LANSDOWNE AVE (TO)	[39 m S] BLOOR ST W	BLOOR ST W	2007	Reconstruction	Minor Arterial		Toronto and East York	2012
7-York West	7-York West	27500	LARCHMERE AVE	MUIR AVE (N YK)	RIVERSIDE DR (N YK)	2010	Resurfacing	Local		Etobicoke York	2015
7-York West	7-York West	27510	LARCHMERE AVE	RIVERSIDE DR (N YK)	HUSBAND DR	2010	Resurfacing	Local		Etobicoke York	2015
22-St. Paul's	22-St. Paul's	04723.000	LASCELLES BLVD	[S] LASCELLES BLVD [END]	CHAPLIN CRES	2009	Resurfacing	Local		Toronto and East York	2014
22-St. Paul's	22-St. Paul's	04724.000	LASCELLES BLVD	CHAPLIN CRES	IMPERIAL ST	2009	Resurfacing	Local		Toronto and East York	2014
22-St. Paul's	22-St. Paul's	04725.000	LASCELLES BLVD	IMPERIAL ST	TRANMER AVE	2009	Resurfacing	Local		Toronto and East York	2014
22-St. Paul's	22-St. Paul's	04726.000	LASCELLES BLVD	TRANMER AVE	HILLSDALE AVE W	2009	Resurfacing	Local		Toronto and East York	2014
44-Scarborough East	44-Scarborough East	EG0200	LASH CRT	MILITARY TRL	MILITARY TRL	2011	Resurfacing	Local		Scarborough	2016
8-York West	8-York West	27580	LASKAY CRES	DRIFTWOOD AVE	DRIFTWOOD AVE	2010	Resurfacing	Local		North York	2015
5-Etobicoke-Lakeshore	5-Etobicoke-Lakeshore	312104	LATTON RD	PETERLEE AVE	REDCAR AVE	2010	Resurfacing	Local		Etobicoke York	2015
34-Don Valley East	34-Don Valley East	27660	LAURENTIDE DR	THREE VALLEYS DR	SILVERDALE CRES	2010	Resurfacing	Collector		North York	2015
34-Don Valley East	34-Don Valley East	27670	LAURENTIDE DR	SILVERDALE CRES	YORK MILLS RD	2010	Resurfacing	Local		North York	2015
43-Scarborough East	43-Scarborough East	DI0230	LAUSANNE CRES	DEARHAM WD	WOOSTER WD	2009	Resurfacing	Local		Scarborough	2014
03-Etobicoke Centre	03-Etobicoke Centre	304201	LAVER RD	ELMCREST RD	MILL RD	2011	Resurfacing	Local		Etobicoke York	2016
36-Scarborough Southwest	36-Scarborough Southwest	CM0150	LAWNDALE RD	KNOWLTON DR	GLENDA RD	2011	Resurfacing	Local		Scarborough	2016
44-Scarborough East	44-Scarborough East	022-04	LAWRENCE AVE E	BENNETT RD	KINGSTON RD	2010	Reconstruction	Minor Arterial		Scarborough	2015
16-Eglinton-Lawrence	16-Eglinton-Lawrence	022-18	LAWRENCE AVE W	AVENUE RD	BATHURST ST	2010	Resurfacing	Major Arterial		North York	2015
15-Eglinton-Lawrence	15-Eglinton-Lawrence	022-19	LAWRENCE AVE W	BATHURST ST	W R ALLEN EXPY W.N. RAMP	2010	Resurfacing	Major Arterial		North York	2015
16-Eglinton-Lawrence	16-Eglinton-Lawrence	04764.000	LAWRENCE AVE W	YONGE ST	CORTLAND AVE	2010	Resurfacing	Major Arterial		North York	2015
16-Eglinton-Lawrence	16-Eglinton-Lawrence	04765.000	LAWRENCE AVE W	CORTLAND AVE	LORINDALE AVE	2010	Resurfacing	Major Arterial		North York	2015
16-Eglinton-Lawrence	16-Eglinton-Lawrence	04766.000	LAWRENCE AVE W	LORINDALE AVE	UNSWORTH AVE	2010	Resurfacing	Major Arterial		North York	2015
16-Eglinton-Lawrence	16-Eglinton-Lawrence	04767.000	LAWRENCE AVE W	UNSWORTH AVE	JEDBURGH RD	2010	Resurfacing	Major Arterial		North York	2015
16-Eglinton-Lawrence	16-Eglinton-Lawrence	04768.000	LAWRENCE AVE W	DUPLEX AVE	GREER RD	2010	Resurfacing	Major Arterial		North York	2015
16-Eglinton-Lawrence	16-Eglinton-Lawrence	04769.000	LAWRENCE AVE W	GREER RD	CHATSWORTH DR	2010	Resurfacing	Major Arterial		North York	2015
16-Eglinton-Lawrence	16-Eglinton-Lawrence	04770.000	LAWRENCE AVE W	CHATSWORTH DR	ELM RD	2010	Resurfacing	Major Arterial		North York	2015
16-Eglinton-Lawrence	16-Eglinton-Lawrence	04771.000	LAWRENCE AVE W	ELM RD	ROSEWELL AVE	2010	Resurfacing	Major Arterial		North York	2015
16-Eglinton-Lawrence	16-Eglinton-Lawrence	04771.100	LAWRENCE AVE W	ROSEWELL AVE	AVENUE RD	2010	Resurfacing	Major Arterial		North York	2015
04-Etobicoke Centre	04-Etobicoke Centre	003400	LEARMONT DR	KIPLING AVE	CELESTINE DR	2011	Resurfacing	Local		Etobicoke York	2016
16-Eglinton-Lawrence	16-Eglinton-Lawrence	27790	LEDBURY ST	CARIBOU RD	LAWRENCE AVE W	2011	Reconstruction	Local		North York	2016
02-Etobicoke North	02-Etobicoke North	200300	LEDUC DR	ISLINGTON AVE	TORBOLTON DR	2011	Resurfacing	Local		Etobicoke York	2016
02-Etobicoke North	02-Etobicoke North	200302	LEDUC DR	TORBOLTON DR	REDWATER DR	2011	Resurfacing	Local		Etobicoke York	2016
32-Beaches-East York	32-Beaches-East York	04786.000	LEE AVE	ALFRESCO LAWN	VIOLET AVE	2010	Resurfacing	Local		Toronto and East York	2015
32-Beaches-East York	32-Beaches-East York	04787.000	LEE AVE	VIOLET AVE	QUEEN ST E	2010	Resurfacing	Local		Toronto and East York	2015
38-Scarborough Centre	38-Scarborough Centre	FN0108	LEE CENTRE DR	CORPORATE DR	CORPORATE DR	2010	Reconstruction	Local		Scarborough	2015
33-Don Valley East	33-Don Valley East	27870	LEITH HILL RD	SHAUGHNESSY BLVD	DON MILLS RD	2009	Resurfacing	Collector		North York	2014
33- Don Valley East	33- Don Valley East	27870	LEITH HILL RD	SHAUGHNESSY BLVD	DON MILLS RD	2011	Grind & Pave	Collector	Grind & Pave under the U-cut repair contracts.	North York	2014
02-Etobicoke North	02-Etobicoke North	203500	LEMSFORD RD	[129 m E] ISLINGTON AVE	ISLINGTON AVE	2011	Resurfacing	Local		Etobicoke York	2016
23-Willowdale	23-Willowdale	27880	LEONA DR	ANNDALE DR	SHEPPARD AVE E	2010	Infrastructure Enhancement	Local		North York	2015
25-Don Valley West	25-Don Valley West	061-01	LESLIE ST (N YK)	EGLINTON AVE E	LAWRENCE AVE E	2010	Resurfacing	Major Arterial		North York	2015
13-Parkdale-High Park	13-Parkdale-High Park	31327.000	LESTRANGE PL	BABY POINT CRES	BABY POINT RD	2008	Reconstruction	Local		Etobicoke York	2013
35-Scarborough Southwest	35-Scarborough Southwest	AT0320	LEYTON AVE	[172 m S] DANFORTH AVE [END]	DANFORTH AVE	2009	Resurfacing	Local		Scarborough	2014
22-St. Paul's	22-St. Paul's	04837.000	LILLIAN ST	SOUDAN AVE	EGLINTON AVE E	2009	Reconstruction	Local		Toronto and East York	2014
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	04841.000	LINDEN ST	SHERBOURNE ST	100m WEST (Approx)	2011	Grind & Pave	Local	Grind & Pave under the U-cut repair contracts.	Toronto and East York	2014
7-York West	7-York West	28100	LINDYLOU RD	[E-W] LANYARD RD [LEG]	RUMIKE RD	2011	Reconstruction	Collector		Etobicoke York	2016
15-Eglinton-Lawrence	15-Eglinton-Lawrence	31331.100	LITTLE BLVD	BOWIE AVE	SCHELL AVE	2007	Reconstruction	Local		North York	2012
36-Scarborough Southwest	36-Scarborough Southwest	CM0170	LOCHLEVEN DR	KINGSTON RD	GLENDA RD	2011	Resurfacing	Collector		Scarborough	2016
15-Eglinton-Lawrence	15-Eglinton-Lawrence	31341.000	LOCKSLEY AVE	ROSELAWN AVE	CASTLEFIELD AVE	2011	Resurfacing	Local		North York	2016
15-Eglinton-Lawrence	15-Eglinton-Lawrence	31342.000	LOCKSLEY AVE	CASTLEFIELD AVE	RIDELL AVE	2011	Resurfacing	Local		North York	2016

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WARD		SECTION	LOCATION			COMPLETED		FUNCTIONAL	REMARKS	DISTRICT	EXPIRATION
Even	Odd	ID	Street	From	To	YEAR	WORK	CLASS	(for carry over, deferred, delayed work)		DATE
17-Davenport	17-Davenport	12343.200	[106.70 m N] LINDNER ST	MILLER ST	[32 m W] MILLER ST	2010	Reconstruction	Laneway		Etobicoke York	2015
19-Trinity-Spadina	19-Trinity-Spadina	11564.000	[107.80 m S] HARBORD ST	MANNING AVE (TO)	CLINTON ST	2011	Resurfacing	Laneway		Toronto and East York	2016
15-Eglinton-Lawrence	15-Eglinton-Lawrence	31344.000	LOCKSLEY AVE	RIDELLE AVE	BRIAR HILL AVE	2011	Resurfacing	Local		North York	2016
39-Scarborough-Agincourt	39-Scarborough-Agincourt	HS0170	LOFTHOUSE SQ	LA PEER BLVD	LA PEER BLVD	2010	Resurfacing	Local		Scarborough	2015
30-Toronto-Danforth	32-Beaches-East York	04883.000	LOGAN AVE	COLGATE AVE	NATALIE PL	2011	Grind & Pave	Collector		Toronto and East York	2014
30-Toronto-Danforth	32-Beaches-East York	04884.000	LOGAN AVE	NATALIE PL	PAISLEY AVE	2011	Grind & Pave	Collector		Toronto and East York	2014
30-Toronto-Danforth	32-Beaches-East York	04885.000	LOGAN AVE	PAISLEY AVE	DUNDAS ST.E	2011	Grind & Pave	Collector		Toronto and East York	2014
01-Etobicoke North	01-Etobicoke North	111010	LOIRE CRT	CASSIS DR	[173 m E] CASSIS DR [CUL-DE-SAC W/ BULB]	2009	Resurfacing	Local		Etobicoke York	2014
39-Scarborough-Agincourt	39-Scarborough-Agincourt	GR0260	LOVERING RD	GROVE HILL DR	KENNEDY RD	2010	Resurfacing	Local		Scarborough	2015
20-Trinity-Spadina	20-Trinity-Spadina	04945.900	LOWER SIMCOE ST	[S] LAKE SHORE BLVD W [BRANCH]	[N] LAKE SHORE BLVD W [BRANCH]	2011	Intersection Improvements & Curb Realignment	Collector	carry over from 2010 to 2011	Toronto and East York	2016
20-Trinity-Spadina	20-Trinity-Spadina	04946.400	LOWER SIMCOE ST	[94.40 m N] BREMNER BLVD	STATION ST	2009	Construction	Collector		Toronto and East York	2014
42-Scarborough-Rouge	42-Scarborough-Rouge	GJ0180	LOWRY SQ	LOWRY SQ	WICKSON TRL	2011	Resurfacing	Local		Scarborough	2016
20-Trinity-Spadina	20-Trinity-Spadina	04956.600	LOWTHER AVE	AVENUE RD	[44 m W] AVENUE RD	2010	Resurfacing	Local		Toronto and East York	2015
20-Trinity-Spadina	20-Trinity-Spadina	04956.700	LOWTHER AVE	[44 m W] AVENUE RD	BEDFORD RD	2010	Resurfacing	Local		Toronto and East York	2015
20-Trinity-Spadina	20-Trinity-Spadina	04956.800	LOWTHER AVE	BEDFORD RD	ADMIRAL RD	2010	Resurfacing	Local		Toronto and East York	2015
20-Trinity-Spadina	20-Trinity-Spadina	04956.900	LOWTHER AVE	ADMIRAL RD	ST GEORGE ST (TO)	2010	Resurfacing	Local		Toronto and East York	2015
20-Trinity-Spadina	20-Trinity-Spadina	04957.100	LOWTHER AVE	ST GEORGE ST (TO)	HURON ST	2010	Resurfacing	Local		Toronto and East York	2015
20-Trinity-Spadina	20-Trinity-Spadina	04957.200	LOWTHER AVE	HURON ST	MADISON AVE	2010	Resurfacing	Local		Toronto and East York	2015
20-Trinity-Spadina	20-Trinity-Spadina	04957.300	LOWTHER AVE	MADISON AVE	SPADINA RD (TO)	2010	Resurfacing	Local		Toronto and East York	2015
5-Etobicoke-Lakeshore	5-Etobicoke-Lakeshore	312204	LYNNFORD DR	SILVERHILL DR	THE EAST MALL	2010	Resurfacing	Local		Etobicoke York	2015
16-Eglinton-Lawrence	16-Eglinton-Lawrence	04979.000	LYTTON BLVD	YONGE ST	DUPLEX AVE	2009	Resurfacing	Collector		North York	2014
16-Eglinton-Lawrence	16-Eglinton-Lawrence	04980.000	LYTTON BLVD	DUPLEX AVE	HEATHER ST	2009	Resurfacing	Local		North York	2014
16-Eglinton-Lawrence	16-Eglinton-Lawrence	04981.000	LYTTON BLVD	HEATHER ST	ROSEWELL AVE	2009	Cold In Place Recycle	Local		North York	2014
16-Eglinton-Lawrence	16-Eglinton-Lawrence	04982.000	LYTTON BLVD	ROSEWELL AVE	ALEXANDRA BLVD	2009	Resurfacing	Local		North York	2014
16-Eglinton-Lawrence	16-Eglinton-Lawrence	04983.000	LYTTON BLVD	ALEXANDRA BLVD	AVENUE RD	2009	Resurfacing	Local		North York	2014
05-Etobicoke-Lakeshore	05-Etobicoke-Lakeshore	309700	MABELLE AVE	[274 m W] CORDOVA AVE	[W] DUNDAS ST	2009	Resurfacing	Local		Etobicoke York	2014
36-Scarborough Southwest	36-Scarborough Southwest	CO0230	MACDUFF CRES	OAKRIDGE DR	RANDALL CRES	2010	Resurfacing	Local		Scarborough	2015
18-Davenport	18-Davenport	05005.000	MACKLEM AVE	PARR ST	COLLEGE ST	2011	Resurfacing	Local		Toronto and East York	2016
32-Beaches-East York	32-Beaches-East York	05008.000	MACLEAN AVE	HUBBARD BLVD	SELWOOD AVE	2010	Resurfacing	Local		Toronto and East York	2015
32-Beaches-East York	32-Beaches-East York	05009.000	MACLEAN AVE	SELWOOD AVE	BONFIELD AVE	2010	Resurfacing	Local		Toronto and East York	2015
32-Beaches-East York	32-Beaches-East York	05010.000	MACLEAN AVE	BONFIELD AVE	AVION AVE	2010	Resurfacing	Local		Toronto and East York	2015
32-Beaches-East York	32-Beaches-East York	05011.000	MACLEAN AVE	AVION AVE	QUEEN ST E	2010	Resurfacing	Local		Toronto and East York	2015
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	05020.000	MACLENNAN AVE	ROSEDALE HEIGHTS DR	GARFIELD AVE	2012	Resurfacing	Collector	carry over from 2011 to 2012	Toronto and East York	2017
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	05021.000	MACLENNAN AVE	GARFIELD AVE	INGLEWOOD DR	2012	Resurfacing	Collector	carry over from 2011 to 2012	Toronto and East York	2017
24-Willowdale	24-Willowdale	28800	MADAWASKA AVE	YONGE ST	WILLOWDALE AVE	2011	Resurfacing	Local		North York	2016
20-Trinity-Spadina	20-Trinity-Spadina	05037.100	MADISON AVE	[45.70 m N] BLOOR ST W	LOWTHER AVE	2009	Resurfacing	Local		Toronto and East York	2014
20-Trinity-Spadina	20-Trinity-Spadina	05038.000	MADISON AVE	LOWTHER AVE	BERNARD AVE	2009	Resurfacing	Local		Toronto and East York	2014
20-Trinity-Spadina	20-Trinity-Spadina	05039.000	MADISON AVE	BERNARD AVE	DUPONT ST	2009	Resurfacing	Local		Toronto and East York	2014
9-York Centre	9-York Centre	28850	MAGELLAN DR	SHEPPARD AVE E	GILTSPUR DR	2010	Resurfacing	Local		North York	2015
27-Toronto Centre-Roseda	27-Toronto Centre-Rosedal	05059.000	MAITLAND ST	YONGE ST	MAITLAND TER	2010	Resurfacing	Local		Toronto and East York	2015
27-Toronto Centre-Roseda	27-Toronto Centre-Rosedal	05060.000	MAITLAND ST	MAITLAND TER	CHURCH ST	2010	Resurfacing	Local		Toronto and East York	2015
27-Toronto Centre-Roseda	27-Toronto Centre-Rosedal	05061.000	MAITLAND ST	CHURCH ST	ALEXANDER PL	2010	Resurfacing	Collector		Toronto and East York	2015
27-Toronto Centre-Roseda	27-Toronto Centre-Rosedal	05062.000	MAITLAND ST	ALEXANDER PL	MUTUAL ST	2010	Resurfacing	Collector		Toronto and East York	2015
27-Toronto Centre-Roseda	27-Toronto Centre-Rosedal	05063.000	MAITLAND ST	MUTUAL ST	JARVIS ST	2010	Resurfacing	Collector		Toronto and East York	2015
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	05065.000	MAITLAND TER	[41.10 m N] ALEXANDER ST	MAITLAND ST	2007	Reconstruction	Laneway		Toronto and East York	2012
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	05066.000	MAITLAND TER	MAITLAND ST	[51.80 m N] MAITLAND ST	2007	Reconstruction	Laneway		Toronto and East York	2012
20-Trinity-Spadina	20-Trinity-Spadina	05068.000	MAJOR ST	COLLEGE ST (TO)	[50 m N] COLLEGE ST (TO)	2010	Resurfacing	Local		Toronto and East York	2015
20-Trinity-Spadina	20-Trinity-Spadina	05068.200	MAJOR ST	[50 m N] COLLEGE ST (TO)	ULSTER ST	2010	Resurfacing	Local		Toronto and East York	2015
20-Trinity-Spadina	20-Trinity-Spadina	05069.000	MAJOR ST	ULSTER ST	HARBORD ST	2010	Resurfacing	Local		Toronto and East York	2015
20-Trinity-Spadina	20-Trinity-Spadina	05070.000	MAJOR ST	HARBORD ST	[28 m N] HARBORD ST	2010	Resurfacing	Local		Toronto and East York	2015
20-Trinity-Spadina	20-Trinity-Spadina	05070.100	MAJOR ST	[28 m N] HARBORD ST	SUSSEX AVE	2010	Resurfacing	Local		Toronto and East York	2015
20-Trinity-Spadina	20-Trinity-Spadina	05071.000	MAJOR ST	SUSSEX AVE	BLOOR ST W	2010	Resurfacing	Local		Toronto and East York	2015
32-Beaches-East York	32-Beaches-East York	05075.000	MALVERN AVE	KINGSTON RD	LYALL AVE	2007	Reconstruction	Local		Toronto and East York	2012
32-Beaches-East York	32-Beaches-East York	05076.000	MALVERN AVE	LYALL AVE	SWANWICK AVE (TO)	2007	Reconstruction	Local		Toronto and East York	2012
32-Beaches-East York	32-Beaches-East York	05077.000	MALVERN AVE	SWANWICK AVE (TO)	GERRARD ST E	2007	Reconstruction	Local		Toronto and East York	2012
24-Willowdale	06-Etobicoke-Lakeshor	409200	MANCHESTER ST	BLUE GOOSE ST	[306 m E] BLUE GOOSE	2009	Resurfacing	Local		Etobicoke York	2014
01-Etobicoke North	01-Etobicoke North	100603	MANFRED AVE	SILVERSTONE DR	BUCKSBURN RD	2011	Resurfacing	Local		Etobicoke York	2016
22-St. Paul's	22-St. Paul's	05082.000	MANN AVE	SOUDAN AVE	EGLINTON AVE E	2009	Resurfacing	Local		Toronto and East York	2014
22-St. Paul's	22-St. Paul's	05110.000	MANOR RD E	MOUNT PLEASANT RD	HADLEY RD	2010	Resurfacing	Collector		Toronto and East York	2015
22-St. Paul's	22-St. Paul's	05111.000	MANOR RD E	HADLEY RD	HARWOOD RD	2010	Resurfacing	Collector		Toronto and East York	2015
22-St. Paul's	22-St. Paul's	05112.000	MANOR RD E	HARWOOD RD	FORMAN AVE	2010	Resurfacing	Collector		Toronto and East York	2015
22-St. Paul's	22-St. Paul's	05113.000	MANOR RD E	FORMAN AVE	BOYTON RD	2010	Resurfacing	Collector		Toronto and East York	2015
22-St. Paul's	22-St. Paul's	05114.000	MANOR RD E	BOYTON RD	UNNAMED STREETS	2010	Resurfacing	Collector		Toronto and East York	2015
22-St. Paul's	22-St. Paul's	05114.100	MANOR RD E	UNNAMED STREETS	BELCOURT RD	2010	Resurfacing	Collector		Toronto and East York	2015
22-St. Paul's	22-St. Paul's	05115.000	MANOR RD E	BELCOURT RD	THURSTON RD	2010	Resurfacing	Collector		Toronto and East York	2015
22-St. Paul's	22-St. Paul's	05116.000	MANOR RD E	THURSTON RD	CLEVELAND ST	2010	Resurfacing	Collector		Toronto and East York	2015
22-St. Paul's	22-St. Paul's	05120.000	MANOR RD W	YONGE ST	[W] MANOR RD W [END]	2010	Resurfacing	Local		Toronto and East York	2015
22-St. Paul's	22-St. Paul's	05121.000	MANOR RD W	[E] MANOR RD W [END]	DUPLEX AVE	2010	Resurfacing	Local		Toronto and East York	2015
21-St. Paul's	21-St. Paul's	31380.200	MAPLEWOOD AVE	VAUGHAN RD	RAGLAN AVE	2009	Reconstruction	Local		Toronto and East York	2014
21-St. Paul's	21-St. Paul's	05134.000	MARCHMOUNT RD	[N-S] MARCHMOUNT RD [LEG]	SHAW ST	2011	Reconstruction	Local		Toronto and East York	2016
39-Scarborough-Agincourt	39-Scarborough-Agincourt	GQ0260	MARILYN AVE	KENNEDY RD	REIDMOUNT AVE	2010	Resurfacing	Local		Scarborough	2015
30-Toronto-Danforth	30-Toronto-Danforth	05151.000	MARJORY AVE	DAGMAR AVE	AUSTIN AVE	2009	Resurfacing	Local		Toronto and East York	2014
30-Toronto-Danforth	30-Toronto-Danforth	05152.000	MARJORY AVE	AUSTIN AVE	GERRARD ST E	2009	Resurfacing	Local		Toronto and East York	2014
38-Scarborough Centre	38-Scarborough Centre	055-04	MARKHAM RD	ELLESMERE RD	SHEPPARD AVE	2011	Resurfacing	Major Arterial		Scarborough	2016
36-Scarborough Southwest	36-Scarborough Southwest	CL0130	MARKHAM RD	HILL CRES	KINGSTON RD	2011	Resurfacing	Collector		Scarborough	2016
40-Scarborough-Agincourt	40-Scarborough-Agincourt	FS0170	MARLBANK RD	SCARDEN AVE	BIRCHARD ST	2010	Resurfacing	Local		Scarborough	2015
15-Eglinton-Lawrence	15-Eglinton-Lawrence	29270	MARLEE AVE	GLENCAIRN AVE	LAWRENCE AVE E	2009	Reconstruction	Minor Arterial		North York	2014
07-York West	07-York West	29280	MARLINGTON CRES	[W] CHALKFARM DR [BRANCH]	CHALKFARM DR	2007	Reconstruction	Local		Etobicoke York	2012
02-Etobicoke North	02-Etobicoke North	016501	MARTIN GROVE RD	DIXON RD	[75 m S] RONSON DR	2009	Resurfacing	Minor Arterial		Etobicoke York	2014
02-Etobicoke North	02-Etobicoke North	016502	MARTIN GROVE RD	[75 m S] RONSON DR	SOUTH LIMIT HWY 409	2009	Resurfacing	Collector		Etobicoke York	2014
02-Etobicoke North	02-Etobicoke North	016504	MARTIN GROVE RD	[N] HWY 409 [LIMIT]	BELFIELD RD	2009	Resurfacing	Minor Arterial		Etobicoke York	2014
02-Etobicoke North	02-Etobicoke North	016622	MARTIN GROVE RD	[100 m N] LAVINGTON DR	DIXON RD	2009	Resurfacing	Major Arterial		Etobicoke York	2014
31-Beaches-East York	31-Beaches-East York	05192.000	MARYLAND BLVD	COLEMAN AVE	[138.90 m N] COLEMAN AVE [CITY LIMITS]	2009	Resurfacing	Local		Toronto and East York	2014
31-Beaches-East York	31-Beaches-East York	20925.000	MARYLAND BLVD	[138.90 m N] COLEMAN AVE [CITY LIMITS]	DENTONIA PARK AVE	2009	Resurfacing	Local		Toronto and East York	2014
22-St. Paul's	22-St. Paul's	05203.000	MAXWELL AVE	ANDERSON AVE	EGLINTON AVE W	2010	Resurfacing	Local		Toronto and East York	2015
25-Don Valley West	25-Don Valley West	29560	MAY TREE RD	GREEN VALLEY RD	N END	2012	Reconstruction	Local	carry over from 2011 to 2012	North York	2017
27-Toronto Centre-Roseda	27-Toronto Centre-Rosedal	05241.000	MC GILL ST	SHEARD ST	CHURCH ST	2010	Resurfacing	Local		Toronto and East York	2015
27-Toronto Centre-Roseda	27-Toronto Centre-Rosedal	05242.000	MC GILL ST	CHURCH ST	MUTUAL ST	2010	Resurfacing	Local		Toronto and East York	2015
36-Scarborough Southwest	36-Scarborough Southwest	CN0180	MCCOWAN RD	KINGSTON RD	EGLINTON AVE E	2011	Resurfacing	Minor Arterial		Scarborough	2016
02-Etobicoke North	02-Etobicoke North	202503	MCCULLOCH (N) AVE	BELFIELD RD	HWY 409 [END]	2009	Resurfacing	Local		Etobicoke York	2014
1-Etobicoke North	02-Etobicoke North	202502	MCCULLOCH (S) AVE	ENTERPRISE RD	N HWY 409 (DEAD END)	2009	Resurfacing	Local		Etobicoke York	2014
42-Scarborough-Rouge Riv	42-Scarborough-Rouge Rive	GK0230	MCLEVIN AVE	TAPSCOTT RD	NEILSON RD	2010	Resurfacing	Collector		Scarborough	2015
04-Etobicoke Centre	04-Etobicoke Centre	206100	MCMANUS RD	DIXON RD	DEETH DR	2011	Resurfacing	Local		Etobicoke York	2016
24-Willowdale	24-Willowdale	29730	MCNICOLL AVE	VICTORIA PARK AVE	HWY 404	2010	Reconstruction	Minor Arterial		North York	2015
39-Scarborough-Agincourt	39-Scarborough-Agincourt	HS0190	MCNICOLL AVE	WARDEN AVE	BIRCHMOUNT RD	2007	Reconstruction	Minor Arterial		Scarborough	2012
39-Scarborough-Agincourt	39-Scarborough-Agincourt	HT0260	MCNICOLL AVE	PHARMACY AVE	WARDEN AVE	2007	Reconstruction	Minor Arterial		Scarborough	2012
39-Scarborough-Agincourt	39-Scarborough-Agincourt	HU0050	MCNICOLL AVE	VICTORIA PARK AVE	PHARMACY AVE	2010	Resurfacing	Minor Arterial		Scarborough	2015
36-Scarborough Southwest	36-Scarborough Southwest	AU0140	MEADOW AVE	VICTORIA PARK AVE	BLANTYRE AVE	2009	Resurfacing	Local		Scarborough	2014

2012 MORATORIUM LIST OF ROADS

For Moratorium conditions refer to: http://www.toronto.ca/engineering/mcr/pdf/mcr_municipal_consent_requirements.pdf

Expiration Date is December 31, YEAR

WARD		SECTION	LOCATION			COMPLETED		FUNCTIONAL	REMARKS	DISTRICT	EXPIRATION
Even	Odd	ID	Street	From	To	YEAR	WORK	CLASS	(for carry over, deferred, delayed work)		DATE
17-Davenport	17-Davenport	12343.200	[106.70 m N] LINDNER ST	MILLER ST	[32 m W] MILLER ST	2010	Reconstruction	Laneway		Etobicoke York	2015
19-Trinity-Spadina	19-Trinity-Spadina	11564.000	[107.80 m S] HARBORD ST	MANNING AVE (TO)	CLINTON ST	2011	Resurfacing	Laneway		Toronto and East York	2016
40-Scarborough-Agincourt	40-Scarborough-Agincourt	FU0150	MEADOWACRES DR	VICTORIA PARK AVE	COMMONS DR	2011	Reconstruction	Collector		Scarborough	2016
15-Eglinton-Lawrence	15-Eglinton-Lawrence	29800	MEADOWBROOK RD	ENGLEMOUNT AVE	FRASERWOOD AVE	2007	Reconstruction	Local		North York	2012
42-Scarborough-Rouge River	42-Scarborough-Rouge River	HE0010	MEADOWVALE RD	OLD FINCH AVE	PLUG HAT RD	2011	Resurfacing	Collector		Scarborough	2016
38-Scarborough Centre	38-Scarborough Centre	DO0340	MEDLEY CRES	KILBRIDE RD	KILBRIDE RD	2009	Resurfacing	Local		Scarborough	2014
3-Etobicoke Centre	3-Etobicoke Centre	301007	MERRYGALE CRES	WEST DEANE PARK DR	WEST DEANE PARK DR	2010	Resurfacing	Local		Etobicoke York	2015
31-Beaches-East York	31-Beaches-East York	20975.000	MIDBURN AVE	DAWES RD	MIDBURN AVE	2009	Resurfacing	Local		Toronto and East York	2014
41-Scarborough-Rouge Riv	41-Scarborough-Rouge Rive	FP0130	MIDCROFT DR	PITFIELD RD	SONMORE DR	2010	Resurfacing	Local		Scarborough	2015
38-Scarborough Centre	38-Scarborough Centre	FK0150	MILITARY TRL	ELLESMERE RD	HIGHCASTLE RD	2010	Resurfacing	Collector		Scarborough	2015
07-York West	07-York West	30120	MILLPORT DR	PENN DR	CHERRYLAWN AVE	2009	Resurfacing	Local		Etobicoke York	2014
26-Don Valley West	26-Don Valley West	20780.000	MILLWOOD AVE	BESSBOROUGH DR	HANNA RD	2011	Grind & Pave	Collector	Grind & Pave under the U-cut repair contracts.	North York	2014
26-Don Valley West	26-Don Valley West	20799.000	MILLWOOD AVE	MACNAUGHTON RD	BESSBOROUGH DR	2011	Grind & Pave	Collector	Grind & Pave under the U-cut repair contracts.	North York	2014
26-Don Valley West	26-Don Valley West	20977.000	MILLWOOD AVE	BAYVIEW AVE	DONGELL DR	2011	Grind & Pave	Collector	Grind & Pave under the U-cut repair contracts.	North York	2014
26-Don Valley West	26-Don Valley West	20978.000	MILLWOOD AVE	DONGELL DR	MACNAUGHTON RD	2011	Grind & Pave	Collector	Grind & Pave under the U-cut repair contracts.	North York	2014
26-Don Valley West	26-Don Valley West	20981.000	MILLWOOD AVE	HANNA RD	MCRAE DR	2011	Grind & Pave	Collector	Grind & Pave under the U-cut repair contracts.	North York	2014
26-Don Valley West	26-Don Valley West	20982.000	MILLWOOD AVE	MCRAE DR	RUMSEY RD	2011	Grind & Pave	Collector	Grind & Pave under the U-cut repair contracts.	North York	2014
42-Scarborough-Rouge Riv	42-Scarborough-Rouge Rive	FI0110	MILNER AVE	[235 m W] CINEMART DR	MORNINGSIDE AVE (SC)	2011	Resurfacing	Collector		Scarborough	2016
36-Scarborough Southwest	36-Scarborough Southwest	CP0260	MINERVA AVE	WALTONICE RD	ANDREW AVE	2007	Reconstruction	Local		Scarborough	2012
36-Scarborough Southwest	36-Scarborough Southwest	CP0270	MINERVA AVE	ANDREW AVE	BRIMLEY RD	2007	Reconstruction	Local		Scarborough	2012
37-Scarborough Centre	37-Scarborough Centre	DS0140	MINFORD AVE	WARDEN AVE	CROCKFORD BLVD	2009	Resurfacing	Local		Scarborough	2014
44-Scarborough East	44-Scarborough East	EG0280	MINNACOTE	LAWRENCE AVE E	BEECHGROVE DR	2011	Resurfacing	Local		Scarborough	2016
40-Scarborough-Agincourt	40-Scarborough-Agincourt	FS0200	MINNOWBURN ST	MARLBANK RD	CORUNDUM CRES	2011	Resurfacing	Local		Scarborough	2016
15-Eglinton-Lawrence	15-Eglinton-Lawrence	31431.000	MOIR AVE	WINONA DR	[W] MOIR AVE [END]	2010	Resurfacing	Local		Toronto and East York	2015
5-Etobicoke-Lakeshore	5-Etobicoke-Lakeshore	312501	MONTESSON ST	ACORN AVE	WILMAR RD	2010	Resurfacing	Local		Etobicoke York	2015
41-Scarborough-Rouge Riv	41-Scarborough-Rouge Rive	HP0330	MONTEZUMA TRL	BUSHMILLS SQ	ALEXMUIR BLVD	2011	Resurfacing	Local		Scarborough	2016
04-Etobicoke Centre	04-Etobicoke Centre	022411	MONTGOMERY RD	LOYALIST RD	DUNDAS ST	2011	Resurfacing	Collector		Etobicoke York	2016
04-Etobicoke Centre	04-Etobicoke Centre	022421	MONTGOMERY RD	ALLANBROOKE DR	LOYALIST RD	2011	Resurfacing	Collector		Etobicoke York	2016
27-Toronto Centre-Ros	27-Toronto Centre-Ros	05407.500	MOORE AVE	WELLAND AVE	HUDSON DR	2009	Reconstruction	Minor Arterial		Toronto and East York	2014
27-Toronto Centre-Ros	27-Toronto Centre-Ros	05408.000	MOORE AVE	HUDSON DR	[115 m E] HUDSON DR [	2009	Reconstruction	Minor Arterial		Toronto and East York	2014
22-St. Paul's	26-Don Valley West	05409.000	MOORE AVE	[115 m E] HUDSON DR	BRENDAN RD	2009	Reconstruction	Minor Arterial		Toronto and East York	2014
22-St. Paul's	26-Don Valley West	05409.100	MOORE AVE	BRENDAN RD	LUMLEY AVE	2009	Reconstruction	Minor Arterial		Toronto and East York	2014
22-St. Paul's	26-Don Valley West	05409.200	MOORE AVE	LUMLEY AVE	ORCHARD GREEN	2009	Reconstruction	Minor Arterial		Toronto and East York	2014
22-St. Paul's	26-Don Valley West	05409.300	MOORE AVE	ORCHARD GREEN	[41 m W] BAYVIEW AVE	2009	Reconstruction	Minor Arterial		Toronto and East York	2014
26-Don Valley West	26-Don Valley West	21013.000	MOORE AVE	BAYVIEW AVE	POTTERY RD	2009	Resurfacing	Local		North York	2014
37-Scarborough Centre	37-Scarborough Centre	DS0160	MORAY PL	ARNHAM RD	[76 m E] ARNHAM RD [CUL-DE-SAC]	2009	Resurfacing	Local		Scarborough	2014
4-Etobicoke Centre	4-Etobicoke Centre	303502	MORLEY CRT	ALLANHURST DR	[30 m S] ALLANHURST DR [CUL-DE-SAC]	2010	Resurfacing	Local		Etobicoke York	2015
42-Scarborough-Rouge River	42-Scarborough-Rouge River	GH0140	MORNINGSIDE AVE (SC)	SEWELLS RD	OLD FINCH AVE	2009	Resurfacing	Minor Arterial		Scarborough	2014
42-Scarborough-Rouge River	42-Scarborough-Rouge River	GH0141	MORNINGSIDE AVE (SC)	OLD FINCH AVE	CPR	2009	Reconstruction	Minor Arterial		Scarborough	2014
42-Scarborough-Rouge River	42-Scarborough-Rouge River	HJ0579	MORNINGSIDE AVE (SC)	CPR	STAINES RD	2009	Reconstruction	Local		Scarborough	2014
17-Davenport	17-Davenport	05422.000	MORRISON AVE	DUFFERIN ST	SELLERS AVE	2010	Resurfacing	Local		Etobicoke York	2015
17-Davenport	17-Davenport	05423.000	MORRISON AVE	SELLERS AVE	DAY AVE	2010	Resurfacing	Local		Etobicoke York	2015
17-Davenport	17-Davenport	05424.000	MORRISON AVE	DAY AVE	BOON AVE	2010	Resurfacing	Local		Etobicoke York	2015
30-Toronto-Danforth	30-Toronto-Danforth	05433.000	MORSE ST	EASTERN AVE	QUEEN ST E	2012	Resurfacing	Local	carry over from 2011 to 2012	Toronto and East York	2017
01-Etobicoke North	01-Etobicoke North	111002	MOSELLE DR	CABERNET CRCL	PROVENCE TRL	2009	Resurfacing	Local		Etobicoke York	2014
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	05456.050	MOUNT PLEASANT RD	[89.50 m N] JARVIS ST	[S] BLOOR ST E [BRIDGE]	2009	Resurfacing	Major Arterial		Toronto and East York	2014
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	05456.100	MOUNT PLEASANT RD	[S] BLOOR ST E [BRIDGE]	[N] BLOOR ST E [BRIDGE]	2009	Resurfacing	Major Arterial		Toronto and East York	2014
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	05457.000	MOUNT PLEASANT RD	[N] BLOOR ST E [BRIDGE]	[E] MOUNT PLEASANT RD [RAMP]	2009	Resurfacing	Major Arterial		Toronto and East York	2014
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	05458.000	MOUNT PLEASANT RD	[E] MOUNT PLEASANT RD [RAMP]	[N] ROSEDALE VALLEY RD [BRIDGE]	2009	Resurfacing	Major Arterial		Toronto and East York	2014
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	05458.100	MOUNT PLEASANT RD	[N] ROSEDALE VALLEY RD [BRIDGE]	ELM AVE	2009	Resurfacing	Major Arterial		Toronto and East York	2014
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	05459.000	MOUNT PLEASANT RD	ELM AVE	MEREDITH CRES	2009	Resurfacing	Major Arterial		Toronto and East York	2014
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	05460.000	MOUNT PLEASANT RD	MEREDITH CRES	SOUTH DR	2009	Resurfacing	Major Arterial		Toronto and East York	2014
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	05460.100	MOUNT PLEASANT RD	SOUTH DR	[45 m N] SOUTH DR	2009	Resurfacing	Major Arterial		Toronto and East York	2014
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	05461.000	MOUNT PLEASANT RD	[45 m N] SOUTH DR	SCARTH RD	2009	Resurfacing	Major Arterial		Toronto and East York	2014
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	05461.100	MOUNT PLEASANT RD	SCARTH RD	[S] CRESCENT RD [BRIDGE]	2009	Resurfacing	Major Arterial		Toronto and East York	2014
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	05461.200	MOUNT PLEASANT RD	[S] CRESCENT RD [BRIDGE]	[E] MOUNT PLEASANT RD [RAMP]	2009	Resurfacing	Major Arterial		Toronto and East York	2014
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	05462.000	MOUNT PLEASANT RD	[E] MOUNT PLEASANT RD [RAMP]	ROXBOROUGH ST E	2009	Resurfacing	Major Arterial		Toronto and East York	2014
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	05464.000	MOUNT PLEASANT RD	ROXBOROUGH ST E	ROXBOROUGH DR	2009	Resurfacing	Major Arterial		Toronto and East York	2014
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	05465.000	MOUNT PLEASANT RD	ROXBOROUGH DR	[98 m S] WHITEHALL RD	2009	Resurfacing	Major Arterial		Toronto and East York	2014
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	05465.100	MOUNT PLEASANT RD	[98 m S] WHITEHALL RD	WHITEHALL RD	2009	Resurfacing	Major Arterial		Toronto and East York	2014
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	05466.000	MOUNT PLEASANT RD	WHITEHALL RD	[S] RAILWAY LANDS (CPR) [BRIDGE]	2009	Resurfacing	Major Arterial		Toronto and East York	2014
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	05466.100	MOUNT PLEASANT RD	[S] RAILWAY LANDS (CPR) [BRIDGE]	[N] RAILWAY LANDS (CPR) [BRIDGE]	2009	Resurfacing	Major Arterial		Toronto and East York	2014
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	05466.200	MOUNT PLEASANT RD	[N] RAILWAY LANDS (CPR) [BRIDGE]	CARSTOWE RD	2009	Resurfacing	Major Arterial		Toronto and East York	2014
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	05471.000	MOUNT PLEASANT RD	ST CLAIR AVE E (TO)	ROSE PARK DR	2009	Resurfacing	Major Arterial		Toronto and East York	2014
25-Don Valley West	25-Don Valley West	41740	MOUNT PLEASANT RD	DONCLIFFE DR	DONCLIFFE DR (20.61 m S of)	2009	Reconstruction	Local	Carryover from 2008 to 2009	North York	2014
25-Don Valley West	25-Don Valley West	41750	MOUNT PLEASANT RD	FOREST GLEN CRES	DONCLIFFE DR	2009	Reconstruction	Local	Carryover from 2008 to 2009	North York	2014
30-Toronto-Danforth	30-Toronto-Danforth	05516.100	MOUNTALAN AVE	GREENWOOD AVE	[E] MOUNTALAN AVE [END]	2011	Resurfacing	Local		Toronto and East York	2016
30-Toronto-Danforth	30-Toronto-Danforth	05516.800	MOUNTNOEL AVE	GREENWOOD AVE	[E] MOUNTNOEL AVE [END]	2011	Resurfacing	Local		Toronto and East York	2016
30-Toronto-Danforth	30-Toronto-Danforth	05519.000	MOUNTSTEPHEN ST	BLACKBURN ST	MUNRO ST	2010	Resurfacing	Local		Toronto and East York	2015
30-Toronto-Danforth	30-Toronto-Danforth	05520.000	MOUNTSTEPHEN ST	MUNRO ST	HAMILTON ST	2010	Resurfacing	Local		Toronto and East York	2015
30-Toronto-Danforth	30-Toronto-Danforth	05521.000	MOUNTSTEPHEN ST	HAMILTON ST	BROADVIEW AVE	2010	Resurfacing	Local		Toronto and East York	2015
18-Davenport	18-Davenport	05521.400	MOUTRAY ST	BROCK AVE	MARGUERETTA ST	2012	Resurfacing	Local	carry over from 2011 to 2012	Toronto and East York	2017
21-St. Paul's	21-St. Paul's	31441.000	MULBERRY CRES	WINONA DR	[W] MULBERRY AVE [END]	2010	Resurfacing	Local		Toronto and East York	2015
31-Beaches-East York	31-Beaches-East York	21070.000	MUNFORD CRES	CHAPMAN AVE	CHAPMAN AVE	2009	Resurfacing	Local		Toronto and East York	2014
30-Toronto-Danforth	30-Toronto-Danforth	05530.000	MUNRO ST	DUNDAS ST E	MOUNTSTEPHEN ST	2010	Resurfacing	Local		Toronto and East York	2015
30-Toronto-Danforth	30-Toronto-Danforth	05531.000	MUNRO ST	MOUNTSTEPHEN ST	GERRARD ST E	2010	Resurfacing	Local		Toronto and East York	2015
42-Scarborough-Rouge River	42-Scarborough-Rouge River	FI0140	MURISON BLVD	CURTIS CRES	MILNER AVE	2011	Resurfacing	Collector		Scarborough	2016
42-Scarborough-Rouge River	42-Scarborough-Rouge River	FJ0110	MURISON BLVD	SHEPPARD AVE E	CURTIS CRES	2011	Resurfacing	Collector		Scarborough	2016
42-Scarborough-Rouge River	42-Scarborough-Rouge River	GJ0230	NEILSON RD	CPR	FINCH AVE E	2009	Resurfacing	Minor Arterial		Scarborough	2014
29-Toronto-Danforth	29-Toronto-Danforth	21075.000	NESBITT DR	GOVERNOR'S RD	DOUGLAS CRES	2011	Resurfacing	Local		Toronto and East York	2016
29-Toronto-Danforth	29-Toronto-Danforth	21077.000	NESBITT DR	DOUGLAS CRES	BAYVIEW AVE	2011	Resurfacing	Local		Toronto and East York	2016
32-Beaches-East York	32-Beaches-East York	05571.000	NEVILLE PARK BLVD	[S] NEVILLE PARK BLVD [END]	[61.0 m S] QUEEN ST.E	2012	Resurfacing	Local	carry over from 2011 to 2012	Toronto and East York	2017
32-Beaches-East York	32-Beaches-East York	05572.000	NEVILLE PARK BLVD	[61.0 m S] QUEEN ST.E	QUEEN ST.E	2012	Resurfacing	Local	carry over from 2011 to 2012	Toronto and East York	2017
06-Etobicoke-Lakeshore	06-Etobicoke-Lakeshore	420800	NEWCASTLE ST	ROYAL YORK RD	HAROLD ST	2011	Resurfacing	Local		Etobicoke York	2016
21-St. Paul's	21-St. Paul's	05597.000	NINA ST	LYNDHURST AVE	WELLS HILL AVE	2010	Resurfacing	Local		Toronto and East York	2015
21-St. Paul's	21-St. Paul's	05598.000	NINA ST	WELLS HILL AVE	HILTON AVE	2010	Resurfacing	Local		Toronto and East York	2015
21-St. Paul's	21-St. Paul's	05599.000	NINA ST	HILTON AVE	BATHURST ST	2010	Resurfacing	Local		Toronto and East York	2015
06-Etobicoke-Lakeshore	06-Etobicoke-Lakeshore	414306	NINTH ST	EMERALD CRES	LAKESHORE BLVD	2011	Resurfacing	Local		Etobicoke York	2016
40-Scarborough-Agincourt	40-Scarborough-Agincourt	FU0170	NOBERT RD	FARMCREST DR	ESQUIRE RD	2010	Resurfacing	Local		Scarborough	2015
01-Etobicoke North	01-Etobicoke North	106402	NORBROOK CRES	WESTMORE DR	WOOLENSCOTE CRCL	2011	Resurfacing	Local		Etobicoke York	2016
5-Etobicoke-Lakeshore	5-Etobicoke-Lakeshore	008511	NORTH QUEEN ST	[23 m E] VANSCO RD	MEDULLA AVE	2010	Resurfacing	Minor Arterial		Etobicoke York	2015
5-Etobicoke-Lakeshore	5-Etobicoke-Lakeshore	008521	NORTH QUEEN ST	MEDULLA AVE	[61 m E] THE EAST MALL	2010	Resurfacing	Minor Arterial		Etobicoke York	2015
17-Davenport	17-Davenport	31469.000	NORTHCLIFFE BLVD	[55.80 m N] ST CLAIR AVE W	CLOVERLAWN AVE	2011	Resurfacing	Local		Etobicoke York	2016
17-Davenport	17-Davenport	31470.000	NORTHCLIFFE BLVD	CLOVERLAWN AVE	ROSECLIFFE AVE	2011	Resurfacing	Local		Etobicoke York	2016
17-Davenport	17-Davenport	31471.000	NORTHCLIFFE BLVD	ROSECLIFFE AVE	ROGERS RD	2011	Resurfacing	Local		Etobicoke York	2016
25-Don Valley West	25-Don Valley West	31090	NORTHDALE RD	[110 m E] TRUMAN RD [CUL-DE-SAC]	[173 m W] GERALD ST [CUL-DE-SAC]	2007	Construction	Local		North York	2012
42-Scarborough-Rouge Riv	42-Scarborough-Rouge Rive	FL0060	NOVOPHARM CRT	[244 m S] MILNER AVE [CUL-D	MILNER AVE	2010	Reconstruction	Local		Scarborough	2015
11-York South-Weston	11-York South-Weston	31270	OAK ST (N YK)	YELLAND ST	[220 m W] YELLAND ST [CITY LIMITS]	2009	Resurfacing	Collector		Etobicoke York	2014

2012 MORATORIUM LIST OF ROADS

For Moratorium conditions refer to: http://www.toronto.ca/engineering/mcr/pdf/mcr_municipal_consent_requirements.pdf

Expiration Date is December 31, YEAR

WARD		SECTION	LOCATION			COMPLETED		FUNCTIONAL	REMARKS	DISTRICT	EXPIRATION
Even	Odd	ID	Street	From	To	YEAR	WORK	CLASS	(for carry over, deferred, delayed work)		DATE
17-Davenport	17-Davenport	12343.200	[106.70 m N] LINDNER ST	MILLER ST	[32 m W] MILLER ST	2010	Reconstruction	Laneway		Etobicoke York	2015
19-Trinity-Spadina	19-Trinity-Spadina	11564.000	[107.80 m S] HARBORD ST	MANNING AVE (TO)	CLINTON ST	2011	Resurfacing	Laneway		Toronto and East York	2016
36-Scarborough Southwest	36-Scarborough Southwest	CN0190	OAKRIDGE DR	MCCOWAN RD	BELLAMY RD S	2011	Resurfacing	Collector		Scarborough	2016
14-Parkdale-High Park	14-Parkdale-High Park	05638.000	O'HARA AVE	QUEEN ST.W	N/ OF CALENDER	2011	Grind & Pave	Local	Grind & Pave under the U-cut repair contracts.	Toronto and East York	2014
22-St. Paul's	22-St. Paul's	05686.000	OLD FOREST HILL RD	RUSSELL HILL RD	[N] OLD FOREST HILL RD [BRANCH]	2010	Resurfacing	Local		Toronto and East York	2015
22-St. Paul's	22-St. Paul's	05688.000	OLD FOREST HILL RD	[N] OLD FOREST HILL RD [BRA	DUNLOE RD	2010	Resurfacing	Local		Toronto and East York	2015
22-St. Paul's	22-St. Paul's	05689.000	OLD FOREST HILL RD	DUNLOE RD	BROWSIDE AVE	2010	Resurfacing	Local		Toronto and East York	2015
22-St. Paul's	22-St. Paul's	05690.000	OLD FOREST HILL RD	BROWSIDE AVE	SPADINA RD (TO)	2010	Resurfacing	Local		Toronto and East York	2015
21-St. Paul's	21-St. Paul's	05693.000	OLD FOREST HILL RD	[N] VESTA DR [BRANCH]	[52 m S] EGLINTON AVE W	2010	Reconstruction	Local		Toronto and East York	2015
21-St. Paul's	21-St. Paul's	05694.000	OLD FOREST HILL RD	[52 m S] EGLINTON AVE W	EGLINTON AVE W	2011	Reconstruction	Local		Toronto and East York	2016
27-Toronto Centre-Roseda	27-Toronto Centre-Rosedal	05701.000	OLD GEORGE PL	[S] OLD GEORGE PL [END]	ROXBOROUGH DR	2010	Reconstruction	Local		Toronto and East York	2015
28-Toronto Centre-Rosedale	28-Toronto Centre-Rosedale	10679.010	OSKENONTON LANE	DUNDAS ST E	[39.40 m N] DUNDAS ST E	2009	Resurfacing	Laneway		Toronto and East York	2014
28-Toronto Centre-Rosedale	28-Toronto Centre-Rosedale	10681.000	OSKENONTON LANE	[38.70 m N] DUNDAS ST E	[91.40 m S] GERRARD ST E	2009	Resurfacing	Laneway		Toronto and East York	2014
28-Toronto Centre-Rosedale	28-Toronto Centre-Rosedale	10681.010	OSKENONTON LANE	[91.40 m S] GERRARD ST E	GERRARD ST E	2009	Resurfacing	Laneway		Toronto and East York	2014
17-Davenport	21-St. Paul's	05845.000	OSSINGTON AVE	[N] DUPONT ST [BRANCH]	GEARY AVE	2010	Resurfacing	Minor Arterial		Toronto and East York	2015
17-Davenport	21-St. Paul's	05846.000	OSSINGTON AVE	GEARY AVE	CARUS AVE	2010	Resurfacing	Minor Arterial		Toronto and East York	2015
17-Davenport	21-St. Paul's	05847.000	OSSINGTON AVE	CARUS AVE	MARCHMOUNT RD	2010	Resurfacing	Minor Arterial		Toronto and East York	2015
17-Davenport	21-St. Paul's	05848.000	OSSINGTON AVE	MARCHMOUNT RD	DAVENPORT RD	2010	Resurfacing	Minor Arterial		Toronto and East York	2015
42-Scarborough-Rouge Riv	42-Scarborough-Rouge Rive	GK0250	OSTERHOUT PL	BLACKWELL AVE	[213 m W] BLACKWELL AVE [CUL-DE-SAC	2010	Resurfacing	Local		Scarborough	2015
30-Toronto-Danforth	30-Toronto-Danforth	05877.000	PAISLEY AVE	BOOTH AVE	LOGAN AVE	2009	Resurfacing	Local		Toronto and East York	2014
2-Etobicoke North	2-Etobicoke North	102400	PAKENHAM DR	ELMHURST DR	FORDWICH CRES	2010	Resurfacing	Local		Etobicoke York	2015
31-Beaches-East York	31-Beaches-East York	05881.000	PALMER AVE	BALFOUR AVE	[36.60 m N] BALFOUR AVE [CITY LIMITS	2011	Resurfacing	Local		Toronto and East York	2016
31-Beaches-East York	31-Beaches-East York	21207.000	PALMER AVE	[36.60 m N] BALFOUR AVE [CI	DENTONIA PARK AVE	2010	Resurfacing	Local		Toronto and East York	2015
31-Beaches-East York	31-Beaches-East York	21208.000	PALMER AVE	DENTONIA PARK AVE	SECORD AVE	2010	Resurfacing	Local		Toronto and East York	2015
38-Scarborough Centre	38-Scarborough Centre	EM0250	PANAMA CRT	PANDORA CRCL	PANDORA CRCL	2011	Resurfacing	Local		Scarborough	2016
10-York Centre	10-York Centre	32080	PANNAHILL RD	SHAFTESBURY ST	OVERBROOK PL	2011	Resurfacing	Local		North York	2016
29-Toronto-Danforth	29-Toronto-Danforth	05935.300	PAPE AVE	O'CONNOR DR	DONLANDS AVE	2011	Intersection Improvements & Curb Realignment	Local	carry over from 2010 to 2011	Toronto and East York	2016
43-Scarborough East	43-Scarborough East	EK0320	PAR AVE	MOSSBANK DR	NIGHTINGALE PL	2010	Resurfacing	Local		Scarborough	2015
05-Etobicoke-Lakeshore	05-Etobicoke-Lakeshore	024303	PARK LAWN RD	[302 m S] THE QUEENSWAY	THE QUEENSWAY	2011	Resurfacing	Major Arterial		Etobicoke York	2016
05-Etobicoke-Lakeshore	05-Etobicoke-Lakeshore	024312	PARK LAWN RD	[S LIMIT] CNR	[N LIMIT] CNR	2011	Resurfacing	Major Arterial		Etobicoke York	2016
05-Etobicoke-Lakeshore	05-Etobicoke-Lakeshore	024322	PARK LAWN RD	[N LIMIT] CNR	[302 m S] THE QUEENSWAY	2011	Resurfacing	Major Arterial		Etobicoke York	2016
30-Toronto-Danforth	30-Toronto-Danforth	05950.000	PARKFIELD AVE	[W] PARKFIELD AVE [END]	HASTINGS AVE	2012	Resurfacing	Local	carry over from 2011 to 2012	Toronto and East York	2017
30-Toronto-Danforth	30-Toronto-Danforth	05951.000	PARKFIELD AVE	HASTINGS AVE	ALTON AVE	2012	Resurfacing	Local	carry over from 2011 to 2012	Toronto and East York	2017
14-Parkdale-High Park	14-Parkdale-High Park	05970.000	PARKSIDE DR	HOWARD PARK	INDIAN VELLEY CRES	2011	Grind & Pave	Minor Arterial	Grind & Pave under the U-cut repair contracts.	Toronto and East York	2014
13-Parkdale-High Park	13-Parkdale-High Park	05975.000	PARKVIEW GDNS	[E] PARKVIEW GDNS [END]	CLENDENAN AVE	2010	Resurfacing	Local		Etobicoke York	2015
28-Toronto Centre-Roseda	28-Toronto Centre-Rosedal	05985.000	PARLIAMENT ST	KING ST E	[S] ADELAIDE ST E [BRANCH]	2011	TTC Track Replacement & Major Road Resurfacing	Minor Arterial		Toronto and East York	2016
28-Toronto Centre-Roseda	28-Toronto Centre-Rosedal	05985.100	PARLIAMENT ST	[S] ADELAIDE ST E [BRANCH]	ADELAIDE ST E	2011	TTC Track Replacement & Major Road Resurfacing	Minor Arterial		Toronto and East York	2016
28-Toronto Centre-Roseda	28-Toronto Centre-Rosedal	05986.000	PARLIAMENT ST	ADELAIDE ST E	RICHMOND ST E	2011	TTC Track Replacement & Major Road Resurfacing	Minor Arterial		Toronto and East York	2016
28-Toronto Centre-Roseda	28-Toronto Centre-Rosedal	05987.000	PARLIAMENT ST	RICHMOND ST E	QUEEN ST E	2011	TTC Track Replacement & Major Road Resurfacing	Minor Arterial		Toronto and East York	2016
28-Toronto Centre-Roseda	28-Toronto Centre-Rosedal	05988.000	PARLIAMENT ST	QUEEN ST E	SHUTER ST	2011	TTC Track Replacement & Major Road Resurfacing	Minor Arterial		Toronto and East York	2016
28-Toronto Centre-Roseda	28-Toronto Centre-Rosedal	05989.000	PARLIAMENT ST	SHUTER ST	ST DAVID ST	2011	TTC Track Replacement & Major Rd Reconstruction	Minor Arterial		Toronto and East York	2016
28-Toronto Centre-Roseda	28-Toronto Centre-Rosedal	05990.000	PARLIAMENT ST	ST DAVID ST	COATSWORTH ST	2011	TTC Track Replacement & Major Rd Reconstruction	Minor Arterial		Toronto and East York	2016
28-Toronto Centre-Roseda	28-Toronto Centre-Rosedal	05990.100	PARLIAMENT ST	COATSWORTH ST	DUNDAS ST E	2011	TTC Track Replacement & Major Rd Reconstruction	Minor Arterial		Toronto and East York	2016
28-Toronto Centre-Roseda	28-Toronto Centre-Rosedal	05991.000	PARLIAMENT ST	DUNDAS ST E	OAK ST PVT	2011	TTC Track Replacement & Major Rd Reconstruction	Minor Arterial		Toronto and East York	2016
28-Toronto Centre-Roseda	28-Toronto Centre-Rosedal	05992.000	PARLIAMENT ST	OAK ST PVT	GERRARD ST E	2011	TTC Track Replacement & Major Road Resurfacing	Minor Arterial		Toronto and East York	2016
42-Scarborough-Rouge River	42-Scarborough-Rouge River	FJ0170	PARSELL SQ	MURISON BLVD	PARSELL SQ	2011	Resurfacing	Local		Scarborough	2016
25-Don Valley West	25-Don Valley West	32550	PEEBLES AVE	SALONICA RD	SAINTFIELD AVE	2009	Cold In Place Recycle	Local		North York	2014
07-York West	07-York West	32680	PENN DR	MILVAN DR	MILVAN DR	2009	Resurfacing	Local		Etobicoke York	2014
9-York Centre	9-York Centre	32740	PETERDALE RD	GILTSPUR DR	DOMBEY RD	2010	Resurfacing	Local		North York	2015
5-Etobicoke-Lakeshore	5-Etobicoke-Lakeshore	312200	PETERLEE AVE	TREMONT RD	LATTON RD	2010	Resurfacing	Local		Etobicoke York	2015
43-Scarborough East	43-Scarborough East	HI0665	PICKTHALL TERR	CINDY NICHOLAS DR	LAMPMAN DR	2008	Construction	Local		Scarborough	2013
42-Scarborough-Rouge River	42-Scarborough-Rouge River	FJ0180	PILKEY CRES	MURISON BLVD	MURISON BLVD	2011	Resurfacing	Local		Scarborough	2016
32-Beaches-East York	32-Beaches-East York	06088.000	PINE AVE	BALSAM AVE	SPRUCE HILL RD	2009	Resurfacing	Local		Toronto and East York	2014
32-Beaches-East York	32-Beaches-East York	06089.000	PINE AVE	SPRUCE HILL RD	BEECH AVE	2009	Resurfacing	Local		Toronto and East York	2014
32-Beaches-East York	32-Beaches-East York	06090.000	PINE AVE	BEECH AVE	WILLOW AVE	2009	Resurfacing	Local		Toronto and East York	2014
32-Beaches-East York	32-Beaches-East York	06091.000	PINE AVE	WILLOW AVE	SILVER BIRCH AVE	2009	Resurfacing	Local		Toronto and East York	2014
32-Beaches-East York	32-Beaches-East York	06092.000	PINE AVE	SILVER BIRCH AVE	SCARBOROUGH RD	2009	Resurfacing	Local		Toronto and East York	2014
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	06099.300	PINE HILL RD	ROSEDALE RD	[W] PINE HILL RD [END]	2009	Resurfacing	Local		Toronto and East York	2014
11-York South-Weston	11-York South-Weston	31567.000	PINE ST (YK)	WRIGHT AVE	LAWRENCE AVE W	2008	Reconstruction	Collector		Etobicoke York	2013
04-Etobicoke Centre	04-Etobicoke Centre	306101	PIPPIN PL	GREAT OAK DR	[41 m W] GREAT OAK DR [CUL-DE-SAC]	2009	Reconstruction	Local		Etobicoke York	2014
25-Don Valley West	25-Don Valley West	33140	PLYMBRIDGE RD	MAY TREE RD	NO 71 PLYMBRIDGE CRES	2012	Reconstruction	Local	carry over from 2011 to 2012	North York	2017
02-Etobicoke North	02-Etobicoke North	200200	PONOCA RD	BENWAY DR	REDWATER DR	2009	Resurfacing	Local		Etobicoke York	2014
25-Don Valley West	25-Don Valley West	33200	POOL PL	SAINTFIELD AVE	[58 m S] SAINTFIELD AVE [CUL-DE-SAC]	2009	Cold In Place Recycle	Local		North York	2014
5-Etobicoke-Lakeshore	5-Etobicoke-Lakeshore	312600	POPLAR AVE	DUNDAS ST W	BLOOR ST W	2010	Resurfacing	Local		Etobicoke York	2015
22-St. Paul's	22-St. Paul's	06129.000	POPLAR PLAINS RD	MACPHERSON AVE	BOULTON DR	2010	Resurfacing	Collector		Toronto and East York	2015
22-St. Paul's	22-St. Paul's	06130.000	POPLAR PLAINS RD	BOULTON DR	COTTINGHAM RD	2010	Resurfacing	Collector		Toronto and East York	2015
22-St. Paul's	22-St. Paul's	06131.000	POPLAR PLAINS RD	COTTINGHAM RD	COTTINGHAM ST	2010	Resurfacing	Collector		Toronto and East York	2015
22-St. Paul's	22-St. Paul's	06132.000	POPLAR PLAINS RD	COTTINGHAM ST	POPLAR PLAINS CRES	2010	Resurfacing	Collector		Toronto and East York	2015
22-St. Paul's	22-St. Paul's	06134.000	POPLAR PLAINS RD	POPLAR PLAINS CRES	RUSSELL HILL RD	2010	Resurfacing	Collector		Toronto and East York	2015
22-St. Paul's	22-St. Paul's	06135.000	POPLAR PLAINS RD	RUSSELL HILL RD	[39.60 m N] RUSSELL HILL RD	2010	Resurfacing	Collector		Toronto and East York	2015
22-St. Paul's	22-St. Paul's	06136.000	POPLAR PLAINS RD	[39.60 m N] RUSSELL HILL RD	[57.90 m S] EDMUND AVE	2010	Resurfacing	Collector		Toronto and East York	2015
22-St. Paul's	22-St. Paul's	06137.000	POPLAR PLAINS RD	[57.90 m S] EDMUND AVE	EDMUND AVE	2010	Resurfacing	Collector		Toronto and East York	2015
22-St. Paul's	22-St. Paul's	06138.000	POPLAR PLAINS RD	EDMUND AVE	[E] CLARENDON AVE [BRANCH]	2010	Resurfacing	Collector		Toronto and East York	2015
22-St. Paul's	22-St. Paul's	06139.000	POPLAR PLAINS RD	[E] CLARENDON AVE [BRANCH]	[W] CLARENDON AVE [BRANCH]	2010	Resurfacing	Collector		Toronto and East York	2015
22-St. Paul's	22-St. Paul's	06140.000	POPLAR PLAINS RD	[W] CLARENDON AVE [BRANCH]	[E] BALMORAL AVE [BRANCH]	2010	Resurfacing	Collector		Toronto and East York	2015
22-St. Paul's	22-St. Paul's	06141.000	POPLAR PLAINS RD	[E] BALMORAL AVE [BRANCH]	[W] BALMORAL AVE [BRANCH]	2010	Resurfacing	Collector		Toronto and East York	2015
22-St. Paul's	22-St. Paul's	06142.000	POPLAR PLAINS RD	[W] BALMORAL AVE [BRANCH]	LYNWOOD AVE	2010	Resurfacing	Collector		Toronto and East York	2015
22-St. Paul's	22-St. Paul's	06143.000	POPLAR PLAINS RD	LYNWOOD AVE	ST CLAIR AVE W	2010	Resurfacing	Collector		Toronto and East York	2015
43-Scarborough East	43-Scarborough East	DI0300	POPLAR RD	GUILDWOOD PKWY	DEARHAM WD	2009	Resurfacing	Collector		Scarborough	2014
44-Scarborough East	44-Scarborough East	DC0030	PORT UNION RD	[457 m S] LAWERNCE AV	LAWRENCE AVE E	2009	Reconstruction	Local		Scarborough	2014
02-Etobicoke North	02-Etobicoke North	104204	PORTERFIELD RD	MARTIN GROVE RD	KEARNEY DR	2011	Resurfacing	Local		Etobicoke York	2016
02-Etobicoke North	02-Etobicoke North	109900	PORTERFIELD RD	JEFFCOAT DR	MARTIN GROVE RD	2011	Resurfacing	Local		Etobicoke York	2016
29-Toronto-Danforth	29-Toronto-Danforth	035-01	POTTERY RD	BROADVIEW AVE	BAYVIEW AVE	2011	Reconstruction	Minor Arterial		Toronto and East York	2016
30-Toronto-Danforth	30-Toronto-Danforth	06153.000	POUCHER ST	[S] POUCHER ST [END]	RIVERDALE AVE	2009	Resurfacing	Local		Toronto and East York	2014
04-Etobicoke Centre	04-Etobicoke Centre	212809	POWBURN PL	CELESTINE DR	LEARMONT DR	2011	Resurfacing	Local		Etobicoke York	2016
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	06157.000	POWELL AVE	DALE AVE (TO)	MAPLE AVE	2009	Resurfacing	Local		Toronto and East York	2014
28-Toronto Centre-Rosedale	28-Toronto Centre-Rosedale	06158.000	POWER ST	KING ST E	ADELAIDE ST E	2012	Resurfacing	Local	carry over from 2011 to 2012	Toronto and East York	2017
28-Toronto Centre-Rosedale	28-Toronto Centre-Rosedale	06159.000	POWER ST	ADELAIDE ST E	RICHMOND ST E	2012	Resurfacing	Local	carry over from 2011 to 2012	Toronto and East York	2017
28-Toronto Centre-Rosedale	28-Toronto Centre-Rosedale	06160.000	POWER ST	RICHMOND ST E	QUEEN ST E	2012	Resurfacing	Local	carry over from 2011 to 2012	Toronto and East York	2017
35-Scarborough Southwest	35-Scarborough Southwest	BT0350	PRAIRIE DR	LEYTON AVE	PATTERSON AVE	2010	Resurfacing	Local		Scarborough	2015
17-Davenport	17-Davenport	31585.000	PRESTON RD	HOLMESDALE CRES	DUFFERIN ST	2010	Grind & Pave	Local		Etobicoke York	2015
6-Etobicoke-Lakeshore	6-Etobicoke-Lakeshore	414000	PRIMROSE AVE (ETBK)	LAKESHORE BLVD	QUEENS AVE	2010	Resurfacing	Local		Etobicoke York	2015
7-York West	7-York West	33380	PRIMULA CRES	HUSBAND DR	HUMBER SUMMIT LANE	2010	Resurfacing	Local		Etobicoke York	2015
38-Scarborough Centre	38-Scarborough Centre	FO0190	PROGRESS AVE	BRIMLEY RD	CORPORATE DR	2007	Construction	Minor Arterial		Scarborough	2012
42-Scarborough-Rouge	42-Scarborough-Rouge	GJ0280	QUANTRELL TRL	WICKSON TRL	WICKSON TRL	2011	Resurfacing	Local		Scarborough	2016
5-Etobicoke-Lakeshore	5-Etobicoke-Lakeshore	311200	QUEEN ANNE RD	KINGSWAY CRES	PRINCE EDWARD DR (ETBK)	2010	Resurfacing	Local		Etobicoke York	2015
27-Toronto Centre-Rosedale	28-Toronto Centre-Rosedale	06220.000	QUEEN ST E	BERTI ST	CHURCH ST	2009	Resurfacing	Major Arterial		Toronto and East York	2014
27-Toronto Centre-Rosedale	28-Toronto Centre-Rosedale	06221.000	QUEEN ST E	CHURCH ST	DALHOUSIE ST	2009	Resurfacing	Major Arterial		Toronto and East York	2014

2012 MORATORIUM LIST OF ROADS

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Expiration Date is December 31, YEAR

WARD Even	WARD Odd	SECTION ID	LOCATION Street	LOCATION From	LOCATION To	COMPLETED YEAR	WORK	FUNCTIONAL CLASS	REMARKS (for carry over, deferred, delayed work)	DISTRICT	EXPIRATION DATE
17-Davenport	17-Davenport	12343.200	[106.70 m N] LINDNER ST	MILLER ST	[32 m W] MILLER ST	2010	Reconstruction	Laneway		Etobicoke York	2015
19-Trinity-Spadina	19-Trinity-Spadina	11564.000	[107.80 m S] HARBORD ST	MANNING AVE (TO)	CLINTON ST	2011	Resurfacing	Laneway		Toronto and East York	2016
8-York West	28-Toronto Centre-Ros	06222.000	QUEEN ST E	DALHOUSIE ST	MUTUAL ST	2009	TTC Track Replacement & Major Road Resurfacing	Major Arterial		Toronto and East York	2014
19-Trinity-Spadina	19-Trinity-Spadina	06348.000	QUEEN ST W	MARKHAM ST	PALMERSTON AVE	2007	Reconstruction	Major Arterial		Toronto and East York	2012
20-Trinity-Spadina	20-Trinity-Spadina	06329.000	QUEEN ST.W	UNIVERSITY AVE	SIMCOE ST	2011	Grind & Pave	Major Arterial	Grind & Pave under the U-cut repair contracts.	Toronto and East York	2014
20-Trinity-Spadina	20-Trinity-Spadina	06330.000	QUEEN ST.W	SIMCOE ST	ST PATRICK ST	2011	Grind & Pave	Major Arterial	Grind & Pave under the U-cut repair contracts.	Toronto and East York	2014
20-Trinity-Spadina	20-Trinity-Spadina	06331.000	QUEEN ST.W	ST PATRICK ST	DUNCAN ST	2011	Grind & Pave	Major Arterial	Grind & Pave under the U-cut repair contracts.	Toronto and East York	2014
20-Trinity-Spadina	20-Trinity-Spadina	06332.000	QUEEN ST.W	DUNCAN ST	MC CAUL ST	2011	Grind & Pave	Major Arterial	Grind & Pave under the U-cut repair contracts.	Toronto and East York	2014
20-Trinity-Spadina	20-Trinity-Spadina	06333.000	QUEEN ST.W	MC CAUL ST	ST PATRICK SQ	2011	Grind & Pave	Major Arterial	Grind & Pave under the U-cut repair contracts.	Toronto and East York	2014
20-Trinity-Spadina	20-Trinity-Spadina	06334.000	QUEEN ST.W	ST PATRICK SQ	JOHN ST	2011	Grind & Pave	Major Arterial	Grind & Pave under the U-cut repair contracts.	Toronto and East York	2014
20-Trinity-Spadina	20-Trinity-Spadina	06335.000	QUEEN ST.W	JOHN ST	BEVERLAY ST	2011	Grind & Pave	Major Arterial	Grind & Pave under the U-cut repair contracts.	Toronto and East York	2014
20-Trinity-Spadina	20-Trinity-Spadina	06337.000	QUEEN ST.W	BEVERLAY ST	SOHO ST	2011	Grind & Pave	Major Arterial	Grind & Pave under the U-cut repair contracts.	Toronto and East York	2014
20-Trinity-Spadina	20-Trinity-Spadina	06338.000	QUEEN ST.W	SOHO ST	PETER ST	2011	Grind & Pave	Major Arterial	Grind & Pave under the U-cut repair contracts.	Toronto and East York	2014
34-Don Valley East	34-Don Valley East	33770	RAILSIDE RD	LAWRENCE AVE E	LAWRENCE AVE E	2009	Resurfacing	Collector		North York	2014
39-Scarborough-Agincourt	39-Scarborough-Agincourt	HR0140	RAKEWOOD CRES	SILVER SPRINGS BLVD	SILVER SPRINGS BLVD	2009	Resurfacing	Local		Scarborough	2014
9-York Centre	9-York Centre	33830	RAMBLER PL	MAGELLAN DR	[82 m E] MAGELLAN DR [CUL-DE-SAC]	2010	Resurfacing	Local		North York	2015
36-Scarborough Southwest	36-Scarborough Southwest	CO0320	RANDALL CRES	DORSET RD	HAREWOOD AVE	2010	Resurfacing	Local		Scarborough	2015
36-Scarborough Southwest	36-Scarborough Southwest	CO0330	RANDALL CRES	HAREWOOD AVE	OAKRIDGE DR	2010	Resurfacing	Local		Scarborough	2015
03-Etobicoke Centre	03-Etobicoke Centre	319301	RANGOON RD	ERINGATE DR	[152 m N] ERINGATE DR	2009	Resurfacing	Collector		Etobicoke York	2014
03-Etobicoke Centre	03-Etobicoke Centre	319302	RANGOON RD	[152 m N] ERINGATE DR	WELLESWORTH DR	2009	Resurfacing	Collector		Etobicoke York	2014
03-Etobicoke Centre	03-Etobicoke Centre	321700	RANGOON RD	WELLESWORTH DR	[E] COURTWRIGHT RD E	2009	Resurfacing	Local		Etobicoke York	2014
37-Scarborough Centre	37-Scarborough Centre	DU0150	RANNOCK ST	CRAIGTON DR	PHARMACY AVE	2011	Resurfacing	Local		Scarborough	2016
37-Scarborough Centre	37-Scarborough Centre	DR0330	RANSTONE GDNS	BIRCHMOUNT RD	YORKSHIRE RD	2010	Resurfacing	Collector		Scarborough	2015
37-Scarborough Centre	37-Scarborough Centre	DR0330@	RANSTONE GDNS	YORKSHIRE RD	KENNEDY RD	2010	Resurfacing	Collector		Scarborough	2015
40-Scarborough-Agincourt	40-Scarborough-Agincourt	GT0260	RAVENCLIFF CRES	BRIDLEWOOD BLVD	BATTERSWOOD DR	2010	Resurfacing	Local		Scarborough	2015
5-Etobicoke-Lakeshore	5-Etobicoke-Lakeshore	312101	REDCAR AVE	[69 m E] CRANSTON RD	CRANSTON RD	2010	Resurfacing	Local		Etobicoke York	2015
5-Etobicoke-Lakeshore	5-Etobicoke-Lakeshore	312201	REDCAR AVE	CRANSTON RD	[61 m W] ROLLINS PL	2010	Resurfacing	Local		Etobicoke York	2015
40-Scarborough-Agincourt	40-Scarborough-Agincourt	GT0270	REDCASTLE CRES	BRIDLEWOOD BLVD	BRIDLEWOOD BLVD	2010	Resurfacing	Local		Scarborough	2015
02-Etobicoke North	02-Etobicoke North	104816	REDCLIFF BLVD	CLEARBROOKE CRCL	KIPLING AVE	2009	Resurfacing	Local		Etobicoke York	2014
02-Etobicoke North	02-Etobicoke North	104817	REDCLIFF BLVD	BARRHEAD CRES	CLEARBROOKE CRCL	2009	Resurfacing	Local		Etobicoke York	2014
04-Etobicoke Centre	04-Etobicoke Centre	017303	REDGRAVE DR	WATERBURY DR	MARTIN GROVE RD	2007	Reconstruction	Collector		Etobicoke York	2012
39-Scarborough-Agincourt	39-Scarborough-Agincourt	GQ0290	REIDMOUNT AVE	SHEPPARD AVE E	CARDWELL AVE	2010	Resurfacing	Local		Scarborough	2015
39-Scarborough-Agincourt	39-Scarborough-Agincourt	GQ0290@	REIDMOUNT AVE	CARDWELL AVE	KENNEDY RD	2010	Resurfacing	Local		Scarborough	2015
04-Etobicoke Centre	04-Etobicoke Centre	306103	REMINGTON DR	[40 m S] BYWOOD DR	RATHBURN RD	2009	Reconstruction	Local		Etobicoke York	2014
39-Scarborough-Agincourt	39-Scarborough-Agincourt	HR0150	REVLIS CRES	SILVER SPRINGS BLVD	SILVER SPRINGS BLVD	2009	Resurfacing	Local		Scarborough	2014
12-York South-Weston	12-York South-Weston	34300	RICARDO RD	BURR AVE	[40 m S] BURR AVE	2011	Resurfacing	Local		Etobicoke York	2016
32-Beaches-East York	32-Beaches-East York	06513.000	RICHARD AVE	GREENWOOD AVE	HIGHFIELD RD	2007	Reconstruction	Local		Toronto and East York	2012
40-Scarborough-Agincourt	40-Scarborough-Agincourt	GT0280	RICHBOURNE CRT	BOWATER DR	[427 m N] BOWATER DR [CUL-DE-SAC W/	2010	Resurfacing	Local		Scarborough	2015
21-St. Paul's	21-St. Paul's	06555.000	RIDELLE AVE	BATHURST ST	MANITOU BLVD	2009	Resurfacing	Local		Toronto and East York	2014
21-St. Paul's	21-St. Paul's	06557.000	RIDELLE AVE	MANITOU BLVD	LAWNHURST BLVD	2009	Resurfacing	Local		Toronto and East York	2014
21-St. Paul's	21-St. Paul's	06558.000	RIDELLE AVE	LAWNHURST BLVD	BURMONT RD	2009	Resurfacing	Local		Toronto and East York	2014
21-St. Paul's	21-St. Paul's	06559.000	RIDELLE AVE	BURMONT RD	OLD PARK RD	2009	Resurfacing	Local		Toronto and East York	2014
21-St. Paul's	21-St. Paul's	06560.000	RIDELLE AVE	OLD PARK RD	OVERDALE RD	2009	Resurfacing	Local		Toronto and East York	2014
21-St. Paul's	21-St. Paul's	06561.000	RIDELLE AVE	OVERDALE RD	MARWOOD RD	2009	Resurfacing	Local		Toronto and East York	2014
21-St. Paul's	21-St. Paul's	06562.000	RIDELLE AVE	MARWOOD RD	FERNWOOD RD	2009	Resurfacing	Local		Toronto and East York	2014
21-St. Paul's	21-St. Paul's	06563.000	RIDELLE AVE	FERNWOOD RD	NEWGATE RD	2009	Resurfacing	Local		Toronto and East York	2014
15-Eglinton-Lawrence	15-Eglinton-Lawrence	31639.000	RIDELLE AVE	MARLEE AVE	DANESBURY AVE	2011	Resurfacing	Local		North York	2016
15-Eglinton-Lawrence	15-Eglinton-Lawrence	31640.000	RIDELLE AVE	DANESBURY AVE	TIMES RD	2011	Resurfacing	Local		North York	2016
15-Eglinton-Lawrence	15-Eglinton-Lawrence	31641.000	RIDELLE AVE	TIMES RD	LOCKSLEY AVE	2011	Resurfacing	Local		North York	2016
15-Eglinton-Lawrence	15-Eglinton-Lawrence	31642.000	RIDELLE AVE	DUFFERIN ST	LOCKSLEY AVE	2011	Resurfacing	Local		North York	2016
02-Etobicoke North	02-Etobicoke North	208212	RIDGEMOUNT RD	GRIGGSDEN AVE	MATANE CRT	2011	Grind & Pave	Local	Grind & Pave under the U-cut repair contracts.	Etobicoke York	2014
02-Etobicoke North	02-Etobicoke North	208222	RIDGEMOUNT RD	MATANE CRT	CHAPMAN RD	2011	Grind & Pave	Local	Grind & Pave under the U-cut repair contracts.	Etobicoke York	2014
14-Parkdale-High Park	14-Parkdale-High Park	06589.000	RITCHIE AVE	DUNDAS ST W	HERMAN AVE	2008	Reconstruction	Local		Toronto and East York	2013
14-Parkdale-High Park	14-Parkdale-High Park	06590.000	RITCHIE AVE	HERMAN AVE	[80 m N] HERMAN AVE	2008	Reconstruction	Local		Toronto and East York	2013
14-Parkdale-High Park	14-Parkdale-High Park	6590.400	RITCHIE AVE	[80 m N] HERMAN AVE	[N] RITCHIE AVE [END]	2008	Reconstruction	Local		Toronto and East York	2013
20-Trinity-Spadina	20-Trinity-Spadina	06630.000	ROBERT ST	COLLEGE ST (TO)	RUSSELL ST	2010	Resurfacing	Local		Toronto and East York	2015
20-Trinity-Spadina	20-Trinity-Spadina	06631.000	ROBERT ST	RUSSELL ST	WILLCOCKS ST	2010	Resurfacing	Local		Toronto and East York	2015
20-Trinity-Spadina	20-Trinity-Spadina	06632.000	ROBERT ST	WILLCOCKS ST	HARBORD ST	2010	Resurfacing	Local		Toronto and East York	2015
35-Scarborough Southwest	35-Scarborough Southwest	BT0390	ROBINSON AVE	DANFORTH AVE	PRAIRIE DR	2010	Resurfacing	Local		Scarborough	2015
40-Scarborough-Agincourt	40-Scarborough-Agincourt	GT0290	ROBINTIDE CRT	BRIDLEWOOD BLVD	[198 m S] BRIDLEWOOD BLVD [CUL-DE-SA	2010	Resurfacing	Local		Scarborough	2015
04-Etobicoke Centre	04-Etobicoke Centre	306105	ROCKINGHAM DR	RATHBURN RD	CEDARLAND DR	2009	Reconstruction	Local		Etobicoke York	2014
04-Etobicoke Centre	04-Etobicoke Centre	306105@	ROCKINGHAM DR	CEDARLAND DR	REMINGTON DR	2009	Reconstruction	Local		Etobicoke York	2014
17-Davenport	17-Davenport	06652.000	ROCKWELL AVE	[N] BLACKTHORN AVE [BRANCH]	[N] SILVERTHORN AVE [BRANCH]	2010	Resurfacing	Local		Etobicoke York	2015
17-Davenport	17-Davenport	06653.000	ROCKWELL AVE	[N] SILVERTHORN AVE [BRANCH	[S] SILVERTHORN AVE [BRANCH]	2010	Resurfacing	Local		Etobicoke York	2015
17-Davenport	17-Davenport	06654.000	ROCKWELL AVE	[S] SILVERTHORN AVE [BRANCH	ROSETHORN AVE	2010	Resurfacing	Local		Etobicoke York	2015
17-Davenport	17-Davenport	06655.000	ROCKWELL AVE	ROSETHORN AVE	CHAMBERS AVE	2010	Resurfacing	Local		Etobicoke York	2015
17-Davenport	17-Davenport	06656.000	ROCKWELL AVE	CHAMBERS AVE	OLD WESTON RD	2010	Resurfacing	Local		Etobicoke York	2015
5-Etobicoke-Lakeshore	5-Etobicoke-Lakeshore	324000	ROLLINS PL	REDCAR AVE	[70 m N] REDCAR AVE [CUL-DE-SAC]	2010	Resurfacing	Local		Etobicoke York	2015
25-Don Valley West	25-Don Valley West	06675.000	RONAN AVE	LAWRENCE AVE E	WANLESS AVE	2010	Reconstruction	Local		North York	2015
25-Don Valley West	25-Don Valley West	06676.000	RONAN AVE	WANLESS AVE	RANLEIGH AVE	2010	Reconstruction	Local		North York	2015
25-Don Valley West	25-Don Valley West	06677.000	RONAN AVE	RANLEIGH AVE	BOWOOD AVE	2010	Reconstruction	Local		North York	2015
25-Don Valley West	25-Don Valley West	06678.000	RONAN AVE	BOWOOD AVE	ROSLIN AVE	2010	Reconstruction	Local		North York	2015
14-Parkdale-High Park	14-Parkdale-High Park	06682.000	RONCESVALLES AVE	QUEEN ST W	GRAFTON AVE	2011	TTC Track Replacement	Minor Arterial		Toronto and East York	2016
14-Parkdale-High Park	14-Parkdale-High Park	06683.000	RONCESVALLES AVE	GRAFTON AVE	HARVARD AVE	2011	TTC Track Replacement	Minor Arterial		Toronto and East York	2016
14-Parkdale-High Park	14-Parkdale-High Park	06685.000	RONCESVALLES AVE	HARVARD AVE	MARION ST	2011	TTC Track Replacement	Minor Arterial		Toronto and East York	2016
14-Parkdale-High Park	14-Parkdale-High Park	06686.000	RONCESVALLES AVE	MARION ST	PEARSON AVE	2011	TTC Track Replacement	Minor Arterial		Toronto and East York	2016
14-Parkdale-High Park	14-Parkdale-High Park	06687.000	RONCESVALLES AVE	PEARSON AVE	GALLEY AVE	2011	TTC Track Replacement & Major Road Resurfacing	Minor Arterial		Toronto and East York	2016
14-Parkdale-High Park	14-Parkdale-High Park	06688.000	RONCESVALLES AVE	GALLEY AVE	GARDEN AVE (TO)	2011	TTC Track Replacement & Major Road Resurfacing	Minor Arterial		Toronto and East York	2016
14-Parkdale-High Park	14-Parkdale-High Park	06689.000	RONCESVALLES AVE	GARDEN AVE (TO)	FERN AVE	2011	TTC Track Replacement & Major Road Resurfacing	Minor Arterial		Toronto and East York	2016
14-Parkdale-High Park	14-Parkdale-High Park	06690.000	RONCESVALLES AVE	FERN AVE	WRIGHT AVE	2011	TTC Track Replacement & Major Road Resurfacing	Minor Arterial		Toronto and East York	2016
14-Parkdale-High Park	14-Parkdale-High Park	06691.000	RONCESVALLES AVE	WRIGHT AVE	FERMANAGH AVE	2011	TTC Track Replacement & Major Road Resurfacing	Minor Arterial		Toronto and East York	2016
14-Parkdale-High Park	14-Parkdale-High Park	06692.000	RONCESVALLES AVE	HIGH PARK BLVD	WESTMINSTER AVE	2011	TTC Track Replacement & Major Road Resurfacing	Minor Arterial		Toronto and East York	2016
14-Parkdale-High Park	14-Parkdale-High Park	06693.000	RONCESVALLES AVE	WESTMINSTER AVE	GEOFFREY ST	2011	TTC Track Replacement & Major Road Resurfacing	Minor Arterial		Toronto and East York	2016
14-Parkdale-High Park	14-Parkdale-High Park	06694.000	RONCESVALLES AVE	GEOFFREY ST	[W] GRENADIER RD [BRANCH]	2011	TTC Track Replacement & Major Road Resurfacing	Minor Arterial		Toronto and East York	2016
14-Parkdale-High Park	14-Parkdale-High Park	06694.100	RONCESVALLES AVE	[W] GRENADIER RD [BRANCH]	[E] GRENADIER RD [BRANCH]	2011	TTC Track Replacement & Major Road Resurfacing	Minor Arterial		Toronto and East York	2016
14-Parkdale-High Park	14-Parkdale-High Park	06695.000	RONCESVALLES AVE	[E] GRENADIER RD [BRANCH]	CONSTANCE ST	2011	TTC Track Replacement & Major Road Resurfacing	Minor Arterial		Toronto and East York	2016
14-Parkdale-High Park	14-Parkdale-High Park	06696.000	RONCESVALLES AVE	CONSTANCE ST	NEEPAWA AVE	2011	TTC Track Replacement & Major Road Resurfacing	Minor Arterial		Toronto and East York	2016
14-Parkdale-High Park	14-Parkdale-High Park	06696.500	RONCESVALLES AVE	NEEPAWA AVE	MARMADUKE ST	2011	TTC Track Replacement & Major Road Resurfacing	Minor Arterial		Toronto and East York	2016
14-Parkdale-High Park	14-Parkdale-High Park	06697.000	RONCESVALLES AVE	MARMADUKE ST	HOWARD PARK AVE	2011	TTC Track Replacement & Major Road Resurfacing	Minor Arterial		Toronto and East York	2016
14-Parkdale-High Park	14-Parkdale-High Park	06698.000	RONCESVALLES AVE	HOWARD PARK AVE	RITCHIE AVE	2011	TTC Track Replacement & Major Road Resurfacing	Minor Arterial		Toronto and East York	2016
14-Parkdale-High Park	14-Parkdale-High Park	06699.000	RONCESVALLES AVE	RITCHIE AVE	HEWITT AVE	2011	TTC Track Replacement	Minor Arterial		Toronto and East York	2016
14-Parkdale-High Park	14-Parkdale-High Park	06700.000	RONCESVALLES AVE	HEWITT AVE	BOUSTEAD AVE	2011	TTC Track Replacement	Minor Arterial		Toronto and East York	2016
14-Parkdale-High Park	14-Parkdale-High Park	06701.000	RONCESVALLES AVE	BOUSTEAD AVE	DUNDAS ST W	2011	TTC Track Replacement & Major Road Resurfacing	Minor Arterial		Toronto and East York	2016
38-Scarborough Centre	38-Scarborough Centre	DM0350	RONWAY CRES	PORCHESTER DR	FARMBROOK RD	2009	Resurfacing	Local		Scarborough	2014
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	06715.000	ROSEDALE HEIGHTS DR	SIGHTHILL AVE	MACLENNAN AVE	2012	Resurfacing	Local	carry over from 2011 to 2012	Toronto and East York	2017
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	06716.000	ROSEDALE HEIGHTS DR	MACLENNAN AVE	ERRINGTON AVE	2012	Resurfacing	Local	carry over from 2011 to 2012	Toronto and East York	2017
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	06717.000	ROSEDALE HEIGHTS DR	ERRINGTON AVE	HUDSON DR	2012	Resurfacing	Local	carry over from 2011 to 2012	Toronto and East York	2017
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	06718.000	ROSEDALE HEIGHTS DR	HUDSON DR	HARPER AVE	2012	Resurfacing	Local	carry over from 2011 to 2012	Toronto and East York	2017

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WARD Even	WARD Odd	SECTION ID	LOCATION Street	LOCATION From	LOCATION To	COMPLETED YEAR	WORK	FUNCTIONAL CLASS	REMARKS (for carry over, deferred, delayed work)	DISTRICT	EXPIRATION DATE
17-Davenport	17-Davenport	12343.200	[106.70 m N] LINDNER ST	MILLER ST	[32 m W] MILLER ST	2010	Reconstruction	Laneway		Etobicoke York	2015
19-Trinity-Spadina	19-Trinity-Spadina	11564.000	[107.80 m S] HARBORD ST	MANNING AVE (TO)	CLINTON ST	2011	Resurfacing	Laneway		Toronto and East York	2016
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	06719.000	ROSEDALE HEIGHTS DR	HARPER AVE	[N-S] ROSEDALE HEIGHTS DR [LEG]	2012	Resurfacing	Local	carry over from 2011 to 2012	Toronto and East York	2017
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	06722.000	ROSEDALE RD	PINE HILL RD	[31 m N] PINE HILL RD	2009	Resurfacing	Local		Toronto and East York	2014
27-Toronto Centre-Ros	27-Toronto Centre-Ros	06722.100	ROSEDALE RD	[31 m N] PINE HILL RD	CLUNY DR	2009	Resurfacing	Local		Toronto and East York	2014
27-Toronto Centre-Ros	27-Toronto Centre-Ros	06723.000	ROSEDALE RD	CLUNY DR	AVONDALE RD	2009	Resurfacing	Local		Toronto and East York	2014
27-Toronto Centre-Ros	27-Toronto Centre-Ros	06724.000	ROSEDALE RD	AVONDALE RD	CLUNY AVE	2009	Resurfacing	Local		Toronto and East York	2014
27-Toronto Centre-Ros	27-Toronto Centre-Ros	06725.000	ROSEDALE RD	CLUNY AVE	CRESCENT RD	2009	Resurfacing	Local		Toronto and East York	2014
32-Beaches-East York	32-Beaches-East York	06732.000	ROSEHEATH AVE	COPELAND AVE	MERRILL AVE W	2011	Resurfacing	Local		Toronto and East York	2016
32-Beaches-East York	32-Beaches-East York	06733.000	ROSEHEATH AVE	MERRIL AVE W	STACY ST	2011	Resurfacing	Local		Toronto and East York	2016
32-Beaches-East York	32-Beaches-East York	06734.000	ROSEHEATH AVE	STACY ST	MURDOCK AVE	2011	Resurfacing	Local		Toronto and East York	2016
32-Beaches-East York	32-Beaches-East York	06735.000	ROSEHEATH AVE	MURDOCK AVE	DANFORTH AVE	2011	Resurfacing	Local		Toronto and East York	2016
16-Eglinton-Lawrence	16-Eglinton-Lawrence	06741.000	ROSELAWN AVE	YONGE ST	DUPLEX AVE	2011	Resurfacing	Collector		North York	2016
16-Eglinton-Lawrence	16-Eglinton-Lawrence	06755.000	ROSELAWN AVE	CALDOW RD	CHAPLIN CRES	2011	Reconstruction	Collector		North York	2016
17-Davenport	17-Davenport	06777.000	ROSETHORN AVE	ROCKWELL AVE	TURNBERRY AVE	2010	Resurfacing	Local		Etobicoke York	2015
17-Davenport	17-Davenport	06778.000	ROSETHORN AVE	TURNBERRY AVE	ROWNTREE AVE	2010	Resurfacing	Local		Etobicoke York	2015
16-Eglinton-Lawrence	16-Eglinton-Lawrence	06785.000	ROSEWELL AVE	BRIAR HILL AVE	ALBERTUS AVE	2009	Resurfacing	Local		North York	2014
16-Eglinton-Lawrence	16-Eglinton-Lawrence	06786.000	ROSEWELL AVE	ALBERTUS AVE	CORTLEIGH BLVD	2009	Resurfacing	Local		North York	2014
16-Eglinton-Lawrence	16-Eglinton-Lawrence	06787.000	ROSEWELL AVE	CORTLEIGH BLVD	CRAIGHURST AVE	2009	Resurfacing	Local		North York	2014
16-Eglinton-Lawrence	16-Eglinton-Lawrence	06788.000	ROSEWELL AVE	CRAIGHURST AVE	LYTTON BLVD	2009	Resurfacing	Local		North York	2014
20-Trinity-Spadina	20-Trinity-Spadina	06799.000	ROSS ST	CECIL ST	COLLEGE ST (TO)	2008	Reconstruction	Local		Toronto and East York	2013
43-Scarborough East	43-Scarborough East	DI0330	ROSSINI PL	SCHUBERT DR	[46 m E] SCHUBERT DR [CUL-DE-SAC]	2009	Resurfacing	Local		Scarborough	2014
17-Davenport	17-Davenport	31749.000	ROWAN AVE	DYNEVOR RD	DUFFERIN ST	2011	Resurfacing	Local		Etobicoke York	2016
34-Don Valley East	34-Don Valley East	35020	ROWENA DR	VICTORIA PARK AVE	[80 m W] WELSFORD GDNS [CUL-DE-SAC]	2009	Resurfacing	Local		North York	2014
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	06818.000	ROXBOROUGH DR	GLEN RD	WHITNEY AVE	2011	Resurfacing	Local		Toronto and East York	2016
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	06819.000	ROXBOROUGH DR	WHITNEY AVE	BIN-SCARTH RD	2011	Resurfacing	Local		Toronto and East York	2016
25-Don Valley West	25-Don Valley West	35070	ROYAL OAK DR	BRIDLE PATH THE	GLENORCHY RD	2009	Cold In Place Recycle	Local		North York	2014
04-Etobicoke Centre	04-Etobicoke Centre	307400	ROYAL YORK CRT	ROYAL YORK RD	EAST LIMIT	2011	Reconstruction	Local		Etobicoke York	2016
05-Etobicoke-Lakeshore	05-Etobicoke-Lakeshore	027010.1	ROYAL YORK RD	DUNDAS ST W	ROYAL YORK CRT	2011	Reconstruction	Minor Arterial		Etobicoke York	2016
04-Etobicoke Centre	04-Etobicoke Centre	027020	ROYAL YORK RD	ROYAL YORK CRT	ASHLEY RD	2011	Reconstruction	Minor Arterial		Etobicoke York	2016
7-York West	7-York West	35160	RUMIKE RD	FINCH AVE (N YK)	LINDYLOU RD	2010	Resurfacing	Collector		Etobicoke York	2015
18-Davenport	18-Davenport	06873.000	RUSHOLME RD	COLLEGE ST	DEWSON ST	2012	Resurfacing	Local	carry over from 2011 to 2012	Toronto and East York	2017
18-Davenport	18-Davenport	06874.000	RUSHOLME RD	DEWSON ST	HEPBOURNE ST	2012	Resurfacing	Local	carry over from 2011 to 2012	Toronto and East York	2017
18-Davenport	18-Davenport	06875.000	RUSHOLME RD	HEPBOURNE ST	BLOOR ST	2012	Resurfacing	Local	carry over from 2011 to 2012	Toronto and East York	2017
21-St. Paul's	21-St. Paul's	06876.000	RUSHTON RD	TYRREL AVE	ILFORD RD	2011	Resurfacing	Local		Toronto and East York	2016
21-St. Paul's	21-St. Paul's	06877.000	RUSHTON RD	ILFORD RD	BENSON AVE	2011	Resurfacing	Local		Toronto and East York	2016
21-St. Paul's	21-St. Paul's	06879.000	RUSHTON RD	ST CLAIR AVE W	[50.60 m N] ST CLAIR AVE W [CITY LIMITS]	2011	Resurfacing	Local		Toronto and East York	2016
21-St. Paul's	21-St. Paul's	31755.000	RUSHTON RD	[50.60 m N] ST CLAIR AVE W [CITY LIMITS]	HUMEWOOD GDNS	2011	Resurfacing	Local		Toronto and East York	2016
21-St. Paul's	21-St. Paul's	31756.000	RUSHTON RD	HUMEWOOD GDNS	WELLWOOD AVE	2011	Resurfacing	Local		Toronto and East York	2016
21-St. Paul's	21-St. Paul's	31757.000	RUSHTON RD	WELLWOOD AVE	MAPLEWOOD AVE	2011	Reconstruction	Local		Toronto and East York	2016
21-St. Paul's	21-St. Paul's	31758.000	RUSHTON RD	MAPLEWOOD AVE	VALEWOOD AVE	2011	Reconstruction	Local		Toronto and East York	2016
21-St. Paul's	21-St. Paul's	31758.100	RUSHTON RD	VALEWOOD AVE	VAUGHAN RD	2011	Reconstruction	Local		Toronto and East York	2016
21-St. Paul's	21-St. Paul's	06883.000	RUSSEL HILL DR	SPADINA RD (TO)	WALMER RD	2011	Resurfacing	Local		Toronto and East York	2016
34-Don Valley East	34-Don Valley East	35230	RUSTYWOOD DR	AVONWICK GT	DEERPATH RD	2009	Resurfacing	Local		North York	2014
34-Don Valley East	34-Don Valley East	35231	RUSTYWOOD DR	DEERPATH RD	DEERPATH RD	2009	Resurfacing	Local		North York	2014
28-Toronto Centre-Roseda	28-Toronto Centre-Rosedal	06921.000	SACKVILLE ST	QUEEN ST E	SYDENHAM ST	2011	Resurfacing	Local		Toronto and East York	2016
28-Toronto Centre-Roseda	28-Toronto Centre-Rosedal	06921.100	SACKVILLE ST	SYDENHAM ST	SHUTER ST	2011	Resurfacing	Local		Toronto and East York	2016
25-Don Valley West	25-Don Valley West	35360	SAINTFIELD AVE	[115 m E] POOL PL [CUL-DE-SAC]	GLENORCHY RD	2009	Cold In Place Recycle	Local		North York	2014
25-Don Valley West	25-Don Valley West	35380	SALONICA RD	[33 m S] SUNCREST DR [END]	BRIDLE PATH THE	2009	Cold In Place Recycle	Local		North York	2014
3-Etobicoke Centre	3-Etobicoke Centre	300605	SANCTBURY PL	ERINGATE DR	ERINGATE DR	2010	Resurfacing	Local		Etobicoke York	2015
01-Etobicoke North	01-Etobicoke North	106401	SARABAND ST	WESTMORE DR	WOOLENSCOTE CRCL	2011	Resurfacing	Local		Etobicoke York	2016
30-Toronto-Danforth	30-Toronto-Danforth	06946.000	SAULTER ST	[S] SAULTER ST [END]	[61 m S] QUEEN ST E	2009	Resurfacing	Local		Toronto and East York	2014
30-Toronto-Danforth	30-Toronto-Danforth	06947.000	SAULTER ST	[61 m S] QUEEN ST E	QUEEN ST E	2009	Resurfacing	Local		Toronto and East York	2014
16-Eglinton-Lawrence	16-Eglinton-Lawrence	35620	SAUNDERS ST	ESGORE DR	WILSON AVE	2008	Reconstruction	Local		North York	2013
3-Etobicoke Centre	3-Etobicoke Centre	301800	SAVALON CRT	[71 m E] MARTIN GROVE RD [C	MARTIN GROVE RD	2010	Reconstruction	Local		Etobicoke York	2015
30-Toronto-Danforth	30-Toronto-Danforth	06952.000	SAWDEN AVE	HASTINGS AVE	ALTON AVE	2012	Resurfacing	Local	carry over from 2011 to 2012	Toronto and East York	2017
28-Toronto Centre-Rosedale	28-Toronto Centre-Rosedale	06953.300	SCADDING AVE	PRINCESS ST	AITKEN PL	2012	Resurfacing	Local	carry over from 2011 to 2012	Toronto and East York	2017
28-Toronto Centre-Rosedale	28-Toronto Centre-Rosedale	06953.400	SCADDING AVE	AITKEN PL	HAHN PL	2012	Resurfacing	Local	carry over from 2011 to 2012	Toronto and East York	2017
32-Beaches-East York	32-Beaches-East York	06955.000	SCARBORO BEACH BLVD	HUBBARD BLVD	QUEEN ST E	2010	Resurfacing	Local		Toronto and East York	2015
32-Beaches-East York	32-Beaches-East York	06956.000	SCARBOROUGH RD	QUEEN ST E	PINE AVE	2011	Resurfacing	Local		Toronto and East York	2016
32-Beaches-East York	32-Beaches-East York	06957.000	SCARBOROUGH RD	PINE AVE	BRACKEN AVE	2011	Resurfacing	Local		Toronto and East York	2016
32-Beaches-East York	32-Beaches-East York	06958.000	SCARBOROUGH RD	BRACKEN AVE	KINGSTON RD	2011	Resurfacing	Local		Toronto and East York	2016
43-Scarborough East	43-Scarborough East	DI0350	SCARCLIFF GDNS	GUILDWOOD PKWY	CUMBER AVE	2009	Resurfacing	Local		Scarborough	2014
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	06963.000	SCARTH RD	SOUTH DR	[N] SCARTH RD [END]	2009	Resurfacing	Local		Toronto and East York	2014
27-Toronto Centre-Roseda	27-Toronto Centre-Rosedal	06965.000	SCHOLFIELD AVE	ROXBOROUGH DR	[E-W] SCHOLFIELD AVE [LEG]	2010	Resurfacing	Collector		Toronto and East York	2015
43-Scarborough East	43-Scarborough East	DI0360	SCHUBERT DR	GUILDWOOD PKWY	DEARHAM WD	2009	Resurfacing	Local		Scarborough	2014
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	06966.000	SCOLLARD ST	YONGE ST	BAY ST	2009	Reconstruction	Local		Toronto and East York	2014
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	06967.000	SCOLLARD ST	BAY ST	HAZELTON AVE	2011	Grind & Pave	Local	Grind & Pave under the U-cut repair contracts.	Toronto and East York	2014
14-Parkdale-High Park	14-Parkdale-High Park	06972.000	SEAFORTH AVE	O'HARA AVE	BROCK AVE	2011	Grind & Pave	Local	Grind & Pave under the U-cut repair contracts.	Toronto and East York	2014
38-Scarborough Centre	38-Scarborough Centre	EM0310	SEDGEMOUNT DR	PAINTED POST DR	PANDORA CRCL	2011	Resurfacing	Local		Scarborough	2016
27-Toronto Centre-Roseda	27-Toronto Centre-Rosedal	06984.000	SELBY ST	HUNTLEY ST	SHERBOURNE ST	2010	Resurfacing	Collector		Toronto and East York	2015
6-Etobicoke-Lakeshore	6-Etobicoke-Lakeshore	408200	SEVENTEENTH ST	LAKESHORE BLVD	NEW TORONTO ST	2010	Resurfacing	Local		Etobicoke York	2015
42-Scarborough-Rouge River	42-Scarborough-Rouge River	FI0150	SHADOWOOD CRT	MILNER AVE	MILNER AVE	2011	Resurfacing	Local		Scarborough	2016
25-Don Valley West	25-Don Valley West	35900	SHADY OAKS CRES	GLENORCHY RD	ROYAL OAK DR	2009	Cold In Place Recycle	Local		North York	2014
6-Etobicoke-Lakeshore	6-Etobicoke-Lakeshore	410000	SHAMROCK AVE	TWENTY SEVENTH ST	ARCADIAN CRCL	2011	Resurfacing	Local	carry over from 2010 to 2011	Etobicoke York	2016
19-Trinity-Spadina	19-Trinity-Spadina	07021.000	SHAW ST	KING ST W	SHANK ST	2011	TTC Track Replacement	Collector		Toronto and East York	2016
19-Trinity-Spadina	19-Trinity-Spadina	07022.000	SHAW ST	SHANK ST	ADELAIDE ST W	2011	TTC Track Replacement	Collector		Toronto and East York	2016
19-Trinity-Spadina	19-Trinity-Spadina	07023.000	SHAW ST	ADELAIDE ST W	QUEEN ST W	2011	TTC Track Replacement	Collector		Toronto and East York	2016
07-York West	07-York West	028-23	SHEPPARD AVE W	JANE ST	ARROW RD	2011	Resurfacing	Major Arterial		Etobicoke York	2016
07-York West	07-York West	028-24	SHEPPARD AVE W	ARROW RD	WESTON RD	2012	Resurfacing	Major Arterial	carry over from 2011 to 2012	Etobicoke York	2017
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	07087.000	SHERBOURNE ST	HOWARD ST	SELBY ST	2011	Grind & Pave	Major Arterial		Toronto and East York	2014
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	07088.000	SHERBOURNE ST	SELBY ST	BLOOR ST E	2011	Grind & Pave	Major Arterial		Toronto and East York	2014
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	07146.000	SIGHTHILL AVE	RIDGE DR	ROSEDALE HEIGHTS DR	2011	Resurfacing	Local		Toronto and East York	2016
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	07148.000	SIGHTHILL AVE	GARFIELD AVE	INGLEWOOD DR	2011	Resurfacing	Local		Toronto and East York	2016
3-Etobicoke Centre	3-Etobicoke Centre	300102	SIGMONT RD	FAVERSHAM CRES	ERINGATE DR	2010	Resurfacing	Local		Etobicoke York	2015
07-York West	07-York West	36290.000	SIGNET DR	STEELES AVE	ORMONT DR	2011	Resurfacing	Local	Grind & Pave under the U-cut repair contracts.	Etobicoke York	2014
39-Scarborough-Agincourt	39-Scarborough-Agincourt	HR0190	SILVER SPRINGS BLVD	BIRCHMOUNT RD	[N] REVLIS CRES [LEG]	2011	Resurfacing	Collector		Scarborough	2016
39-Scarborough-Agincourt	39-Scarborough-Agincourt	HR0190@	SILVER SPRINGS BLVD	[N] REVLIS CRES [LEG]	MCNICOLL AVE	2009	Resurfacing	Collector		Scarborough	2014
34-Don Valley East	34-Don Valley East	36320	SILVERDALE CRES	LAURENTIDE DR	YORK MILLS RD	2010	Resurfacing	Collector		North York	2015
12-York South-Weston	12-York South-Weston	31853.000	SILVERTHORN AVE	CAMERON AVE	[N] SILVERTHORN AVE [END]	2007	Reconstruction	Local		Etobicoke York	2012
20-Trinity-Spadina	20-Trinity-Spadina	07164.000	SIMCOE ST	[29.50 m S] STATION ST	STATION ST	2009	Construction	Collector		Toronto and East York	2014
20-Trinity-Spadina	20-Trinity-Spadina	07164.100	SIMCOE ST	[29.50 m S] STATION ST	[117.30 m S] STATION ST	2009	Construction	Collector		Toronto and East York	2014
02-Etobicoke North	02-Etobicoke North	104702	SNARESBROOK DR	CLEARBROOKE CRCL	KIPLING AVE	2009	Resurfacing	Local		Etobicoke York	2014
7-York West	7-York West	36550	SOMBRERO CRT	PRIMULA CRES	[141 m N] PRIMULA CRES [CUL-DE-SAC]	2010	Resurfacing	Local		Etobicoke York	2015
22-St. Paul's	22-St. Paul's	07210.000	SOUDAN AVE	MOUNT PLEASANT RD	TAUNTON RD	2011	Resurfacing	Local		Toronto and East York	2016
22-St. Paul's	22-St. Paul's	07211.000	SOUDAN AVE	TAUNTON RD	FALCON ST	2011	Resurfacing	Local		Toronto and East York	2016
22-St. Paul's	22-St. Paul's	07212.000	SOUDAN AVE	FALCON ST	FORMAN AVE	2011	Resurfacing	Local		Toronto and East York	2016
39-Scarborough-Agincourt	39-Scarborough-Agincourt	GQ0340	SOUTHLAWN DR	KENNEDY RD	BELLEFONTAINE ST	2010	Resurfacing	Local		Scarborough	2015

2012 MORATORIUM LIST OF ROADS

For Moratorium conditions refer to: http://www.toronto.ca/engineering/mcr/pdf/mcr_municipal_consent_requirements.pdf

Expiration Date is December 31, YEAR

WARD Even	WARD Odd	SECTION ID	LOCATION Street	LOCATION From	LOCATION To	COMPLETED YEAR	WORK	FUNCTIONAL CLASS	REMARKS (for carry over, deferred, delayed work)	DISTRICT	EXPIRATION DATE
17-Davenport	17-Davenport	12343.200	[106.70 m N] LINDNER ST	MILLER ST	[32 m W] MILLER ST	2010	Reconstruction	Laneway		Etobicoke York	2015
19-Trinity-Spadina	19-Trinity-Spadina	11564.000	[107.80 m S] HARBORD ST	MANNING AVE (TO)	CLINTON ST	2011	Resurfacing	Laneway		Toronto and East York	2016
37-Scarborough Centre	37-Scarborough Centre	ER0440	SPAIN RD	BERGEN RD	VAUXHALL DR	2011	Resurfacing	Local		Scarborough	2016
34-Don Valley East	34-Don Valley East	36760	SPINNEY CRT	LAURENTIDE DR	N END	2010	Resurfacing	Local		North York	2015
42-Scarborough-Rouge River	42-Scarborough-Rouge River	FI0170	SPLIT MAPLE CRT	MURISON BLVD	MURISON BLVD	2011	Resurfacing	Local		Scarborough	2016
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	07394.000	ST CLAIR AVE E (TO)	CLIFTON RD	MOUNT PLEASANT RD	2009	Resurfacing	Major Arterial		Toronto and East York	2014
22-St. Paul's	22-St. Paul's	07400.000	ST CLAIR AVE W	YONGE ST	DEER PARK CRES	2009	Resurfacing	Major Arterial		Toronto and East York	2014
22-St. Paul's	22-St. Paul's	07401.000	ST CLAIR AVE W	DEER PARK CRES	ORIOLE RD	2009	Resurfacing	Major Arterial		Toronto and East York	2014
22-St. Paul's	22-St. Paul's	07402.000	ST CLAIR AVE W	ORIOLE RD	FOXBAR RD	2009	Resurfacing	Major Arterial		Toronto and East York	2014
22-St. Paul's	22-St. Paul's	07403.000	ST CLAIR AVE W	FOXBAR RD	AVENUE RD	2009	Resurfacing	Major Arterial		Toronto and East York	2014
22-St. Paul's	22-St. Paul's	07404.000	ST CLAIR AVE W	AVENUE RD	FOREST HILL RD	2009	Resurfacing	Major Arterial		Toronto and East York	2014
22-St. Paul's	22-St. Paul's	07405.000	ST CLAIR AVE W	FOREST HILL RD	POPLAR PLAINS RD	2009	Resurfacing	Major Arterial		Toronto and East York	2014
22-St. Paul's	22-St. Paul's	07406.000	ST CLAIR AVE W	POPLAR PLAINS RD	DUNVEGAN RD	2009	Resurfacing	Major Arterial		Toronto and East York	2014
22-St. Paul's	22-St. Paul's	07407.000	ST CLAIR AVE W	DUNVEGAN RD	[52 m W] DUNVEGAN RD	2009	Resurfacing	Major Arterial		Toronto and East York	2014
22-St. Paul's	22-St. Paul's	07407.100	ST CLAIR AVE W	[52 m W] DUNVEGAN RD	WARREN RD	2009	Resurfacing	Major Arterial		Toronto and East York	2014
22-St. Paul's	22-St. Paul's	07408.000	ST CLAIR AVE W	WARREN RD	RUSSELL HILL RD	2009	Resurfacing	Major Arterial		Toronto and East York	2014
22-St. Paul's	22-St. Paul's	07409.000	ST CLAIR AVE W	RUSSELL HILL RD	PARKWOOD AVE	2009	Resurfacing	Major Arterial		Toronto and East York	2014
22-St. Paul's	22-St. Paul's	07410.000	ST CLAIR AVE W	PARKWOOD AVE	SPADINA RD (TO)	2009	Resurfacing	Major Arterial		Toronto and East York	2014
22-St. Paul's	21-St. Paul's	07411.000	ST CLAIR AVE W	SPADINA RD (TO)	[N] WALMER RD [BRANCH]	2009	Resurfacing	Major Arterial		Toronto and East York	2014
21-St. Paul's	21-St. Paul's	07412.000	ST CLAIR AVE W	[N] WALMER RD [BRANCH]	[S] WALMER RD [BRANCH]	2009	Resurfacing	Major Arterial		Toronto and East York	2014
21-St. Paul's	21-St. Paul's	07413.000	ST CLAIR AVE W	[S] WALMER RD [BRANCH]	TWEEDSMUIR AVE	2009	Resurfacing	Major Arterial		Toronto and East York	2014
21-St. Paul's	21-St. Paul's	07414.000	ST CLAIR AVE W	TWEEDSMUIR AVE	ESTEN RD	2009	Resurfacing	Major Arterial		Toronto and East York	2014
21-St. Paul's	21-St. Paul's	07415.000	ST CLAIR AVE W	[88.40 m E] WELLS HILL AVE	WELLS HILL AVE	2009	Resurfacing	Major Arterial		Toronto and East York	2014
21-St. Paul's	21-St. Paul's	07417.010	ST CLAIR AVE W	[38 m W] HILTON AVE	BATHURST ST	2009	Resurfacing	Major Arterial		Toronto and East York	2014
17-Davenport	17-Davenport	07453.000	ST CLAIR AVE W	MC ROBERTS AVE	CALEDONIA RD	2009	Reconstruction	Major Arterial		Etobicoke York	2014
11-York South-Weston	11-York South-Weston	07470.000	ST CLAIR AVE W	OLD STOCK YARDS ROAD	HARRIS RD	2010	Resurfacing	Major Arterial		Etobicoke York	2015
11-York South-Weston	11-York South-Weston	07472.000	ST CLAIR AVE W	OLD STOCK YARDS ROAD	SYMES RD	2010	Resurfacing	Major Arterial		Etobicoke York	2015
11-York South-Weston	11-York South-Weston	07474.000	ST CLAIR AVE W	COBALT AVE	OSCAR ROMERO PL	2010	Resurfacing	Major Arterial		Etobicoke York	2015
11-York South-Weston	11-York South-Weston	07474.200	ST CLAIR AVE W	OSCAR ROMERO PL	BRITANNIA AVE	2010	Resurfacing	Major Arterial		Etobicoke York	2015
11-York South-Weston	11-York South-Weston	07475.000	ST CLAIR AVE W	BRITANNIA AVE	HAGAR AVE	2010	Resurfacing	Major Arterial		Etobicoke York	2015
11-York South-Weston	11-York South-Weston	07476.000	ST CLAIR AVE W	HAGAR AVE	[W] RUNNYMEDE RD [CITY LIMITS]	2010	Resurfacing	Major Arterial		Etobicoke York	2015
01-Etobicoke North	01-Etobicoke North	111005	ST EMILION WY	CABERNET CRCL	[135 m N] CABERNET CRCL [CUL-DE-SAC]	2009	Resurfacing	Local		Etobicoke York	2014
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	07513.000	ST ENOCH'S SQ	[S] ST ENOCH'S SQ [END]	SHUTER ST	2009	Resurfacing	Laneway		Toronto and East York	2014
20-Trinity-Spadina	20-Trinity-Spadina	07520.000	ST GEORGE ST (TO)	BLOOR ST W	[39.60 m N] BLOOR ST W	2012	Resurfacing	Minor Arterial	carry over from 2011 to 2012	Toronto and East York	2017
20-Trinity-Spadina	20-Trinity-Spadina	07521.000	ST GEORGE ST (TO)	[39.60 m N] BLOOR ST W	PRINCE ARTHUR AVE	2012	Resurfacing	Minor Arterial	carry over from 2011 to 2012	Toronto and East York	2017
20-Trinity-Spadina	20-Trinity-Spadina	07522.000	ST GEORGE ST (TO)	PRINCE ARTHUR AVE	LOWTHER AVE	2012	Resurfacing	Minor Arterial	carry over from 2011 to 2012	Toronto and East York	2017
20-Trinity-Spadina	20-Trinity-Spadina	07523.000	ST GEORGE ST (TO)	LOWTHER AVE	BERNARD AVE	2012	Resurfacing	Minor Arterial	carry over from 2011 to 2012	Toronto and East York	2017
20-Trinity-Spadina	20-Trinity-Spadina	07524.000	ST GEORGE ST (TO)	BERNARD AVE	ADMIRAL RD	2012	Resurfacing	Minor Arterial	carry over from 2011 to 2012	Toronto and East York	2017
20-Trinity-Spadina	20-Trinity-Spadina	07525.000	ST GEORGE ST (TO)	ADMIRAL RD	DUPONT ST	2012	Resurfacing	Minor Arterial	carry over from 2011 to 2012	Toronto and East York	2017
18-Davenport	18-Davenport	07533.000	ST HELEN'S AVE	WHYTOCK AVE	DUBLIN ST	2009	Resurfacing	Local		Toronto and East York	2014
18-Davenport	18-Davenport	07534.000	ST HELEN'S AVE	DUBLIN ST	DORA AVE	2009	Resurfacing	Local		Toronto and East York	2014
18-Davenport	18-Davenport	07535.000	ST HELEN'S AVE	DORA AVE	[114 m S] BLOOR ST W	2009	Resurfacing	Local		Toronto and East York	2014
18-Davenport	18-Davenport	07535.100	ST HELEN'S AVE	[114 m S] BLOOR ST W	BLOOR ST W	2009	Resurfacing	Local		Toronto and East York	2014
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	07552.000	ST JOSEPH ST	BAY ST	ELMSLEY PL	2011	Grind & Pave	Major Arterial	Grind & Pave under the U-cut repair contracts.	Toronto and East York	2014
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	07552.100	ST JOSEPH ST	ELMSLEY PL	BALLIOL ST	2011	Grind & Pave	Major Arterial	Grind & Pave under the U-cut repair contracts.	Toronto and East York	2014
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	07588.000	ST PAULS SQ	BLOOR ST E	ASQUITH AVE	2011	Resurfacing	Collector		Toronto and East York	2016
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	07600.000	STANDISH AVE	DOUGLAS DR	ASTLEY AVE	2010	Resurfacing	Local		Toronto and East York	2015
39-Scarborough-Agincourt	39-Scarborough-Agincourt	034-10	STEELES AVE E	KENNEDY RD	WARDEN AVE	2010	Resurfacing	Major Arterial		Scarborough	2015
39-Scarborough-Agincourt	39-Scarborough-Agincourt	034-11	STEELES AVE E	WARDEN AVE	VICTORIA PARK AVE	2010	Resurfacing	Major Arterial		Scarborough	2015
24-Willowdale	24-Willowdale	034-12	STEELES AVE E	VICTORIA PARK AVE	LESLIE ST (N YK)	2010	Resurfacing	Major Arterial		North York	2015
24-Willowdale	24-Willowdale	034-13	STEELES AVE E	LESLIE ST (N YK)	BAYVIEW AVE	2010	Resurfacing	Major Arterial		North York	2015
24-Willowdale	24-Willowdale	034-14	STEELES AVE E	BAYVIEW AVE N	YONGE ST	2010	Resurfacing	Major Arterial		North York	2015
23-Willowdale	23-Willowdale	034-15	STEELES AVE W	YONGE ST	HILDA AVE	2010	Resurfacing	Major Arterial		North York	2015
8-York West	8-York West	034-18	STEELES AVE W	DUFFERIN ST	KEELE ST	2010	Resurfacing	Major Arterial		Etobicoke York	2015
8-York West	8-York West	034-19	STEELES AVE W	KEELE ST	JANE ST	2010	Resurfacing	Major Arterial		Etobicoke York	2015
8-York West	8-York West	034-20	STEELES AVE W	JANE ST	WESTON RD	2010	Resurfacing	Major Arterial		Etobicoke York	2015
7-York West	7-York West	034-21	STEELES AVE W	WESTON RD	ISLINGTON AVE	2010	Resurfacing	Major Arterial		Etobicoke York	2015
1-Etobicoke North	1-Etobicoke North	034-22	STEELES AVE W	ISLINGTON AVE	GIHON SPRING DR	2010	Resurfacing	Major Arterial		Etobicoke York	2015
1-Etobicoke North	1-Etobicoke North	034-23	STEELES AVE W	GIHON SPRING DR	HWY 27	2010	Resurfacing	Major Arterial		Etobicoke York	2015
1-Etobicoke North	1-Etobicoke North	034-24	STEELES AVE W	HWY 27	ALBION RD	2010	Resurfacing	Major Arterial		Etobicoke York	2015
05-Etobicoke-Lakeshore	05-Etobicoke-Lakeshore	425900	STEPHEN DR	RIVERWOOD PKWY	[135 m N] RIVERWOOD PKWY [CUL-DE-SAC]	2007	Reconstruction	Local		Etobicoke York	2012
05-Etobicoke-Lakeshore	05-Etobicoke-Lakeshore	023800	STEPHEN DR	BERRY RD	RIVERWOOD PKWY	2007	Reconstruction	Local		Etobicoke York	2012
05-Etobicoke-Lakeshore	05-Etobicoke-Lakeshore	023900	STEPHEN DR	WANISKA AVE	BERRY RD	2007	Reconstruction	Collector		Etobicoke York	2012
05-Etobicoke-Lakeshore	05-Etobicoke-Lakeshore	024010	STEPHEN DR	THE QUEENSWAY	[30 m S] WHITWORTH AVE	2007	Reconstruction	Collector		Etobicoke York	2012
05-Etobicoke-Lakeshore	05-Etobicoke-Lakeshore	024020	STEPHEN DR	[30 m S] WHITWORTH AVE	WANISKA AVE	2007	Reconstruction	Collector		Etobicoke York	2012
12-York South-Weston	12-York South-Weston	37250	STEWART SMITH DR	BROOKHAVEN DR	HEARST CRCL	2010	Resurfacing	Local		Etobicoke York	2015
12-York South-Weston	12-York South-Weston	37260	STEWART SMITH DR	HEARST CRCL	TEDDER ST	2010	Resurfacing	Local		Etobicoke York	2015
44-Scarborough East	44-Scarborough East	DG0120	STILLBROOK CRT	WILDLARK DR	[115 m N] WILDLARK DR [CUL-DE-SAC]	2010	Resurfacing	Local		Scarborough	2015
10-York Centre	10-York Centre	37290	STILLWATER CRES	HIDDEN TRL	HIDDEN TRL	2010	Resurfacing	Local		North York	2015
44-Scarborough East	44-Scarborough East	DG0130	STONEY CREEK DR	WILDLARK DR	MORNING DEW RD	2011	Resurfacing	Local		Scarborough	2016
19-Trinity-Spadina	19-Trinity-Spadina	07640.000	STRACHAN AVE	EAST LIBERTY ST	RAILWAY LANDS - CNR	2009	Resurfacing	Major Arterial		Toronto and East York	2014
19-Trinity-Spadina	19-Trinity-Spadina	07640.100	STRACHAN AVE	RAILWAY LANDS - CNR	RAILWAY LANDS - CNR	2009	Resurfacing	Major Arterial		Toronto and East York	2014
19-Trinity-Spadina	19-Trinity-Spadina	07641.000	STRACHAN AVE	WELLINGTON ST W	CANNIFF ST	2009	Resurfacing	Minor Arterial		Toronto and East York	2014
19-Trinity-Spadina	19-Trinity-Spadina	07641.100	STRACHAN AVE	CANNIFF ST	KING ST W	2009	Resurfacing	Minor Arterial		Toronto and East York	2014
19-Trinity-Spadina	19-Trinity-Spadina	07642.000	STRACHAN AVE	KING ST W	ADELAIDE ST W	2009	Resurfacing	Collector		Toronto and East York	2014
19-Trinity-Spadina	19-Trinity-Spadina	07643.000	STRACHAN AVE	ADELAIDE ST W	RICHMOND ST W	2009	Resurfacing	Collector		Toronto and East York	2014
19-Trinity-Spadina	19-Trinity-Spadina	07644.000	STRACHAN AVE	RICHMOND ST W	QUEEN ST W	2009	Resurfacing	Collector		Toronto and East York	2014
01-Etobicoke North	01-Etobicoke North	107700	STRATHAVON DR	SILVERSTONE DR	SILVERSTONE DR	2009	Reconstruction	Local		Etobicoke York	2014
30-Toronto-Danforth	30-Toronto-Danforth	07650.000	STRATHCONA AVE	CARLAW AVE	PAPE AVE	2012	Resurfacing	Local	carry over from 2011 to 2012	Toronto and East York	2017
21-St. Paul's	21-St. Paul's	31920.000	STRATHEARN RD	AVA RD	DEWBOURNE AVE	2011	Reconstruction	Local		Toronto and East York	2016
21-St. Paul's	21-St. Paul's	31920.500	STRATHEARN RD	DEWBOURNE AVE	GLOUCESTER GRV	2011	Resurfacing	Local		Toronto and East York	2016
21-St. Paul's	21-St. Paul's	31921.000	STRATHEARN RD	DEWBOURNE AVE	EGLINTON AVE W	2011	Resurfacing	Local		Toronto and East York	2016
14-Parkdale-High Park	14-Parkdale-High Park	07681.000	STRICKLAND AVE	NOBLE ST	EARNBRIDGE ST	2009	Resurfacing	Local		Toronto and East York	2014
38-Scarborough Centre	38-Scarborough Centre	DO0430	STRODE DR	BRIMLEY RD	CHILLERY AVE	2011	Reconstruction	Local		Scarborough	2016
25-Don Valley West	25-Don Valley West	37500	STUBBS DR	[140 m E] WOODSWORTH RD [CU	BANNATYNE DR	2009	Resurfacing	Local		North York	2014
28-Toronto Centre-Roseda	28-Toronto Centre-Rosedal	07693.000	SUMACH ST	KING ST E	QUEEN ST E	2011	Resurfacing	Local		Toronto and East York	2016
28-Toronto Centre-Roseda	28-Toronto Centre-Rosedal	07694.000	SUMACH ST	QUEEN ST E	WASCANA AVE	2011	Resurfacing	Local		Toronto and East York	2016
28-Toronto Centre-Roseda	28-Toronto Centre-Rosedal	07695.000	SUMACH ST	WASCANA AVE	SHUTER ST	2011	Resurfacing	Local		Toronto and East York	2016
35-Scarborough Southwest	35-Scarborough Southwest	CQ0410	SUMMER DR	LINDEN AVE	GRANGER AVE	2010	Resurfacing	Local		Scarborough	2015
25-Don Valley West	25-Don Valley West	37580	SUNCREST DR	GLENORCHY RD	SALONICA RD	2009	Cold In Place Recycle	Local		North York	2014
06-Etobicoke-Lakeshore	06-Etobicoke-Lakeshore	010100	SUPERIOR AVE	LAKESHORE BLVD	STANLEY AVE (ETBK)	2009	Resurfacing	Local		Etobicoke York	2014
6-Etobicoke-Lakeshore	6-Etobicoke-Lakeshore	409203	SUPERIOR AVE	STANLEY AVE (ETBK)	CAVELL AVE (ETBK)	2010	Resurfacing	Local		Etobicoke York	2015
24-Willowdale	24-Willowdale	37740	SUTCLIFFE DR	PAGE AVE (N YK)	VIAMEDE CRES	2007	Reconstruction	Local		North York	2012
25-Don Valley West	25-Don Valley West	37760	SWANSDOWN DR	BANNATYNE DR	W END	2009	Resurfacing	Local		North York	2014
32-Beaches-East York	32-Beaches-East York	07755.000	SWANWICK AVE	LAWLOR AVE	PICKERING ST	2011	Grind & Pave	Local	Grind & Pave under the U-cut repair contracts.	Toronto and East York	2014
28-Toronto Centre-Roseda	28-Toronto Centre-Rosedal	07762.100	SYDENHAM ST	TREFANN ST	PATERSON PL	2011	Resurfacing	Local		Toronto and East York	2016
28-Toronto Centre-Roseda	28-Toronto Centre-Rosedal	07762.200	SYDENHAM ST	PATERSON PL	TRACY ST	2011	Resurfacing	Local		Toronto and East York	2016
28-Toronto Centre-Roseda	28-Toronto Centre-Rosedal	07762.300	SYDENHAM ST	TRACY ST	SACKVILLE ST	2011	Resurfacing	Local		Toronto and East York	2016

2012 MORATORIUM LIST OF ROADS

For Moratorium conditions refer to: http://www.toronto.ca/engineering/mcr/pdf/mcr_municipal_consent_requirements.pdf

Expiration Date is December 31, YEAR

WARD		SECTION	LOCATION			COMPLETED		FUNCTIONAL	REMARKS	DISTRICT	EXPIRATION
Even	Odd	ID	Street	From	To	YEAR	WORK	CLASS	(for carry over, deferred, delayed work)		DATE
17-Davenport	17-Davenport	12343.200	[106.70 m N] LINDNER ST	MILLER ST	[32 m W] MILLER ST	2010	Reconstruction	Laneway		Etobicoke York	2015
19-Trinity-Spadina	19-Trinity-Spadina	11564.000	[107.80 m S] HARBORD ST	MANNING AVE (TO)	CLINTON ST	2011	Resurfacing	Laneway		Toronto and East York	2016
11-York South-Weston	11-York South-Weston	31944.000	SYKES AVE	DENISON RD W	WESTON RD	2010	Reconstruction	Local		Etobicoke York	2015
11-York South-Weston	11-York South-Weston	07765.100	SYMES RD	ST CLAIR AVE (218m N of)	GLEN SCARLETT AVE (82m S of)	2008	Reconstruction	Local		Etobicoke York	2013
2-Etobicoke North	2-Etobicoke North	104601	TAYROW RD	ELMHURST DR	FORDWICH CRES	2010	Resurfacing	Local		Etobicoke York	2015
12-York South-Weston	12-York South-Weston	38140	TEDDER ST	TRETHEWEY DR	STEWART SMITH DR	2010	Resurfacing	Local		Etobicoke York	2015
12-York South-Weston	12-York South-Weston	38150	TEDDER ST	STEWART SMITH DR	PAMILLE PL	2010	Resurfacing	Local		Etobicoke York	2015
12-York South-Weston	12-York South-Weston	38160	TEDDER ST	PAMILLE PL	THURODALE AVE	2010	Resurfacing	Local		Etobicoke York	2015
17-Davenport	17-Davenport	31952.000	TEIGNMOUTH AVE	BOON AVE	EARLSCOURT AVE	2011	Resurfacing	Local		Etobicoke York	2016
17-Davenport	17-Davenport	31953.000	TEIGNMOUTH AVE	EARLSCOURT AVE	NAIRN AVE	2011	Resurfacing	Local		Etobicoke York	2016
17-Davenport	17-Davenport	31954.000	TEIGNMOUTH AVE	NAIRN AVE	HARVIE AVE	2011	Resurfacing	Local		Etobicoke York	2016
17-Davenport	17-Davenport	31955.000	TEIGNMOUTH AVE	HARVIE AVE	WEST END	2011	Resurfacing	Local		Etobicoke York	2016
24-Willowdale	24-Willowdale	38200	TEMPO AVE	VICTORIA PARK AVE	HAROLD EVANS CRES	2011	Resurfacing	Collector		North York	2016
10-York Centre	10-York Centre	38280	THAMESFORD CRT	JOEL SWIRSKY BLVD	[71 m E] JOEL SWIRSKY BLVD [CUL-DE-SAC]	2011	Resurfacing	Local		North York	2016
3-Etobicoke Centre	3-Etobicoke Centre	013301	THE WEST MALL	BLOOR ST	[140 m S] BURNHAMTHORPE RD	2011	Resurfacing	Minor Arterial		Etobicoke York	2016
3-Etobicoke Centre	3-Etobicoke Centre	013302	THE WEST MALL	[140 m S] BURNHAMTHORPE RD	BURNHAMTHORPE RD	2011	Resurfacing	Minor Arterial		Etobicoke York	2016
05-Etobicoke-Lakeshore	05-Etobicoke-Lakeshore	013502	THE WEST MALL	THE QUEENSWAY	[80 m S] WESTSIDE DR	2009	Reconstruction	Minor Arterial		Etobicoke York	2014
05-Etobicoke-Lakeshore	05-Etobicoke-Lakeshore	013503	THE WEST MALL	[80 m S] WESTSIDE DR	WESTSIDE DR	2009	Reconstruction	Minor Arterial		Etobicoke York	2014
05-Etobicoke-Lakeshore	05-Etobicoke-Lakeshore	013514	THE WEST MALL	WESTSIDE DR	[150 m N] PAXMAN RD	2009	Reconstruction	Minor Arterial		Etobicoke York	2014
04-Etobicoke Centre	04-Etobicoke Centre	212807	THELMERE PL	TYNEVALE DR	CELESTINE DR	2011	Resurfacing	Local		Etobicoke York	2016
38-Scarborough Centre	38-Scarborough Centre	DO0470	THICKETWOOD DR	SAVARIN ST	DANFORTH RD	2009	Resurfacing	Local		Scarborough	2014
06-Etobicoke-Lakeshore	06-Etobicoke-Lakeshore	409900	THIRTY FIRST ST	LAKE PROMENADE	LAKESHORE BLVD	2011	Resurfacing	Local		Etobicoke York	2016
05-Etobicoke-Lakeshore	05-Etobicoke-Lakeshore	314801	THORNDALE AVE	THORNDALE CRES	EARLINGTON AVE	2008	Reconstruction	Local		Etobicoke York	2013
44-Scarborough East	44-Scarborough East	FD0200	TIDESWELL BLVD	[S] VANDORF ST [END]	[W] TIDESWELL BLVD [END]	2008	Construction	Local		Scarborough	2013
42-Scarborough-Rouge Riv	42-Scarborough-Rouge Rive	GJ0330	TILLBROOK CRT	WICKSON TRL	[229 m E] WICKSON TRL [CUL-DE-SAC W/	2010	Resurfacing	Local		Scarborough	2015
10-York Centre	10-York Centre	38425	TILLINGHAM KEEP	JOEL SWIRSKY BLVD	[W] TILLINGHAM KEEP [CUL-DE-SAC]	2011	Resurfacing	Local		North York	2016
22-St. Paul's	22-St. Paul's	07824.000	TILSON RD	HARWOOD RD	FORMAN AVE	2009	Resurfacing	Local		Toronto and East York	2014
22-St. Paul's	22-St. Paul's	07825.000	TILSON RD	FORMAN AVE	BOYTON RD	2009	Resurfacing	Local		Toronto and East York	2014
15-Eglinton-Lawrence	15-Eglinton-Lawrence	31968.000	TIMES RD	EGLINTON AVE W	LIVINGSTONE AVE	2011	Resurfacing	Local		North York	2016
15-Eglinton-Lawrence	15-Eglinton-Lawrence	31969.000	TIMES RD	LIVINGSTONE AVE	BELGRAVIA AVE	2011	Resurfacing	Local		North York	2016
15-Eglinton-Lawrence	15-Eglinton-Lawrence	31969.500	TIMES RD	BELGRAVIA AVE	WHITMORE AVE	2011	Resurfacing	Local		North York	2016
15-Eglinton-Lawrence	15-Eglinton-Lawrence	31970.000	TIMES RD	WHITMORE AVE	HOPEWELL AVE	2011	Resurfacing	Local		North York	2016
15-Eglinton-Lawrence	15-Eglinton-Lawrence	31971.000	TIMES RD	ROSELAWN AVE	CASTLEFIELD AVE	2011	Resurfacing	Local		North York	2016
15-Eglinton-Lawrence	15-Eglinton-Lawrence	31972.000	TIMES RD	CASTLEFIELD AVE	RIDELLE AVE	2011	Resurfacing	Local		North York	2016
15-Eglinton-Lawrence	15-Eglinton-Lawrence	31973	TIMES RD	BRIAR HILL AVE	MUNC BOUND TO NY	2011	Resurfacing	Local		North York	2016
15-Eglinton-Lawrence	15-Eglinton-Lawrence	31973.000	TIMES RD	RIDELLE AVE	BRIAR HILL AVE	2011	Resurfacing	Local		North York	2016
42-Scarborough-Rouge Riv	42-Scarborough-Rouge Rive	FK0270	TINBURY PL	BURROWS HALL BLVD	[91 m S] BURROWS HALL BLVD [CUL-DE-S	2010	Resurfacing	Local		Scarborough	2015
02-Etobicoke North	02-Etobicoke North	104809	TOFIELD CRES	REDWATER DR	REDWATER DR	2009	Resurfacing	Local		Etobicoke York	2014
38-Scarborough Centre	38-Scarborough Centre	FO0270	TOWN CENTRE CRT	BOROUGH DR	MCCOWAN RD	2007	Reconstruction	Collector		Scarborough	2012
6-Etobicoke-Lakeshore	6-Etobicoke-Lakeshore	413800	TOWNS RD	KIPLING AVE	[330 m W] KIPLING AVE [END]	2010	Resurfacing	Local		Etobicoke York	2015
28-Toronto Centre-Roseda	28-Toronto Centre-Rosedal	07831.000	TRACY ST	QUEEN ST E	SYDENHAM ST	2011	Resurfacing	Local		Toronto and East York	2016
28-Toronto Centre-Roseda	28-Toronto Centre-Rosedal	07833.000	TRACY ST	SYDENHAM ST	SHUTER ST	2011	Resurfacing	Local		Toronto and East York	2016
28-Toronto Centre-Roseda	28-Toronto Centre-Rosedal	07842.000	TREFANN ST	QUEEN ST E	SYDENHAM ST	2011	Resurfacing	Local		Toronto and East York	2016
28-Toronto Centre-Roseda	28-Toronto Centre-Rosedal	07844.000	TREFANN ST	SYDENHAM ST	SHUTER ST	2011	Resurfacing	Local		Toronto and East York	2016
37-Scarborough Centre	37-Scarborough Centre	DS0190	TRELEVAN PL	FREY CRES	[76 m W] FREY CRES [CUL-DE-SAC]	2009	Resurfacing	Local		Scarborough	2014
5-Etobicoke-Lakeshore	5-Etobicoke-Lakeshore	317400	TREMONT RD	LYNNFORD DR	BLOOR ST	2010	Resurfacing	Local		Etobicoke York	2015
25-Don Valley West	25-Don Valley West	39010	TRUMAN RD	BAYVIEW AVE	NORTHDALE RD	2007	Reconstruction	Local		North York	2012
6-Etobicoke-Lakeshore	6-Etobicoke-Lakeshore	409904	TWENTY EIGTH N ST	ARCADIAN CRCL	LAKESHORE BLVD	2011	Resurfacing	Local		Etobicoke York	2016
6-Etobicoke-Lakeshore	6-Etobicoke-Lakeshore	409905	TWENTY EIGTH S ST	LAKE ONTARIO	ARCADIAN CRCL	2011	Resurfacing	Local		Etobicoke York	2016
6-Etobicoke-Lakeshore	6-Etobicoke-Lakeshore	411600	TWENTY SEVENTH ST	LAKE PROMENADE	LAKESHORE BLVD W	2010	Resurfacing	Local		Etobicoke York	2015
06-Etobicoke-Lakeshore	06-Etobicoke-Lakeshore	407805	TWENTY SIXTH ST	LAKE SHORE BLVD W	DEAD END	2011	Resurfacing	Local		Etobicoke York	2016
04-Etobicoke Centre	04-Etobicoke Centre	212808	TYNEVALE DR	CELESTINE DR	BRAMPTON RD	2011	Resurfacing	Local		Etobicoke York	2016
20-Trinity-Spadina	20-Trinity-Spadina	07888.000	ULSTER ST	MAJOR ST	BRUNSWICK AVE	2010	Resurfacing	Local		Toronto and East York	2015
20-Trinity-Spadina	20-Trinity-Spadina	07889.000	ULSTER ST	BRUNSWICK AVE	BORDEN ST	2010	Resurfacing	Local		Toronto and East York	2015
42-Scarborough-Rouge River	42-Scarborough-Rouge River	FJ0280	UNITED SQ	MURISON BLVD	UNITED SQ	2011	Resurfacing	Local		Scarborough	2016
42-Scarborough-Rouge River	42-Scarborough-Rouge River	FI0190	USHERWOOD CRT	MURISON BLVD	MURISON BLVD	2011	Resurfacing	Local		Scarborough	2016
01-Etobicoke North	01-Etobicoke North	107701	VALETTA CRT	STRATHAVON DR	[105 m N] STRATHAVON DR [CUL-DE-SAC]	2009	Reconstruction	Local		Etobicoke York	2014
44-Scarborough East	44-Scarborough East	DG0140	VALIA RD	WILDLARK DR	LAWRENCE AVE E	2010	Resurfacing	Local		Scarborough	2015
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	07939.000	VALLEY VIEW	HARPER AVE	[E] VALLEY VIEW [END]	2010	Resurfacing	Local		Toronto and East York	2015
44-Scarborough East	44-Scarborough East	EE0310	VALMOUNT AVE	KINGSTON RD	KINGSTON RD	2011	Resurfacing	Local		Scarborough	2016
38-Scarborough Centre	38-Scarborough Centre	DO0490	VALPARAISO AVE	HOLLYHEDGE DR	LAWRENCE AVE E	2009	Resurfacing	Local		Scarborough	2014
4-Etobicoke Centre	4-Etobicoke Centre	210201	VAN CAMP PL	WATERBURY DR	[118 m S] WATERBURY DR [CUL-DE-SAC]	2010	Resurfacing	Local		Etobicoke York	2015
20-Trinity-Spadina	20-Trinity-Spadina	07944.000	VANAULEY ST	QUEEN ST. W	[N] VANAULEY ST. [END]	2012	Resurfacing	Local		Toronto and East York	2016
4-Etobicoke Centre	4-Etobicoke Centre	210204	VANDERBRENT CRES	WATERBURY DR	WATERBURY DR	2010	Resurfacing	Local		Etobicoke York	2015
37-Scarborough Centre	37-Scarborough Centre	ER0450	VANKIRK RD	PORTSDOWN RD	ELLENDALE DR	2010	Resurfacing	Local		Scarborough	2015
12-York South-Weston	12-York South-Weston	39560	VEERLAND DR	MAPLE LEAF DR	BERRYTON AVE	2011	Resurfacing	Local		Etobicoke York	2016
13-Parkdale-High Park	13-Parkdale-High Park	07955.000	VERNON ST	GILMOUR AVE	RUNNYMEDE RD	2010	Resurfacing	Local		Etobicoke York	2015
10-York Centre	10-York Centre	39660	VERWOOD AVE	BATHURST ST	[160 m W] YEOMANS RD [END]	2009	Reconstruction	Local		North York	2014
24-Willowdale	24-Willowdale	39700	VIAMEDE CRES	PAGE AVE (N YK)	RESTWELL CRES	2007	Reconstruction	Local		North York	2012
5-Etobicoke-Lakeshore	5-Etobicoke-Lakeshore	312100	VICKSON CRT	TREMONT RD	THE EAST MALL	2010	Resurfacing	Local		Etobicoke York	2015
33-Don Valley East	40-Scarborough-Agincourt	021-10	VICTORIA PARK AVE	FARMCREST DR	PATRICK BLVD	2011	Resurfacing	Major Arterial		Scarborough	2016
33-Don Valley East	40-Scarborough-Agincourt	021-11	VICTORIA PARK AVE	PATRICK BLVD	FINCH AVE E	2011	Resurfacing	Major Arterial		Scarborough	2016
34-Don Valley East	37-Scarborough Centre	051-08	VICTORIA PARK AVE	LAWRENCE AVE E	ELLESMERE RD	2010	Reconstruction	Major Arterial		Scarborough	2015
34-Don Valley East	40-Scarborough-Agincourt	051-09	VICTORIA PARK AVE	ELLESMERE RD	TERRAVIEW BLVD	2010	Resurfacing	Major Arterial		Scarborough	2015
34-Don Valley East	40-Scarborough-Agincourt	051-09.1	VICTORIA PARK AVE	TERRAVIEW BLVD	FARMCREST DR	2011	Resurfacing	Major Arterial		Scarborough	2016
32-Beaches-East York	36-Scarborough Southwest	07981.000	VICTORIA PARK AVE	KINGSTON RD	MEADOW AVE	2010	TTC Special Track Work	Minor Arterial		Scarborough	2015
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	08000.000	VICTORIA STREET LANE	DUNDAS ST E	[105.20 m N] DUNDAS ST E	2009	Resurfacing	Laneway		Toronto and East York	2014
04-Etobicoke Centre	04-Etobicoke Centre	306108	WAINWRIGHT DR	GREAT OAK DR	RATHBURN RD	2009	Reconstruction	Local		Etobicoke York	2014
43-Scarborough East	43-Scarborough East	DI0400	WALDOCK ST	GALLOWAY RD	POPLAR RD	2010	Resurfacing	Local		Scarborough	2015
20-Trinity-Spadina	20-Trinity-Spadina	08049.000	WALMER RD (E BRANCH)	LOWTHER AVE	WALMER RD	2009	Resurfacing	Local	Carryover from 2008 to 2009	Toronto and East York	2014
20-Trinity-Spadina	20-Trinity-Spadina	08050.000	WALMER RD (W BRANCH)	LOWTHER AVE (W BRANCH)	WALMER RD (E BRANCH)	2009	Resurfacing	Local	Carryover from 2008 to 2009	Toronto and East York	2014
6-Etobicoke-Lakeshore	6-Etobicoke-Lakeshore	409902	WALNUT CRES	ARCADIAN CRCL	ASH CRES	2011	Resurfacing	Local		Etobicoke York	2016
38-Scarborough Centre	38-Scarborough Centre	EM0390	WANTANOPA CRES	PANDORA CRCL	PANDORA CRCL	2011	Resurfacing	Local		Scarborough	2016
03-Etobicoke Centre	03-Etobicoke Centre	305101	WARWOOD RD	BURNHAMTHORPE RD	HARROP AVE	2012	Resurfacing	Local	carry over from 2011 to 2012	Etobicoke York	2017
28-Toronto Centre-Roseda	28-Toronto Centre-Rosedal	08115.100	WASCANA AVE	[60 m W] RIVER ST	RIVER ST	2011	Resurfacing	Local		Toronto and East York	2016
4-Etobicoke Centre	4-Etobicoke Centre	210200	WATERBURY DR	MARTIN GROVE RD	REDGRAVE DR	2010	Resurfacing	Collector		Etobicoke York	2015
32-Beaches-East York	32-Beaches-East York	08122.000	WAVERLEY AVE	NORWAY AVE	KINGSTON RD	2011	Grind & Pave	Local	Grind & Pave under the U-cut repair contracts.	Toronto and East York	2014
39-Scarborough-Agincourt	39-Scarborough-Agincourt	HR0210	WAYSIDE AVE	FINCH AVE E	SILVER SPRINGS BLVD	2011	Resurfacing	Collector		Scarborough	2016
12-York South-Weston	12-York South-Weston	40180	WELDON CRT	BURR AVE	[70 m N] BURR AVE	2011	Resurfacing	Local		Etobicoke York	2016
27-Toronto Centre-Roseda	27-Toronto Centre-Rosedal	08132.000	WELLAND AVE	ST CLAIR AVE E (TO)	ROSE PARK DR	2010	Resurfacing	Collector		Toronto and East York	2015
27-Toronto Centre-Roseda	27-Toronto Centre-Rosedal	08133.000	WELLAND AVE	ROSE PARK DR	HEATH ST E	2010	Resurfacing	Collector		Toronto and East York	2015
27-Toronto Centre-Roseda	27-Toronto Centre-Rosedal	08134.000	WELLAND AVE	HEATH ST E	MOORE AVE	2010	Resurfacing	Collector		Toronto and East York	2015
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	08137.000	WELLESLEY ST.E	YONGE ST	70m EAST (Approx)	2011	Grind & Pave	Major Arterial	Grind & Pave under the U-cut repair contracts.	Toronto and East York	2014
3-Etobicoke Centre	3-Etobicoke Centre	007000	WELLESWORTH DR	RANGOON RD	INVERDON RD	2010	Resurfacing	Collector		Etobicoke York	2015
21-St. Paul's	21-St. Paul's	08194.000	WELLS HILL AVE	LYNDHURST AVE	ST CLAIR AVE W	2009	Resurfacing	Local		Toronto and East York	2014
20-Trinity-Spadina	20-Trinity-Spadina	08200.000	WELLS ST	[N] ALBANY AVE [BRANCH]	BATHURST ST	2009	Resurfacing	Local		Toronto and East York	2014
34-Don Valley East	34-Don Valley East	40220	WELSFORD GDNS	ROWENA DR	CASSANDRA BLVD	2009	Resurfacing	Local		North York	2014
30-Toronto-Danforth	30-Toronto-Danforth	08212.000	WEST AVE	DUNDAS ST E	FIRST AVE	2010	Resurfacing	Local		Toronto and East York	2015

2012 MORATORIUM LIST OF ROADS

For Moratorium conditions refer to: http://www.toronto.ca/engineering/mcr/pdf/mcr_municipal_consent_requirements.pdf

Expiration Date is December 31, YEAR

WARD Even	WARD Odd	SECTION ID	LOCATION Street	LOCATION From	LOCATION To	COMPLETED YEAR	WORK	FUNCTIONAL CLASS	REMARKS (for carry over, deferred, delayed work)	DISTRICT	EXPIRATION DATE
17-Davenport	17-Davenport	12343.200	[106.70 m N] LINDNER ST	MILLER ST	[32 m W] MILLER ST	2010	Reconstruction	Laneway		Etobicoke York	2015
19-Trinity-Spadina	19-Trinity-Spadina	11564.000	[107.80 m S] HARBORD ST	MANNING AVE (TO)	CLINTON ST	2011	Resurfacing	Laneway		Toronto and East York	2016
2-Etobicoke North	2-Etobicoke North	001600	WESTHUMBER BLVD	IXWORTH RD	MARTIN GROVE RD	2010	Resurfacing	Collector		Etobicoke York	2015
2-Etobicoke North	2-Etobicoke North	001700	WESTHUMBER BLVD	KIPLING AVE	IXWORTH RD	2010	Resurfacing	Collector		Etobicoke York	2015
43-Scarborough East	43-Scarborough East	DK0110	WESTLAKE RD	KINGSTON RD	LIVINGSTON RD	2009	Resurfacing	Collector		Scarborough	2014
01-Etobicoke North	01-Etobicoke North	107600	WESTMORE DR	HUMBER COLLEGE BLVD	FINCH AVE W	2011	Resurfacing	Collector		Etobicoke York	2016
11-York South-Weston	11-York South-Weston	08253.000.1	WESTON RD	AVON CR	BLACK CREEK DR	2010	Grind & Pave	Major Arterial		Etobicoke York	2015
11-York South-Weston	11-York South-Weston	017-03	WESTON RD N	CNR (S HWY 401)	[40 m N] DEE AVE	2007	Construction	Major Arterial		Etobicoke York	2012
05-Etobicoke-Lakeshore	05-Etobicoke-Lakeshore	310000	WESTROSE AVE	[15 m N] VALIANT RD	[107 m N] VALIANT RD	2011	Resurfacing	Local		Etobicoke York	2016
05-Etobicoke-Lakeshore	05-Etobicoke-Lakeshore	310104	WESTROSE AVE	LYNNGROVE AVE	[15 m N] VALIANT RD	2011	Resurfacing	Local		Etobicoke York	2016
05-Etobicoke-Lakeshore	05-Etobicoke-Lakeshore	310010	WESTROSE AVE [CUL-DE-SAC]	[34.39 m N/W] WESTROSE AVE	[45.64 m S/E] WESTROSE AVE	2011	Resurfacing	Local		Etobicoke York	2016
39-Scarborough-Agincourt	39-Scarborough-Agincourt	HS0290	WESTWATER DR	LA PEER BLVD	STALEY TER	2010	Resurfacing	Local		Scarborough	2015
38-Scarborough Centre	38-Scarborough Centre	DN0350	WHEATON GRV	GREENWICH SQ	[36 m W] GREENWICH SQ [CUL-DE-SAC]	2009	Resurfacing	Local		Scarborough	2014
32-Beaches-East York	32-Beaches-East York	08264.000	WHEELER AVE	JUNIPER AVE	NORTH END	2011	Grind & Pave	Local	Grind & Pave under the U-cut repair contracts.	Toronto and East York	2014
9-York Centre	9-York Centre	40410	WHITBREAD CRES	SPENVALLEY DR	SPENVALLEY DR	2011	Resurfacing	Local		North York	2016
09-York Centre	09-York Centre	40420	WHITBURN CRES	KEELE ST	BLAYDON AVE	2009	Resurfacing	Local		North York	2014
8-York West	8-York West	40450	WHITEHORSE RD	KODIAC CRES	RIMROCK RD	2011	Resurfacing	Collector		North York	2016
8-York West	8-York West	40460	WHITEHORSE RD	RIMROCK RD	STEEPROCK DR	2011	Resurfacing	Collector		North York	2016
27-Toronto Centre-Roseda	27-Toronto Centre-Rosedal	08281.000	WHITNEY AVE	GLEN RD	ROXBOROUGH DR	2010	Resurfacing	Local		Toronto and East York	2015
18-Davenport	18-Davenport	08282.000	WHYTOCK AVE	LANSDOWNE AVE (TO)	ST HELEN'S AVE	2009	Resurfacing	Local		Toronto and East York	2014
40-Scarborough-Agincourt	40-Scarborough-Agincourt	GT0360	WICKLOW DR	BRIDLEWOOD BLVD	BRIDLEWOOD BLVD	2010	Resurfacing	Local		Scarborough	2015
42-Scarborough-Rouge River	42-Scarborough-Rouge River	GJ0355	WICKSON TRL	BRENYON WAY	GREYPOINT DR	2011	Resurfacing	Collector		Scarborough	2016
37-Scarborough Centre	37-Scarborough Centre	EQ0060	WICKWARE GT	KENNEDY RD	NANTUCKET BLVD	2010	Reconstruction	Collector		Scarborough	2015
44-Scarborough East	44-Scarborough East	DG0160	WILDLARK DR	MELCHIOR DR	MORNING DEW RD	2011	Resurfacing	Local		Scarborough	2016
44-Scarborough East	44-Scarborough East	DG0170	WILDLARK DR	MORNING DEW RD	[41 m E] MORNING DEW RD [END]	2011	Resurfacing	Local		Scarborough	2016
25-Don Valley West	25-Don Valley West	40630	WILLIAM CARSON CRES	YONGE ST	NORTH END	2011	Resurfacing	Collector		North York	2016
16-Eglinton-Lawrence	16-Eglinton-Lawrence	40632	WILLIAM CARSON CRES	[E-W] WILLIAM CARSON CRES [BRANCH]	[223.12 m N] WILLIAM CARSON CRES [END]	2011	Resurfacing	Collector		North York	2016
9-York Centre	9-York Centre	40650	WILLIAM CRAGG DR	WILSON AVE	JANE ST	2011	Resurfacing	Local		North York	2016
15-Eglinton-Lawrence	15-Eglinton-Lawrence	321-08	WILLIAM R ALLEN RD [R	[SB] WILLIAM R ALLEN	LAWRENCE AVE	2009	Resurfacing	Expressway		North York	2014
15-Eglinton-Lawrence	15-Eglinton-Lawrence	321-07	WILLIAM R ALLEN RD [RAMP G]	YORKDALE RD	[SB] WILLIAM R ALLEN RD	2009	Resurfacing	Expressway Ramps		North York	2014
15-Eglinton-Lawrence	15-Eglinton-Lawrence	321-11	WILLIAM R ALLEN RD [RAMP K]	LAWRENCE AVE	[NB] WILLIAM R ALLEN RD	2009	Resurfacing	Expressway Ramps		North York	2014
15-Eglinton-Lawrence	15-Eglinton-Lawrence	321-12	WILLIAM R ALLEN RD [RAMP L]	[NB] WILLIAM R ALLEN RD	YORKDALE RD	2009	Resurfacing	Expressway Ramps		North York	2014
15-Eglinton-Lawrence	15-Eglinton-Lawrence	321-13	WILLIAM R ALLEN RD [RAMP M]	YORKDALE RD	HWY 401/ALLEN RD	2009	Resurfacing	Ramps		North York	2014
32-Beaches-East York	32-Beaches-East York	08312.000	WILLOW AVE	[S] WILLOW AVE [END]	PARK AVE	2009	Resurfacing	Local		Toronto and East York	2014
32-Beaches-East York	32-Beaches-East York	08313.000	WILLOW AVE	PARK AVE	QUEEN ST E	2009	Resurfacing	Local		Toronto and East York	2014
32-Beaches-East York	32-Beaches-East York	08314.000	WILLOW AVE	QUEEN ST E	CEDAR AVE	2009	Resurfacing	Local		Toronto and East York	2014
32-Beaches-East York	32-Beaches-East York	08315.000	WILLOW AVE	CEDAR AVE	PINE AVE	2009	Resurfacing	Local		Toronto and East York	2014
39-Scarborough-Agincourt	32-Beaches-East York	08316.000	WILLOW AVE	PINE AVE	BALSAM AVE	2009	Resurfacing	Local		Toronto and East York	2014
5-Etobicoke-Lakeshore	5-Etobicoke-Lakeshore	322100	WILMAR RD	DUNDAS ST	BLOOR ST	2010	Resurfacing	Local		Etobicoke York	2015
04-Etobicoke Centre	04-Etobicoke Centre	316900	WINESAP PL	BYWOOD DR	[38 m N] BYWOOD DR [CUL-DE-SAC]	2009	Reconstruction	Local		Etobicoke York	2014
17-Davenport	21-St. Paul's	08381.500	WINONA DR	BARRIE AVE	[16 m N] BARRIE AVE [CITY LIMITS]	2010	Resurfacing	Local		Toronto and East York	2015
17-Davenport	21-St. Paul's	32220.000	WINONA DR	[16 m N] BARRIE AVE [CITY L	WATFORD AVE	2010	Resurfacing	Local		Toronto and East York	2015
17-Davenport	21-St. Paul's	32222.000	WINONA DR	WATFORD AVE	DUNDURN CRES	2010	Resurfacing	Local		Toronto and East York	2015
17-Davenport	21-St. Paul's	32225.000	WINONA DR	DUNDURN CRES	FALWYN AVE	2010	Resurfacing	Local		Toronto and East York	2015
17-Davenport	21-St. Paul's	32226.000	WINONA DR	FALWYN AVE	HURSTING AVE	2010	Resurfacing	Local		Toronto and East York	2015
17-Davenport	21-St. Paul's	32227.000	WINONA DR	HURSTING AVE	COATES AVE	2010	Resurfacing	Local		Toronto and East York	2015
17-Davenport	21-St. Paul's	32228.000	WINONA DR	COATES AVE	[W] EARLSDALE AVE [BRANCH]	2010	Resurfacing	Local		Toronto and East York	2015
17-Davenport	21-St. Paul's	32229.000	WINONA DR	[W] EARLSDALE AVE [BRANCH]	[E] EARLSDALE AVE [BRANCH]	2010	Resurfacing	Local		Toronto and East York	2015
17-Davenport	21-St. Paul's	32229.900	WINONA DR	EARLSDALE AVE	HOLLAND PARK AVE	2010	Resurfacing	Local		Toronto and East York	2015
15-Eglinton-Lawrence	21-St. Paul's	32230.000	WINONA DR	[E] HOLLAND PARK AVE [BRANC	MULBERRY CRES	2010	Resurfacing	Local		Toronto and East York	2015
15-Eglinton-Lawrence	21-St. Paul's	32231.000	WINONA DR	MULBERRY CRES	VAUGHAN RD	2010	Resurfacing	Local		Toronto and East York	2015
12-York South-Weston	12-York South-Weston	40970	WISHBONE THE	HEARST CRCL	HEARST CRCL	2010	Resurfacing	Local		Etobicoke York	2015
30-Toronto-Danforth	30-Toronto-Danforth	08393.000	WOLFREY AVE	BROADVIEW AVE	BRYDALE AVE	2007	Reconstruction	Local		Toronto and East York	2012
30-Toronto-Danforth	30-Toronto-Danforth	08394.000	WOLFREY AVE	BRYDALE AVE	BOWDEN ST	2007	Reconstruction	Local		Toronto and East York	2012
30-Toronto-Danforth	30-Toronto-Danforth	08395.000	WOLFREY AVE	BOWDEN ST	HAMPTON AVE	2007	Reconstruction	Local		Toronto and East York	2012
30-Toronto-Danforth	30-Toronto-Danforth	08396.000	WOLFREY AVE	HAMPTON AVE	LOGAN AVE	2009	Resurfacing	Local		Toronto and East York	2014
22-St. Paul's	27-Toronto Centre-Rosedale	08456.000	WOODLAWN AVE E	YONGE ST	[W] TTC SUBWAY ROW [BRIDGE]	2012	Resurfacing	Local	carry over from 2011 to 2012	Toronto and East York	2017
22-St. Paul's	27-Toronto Centre-Rosedale	08457.000	WOODLAWN AVE E	[E] TTC SUBWAY ROW [BRIDGE]	[E] WOODLAWN AVE E [END]	2012	Resurfacing	Local	carry over from 2011 to 2012	Toronto and East York	2017
22-St. Paul's	22-St. Paul's	08456.000	WOODLAWN AVE.E	YONGE ST	[W] T.T.C. SUB WAT ROW [BRIDGE]	2012	Resurfacing	Local	carry over from 2011 to 2012	Toronto and East York	2017
22-St. Paul's	22-St. Paul's	08457.000	WOODLAWN AVE.E	[E] T.T.C. SUB WAT ROW [BRIDGE]	[E] WOODLAWN AVE.E [END]	2012	Resurfacing	Local	carry over from 2011 to 2012	Toronto and East York	2017
25-Don Valley West	25-Don Valley West	41040	WOODSWORTH RD	BANNATYNE DR	DAVEAN DR	2010	Resurfacing	Collector		North York	2015
25-Don Valley West	25-Don Valley West	41060	WOODSWORTH RD	NO 315 WOODSWORTH RD	[N/W] BANNATYNE DR	2009	Resurfacing	Collector		North York	2014
28-Toronto Centre-Rosedale	28-Toronto Centre-Rosedale	10712.000	WOODWARD EVANS LANE	ONTARIO ST	BERKELEY ST	2009	Reconstruction	Laneway		Toronto and East York	2014
01-Etobicoke North	01-Etobicoke North	106400	WOOLENSCOTE CRCL	NORBROOK CRES	WOOLENSCOTE CRCL	2011	Resurfacing	Local		Etobicoke York	2016
43-Scarborough East	43-Scarborough East	DI0410	WOOSTER WD	DEARHAM WD	LAUSANNE CRES	2009	Resurfacing	Local		Scarborough	2014
26-Don Valley West	26-Don Valley West	41210	WYNFORD HTS CRES	WYNFORD DR	WYNFORD DR	2009	Resurfacing	Collector		North York	2014
39-Scarborough-Agincourt	12-York South-Weston	32282.000	YARROW RD	AVON DR	EGLINTON AVE W	2011	Resurfacing	Local		Etobicoke York	2016
16-Eglinton-Lawrence	23-Willowdale	029-13.5	YONGE ST	[226 m N] CARSON CRES	[43 m S] FRANKLIN AVE (N YK)	2008	Reconstruction	Major Arterial		North York	2013
23-Willowdale	24-Willowdale	029-16	YONGE ST	FINCH AVE E	CUMMER AVE	2010	Resurfacing	Major Arterial		North York	2015
23-Willowdale	24-Willowdale	029-17	YONGE ST	CUMMER AVE	STEELES AVE E	2010	Resurfacing	Major Arterial		North York	2015
28-Toronto Centre-Rosedale	28-Toronto Centre-Rosedale	08519.000	YONGE ST	QUEENS QUAY W	[S] HARBOUR ST [RAMP]	2009	Reconstruction	Major Arterial	east side of the road was done not the west side of the road	Toronto and East York	2014
28-Toronto Centre-Rosedale	28-Toronto Centre-Rosedale	08520.000	YONGE ST	[S] HARBOUR ST [RAMP]	HARBOUR ST	2009	Reconstruction	Major Arterial	east side of the road was done not the west side of the road	Toronto and East York	2014
28-Toronto Centre-Rosedale	28-Toronto Centre-Rosedale	08520.010	YONGE ST	HARBOUR ST	[N] LAKE SHORE BLVD W [BRANCH]	2009	Reconstruction	Major Arterial	east side of the road was done not the west side of the road	Toronto and East York	2014
28-Toronto Centre-Rosedale	28-Toronto Centre-Rosedale	08521.000	YONGE ST	[N] LAKE SHORE BLVD Q [BRANCH]	[S] RAILWAY VIADUCT [END]	2009	Reconstruction	Major Arterial	east side of the road was done not the west side of the road	Toronto and East York	2014
28-Toronto Centre-Rosedale	28-Toronto Centre-Rosedale	08522.000	YONGE ST	[S] RAILWAY VIADUCT [END]	[N] RAILWAY VIADUCT [END]	2009	Reconstruction	Major Arterial	east side of the road was done not the west side of the road	Toronto and East York	2014
28-Toronto Centre-Rosedale	28-Toronto Centre-Rosedale	08523.000	YONGE ST	[N] RAILWAY VIADUCT [END]	THE ESPLANADE	2009	Reconstruction	Major Arterial	east side of the road was done not the west side of the road	Toronto and East York	2014
28-Toronto Centre-Rosedale	28-Toronto Centre-Rosedale	08524.000	YONGE ST	THE ESPLANADE	FRONT ST E	2009	Reconstruction	Major Arterial	east side of the road was done not the west side of the road	Toronto and East York	2014
28-Toronto Centre-Rosedale	28-Toronto Centre-Rosedale	08528.000	YONGE ST	KING ST W	ADELAIDE ST E	2010	Resurfacing	Major Arterial		Toronto and East York	2015
27-Toronto Centre-Rosedale	27-Toronto Centre-Rosedale	08567.000	YONGE ST	DAVENPORT RD	FRICHOT AVE	2008	Reconstruction	Major Arterial		Toronto and East York	2013
22-St. Paul's	22-St. Paul's	08596.000	YONGE ST	MERTON ST	BALLIOL ST	2011	Grind & Pave	Major Arterial	Grind & Pave under the U-cut repair contracts.	Toronto and East York	2014
22-St. Paul's	22-St. Paul's	08597.000	YONGE ST	BALLIOL ST	DAVISVILLE AVE	2011	Grind & Pave	Major Arterial	Grind & Pave under the U-cut repair contracts.	Toronto and East York	2014
22-St. Paul's	22-St. Paul's	08598.000	YONGE ST	DAVISVILLE AVE	MILLWOOD RD	2011	Grind & Pave	Major Arterial	Grind & Pave under the U-cut repair contracts.	Toronto and East York	2014
22-St. Paul's	22-St. Paul's	08599.000	YONGE ST	MILLWOOD RD	IMPERIAL ST	2011	Grind & Pave	Major Arterial	Grind & Pave under the U-cut repair contracts.	Toronto and East York	2014
22-St. Paul's	22-St. Paul's	08600.000	YONGE ST	IMPERIAL ST	BELLSIZE DR	2011	Grind & Pave	Major Arterial	Grind & Pave under the U-cut repair contracts.	Toronto and East York	2014
22-St. Paul's	22-St. Paul's	08601.000	YONGE ST	BELLSIZE DR	GLEBE RD.W	2011	Grind & Pave	Major Arterial	Grind & Pave under the U-cut repair contracts.	Toronto and East York	2014
22-St. Paul's	22-St. Paul's	08603.000	YONGE ST	GLEBE RD.W	LOLA RD	2011	Grind & Pave	Major Arterial	Grind & Pave under the U-cut repair contracts.	Toronto and East York	2014
22-St. Paul's	22-St. Paul's	08604.000	YONGE ST	LOLA RD	MANOR RD.E	2011	Grind & Pave	Major Arterial	Grind & Pave under the U-cut repair contracts.	Toronto and East York	2014
22-St. Paul's	22-St. Paul's	08605.000	YONGE ST	MANOR RD.E	HILLSDALE AVE	2011	Grind & Pave	Major Arterial	Grind & Pave under the U-cut repair contracts.	Toronto and East York	2014
22-St. Paul's	22-St. Paul's	08607.000	YONGE ST	HILLSDALE AVE	BERWICK AVE	2011	Grind & Pave	Major Arterial	Grind & Pave under the U-cut repair contracts.	Toronto and East York	2014
22-St. Paul's	22-St. Paul's	08608.000	YONGE ST	BERWICK AVE	SOUDAN AVE	2011	Grind & Pave	Major Arterial	Grind & Pave under the U-cut repair contracts.	Toronto and East York	2014
16-Eglinton-Lawrence	22-St. Paul's	08610.000	YONGE ST	EGLINTON AVE W	ROEHAMPTON AVE	2009	Resurfacing	Major Arterial		Toronto and East York	2014
16-Eglinton-Lawrence	22-St. Paul's	08611.000	YONGE ST	ROEHAMPTON AVE	ORCHARD VIEW BLVD	2009	Resurfacing	Major Arterial		Toronto and East York	2014
16-Eglinton-Lawrence	22-St. Paul's	08612.000	YONGE ST	ORCHARD VIEW BLVD	HELENDALE AVE	2009	Resurfacing	Major Arterial		Toronto and East York	2014
16-Eglinton-Lawrence	22-St. Paul's	08613.000	YONGE ST	HELENDALE AVE	BROADWAY AVE	2009	Resurfacing	Major Arterial		Toronto and East York	2014
16-Eglinton-Lawrence	25-Don Valley West	08614.000	YONGE ST	BROADWAY AVE	ROSELAWN AVE	2009	Resurfacing	Major Arterial		North York	2014
16-Eglinton-Lawrence	25-Don Valley West	08615.000	YONGE ST	ROSELAWN AVE	ERSKINE AVE	2009	Resurfacing	Major Arterial		North York	2014
16-Eglinton-Lawrence	25-Don Valley West	08616.000	YONGE ST	ERSKINE AVE	CASTLEFIELD AVE	2009	Resurfacing	Major Arterial		North York	2014
16-Eglinton-Lawrence	25-Don Valley West	08617.000	YONGE ST	CASTLEFIELD AVE	KEEWATIN AVE	2009	Resurfacing	Major Arterial		North York	2014

2012 MORATORIUM LIST OF ROADS

For Moratorium conditions refer to: http://www.toronto.ca/engineering/mcr/pdf/mcr_municipal_consent_requirements.pdf

Expiration Date is December 31, YEAR

WARD		SECTION	LOCATION			COMPLETED		FUNCTIONAL	REMARKS	DISTRICT	EXPIRATION
Even	Odd	ID	Street	From	To	YEAR	WORK	CLASS	(for carry over, deferred, delayed work)		DATE
17-Davenport	17-Davenport	12343.200	[106.70 m N] LINDNER ST	MILLER ST	[32 m W] MILLER ST	2010	Reconstruction	Laneway		Etobicoke York	2015
19-Trinity-Spadina	19-Trinity-Spadina	11564.000	[107.80 m S] HARBORD ST	MANNING AVE (TO)	CLINTON ST	2011	Resurfacing	Laneway		Toronto and East York	2016
16-Eglinton-Lawrence	25-Don Valley West	08618.000	YONGE ST	KEEWATIN AVE	ST CLEMENTS AVE	2009	Resurfacing	Major Arterial		North York	2014
16-Eglinton-Lawrence	25-Don Valley West	08619.000	YONGE ST	ST CLEMENTS AVE	SHERWOOD AVE (TO)	2009	Resurfacing	Major Arterial		North York	2014
16-Eglinton-Lawrence	25-Don Valley West	08620.000	YONGE ST	SHERWOOD AVE (TO)	BRIAR HILL AVE	2009	Resurfacing	Major Arterial		North York	2014
16-Eglinton-Lawrence	25-Don Valley West	08621.000	YONGE ST	BRIAR HILL AVE	ALBERTUS AVE	2009	Resurfacing	Major Arterial		North York	2014
16-Eglinton-Lawrence	25-Don Valley West	08622.000	YONGE ST	ALBERTUS AVE	SHELDRAKE BLVD	2009	Resurfacing	Major Arterial		North York	2014
16-Eglinton-Lawrence	25-Don Valley West	08623.000	YONGE ST	SHELDRAKE BLVD	CRAIGHURST AVE	2009	Resurfacing	Major Arterial		North York	2014
16-Eglinton-Lawrence	25-Don Valley West	08624.000	YONGE ST	CRAIGHURST AVE	LYTTON BLVD	2009	Resurfacing	Major Arterial		North York	2014
16-Eglinton-Lawrence	25-Don Valley West	08625.000	YONGE ST	LYTTON BLVD	BLYTHWOOD RD	2009	Resurfacing	Major Arterial		North York	2014
16-Eglinton-Lawrence	25-Don Valley West	08626.000	YONGE ST	BLYTHWOOD RD	ALEXANDRA BLVD	2009	Resurfacing	Major Arterial		North York	2014
16-Eglinton-Lawrence	25-Don Valley West	08627.000	YONGE ST	ALEXANDRA BLVD	GLENCAIRN AVE	2009	Resurfacing	Major Arterial		North York	2014
16-Eglinton-Lawrence	25-Don Valley West	08628.000	YONGE ST	GLENCAIRN AVE	STRATHGOWAN AVE	2009	Resurfacing	Major Arterial		North York	2014
16-Eglinton-Lawrence	25-Don Valley West	08629.000	YONGE ST	STRATHGOWAN AVE	GLENGROVE AVE W	2009	Resurfacing	Major Arterial		North York	2014
16-Eglinton-Lawrence	25-Don Valley West	08629.500	YONGE ST	GLENGROVE AVE W	GLENGROVE AVE E	2009	Resurfacing	Major Arterial		North York	2014
16-Eglinton-Lawrence	25-Don Valley West	08630.000	YONGE ST	GLENGROVE AVE E	ALEXANDER MUIR RD	2009	Resurfacing	Major Arterial		North York	2014
16-Eglinton-Lawrence	25-Don Valley West	08631.000	YONGE ST	ALEXANDER MUIR RD	CHATSWORTH DR	2009	Resurfacing	Major Arterial		North York	2014
16-Eglinton-Lawrence	25-Don Valley West	08632.000	YONGE ST	CHATSWORTH DR	CHERITAN AVE	2009	Resurfacing	Major Arterial		North York	2014
16-Eglinton-Lawrence	25-Don Valley West	08633.000	YONGE ST	CHERITAN AVE	LYMPSTONE AVE	2009	Resurfacing	Major Arterial		North York	2014
16-Eglinton-Lawrence	25-Don Valley West	08634.000	YONGE ST	LYMPSTONE AVE	LAWRENCE AVE E	2009	Resurfacing	Major Arterial		North York	2014
37-Scarborough Centre	37-Scarborough Centre	DR0430	YORKSHIRE RD	RANSTONE GDNS	KINGSDOWN DR	2010	Resurfacing	Local		Scarborough	2015
25-Don Valley West	25-Don Valley West	41630	ZAHARIAS CRT	CHIEFTAIN CRES	NORTH END	2011	Resurfacing	Local		North York	2016
4-Etobicoke Centre	4-Etobicoke Centre	204801	ZEALAND RD	REDGRAVE DR	CLARION RD	2010	Resurfacing	Local		Etobicoke York	2015
44-Scarborough East	44-Scarborough East	EB0080	BROWNFIELD GDNS	ISLAND RD	[201 m S] BRYCEMOOR RD	2012	Reconstruction	Local	carry over from 2011 to 2012	Scarborough	2017
44-Scarborough East	44-Scarborough East	EB0090	BRYCEMOOR RD	FRIENDSHIP AVE	BROWNFIELD GDNS	2012	Reconstruction	Local	carry over from 2011 to 2012	Scarborough	2017
24-Willowdale	24-Willowdale	030-08	FINCH AVE E	[E] DON RIVER [BRANCH]	BAYVIEW AVE	2012	Reconstruction	Major Arterial	carry over from 2011 to 2012	North York	2017
24-Willowdale											
24-Willowdale	23-Willowdale	030-09	FINCH AVE E	BAYVIEW AVE	YONGE ST	2012	Reconstruction	Major Arterial	carry over from 2011 to 2012	North York	2017

2012 MORATORIUM LIST OF SIDEWALKS (Partial List - as of Feb 9 2012, to be updated)

Expiration Date is December 31, YEAR

For Moratorium conditions refe http://www.toronto.ca/engineering/mcr/pdf/mcr_municipal_consent_requirements.pdf

WARD Even	Odd	SECTION ID	LOCATION Street	From	To	COMPLETED YEAR	WORK	REMARKS (for carry over, deferred, delayed work)	DISTRICT	EXPIRATION DATE
18	18	02910.000	EARNEST AVE	PERTH AVE	EARNEST AVE (W End)	2009	New Sidewalk Construction		Toronto and East York	2014
18	18		EIREANN QUAY	EIREANN QUAY(S End)	QUEENS QUAY W	2009	New Sidewalk Construction		Toronto and East York	2014
19	19		LAKESHORE BLVD. W	STAIUM RD	BATHURST ST	2009	New Sidewalk Construction		Toronto and East York	2014
28	28	01042.000	BRTAIN ST ST	GEROGE ST	SHERBOURNE ST	2009	New Sidewalk Construction		Toronto and East York	2014
28	28	01489.000	CHURCH ST	THE ESPLANADE	S END of CHURCH ST	2009	New Sidewalk Construction		Toronto and East York	2014
30	30	02647.000	EASTERN AVE	LESLIE ST (60m W of)	LAING ST	2009	New Sidewalk Construction		Toronto and East York	2014
32	32	07846.000	TRENT AVE	DANFORTH AVE	LANEWAY S of DANFORTH AVE	2009	New Sidewalk Construction		Toronto and East York	2014
2	2		ATTWEEL RD	HWY 9	310 ATTWELL RD (South of Disco Rd)	2009	New Sidewalk Construction		Etobicoke York	2014
2	2		DISCO RD	ATTWELL RD (West of 70 Disco Rd)		2009	New Sidewalk Construction		Etobicoke York	2014
2	2	002800@	BELFIELD RD	KIPLING AVE	ATTWELL DR	2009	New Sidewalk Construction		Etobicoke York	2014
11	11		DENISON RD	68 DENISON RD	CLOUSTEN AVE	2009	New Sidewalk Construction		Etobicoke York	2014
1	1		JANDA CRT	QUEEN'S PLATE'S DR	QUINELLA DR	2009	New Sidewalk Construction		Etobicoke York	2014
17	17	03192.000	GEARY AVE	DPVERCOURT RD	BARTLETT AVE. North	2009	Sidewalk Reconstruction		Etobicoke York	2014
12	12	01742.000	CONNOLLY ST	UXBRIDGE AVE	LAUGHTON AVE	2009	New Sidewalk Construction		Etobicoke York	2014
9	9		DUFFERIN ST	COMBE AVE		2009	New Sidewalk Construction		North York	2014
34	34	26300	JONESVILLE CR	JONESVILLE CR (W End of)	EGLINTON AVE. E	2009	Sidewalk Reconstruction		North York	2014
2	2		33 GALAXY BLVD	IN FRONT OF MOLSON'S		2007	New Sidewalk		Etobicoke York	2012
19	19	00448.400	BARTON AVE	CHRISTIE ST	PENDRITH LANE	2007	New Sidewalk		Toronto and East York	2012
21	21	00691.000	BENSON AVE	CHRISTIE ST	WYCHWOOD AVE	2007	New Sidewalk		Toronto and East York	2012
32	32	01790.000	COXWELL AVE	EASTERN AVE	LAKESHORE BLVD E	2007	New Sidewalk		Toronto and East York	2012
32	32	02105.000	DENGATE RD	MUSGRAVE ST	GERRARD ST E	2007	New Sidewalk		Toronto and East York	2012
41	41	030-02	FINCH AVE E	ALEXMUIR BLVD	BRIMLEY AVE	2007	New Sidewalk		Scarborough	2012
36	36	BO0120	HAREWOOD AVE	KINGSTON RD (BROADMEAD AVE)	94 HAREWOOD AVE(KINGSTON RD)	2007	New Sidewalk		Scarborough	2012
11	11		JANE ST	EGLINTON AVE W	974 JANE ST (OPP LAMBTON AVE)	2007	New Sidewalk		Etobicoke York	2012
44	44	004-09.1	KINGSTON RD	RASPBERRY RD (HWY 401 EXIT RAMP)	ROUGE RIVER BRIDGE (SHEPPARD AVE)	2007	New Sidewalk		Scarborough	2012
44	44	004-09.1	KINGSTON RD	HWY 401 EXIT RAMP	SHEPPARD AVE	2007	New Sidewalk		Scarborough	2012
11	11	31367.000	MACDONALD AVE	MERRILL AVE	JANE ST	2007	New Sidewalk		Etobicoke York	2012
37	37	DT0190	MARBLE ARCH CR	LANCEFIELD AVE	WARDEN AVE	2007	New Sidewalk		Scarborough	2012
32	32	05539.000	MUSGRAVE ST	VICTORIA PARK AVE	DENGATE RD	2007	New Sidewalk		Toronto and East York	2012
22	22	05686.000	OLD FOREST HILL RD	OLD FOREST HILL RD	RUSSELL HILL RD	2007	New Sidewalk		Toronto and East York	2012
3	3	005100	PRINCESS MARGARET BLVD	LLOYD MANOR RD	TTC BUS STOP	2007	New Sidewalk		Etobicoke York	2012
2	2		SKYWAY AVE	INTERNATIONAL BLVD	MIMICO CREEK BRIDGE	2007	New Sidewalk		Etobicoke York	2012
5	5	023103	THE KINGSWAY (S)	GOVERNMENT RD	USHER AVE	2007	New Sidewalk		Etobicoke York	2012
44	44	EI0130	WEIR CR	NO. 228-22 GALLOWAY RD	W OF NO. 177 WEIR CR	2007	New Sidewalk		Scarborough	2012
4	4	025201	WINCOTT DR	EGLINTON AVE W	NO. 265 WINCOTT DR	2007	New Sidewalk		Etobicoke York	2012
1	1	100310	WOODBINE DOWNS BLVD	FINCH AVE W	CARRIER DR	2007	New Sidewalk		Etobicoke York	2012
11	11	41280	YELLAND ST	QUEENSLEA AVE (N OF)	OAK ST	2007	New Sidewalk		Etobicoke York	2012
39	39	053-08	KENNEDY RD	[390 m S] PASSMORE AV	STEELES AVE E	2009	New Sidewalk Construction		Scarborough	2014
4	4	025201	WINCOTT DR	EGLINTON AVE W	SHEFFLEY CRES	2007	New Sidewalk		Etobicoke York	2012
43	43	EI0130	WEIR CRES	RODDA BLVD	WARNSWORTH ST	2007	New Sidewalk		Scarborough	2012
1	1	101300	PANORAMA CRT	KIPLING AVE	[316 m E] KIPLING AVE	2007	New Sidewalk		Etobicoke York	2012
44	44		CINDY NICHOLAS POND	CINDY NICHOLAS POND	GATINEAU HYDRO CORRIDOR	2011	Sidewalk Construction		Scarborough	2016
44	44		GATINEAU HYDRO CORRIDOR	CINDY NICHOLAS POND	HWY 401/MORNINGSIDE EB OFF RAMP	2011	Sidewalk Construction		Scarborough	2016
44	44		HWY 401/MORNINGSIDE EB OFF RAMP	GATINEAU HYDRO CORRIDOR	MORNINGSIDE AVE	2011	Sidewalk Construction		Scarborough	2016
43	43		ANDOVER CRES	LAWRENCE AVE E	[200 m S] LAWRENCE AVE E	2011	Sidewalk Construction	Even side	Scarborough	2016
36	36		BRIMLEY RD	ST CLAIR AVE E	KINGSTON RD	2011	Sidewalk Construction	Odd side	Scarborough	2016
41	41		MCNICOLL AVE	KENNEDY RD	SILVER STAR BLVD	2011	Sidewalk Construction	Even side	Scarborough	2016
43	43	CL0080	HEATHFIELD DR (Walkway)	HILL CRES	SYLVAN AVE	2011	Walkway Construction	Pathway	Scarborough	2016
5	5		PARK LAWN RD	THE QUEENSWAY	LAKESHORE BLVD W	2011	Sidewalk	New sidewalk east side, reconstruct west	Etobicoke York	2016
11	11		BLACK CREEK DR	EGLINTON AVE W	WESTON RD	2011	New Sidewalk		Etobicoke York	2016

2012 MORATORIUM LIST OF BRIDGES					Expiration Date is December 31, YEAR
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	LOCATION	**COMPLETED**		**REMARKS**	**EXPIRATION**
Bridge No.	**Street**	**YEAR**	**WORK**	**(for carry over, deferred, delayed work)**	**DATE**
097	Bathurst St/Nordheimer	2009	Bridge Rehabilitation		2019
372	Jameson Ave. Pedestrian Foot Bridge	2009	Bridge Rehabilitation		2019
545	Pape Ave. Pedestrian Foot Bridge	2009	Bridge Rehabilitation		2019
559/561	Strachan Ave./ C.N.R. (north) & Strachan Ave./ C.N.R. (south) (depends on Front Street extension)	2009	Bridge Rehabilitation		2019
99	Kay Gardiner Pedestrian Bridge over Yonge Street	2009	Bridge Rehabilitation		2019
104	Milwood Rd. u CPR west of Overlea	2009	Bridge Rehabilitation		2019
624	Skyway Dr./ Mimico Creek	2009	Bridge Rehabilitation		2019
121	Eglinton / Belt Line	2009	Bridge Rehabilitation		2019
055	Dundas St./Humber River for 2 years	2010	Bridge Rehabilitation		2020
72, 539	Mt. Pleasant / CP Rail, S of St. Clair + MacLennanPedestrian Bridge	2009	Bridge Rehabilitation		2019
962	Prairie Dr. Pedestrian Bridge / TTC Subway	2009	Bridge Rehabilitation		2019
565	Unwin Ave. Bridge Replacement	2009	Bridge Rehabilitation		2019
571 & 553	Yonge subway @ Woodlawn Ave. & Yonge subway @ Roxborough St.	2010	Bridge Rehabilitation		2020
146	Lawrence Ave./ Bayview Ave.	2009	Bridge Rehabilitation		2019
065	Bathurst St./CPR, north of Dupont	2010	Bridge Rehabilitation		2020
40	Queen's Park over Wellesley (Westside)	2011	Bridge Rehabilitation		2021
531	Jackes Avenue Bridge over TTC (Emergency Repair)	2011	Bridge Rehabilitation		2021
42	Dundas over DVP - Steel Coating	2011	Bridge Rehabilitation		2021
250,333,334	Lakeshore Blvd. (2) over F.G.G. & Jameson (1) over F.G.G.	2011	Bridge Rehabilitation		2021
582	Dawes Road over Massey Creek	2011	Bridge Rehabilitation		2021
768	Leslie Street Bridge over German Mills Creek (south of Steeles Ave E)	2011	Bridge Rehabilitation		2021
244	Gerrard over Don Valley Parkway/Don River	2011	Bridge Rehabilitation		2021
932	Tapscott Bridge rehabilitation	2011	Bridge Rehabilitation		2021
56	Bloor Street / Humber River	Carry Over into 2012	Bridge Rehabilitation		
269	The Queensway over CPR, west of Kipling	Carry Over into 2012	Bridge Rehabilitation		
378	Bloor Street / Islington Avenue	2011	Bridge Rehabilitation		2021
	Gardiner - Bathurst / Strachan Rehabilittation	2010	Bridge Rehabilitation		2020