QUANTITY SHEETS

CONTRACT NO. 2019-2003

BOOK 1 OF 1

Ministry Of Transportation

Ontario

INDEX

W.P. No. 2116-16-00

Contract No. 2019-2003

Sheet No.	Description
	CONTRACT DRAWINGS - BOOK 1 OF 1
	COVER SHEET
	KEY PLAN
	INDEX
1 - 12	H&V SHEETS
13 - 23	CONSTRUCTION SEQUENCING
24 - 87	CONSTRUCTION STAGING
88 - 99	STAGING TYPICALS
100 - 102	DETOUR PLAN
103 - 108	REMOVALS
109 - 115	NEW CONSTRUCTION
116 - 130	PROFILES
131 - 139	TYPICAL SECTIONS
140 - 149	PAVEMENT MARKINGS & SIGNAGE
150 - 152	BOREHOLE DATA
153 - 165	ADVANCED TRAFFIC MANAGEMENT DRAWINGS
166 - 178	ELECTRICAL DRAWINGS
179 - 234	STRUCTURAL DRAWINGS
	QUANTITY SHEETS - BOOK 1 OF 1
	COVER SHEET
	INDEX
1 - 97	GRADING QUANTITIES
98 - 103	ATMS QUANTITIES
104 - 111	ELECTRICAL QUANTITIES
112 - 120	STRUCTURAL QUANTITIES

Sheet No.	Description

MINISTRY OF TRANSPORTATION - ONTARIO

QUANTITIES - GRADING

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 1

Description	*Clearing*	Reference		*Clearing (each)*	Reference		*Grubbing*		*Grubbing (each)*							
Sub - Totals Brought Forward:																
QEW Fort Erie Bound																
13+199 , 21.66RT				1					1							
13+643 , 27.90RT				1					1							
13+767 , 36.34RT				1					1							
13+808 , 35.22RT				1					1							
13+811 , 25.01RT				1					1							
13+820 , 24.59RT				1					1							
13+825 , 22.11RT				1					1							
13+830 , 23.77RT				1					1							
13+832 , 26.13RT				1					1							
13+844 , 22.42RT				1					1							
13+849 , 23.62RT				1					1							
13+861 , 29.02RT				1					1							
13+863 , 24.14RT				1					1							
13+865 , 12.98RT				1					1							
13+867 , 32.42RT				1					1							
13+873 , 18.39RT				1					1							
13+880 , 30.27RT				1					1							
13+882 , 22.88RT				1					1							
13+886 , 21.82RT				1					1							
Sub - Totals Carried Forward:	0			19				0		19						
	(P)			(P)				(P)		(P)						
TOTALS																
UNIT	m2 (P)			each (P)				m2 (P)		each (P)						
ITEM No.	1			2				3		4						
						Reference										

Total Stripping		1337
Stripping Available	50%	668
Top Soil Required		4257
Stripping Balance		-3589

Remarks: Volume adjustment factor for earth have been applied to quantities shown.

CHKD. _____

APPR. _____

DATE _____

CLEARING & GRUBBING

QUANTITIES - GRADING

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 2

Description	*Clearing*	Reference		*Clearing (each)*	Reference		*Grubbing*		*Grubbing (each)*							
Sub - Totals Brought Forward:	0			19			0		19							
13+894 , 15.00RT				1					1							
13+896 , 22.87RT				1					1							
14+025 - 14+225 , 33.86-37.87RT - 32.53-35.81RT	1,159						1,159									
14+055 , 31.66RT				1					1							
14+061 - 14+067, 31.58RT - 31.71-11.22RT	60						60									
14+067 - 14+215 , 31.88-11.33RT - 32.38-14.24RT	3,001						3,001									
14+070 , 28.81RT				1					1							
14+085 , 30.70RT				1					1							
14+087 , 29.75RT				1					1							
14+089 , 28.03RT				1					1							
14+090 , 37.43RT				1					1							
14+092 , 31.81RT				1					1							
14+093 , 33.36RT				1					1							
14+204 , 27.13RT				1					1							
14+206 , 23.97RT				1					1							
14+215 - 14+228 , 32.38-14.69RT - 34.44RT	1,159						1,159									
14+216 , 25.62RT				1					1							
14+216 , 29.01RT				1					1							
14+224 , 29.23RT				1					1							
Sub - Totals Carried Forward:	5,379			34			5,379		34							
	(P)			(P)			(P)		(P)							
TOTALS																
UNIT	m2 (P)			each (P)			m2 (P)		each (P)							
ITEM No.	1			2			3		4							

Total Stripping		1337
Stripping Available	50%	668
Top Soil Required		4257
Stripping Balance		-3589

Remarks: Volume adjustment factor for earth have been applied to quantities shown.

Reference

CHKD. _____

APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

CLEARING & GRUBBING

QUANTITIES - GRADING

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 3

Description	*Clearing*	Reference		*Clearing (each)*	Reference		*Grubbing*		*Grubbing (each)*							
Sub - Totals Brought Forward:	5,379			34			5,379		34							
14+505, 34.06RT				1					1							
14+508, 27.65RT				1					1							
14+520 , RT				1					1							
14+517, 26.88RT				1					1							
14+519 , 30.32RT				1					1							
14+522 , 25.50RT				1					1							
14+634 , 36.62RT				1					1							
N-EW Ramp																
9+988 , 13.27RT				1					1							
9+993 - 10+005 , 13.46-17RT - 14.99-24RT	69						69									
10+005 - 10+013 , 14.99-24RT - 18.60-23RT	42						42									
10+017 , 26.33RT				1					1							
10+067 , 3.73RT				1					1							
10+069 , 3.02RT				1					1							
10+077 - 10+121 , 17-14RT	92						92									
10+142 , 20.28RT				1					1							
10+145 , 12.56RT				1					1							
10+153 , 18.40RT				1					1							
10+155 , 11.31RT				1					1							
Sub - Totals Carried Forward:	5,582			49			5,582		49							
	(P)			(P)			(P)		(P)							
TOTALS																
UNIT	m2 (P)			each (P)			m2 (P)		each (P)							
ITEM No.	1			2			3		4							

Total Stripping		1337
Stripping Available	50%	668
Top Soil Required		4257
Stripping Balance		-3589

Remarks: Volume adjustment factor for earth have been applied to quantities shown.

Reference

CHKD. _____

APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

CLEARING & GRUBBING

QUANTITIES - GRADING

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 4

MINISTRY OF TRANSPORTATION - ONTARIO

Description	*Clearing*	Reference		*Clearing (each)*	Reference		*Grubbing*		*Grubbing (each)*							
Sub - Totals Brought Forward:	5,582			49			5,582		49							
10+163 , 12.73RT				1					1							
10+167 , 9.23RT				1					1							
10+169 , 11.85RT				2					2							
10+172 , 9.45RT				1					1							
10+178 , 14.82RT				1					1							
10+179 , 11.80RT				1					1							
10+182 , 12.52RT				1					1							
10+187 , 12.03RT				1					1							
10+189 , 12.15RT				1					1							
10+192 , 13.48RT				1					1							
10+194 , 14.88RT				1					1							
EW-S Ramp																
9+856 - 9+933 , RT	394						394									
9+890 - 9+933 , RT	209						209									
9+880 - 9+933 , LT	501						501									
QEW Toronto Bound																
13+188 , 25.67LT				1					1							
13+191 , 28.65LT				1					1							
13+198 , 25.40LT				1					1							
Sub - Totals Carried Forward:	6,686			64			6,686		64							
	(P)			(P)			(P)		(P)							
TOTALS	6,686			64			6,686		64							
UNIT	m2 (P)			each (P)			m2 (P)		each (P)							
ITEM No.	1			2			3		4							

Total Stripping		1337
Stripping Available	50%	668
Top Soil Required		4257
Stripping Balance		-3589

Remarks: Volume adjustment factor for earth have been applied to quantities shown.

Reference

CHKD. _____

APPR. _____

DATE _____

CLEARING & GRUBBING

QUANTITIES - GRADING

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 5

Description	*Earth Excavation (Grading)*	Reference		*Earth Available*	Reference	*Earth Fill Required*		*Select Subgrade Material*		*Excavation for Pavement Widening*		*Granular A [Mainline/Ramps]*	*Granular A [Shoulder]*	*Granular A [Construction Access Roads]*	*Granular A [Structure]*	
Sub - Totals Brought Forward:																
Construction Stage 1A																
QEW Mainline (Fort Erie Bound & Toronto Bound)																
13+260 - 13+900								35,543								
14+020 - 15+110								30,272								
Construction Pre-Stage 1B																
QEW Fort Erie Bound																
13+260 - 13+900	1,369							366				3,465				
Construction Stage 1B																
QEW Mainline (Fort Erie Bound & Toronto Bound)																
13+259 - 13+902	1,444			1,444				7,755								
14+020 - 15+110	8,469			8,469				8,018								
EW-S Ramp																
9+827 - 10+000	1,274			1,274				6,734								
N-EW Ramp																
10+000 - 10+257	1,255			1,255				16,891								
Sunset Drive																
10+000 - 10+068, LT	155			155				2,166								
Construction Stage 2A																
QEW Fort Erie & Toronto Bound																
13+259 - 13+902, CL	856			856				12,130								
14+020 - 15+110, CL	3,251			3,251				9,243								
Construction Stage 2B																
QEW Mainline																
Sub - Totals Carried Forward:	18,073			16,704		0		129,118		0		3,465	0	0	0	
	(P)									(P)						
TOTALS																
UNIT	m3 (P)			m3		m3		t		m (P)		t	t	t	t	
ITEM No.	5							7		6			14			

Total Stripping		6111
Stripping Available	50%	3056
Top Soil Required		1180
Stripping Balance		1876

Remarks: Volume adjustment factor for earth have been applied to quantities shown.

Reference

CHKD. _____

APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

EARTH EX / SSM/ EARTH BORROW / GRANULAR A / GRANULAR B

QUANTITIES - GRADING

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 6

MINISTRY OF TRANSPORTATION - ONTARIO

EARTH EX / SSM/ EARTH BORROW / GRANULAR A / GRANULAR B

Description	*Granular B, Type II [Structure]*	Reference			Reference												
Sub - Totals Brought Forward:																	
Construction Stage 1A																	
QEW Mainline (Fort Erie Bound & Toronto Bound)																	
13+260 - 13+900																	
14+020 - 15+110																	
Construction Pre-Stage 1B																	
QEW Fort Erie Bound																	
13+260 - 13+900																	
Construction Stage 1B																	
QEW Mainline (Fort Erie Bound & Toronto Bound)																	
13+259 - 13+902																	
14+020 - 15+110																	
EW-S Ramp																	
9+827 - 10+000																	
N-EW Ramp																	
10+000 - 10+257																	
Sunset Drive																	
10+000 - 10+068, LT																	
Construction Stage 2A																	
QEW Fort Erie & Toronto Bound																	
13+259 - 13+902, CL																	
14+020 - 15+110, CL																	
Construction Stage 2B																	
QEW Mainline																	
Sub - Totals Carried Forward:	0																
TOTALS																	
UNIT	t																
ITEM No.	15																

Total Stripping		6111
Stripping Available	50%	3056
Top Soil Required		1180
Stripping Balance		1876

Remarks: Volume adjustment factor for earth have been applied to quantities shown.

Reference

CHKD. _____

APPR. _____

DATE _____

QUANTITIES - GRADING

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 7

Description	*Earth Excavation (Grading)*	Reference		*Earth Available*	Reference	*Earth Fill Required*		*Select Subgrade Material*		*Excavation for Pavement Widening*		*Granular A [Mainline/Ramps]*	*Granular A [Shoulder]*	*Granular A [Construction Access Roads]*	*Granular A [Structure]*	
Sub - Totals Brought Forward:	18,073			16,704		0		129,118		0		3,465	0	0	0	
13+260 - 13+900								4,683								
14+020 - 15+110								3,390								
EW-N Ramp																
9+833 - 10+000	829			829				21,758								
Construction Stage 3A																
QEW Toronto Bound																
13+259 - 13+902	445			445				8,637								
14+020 - 15+110	1,940			1,940				5,621								
Earth Fill & Granular																
10+000 - 13+902, QEW Mainline						76,868						30,200	2,000			
14+020 - 15+110, QEW Mainline						57,960						30,200	2,000			
10+000 - 10+257, N-EW Ramp						10,639						4,204	247			
9+827 - 10+000, EW-S Ramp						5,015						3,089	159			
9+833 - 10+000, EW-N Ramp						12,917						3,360	119			
10+000 - 10+068, Sunset Drive						1,358						412				
QEW Fort Erie Bound																
13+260 - 13+340, 3.8LT										80						
13+260 - 13+340, 3.8RT										80						
14+440 - 14+800, 3.8LT										360						
14+580 - 15+110, 3.8RT										530						
JumpOuts																
13+643, LT	36			36												
Sub - Totals Carried Forward:	21,323			19,954		164,757		173,207		1,050		74,930	4,525	0	0	
	(P)									(P)						
TOTALS																
UNIT	m3 (P)			m3		m3		t		m (P)		t	t	t	t	
ITEM No.	5							7		6			14			

Total Stripping		6111
Stripping Available	50%	3056
Top Soil Required		1180
Stripping Balance		1876

Remarks: Volume adjustment factor for earth have been applied to quantities shown.

Reference

CHKD. _____

APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

EARTH EX / SSM/ EARTH BORROW / GRANULAR A / GRANULAR B

QUANTITIES - GRADING

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 8

MINISTRY OF TRANSPORTATION - ONTARIO

EARTH EX / SSM/ EARTH BORROW / GRANULAR A / GRANULAR B

Description	*Granular B, Type II [Structure]*	Reference			Reference												
Sub - Totals Brought Forward:	0																
13+260 - 13+900																	
14+020 - 15+110																	
EW-N Ramp																	
9+833 - 10+000																	
Construction Stage 3A																	
QEW Toronto Bound																	
13+259 - 13+902																	
14+020 - 15+110																	
Earth Fill & Granular																	
10+000 - 13+902, QEW Mainline																	
14+020 - 15+110, QEW Mainline																	
10+000 - 10+257, N-EW Ramp																	
9+827 - 10+000, EW-S Ramp																	
9+833 - 10+000, EW-N Ramp																	
10+000 - 10+068, Sunset Drive																	
QEW Fort Erie Bound																	
13+260 - 13+340, 3.8LT																	
13+260 - 13+340, 3.8RT																	
14+440 - 14+800, 3.8LT																	
14+580 - 15+110, 3.8RT																	
JumpOuts																	
13+643, LT																	
Sub - Totals Carried Forward:	0																
TOTALS																	
UNIT	t																
ITEM No.	15																

Total Stripping	6111
Stripping Available 50%	3056
Top Soil Required	1180
Stripping Balance	1876

Remarks: Volume adjustment factor for earth have been applied to quantities shown.

Reference

CHKD. _____

APPR. _____

DATE _____

QUANTITIES - GRADING

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 9

Description	*Earth Excavation (Grading)*	Reference		*Earth Available*	Reference	*Earth Fill Required*		*Select Subgrade Material*		*Excavation for Pavement Widening*		*Granular A [Mainline/Ramps]*	*Granular A [Shoulder]*	*Granular A [Construction Access Roads]*	*Granular A [Structure]*	
Sub - Totals Brought Forward:	21,323			19,954		164,757		173,207		1,050		74,930	4,525	0	0	
13+644, RT	36			36												
14+088, LT	36			36												
14+300, LT	36			36												
10+100, RT	36			36												
Site No. 34-455C																
Construction Access Road #1																
16+757 - 16+767 , 47.15-57.29RT - 44.88-55.00RT														66		
16+762 - 16+813 , 57.29-53.49RT - 52.07-48.04RT														233		
Laydown Area #1																
16+785 - 16+798 , 53.49-45.49RT														110		
Laydown Area #2																
16+816 - 16+821 , 47.42-40.27RT - 47.99-40.27RT														45		
16+821 - 16+826 , 47.99-43.32RT - 47.99-42.86RT														27		
Construction Access Road#2																
16+844 - 16+897 , 37.10-32.95LT - 51.87-48.64LT														264		
Laydown Area #1																
16+835 - 16+844 , 44.55-32.50LT - 44.55-32.88LT														91		
Site No. 34-454C																
Construction Access Road #3																
10+230 - 10+264 , 63.90-60.48RT - 63.99-60.32RT														89		
Laydown Area #1																
10+235 - 10+230 , 63.75-54.98RT - 67.38-55.82RT														118		
Construction Access Road #4																
10+286 - 10+291 , 54.58-42.28LT - 50.48-46.36LT														42		
Sub - Totals Carried Forward:	21,467			20,098		164,757		173,207		1,050		74,930	4,525	1,085	0	
	(P)									(P)						
TOTALS																
UNIT	m3 (P)			m3		m3		t		m (P)		t	t	t	t	
ITEM No.	5							7		6			14			

Total Stripping		6111
Stripping Available	50%	3056
Top Soil Required		1180
Stripping Balance		1876

Remarks: Volume adjustment factor for earth have been applied to quantities shown.

Reference

CHKD. _____

APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

EARTH EX / SSM/ EARTH BORROW / GRANULAR A / GRANULAR B

QUANTITIES - GRADING

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 10

MINISTRY OF TRANSPORTATION - ONTARIO

EARTH EX / SSM/ EARTH BORROW / GRANULAR A / GRANULAR B

Description	*Granular B, Type II [Structure]*	Reference			Reference												
Sub - Totals Brought Forward:	0																
13+644, RT																	
14+088, LT																	
14+300, LT																	
10+100, RT																	
Site No. 34-455C																	
Construction Access Road #1																	
16+757 - 16+767 , 47.15-57.29RT - 44.88-55.00RT																	
16+762 - 16+813 , 57.29-53.49RT - 52.07-48.04RT																	
Laydown Area #1																	
16+785 - 16+798 , 53.49-45.49RT																	
Laydown Area #2																	
16+816 - 16+821 , 47.42-40.27RT - 47.99-40.27RT																	
16+821 - 16+826 , 47.99-43.32RT - 47.99-42.86RT																	
Construction Access Road#2																	
16+844 - 16+897 , 37.10-32.95LT - 51.87-48.64LT																	
Laydown Area #1																	
16+835 - 16+844 , 44.55-32.50LT - 44.55-32.88LT																	
Site No. 34-454C																	
Construction Access Road #3																	
10+230 - 10+264 , 63.90-60.48RT - 63.99-60.32RT																	
Laydown Area #1																	
10+235 - 10+230 , 63.75-54.98RT - 67.38-55.82RT																	
Construction Access Road #4																	
10+286 - 10+291 , 54.58-42.28LT - 50.48-46.36LT																	
Sub - Totals Carried Forward:	0																
TOTALS																	
UNIT	t																
ITEM No.	15																

Total Stripping		6111
Stripping Available	50%	3056
Top Soil Required		1180
Stripping Balance		1876

Remarks: Volume adjustment factor for earth have been applied to quantities shown.

Reference

CHKD. _____

APPR. _____

DATE _____

QUANTITIES - GRADING

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 11

Description	*Earth Excavation (Grading)*	Reference		*Earth Available*	Reference	*Earth Fill Required*		*Select Subgrade Material*		*Excavation for Pavement Widening*		*Granular A [Mainline/Ramps]*	*Granular A [Shoulder]*	*Granular A [Construction Access Roads]*	*Granular A [Structure]*	
Sub - Totals Brought Forward:	21,467			20,098		164,757		173,207		1,050		74,930	4,525	1,085	0	
10+291 - 10+299 , 50.48-46.36LT - 48.46-43.57LT														40		
10+299 - 10+303 , 48.46-43.57LT - 29.65-26.05LT														87		
Laydown Area #4																
10+303 - 10+308 , 42.32-34.74LT - 43.19-36.50LT														77		
CN/CP Bridge															38	
34-454/C																
34-455/C																
Sub - Totals Carried Forward:	21,467							173,207		1,050		74,930	4,525	1,289	38	
	(P)									(P)		74,930	4,525	1,289	38	
TOTALS	21,467			20,098		164,757		173,207		1,050			80,782			
UNIT	m3 (P)			m3		m3		t		m (P)		t	t	t	t	
ITEM No.	5							7		6			14			

Total Stripping		6111
Stripping Available	50%	3056
Top Soil Required		1180
Stripping Balance		1876

Remarks: Volume adjustment factor for earth have been applied to quantities shown.

Reference

CHKD. _____

APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

EARTH EX / SSM/ EARTH BORROW / GRANULAR A / GRANULAR B

QUANTITIES - GRADING

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 12

Description	*Granular B, Type II [Structure]*	Reference			Reference												
Sub - Totals Brought Forward:	0																
10+291 - 10+299 , 50.48-46.36LT - 48.46-43.57LT																	
10+299 - 10+303 , 48.46-43.57LT - 29.65-26.05LT																	
Laydown Area #4																	
10+303 - 10+308 , 42.32-34.74LT - 43.19-36.50LT																	
CN/CP Bridge	356																
34-454/C	145																
34-455/C	84																
Sub - Totals Carried Forward:	585																
TOTALS	585																
UNIT	t																
ITEM No.	15																

Total Stripping	6111
Stripping Available 50%	3056
Top Soil Required	1180
Stripping Balance	1876

Remarks: Volume adjustment factor for earth have been applied to quantities shown.

Reference

CHKD. _____

APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

EARTH EX / SSM/ EARTH BORROW / GRANULAR A / GRANULAR B

QUANTITIES - MISCELLANEOUS 1

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 13

Location and Position	*Earth Ditch Cleanout*													References
Sub - Totals Brought Forward:														
QEW Mainline														
13+260 - 13+315, CL	55													
14+273 - 14+273, 46.00LT - 26.00LT	310													
14+689 - 15+110, CL	420													
Sub - Totals Carried Forward:	785													
	(P)													
TOTALS	785													
UNIT	m (P)													
ITEM No.	8													
Reference														

CHKD. _____

APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

EARTH DITCH CLEANOUT

QUANTITIES - MISCELLANEOUS 1

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 14

Location and Position	*Granular Sealing (m2) [Hand Sprayed] [Sealant Type III]*	*Granular Sealing (m2) [Machine Sprayed] [Sealant Type III]*		*Tack Coat [Lane]*	*Tack Coat [Shoulder]*	*Tack Coat [Structure]*	*Tack Coat [Padding]*						References
Sub - Totals Brought Forward:													
QEW North Bound													
13+260 - 13+340							394						
13+260 - 13+420 , Mainline				242									
13+260 - 13+420 , Median Shld					435								
13+260 - 13+420 , Outer Shld					480								
13+420 - 13+920 , Mainline				11,247									
13+420 - 13+920 , Median Shld					1,667								
13+420 - 13+920 , Outer Shld					1,506								
13+920 - 13+926 , Approach Slab						166							
13+926 - 14+034 , NB Structure Deck						2,992							
14+034 - 14+040 , Approach Slab						166							
14+040 - 14+118, Mainline				1,761									
14+040 - 14+118, Median Shld					271								
14+040 - 14+118 , Outer Shld					228								
14+118 - 14+440 , Mainline				10,125									
14+118 - 14+440 , Median Shld					1,110								
14+118 - 14+440 , Outer Shld w/CC&G					704								
14+440 - 14+683 , Mainline				6,144									
14+440 - 14+683 , Median Shld					1,007								
14+440 - 14+683 , Outer Shld w/CC&G					609								
Sub - Totals Carried Forward:	0	0		29,519	8,017	3,324	394						
	(P)	(₱)		(P)	(₱)	(P)	(P)						
TOTALS													
UNIT	m2 (P)	m2 (P)		m2 (P)	m2 (P)	m2 (P)	m2 (P)						
ITEM No.		9			10								
Reference													

CHKD. _____

APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

GRANULAR SEAILING & TACK COAT

QUANTITIES - MISCELLANEOUS 1

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 15

Location and Position	*Granular Sealing (m2) [Hand Sprayed] [Sealant Type III]*	*Granular Sealing (m2) [Machine Sprayed] [Sealant Type III]*		*Tack Coat [Lane]*	*Tack Coat [Shoulder]*	*Tack Coat [Structure]*	*Tack Coat [Padding]*						References
Sub - Totals Brought Forward:	0	0		29,519	8,017	3,324	394						
14+580 - 15+110							3,818						
14+683 - 14+800, Mainline				1,762									
14+683 - 14+800, Median Shld					200								
14+683 - 14+800, Outer Shld					352								
QEW South Bound													
13+260 - 13+420 , Mainline				2,400									
13+260 - 13+420 , Median Shld					435								
13+260 - 13+420 , Outer Shld					480								
13+420 - 13+789 , Mainline				8,313									
13+420 - 13+789 , Median Shld					1,238								
13+420 - 13+789 , Outer Shld					1,109								
13+789 - 13+895 , Mainline				2,379									
13+789 - 13+895 , Median Shld					362								
13+789 - 13+895 , Outer Shld w/CC&G					444								
13+895 - 13+901 , Approach Slab						202							
13+901 - 14+013 , SB Structure Deck						3,772							
14+013 - 14+019 , Approach Slab						202							
14+019 - 14+271 , Mainline				9,552									
14+019 - 14+271 , Median Shld					836								
Sub - Totals Carried Forward:	0	0		53,925	13,473	7,500	4,212						
	(P)	(₱)		(P)	(₱)	(P)	(P)						
TOTALS													
UNIT	m2 (P)	m2 (P)		m2 (P)	m2 (P)	m2 (P)	m2 (P)						
ITEM No.		9			10								
Reference													

CHKD. _____

APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

GRANULAR SEAILING & TACK COAT

QUANTITIES - MISCELLANEOUS 1

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 16

Location and Position	Granular Sealing (m2) [Hand Sprayed] [Sealant Type III]	Granular Sealing (m2) [Machine Sprayed] [Sealant Type III]		Tack Coat [Lane]	Tack Coat [Shoulder]	Tack Coat [Structure]	Tack Coat [Padding]						References
Sub - Totals Brought Forward:	0	0		53,925	13,473	7,500	4,212						
14+019 - 14+271 , Outer Shld w/CC&G					639								
14+271 - 14+540 , Mainline				1,278									
14+271 - 14+540 , Median Shld					133								
14+271 - 14+540 , Outer Shld w/CC&G					99								
14+400 - 15+110							5,774						
14+540 - 14+580 , Mainline				1,278									
14+540 - 14+580 , Median Shld					133								
14+540 - 14+580 , Outer Shld					99								
14+580 - 15+110 , Mainline				11,828									
14+580 - 15+110 , Median Shld					1,009								
14+580 - 15+110 , Outer Shld					1,330								
EW-N Ramp													
9+827 - 10+000 , Lane				2,682									
9+827 - 10+000 , Rt Shld (R-CC&G)					437								
S-EW Ramp													
10+194 - 10+276 , Lane				1,536									
10+194 - 10+276 , Rt Shld					230								
N-EW Ramp													
10+000 - 10+262 , Lane				3,106									
10+000 - 10+262 , Rt Shld (R&L - CC&G)					654								
EW-S Ramp													
Sub - Totals Carried Forward:	0	0		75,633	18,236	7,500	9,986						
	(P)	(₱)		(P)	(₱)	(P)	(P)						
TOTALS													
UNIT	m2 (P)	m2 (P)		m2 (P)	m2 (P)	m2 (P)	m2 (P)						
ITEM No.		9			10								
Reference													

CHKD. _____

APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

GRANULAR SEAILING & TACK COAT

QUANTITIES - MISCELLANEOUS 1

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 17

Location and Position	Granular Sealing (m2) [Hand Sprayed] [Sealant Type III]	Granular Sealing (m2) [Machine Sprayed] [Sealant Type III]		Tack Coat [Lane]	Tack Coat [Shoulder]	Tack Coat [Structure]	Tack Coat [Padding]						References
Sub - Totals Brought Forward:	0	0		75,633	18,236	7,500	9,986						
9+823 - 10+000 , Lane				2,458									
9+823 - 10+000 , Rt Shld (R-CC&G)					460								
Emergency Detour Route													
Stevensville Road - Foster St., Mainline				280									
Garrison Rd. - Buffalo Rd, Mainline				50									
Garrison Rd. - Municipal Dr., Mainline				140									
Garrison Rd. - Rose Hill Rd., Mainline				380									
QEW Toronto Bound													
Median Shoulder													
13+260 - 13+316 , NB-LT		292											
14+688 - 14+800 , NB-LT		533											
Outer Shoulder													
13+260 - 13+448 , NB-RT		982											
14+492 - 14+620, NB-RT	669												
14+643 - 14+683, NB-RT	209												
14+683 - 14+800, NB-RT		611											
QEW Fort Erie Bound													
13+260 - 13+316 ,													
14+688 - 15+110 ,													
Outer Shoulder													
13+260 - 13+356 ,		501											
13+356 - 13+456 ,	522												
Sub - Totals Carried Forward:	1,400	2,919		78,941	18,696	7,500	9,986						
	(P)	(₱)		(P)	(₱)	(P)	(P)						
TOTALS													
UNIT	m2 (P)	m2 (P)		m2 (P)	m2 (P)	m2 (P)	m2 (P)						
ITEM No.		9			10								
Reference													

CHKD. _____

APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

GRANULAR SEAILING & TACK COAT

QUANTITIES - MISCELLANEOUS 1

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 18

Location and Position	Granular Sealing (m2) [Hand Sprayed] [Sealant Type III]	Granular Sealing (m2) [Machine Sprayed] [Sealant Type III]		Tack Coat [Lane]	Tack Coat [Shoulder]	Tack Coat [Structure]	Tack Coat [Padding]						References
Sub - Totals Brought Forward:	1,400	2,919		78,941	18,696	7,500	9,986						
14+453 - 14+540 ,		454											
14+627 - 15+110 ,		2,523											
N-EW Ramp													
10+031 - 10+233 , RT	222												
10+233 - 10+257 , RT	26												
10+031 - 10+209 , LT		196											
S-EW Ramp													
10+156 - 10+247 , RT	100												
10+156 - 10+200 , LT		48											
EW-N Ramp													
9+881 - 10+000, RT		131											
9+860 - 10+000 , LT		154											
EW-S Ramp													
9+863 - 9+983 , RT		132											
9+866 - 10+000 , LT	147												
Sub - Totals Carried Forward:	1,895	6,557		78,941	18,696	7,500	9,986						
	1,895 (P)	6,557 (₱)		78,941 (P)	18,696 (₱)	7,500 (P)	9,986 (P)						
TOTALS		8,452			115,123								
UNIT	m2 (P)	m2 (P)		m2 (P)	m2 (P)	m2 (P)	m2 (P)						
ITEM No.		9			10								
Reference													

CHKD. _____

APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

GRANULAR SEAILING & TACK COAT

QUANTITIES - HOT MIX AND GRANULAR

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 19

Description	*Hot Mix Asphalt Miscellaneous*																References
Sub - Totals Brought Forward:																	
ATMS Pad																	
13+432 - 13+453, 13.85RT	64																
Ramp N-EW B/N																	
14+270 - 14+301, 13.85RT	94																
S-EW Ramp Terminal																	
10+200 - 10+223, 4.75LT	65																
N-EW Ramp Terminal																	
10+208 - 10+240, 4.75LT	78																
QEW - Bowen Road Underpass																	
14+600 - 14+638, CL	30																
Sub - Totals Carried Forward:	331																
	(P)																
TOTALS	331																
UNIT	m2 (P)																
ITEM No.	11																
Reference																	

Remarks:

CHKD. _____

APPR. _____

DATE _____

HMA MISC

MINISTRY OF TRANSPORTATION - ONTARIO

QUANTITIES - HOT MIX AND GRANULAR

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 20

Description	*Superpave 12.5FC 2 [40mm Surface Course]*	*Superpave 12.5FC 2 [40mm Binder Course]*	*Superpave 12.5FC 2 [50mm Hot Mix Miscellaneous]*	*Superpave 12.5FC 2 [50mm Surface Course]*		*Superpave 19.0 [50mm Upper Binder Course]*	*Superpave 19.0 [60mm Lower Binder Course]*	*Superpave 19.0 [70mm Lower Binder Course]*	*Superpave 19.0 [50mm Binder Course]*	*Superpave 19.0 [60mm Binder Course]*	*Superpave 19.0 [Padding]*					References
Sub - Totals Brought Forward:																
QEW Fort Erie Bound																
13+260 - 13+326 , Lt	5					6	8	9								
13+260 - 13+326 , Rt	18								21							
13+260 - 13+326 , Med	15								19							
13+260 - 13+326 , CL	45															
13+26 - 13+340											110					
13+326 - 13+420 , CL	72					87	105	122								
13+326 - 13+420 , Rt	29								35							
13+326 - 13+420 , Med	32								39							
13+420 - 13+789 , Med	125								152							
13+420 - 13+789 , Rt	99								120							
13+420 - 13+789 , CL	280					342	410	478								
13+432 - 13+453, 13.85RT			8													
13+789 - 13+893 , Med	36								44							
13+789 - 13+893 , Rt	31								38							
13+789 - 13+893 , CL	97					119	142	166								
13+893 - 13+900 , CL	12								15							
13+893 - 14+014 , CL	193	193														
14+014 - 14+020 , CL	12								14							
Sub - Totals Carried Forward:	1,101	193	8	0		554	665	775	497	0	110					
TOTALS																
UNIT	t	t	t	t		t	t	t	t	t	t					
ITEM No.		12					13									
Reference																

Remarks:

CHKD. _____

APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

SP 12.5 FC2 / SP 19.0

QUANTITIES - HOT MIX AND GRANULAR

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 21

Description	*Superpave 12.5FC 2 [40mm Surface Course]*	*Superpave 12.5FC 2 [40mm Binder Course]*	*Superpave 12.5FC 2 [50mm Hot Mix Miscellaneous]*	*Superpave 12.5FC 2 [50mm Surface Course]*		*Superpave 19.0 [50mm Upper Binder Course]*	*Superpave 19.0 [60mm Lower Binder Course]*	*Superpave 19.0 [70mm Lower Binder Course]*	*Superpave 19.0 [50mm Binder Course]*	*Superpave 19.0 [60mm Binder Course]*	*Superpave 19.0 [Padding]*					References
Sub - Totals Brought Forward:	1,101	193	8	0		554	665	775	497	0	110					
14+020 - 14+270 , Med	85								103							
14+020 - 14+270 , Rt	54								66							
14+020 - 14+270 , CL	320					390	468	546								
14+270 - 14+301, 13.85RT			12													
14+270 - 14+541 , Med	91								111							
14+270 - 14+541 , Rt	76								92							
14+270 - 14+541 , CL	204					249	299	348								
14+541 - 14+580 , Med	91								111							
14+541 - 14+580 , Rt	76								92							
14+541 - 14+580 , CL	65					79	95	111								
14+580 - 15+110 , Med	95								116							
14+580 - 15+110 , Rt	132								161							
14+580 - 15+110 , CL	600					729	875	1,021								
14+580 - 15+110											1,700					
14+600 - 14+638, CL			4													
QEW Toronto Bound																
13+260 - 13+326 , Med	95								116							
13+260 - 13+326 , Rt	18								22							
13+260 - 13+326 , CL	5					6	7	8								
13+260 - 13+326 , CL	46															
Sub - Totals Carried Forward:	3,154	193	24	0		2,007	2,409	2,809	1,487	0	1,810					
TOTALS																
UNIT	t	t	t	t		t	t	t	t	t	t					
ITEM No.		12					13									
Reference																

Remarks:

CHKD. _____

APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

SP 12.5 FC2 / SP 19.0

QUANTITIES - HOT MIX AND GRANULAR

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 22

MINISTRY OF TRANSPORTATION - ONTARIO

Description	*Superpave 12.5FC 2 [40mm Surface Course]*	*Superpave 12.5FC 2 [40mm Binder Course]*	*Superpave 12.5FC 2 [50mm Hot Mix Miscellaneous]*	*Superpave 12.5FC 2 [50mm Surface Course]*		*Superpave 19.0 [50mm Upper Binder Course]*	*Superpave 19.0 [60mm Lower Binder Course]*	*Superpave 19.0 [70mm Lower Binder Course]*	*Superpave 19.0 [50mm Binder Course]*	*Superpave 19.0 [60mm Binder Course]*	*Superpave 19.0 [Padding]*					References
Sub - Totals Brought Forward:	3,154	193	24	0		2,007	2,409	2,809	1,487	0	1,810					
13+260 - 13+340											110					
13+326 - 13+440 , Med	39								47							
13+326 - 13+440 , Rt	35								43							
13+326 - 13+440 , CL	87					106	127	148								
13+440 - 13+918 , Med	161								197							
13+440 - 13+918 , Rt	127								155							
13+440 - 13+918 , CL	362					442	530	618								
13+918 - 13+925 , CL	10								12							
13+925 - 14+035 , CL	153	153														
14+035 - 14+041 , CL	10								12							
14+041 - 14+118 , Med	27								33							
14+041 - 14+118 , Rt	21								26							
14+041 - 14+118 , CL	59					72	86	100								
14+118 - 14+400 , Med	96								117							
14+118 - 14+400 , Rt	63								77							
14+118 - 14+400 , CL	294					358	430	501								
14+400 - 14+440 , Med	14								17							
14+400 - 14+440 , Rt	9								11							
14+400 - 14+440 , CL	45					55	65	76								
Sub - Totals Carried Forward:	4,766	346	24	0		3,040	3,647	4,252	2,234	0	1,920					
TOTALS																
UNIT	t	t	t	t		t	t	t	t	t	t					
ITEM No.		12					13									
Reference																

Remarks:

CHKD. _____

APPR. _____

DATE _____

SP 12.5 FC2 / SP 19.0

QUANTITIES - HOT MIX AND GRANULAR

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 23

Description	*Superpave 12.5FC 2 [40mm Surface Course]*	*Superpave 12.5FC 2 [40mm Binder Course]*	*Superpave 12.5FC 2 [50mm Hot Mix Miscellaneous]*	*Superpave 12.5FC 2 [50mm Surface Course]*		*Superpave 19.0 [50mm Upper Binder Course]*	*Superpave 19.0 [60mm Lower Binder Course]*	*Superpave 19.0 [70mm Lower Binder Course]*	*Superpave 19.0 [50mm Binder Course]*	*Superpave 19.0 [60mm Binder Course]*	*Superpave 19.0 [Padding]*					References
Sub - Totals Brought Forward:	4,766	346	24	0		3,040	3,647	4,252	2,234	0	1,920					
14+440 - 14+683 , Med	80								98							
14+440 - 14+683 , Rt	47								57							
14+440 - 14+683 , CL	311					380	456	531								
14+400 - 15+110											2,099					
14+683 - 14+800 , Med	22								27							
14+683 - 14+800 , Rt	35								42							
14+683 - 14+800 , CL	88					107	129	150								
Bowen Road N-EW Ramp																
10+000 - 10+150 , CL	71								87	104						
10+150 - 10+253 , CL	73															
10+000 - 10+253 , Rt	66									81						
10+208 - 10+240, 4.75LT			10													
Bowen Road EW-S Ramp																
9+827 - 10+000 , CL	110															
9+827 - 9+838 , CL	12								134	160						
9+827 - 10+000 , Rt	45								54							
Bowen Road S-EW Ramp																
10+157 - 10+273 , CL	77															
10+200 - 10+223, 4.75LT			8													
Bowen Road EW-N Ramp																
9+833 - 9+999 , CL	119								145	174						
Sub - Totals Carried Forward:	5,922	346	42	0		3,527	4,232	4,933	2,878	519	4,019					
TOTALS																
UNIT	t	t	t	t		t	t	t	t	t	t					
ITEM No.		12					13									
Reference																

Remarks:

CHKD. _____

APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

SP 12.5 FC2 / SP 19.0

QUANTITIES - HOT MIX AND GRANULAR

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 24

Description	*Superpave 12.5FC 2 [40mm Surface Course]*	*Superpave 12.5FC 2 [40mm Binder Course]*	*Superpave 12.5FC 2 [50mm Hot Mix Miscellaneous]*	*Superpave 12.5FC 2 [50mm Surface Course]*		*Superpave 19.0 [50mm Upper Binder Course]*	*Superpave 19.0 [60mm Lower Binder Course]*	*Superpave 19.0 [70mm Lower Binder Course]*	*Superpave 19.0 [50mm Binder Course]*	*Superpave 19.0 [60mm Binder Course]*	*Superpave 19.0 [Padding]*					References
Sub - Totals Brought Forward:	5,922	346	42	0		3,527	4,232	4,933	2,878	519	4,019					
9+833 - 9+844 , CL	14															
9+833 - 9+999 , Rt	41								50							
Sunset Drive																
10+003 - 10+068 , CL	34								41	49						
10+003 - 10+068 , Rt	13								15							
Emergency Detour Route																
Stevensville Road - Foster Street, Mainline				36												
Garrison Road - Buffalo Road, Main Line				7												
Garrison Road - Municipal Drive, Main Line				18												
Garrison Road - Rose Hill Road, Mainline				48												
Sub - Totals Carried Forward:	6,024	346	42	109		3,527	4,232	4,933	2,984	568	4,019					
	6,024	346	42	109		3,527	4,232	4,933	2,984	568	4,019					
TOTALS		6,521					20,263									
UNIT	t	t	t	t		t	t	t	t	t	t					
ITEM No.		12					13									
Reference																

Remarks:

CHKD. _____

APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

SP 12.5 FC2 / SP 19.0

QUANTITIES - MISCELLANEOUS 1

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 25

Location and Position	*Shoulder Rumble Strips - Asphalt [OPSD]*		*Concrete Curb and Gutter [OPSD 600.010] [Straight]*	*Concrete Curb and Gutter [OPSD 600.040] [Straight]*	*Concrete Curb and Gutter [OPSD 600.040] [Circular]*	*Concrete Curb and Gutter [OPSD 607.010] [Circular]*	*Concrete Curb and Gutter [OPSD 608.010] [Straight]*		*Concrete Gutter Outlets [OPSD 605.030]*		*Concrete in Toe Wall*		References
Sub - Totals Brought Forward:													
QEW Toronto Bound													
Median Shoulder													
13+530 - 13+916 , NB-LT	386												
14+039 - 14+800 , NB-LT	761												
Outer Shoulder													
13+260 - 13+921 , NB-RT	661												
14+044 - 14+126 , NB-RT	82												
QEW Fort Erie Bound													
Outer Shoulder													
13+260 - 13+789 , SB-RT	529												
14+270 - 14+540 , SB-RT	270												
15+100 - 15+110, SB-RT	10												
QEW Fort Erie Bound													
13+457, RT									1				
13+458 - 13+857 , RT			399										
14+018 - 14+270 , RT			252										
14+270 , R-1.2						1							
14+270 - 14+449 , RT			179										
14+450 , RT									1				
QEW Toronto Bound													
13+450 , 14.31LT									1				
13+451 - 13+908 , LT			457										
14+066 - 14+489 , LT			423										
Sub - Totals Carried Forward:	2,699		1,710	0	0	1	0		3		0 %		
	(P)		(P)	(P)	(P)	(P)	(P)		(P)				
TOTALS													
UNIT	m (P)		m (P)	m (P)	m (P)	m (P)	m (P)		each (P)		lump sum		
ITEM No.	16			17					18		19		
Reference													

CHKD. _____

APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

CC&G / CGO / TEMPORARY HOT MIX

QUANTITIES - MISCELLANEOUS 1

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 26

Location and Position	*Shoulder Rumble Strips - Asphalt [OPSD]*		*Concrete Curb and Gutter [OPSD 600.010] [Straight]*	*Concrete Curb and Gutter [OPSD 600.040] [Straight]*	*Concrete Curb and Gutter [OPSD 600.040] [Circular]*	*Concrete Curb and Gutter [OPSD 607.010] [Circular]*	*Concrete Curb and Gutter [OPSD 608.010] [Straight]*		*Concrete Gutter Outlets [OPSD 605.030]*		*Concrete in Toe Wall*		References
Sub - Totals Brought Forward:	2,699		1,710	0	0	1	0		3		0 %		
14+490 , LT									1				
Bowen Road N-EW Ramp													
9+999 - 10+026 , LT			27										
9+999 - 10+026 , RT			27										
10+026 - 10+029 , LT							3						
10+026 - 10+029 , RT							3						
10+208 - 10+212 , LT							4						
10+212 - 10+240 , LT				28									
10+241 , R-1.00					1								
Bowen Road EW-S Ramp													
9+828 - 9+862 , RT					34								
9+862 , 3.10RT									1				
9+839 - 9+864 , LT					25								
9+864 - 9+869 , LT							5						
9+983 , RT									1				
9+985 - 10+085 , RT			100										
Sunset Drive													
10+005 - 10+028 , 20.78LT - 6.94LT					29								
10+029 , RT									1				
Bowen Road Ramp EW-N													
9+834 - 9+880 , RT					58								
Sub - Totals Carried Forward:	2,699		1,864	28	147	1	15		7		0 %		
	(P)		(P)	(P)	(P)	(P)	(P)		(P)				
TOTALS													
UNIT	m (P)		m (P)	m (P)	m (P)	m (P)	m (P)		each (P)		lump sum		
ITEM No.	16			17					18		19		
Reference													

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DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

CC&G / CGO / TEMPORARY HOT MIX

QUANTITIES - MISCELLANEOUS 1

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 27

Location and Position	*Shoulder Rumble Strips - Asphalt [OPSD]*		*Concrete Curb and Gutter [OPSD 600.010] [Straight]*	*Concrete Curb and Gutter [OPSD 600.040] [Straight]*	*Concrete Curb and Gutter [OPSD 600.040] [Circular]*	*Concrete Curb and Gutter [OPSD 607.010] [Circular]*	*Concrete Curb and Gutter [OPSD 608.010] [Straight]*		*Concrete Gutter Outlets [OPSD 605.030]*		*Concrete in Toe Wall*		References
Sub - Totals Brought Forward:	2,699		1,864	28	147	1	15		7		0 %		
9+880 , RT									1				
9+844 , R - 1.10					1								
9+845 - 9+861 , LT					16								
9+861 - 9+865 , LT							4						
Bowen Road Ramp S-EW													
10+200 - 10+204 , LT							4						
10+204 - 10+222 , LT				18									
QEW Mainline (Toe Wall)													
13+643, LT											100 %		
13+644, RT											100 %		
13+666 - 13+683, RT											100 %		
14+088, LT											100 %		
14+182 - 14+243, LT											100 %		
14+415 - 14+477, LT											100 %		
N-EW Ramp (Toe Wall)													
10+058, RT											100 %		
Sub - Totals Carried Forward:	2,699		1,864	46	164	1	23		8		100 %		
	(P)		1,864 (P)	46 (P)	164 (P)	1 (P)	23 (P)		(P)				
TOTALS	2,699			2,098					8		100 %		
UNIT	m (P)		m (P)	m (P)	m (P)	m (P)	m (P)		each (P)		lump sum		
ITEM No.	16			17					18		19		
Reference													

CHKD. _____

APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

CC&G / CGO / TEMPORARY HOT MIX

QUANTITIES - DRAINAGE, MANHOLES, CATCH BASINS AND DITCH INLETS

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 28

Location	Str No	Station	Offset CL Grate or Cover	Type of Structure Std No	New Grate Std No	Slope of Grate	Top of Grate Elevation	Low Invert Elevation	Depth of Structure	*600 mm x 600 mm Manholes Catch Basins and Ditch Inlets*	*600 mm x 1200 mm Manholes Catch Basins and Ditch Inlets*	*1200 mm Manholes Catch Basins and Ditch Inlets*	*1800 mm Manholes Catch Basins and Ditch Inlets*	*SUMP*	*Bench*				References
Sub - Totals Brought Forward:																			
QEW Fort Erie Bound	2	13+333	0.7RT	701.010	400.020	4%	177.13	175.02	2.41			1		0.30					
QEW Fort Erie Bound	4	13+405	0.7RT	701.010	400.020	4%	178.03	175.96	2.37			1		0.30					
QEW Fort Erie Bound	7	13+475	0.7RT	701.010	400.020	4%	179.70	177.94	2.29			1		0.30					
QEW Fort Erie Bound	8	13+475	13.95RT	701.010	400.020	6%	179.63	176.85	3.07			1		0.30					
QEW Fort Erie Bound	11	13+567	0.70RT	701.010	400.020	4%	182.42	180.31	2.41			1		0.30					
QEW Fort Erie Bound	12	13+567	13.95RT	701.010	400.020	6%	182.38	179.6	3.08			1		0.30					
QEW Fort Erie Bound	15	13+660	0.70RT	701.010	400.020	4%	185.21	183.1	2.41			1		0.30					
QEW Fort Erie Bound	15	13+660	13.95RT	701.010	400.020	6%	185.21	182.4	3.07			1		0.30					
QEW Fort Erie Bound	18	13+750	0.70RT	701.010	401.040	4%	187.79	185.73	2.36			1		0.30					
QEW Fort Erie Bound	19	13+750	13.95RT	701.010	400.020	6%	187.75	186.07	2.27	1				0.60					
QEW Fort Erie Bound	22	13+840	0.70RT	701.010	400.020	3%	189.64	187.56	2.38			1		0.30					
QEW Fort Erie Bound	23	13+840	16.50RT	705.010	400.020	3.25%	189.58	187.89	2.29	1				0.60					
QEW Fort Erie Bound	25	14+040	16.94RT	705.010	400.020	2%	190.61	189.11	2.09	1				0.60					
QEW Fort Erie Bound	28	14+075	0.70RT	701.010	401.020	2%	190.40	188.32	2.37			1		0.30					
QEW Fort Erie Bound	29	14+075	16.95RT	701.010	401.020	2%	190.34	188.66	1.98	1				0.30					
QEW Fort Erie Bound	32	14+175	0.70RT	701.010	400.040	4%	188.93	187.28	2.46			1		0.30					
QEW Fort Erie Bound	33	14+175	18.29RT	705.010	400.020	6%	188.82	187.15	2.27	1				0.60					
QEW Fort Erie Bound	36	14+267	0.70RT	701.010	400.020	4%	187.40	185.27	2.43			1		0.30					
QEW Fort Erie Bound	37	14+270	19.49RT	705.010	400.020	6%	187.18	185.74	2.04	1				0.60					
QEW Fort Erie Bound	38	14+270	24.04RT	701.010	400.020	6%	187.14	184.98	2.46					0.30					
Sub - Totals Carried Forward:										6	0	13	0	7.50	0				
										(P)	(P)	(P)	(P)						
TOTALS																			
UNIT										each (P)	each (P)	each (P)	each (P)	m	each				
ITEM No.										21	22	23	24						

CHKD. _____

APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

MH, CB, & DI

QUANTITIES - DRAINAGE, MANHOLES, CATCH BASINS AND DITCH INLETS

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 29

Location	Str No	Station	Offset CL Grate or Cover	Type of Structure Std No	New Grate Std No	Slope of Grate	Top of Grate Elevation	Low Invert Elevation	Depth of Structure	*600 mm x 600 mm Manholes Catch Basins and Ditch Inlets*	*600 mm x 1200 mm Manholes Catch Basins and Ditch Inlets*	*1200 mm Manholes Catch Basins and Ditch Inlets*	*1800 mm Manholes Catch Basins and Ditch Inlets*	*SUMP*	*Bench*				References
Sub - Totals Brought Forward:										6	0	13	0	7.50	0				
QEW Fort Erie Bound	39	14+368	28.00RT	705.040	403.010		186.21	184.94	1.87		1			0.60					
QEW Fort Erie Bound	42	14+386	0.70RT	701.010	400.020	3%	185.49	183.65	2.14			1		0.30					
QEW Fort Erie Bound	43	14+386	13.95RT	701.010	400.020	6%	185.24	183.33	2.21			1		0.30					
QEW Fort Erie Bound	46	14+487	0.70RT	701.012	400.020 x 2	3%	184.77	183.21	1.87				1	0.30					
QEW Fort Erie Bound	48	14+588	0.70RT	701.010	400.020	3%	185.40	183.83	1.86			1		0.30					
QEW Fort Erie Bound	49	14+708		705.040	403.010		186.30	184.46	2.44		1			0.60					
QEW Toronto Bound	1	13+333	0.70LT	705.010	400.020	4%	177.13	175.1	2.03	1					1				
QEW Toronto Bound	3	13+405	0.70LT	705.010	400.020	4%	178.03	175.98	2.05	1					1				
QEW Toronto Bound	6	13+475	0.70LT	701.010	400.020	4%	179.70	177.63	2.04			1			1				
QEW Toronto Bound	5	13+475	13.95LT	705.010	400.020	6%	179.70	177.94	2.29	1				0.60					
QEW Toronto Bound	10	13+567	0.70LT	701.010	400.020	4%	182.42	180.37	2.05			1			1				
QEW Toronto Bound	9	13+567	13.95LT	705.010	400.020	6%	182.38	180.71	2.27	1				0.60					
QEW Toronto Bound	14	13+660	0.70LT	701.010	400.020	4%	185.21	183.17	2.04			1			1				
QEW Toronto Bound	13	13+660	13.95LT	705.010	400.020	6%	185.17	183.49	2.28	1				0.60					
QEW Toronto Bound	17	13+750	0.70LT	701.010	400.020	4%	187.79	185.74	2.05			1			1				
QEW Toronto Bound	16	13+750	13.95LT	705.010	400.020	6%	187.75	186.7	1.65	1				0.60					
QEW Toronto Bound	21	13+840	0.70LT	701.010	400.020	3%	189.64	187.63	2.01			1			1				
QEW Toronto Bound	20	13+840	13.95LT	701.010	400.020	3.25%	189.64	187.96	1.98			1		0.30					
QEW Toronto Bound	24	13+898	13.95LT	705.010	400.020	2%	190.40	188.88	2.11	1				0.60					
QEW Toronto Bound	27	14+075	0.70LT	701.010	400.020	2%	190.40	188.39	2.00			1			1				
Sub - Totals Carried Forward:										13	2	23	1	13.20	8				
										(P)	(P)	(P)	(P)						
TOTALS																			
UNIT										each (P)	each (P)	each (P)	each (P)	m	each				
ITEM No.										21	22	23	24						

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APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

MH, CB, & DI

QUANTITIES - DRAINAGE, MANHOLES, CATCH BASINS AND DITCH INLETS

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 30

Location	Str No	Station	Offset CL Grate or Cover	Type of Structure Std No	New Grate Std No	Slope of Grate	Top of Grate Elevation	Low Invert Elevation	Depth of Structure	*600 mm x 600 mm Manholes Catch Basins and Ditch Inlets*	*600 mm x 1200 mm Manholes Catch Basins and Ditch Inlets*	*1200 mm Manholes Catch Basins and Ditch Inlets*	*1800 mm Manholes Catch Basins and Ditch Inlets*	*SUMP*	*Bench*				References
Sub - Totals Brought Forward:										13	2	23	1	13.20	8				
QEW Toronto Bound	26	14+075	13.95LT	705.010	400.020	2%	190.40	188.73	2.27	1				0.60					
QEW Toronto Bound	31	14+175	0.70LT	701.010	400.020	4%	188.93	186.82	2.11			1			1				
QEW Toronto Bound	30	14+175	15.74LT	705.010	400.020	6%	188.86	187.18	2.29	1				0.60					
QEW Toronto Bound	35	14+267	0.70LT	705.010	400.020	4%	187.40	185.28	2.12	1					1				
QEW Toronto Bound	34	14+267	16.95LT	705.010	400.020	6%	187.32	185.79	2.13	1				0.60					
QEW Toronto Bound	41	14+386	0.70LT	701.010	400.020	4%	185.46	183.71	1.75			1			1				
QEW Toronto Bound	40	14+386	16.95LT	705.010	400.020	3%	185.78	184.11	2.27	1				0.60					
QEW Toronto Bound	45	14+487	0.70LT	701.120	400.020 x 2	4%	184.74	183.06	1.70				1		1				
QEW Toronto Bound	45	14+497	0.70LT	705.010	400.020	4%	184.76	183.24	1.50	1					1				
QEW Toronto Bound	44	14+487	16.95LT	705.010	400.020	3%	185.06	183.4	2.26				1	0.60					
QEW Toronto Bound	47	14+588	0.70LT	705.010	400.020	4%	185.42	183.88	1.54	1					1				
Sub - Totals Carried Forward:										20	2	25	3						
										(P)	(P)	(P)	(P)						
TOTALS										20	2	25	3	16.20	14				
UNIT										each (P)	each (P)	each (P)	each (P)	m	each				
ITEM No.										21	22	23	24						

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APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

MH, CB, & DI

QUANTITIES - MISCELLANEOUS 1

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 31

Location and Position	*150 mm Pipe Subdrain [Perforated Inc. Exc. & Backfill]*													References
Sub - Totals Brought Forward:														
QEW Fort Erie Bound														
13+310 - 13+332, RT	22													
13+333 - 13+404, RT	70													
13+475 - 13+566, RT	91													
13+567 - 13+659, RT	91													
13+840 - 13+895, RT	55													
14+035 - 14+074, RT	39													
14+275 - 14+487, RT	187													
14+588 - 14+708, RT	120													
QEW Toronto Bound														
14+210 - 14+489 , LT	279													
EW-S Ramp														
9+829 - 9+847 , R-27.5	28													
CN/CP Bridge	405													
RSS Wall #1	186													
RSS Wall #2	308													
RSS Wall #3	179													
Sub - Totals Carried Forward:	2,060													
	(P)													
TOTALS	2,060													
UNIT	m (P)													
ITEM No.	20													
Reference														

CHKD. _____

APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

PIPE SUBDRAIN

QUANTITIES - SEWERS

W.P. No. 2116-16-00
Contract No. 2019-2003

SHEET 32

Str. No to Str. No or Station to Station	Location and Position	Inv Elevation		Depth to Pipe	Pipe Fill Material			Pipe Joints	*300 mm Pipe Sewer 300mm S211000 N/A*	*300 mm Pipe Sewer 375mm S211000 N/A*		*400 mm Pipe Sewer 450mm S 211000 N/A*		*500 mm Pipe Sewer 525mm S 211000 N/A*	References
		Upstream	Downstream		Bedding	Cover	Backfill								
	Sub - Totals Brought Forward:														
Str1 - Str2	QEW Mainline FEB				A	A	A	L	1						
Str2 - Outlet	QEW Mainline FEB				A	A	A	L	18						
Str3 - Str4	QEW Mainline FEB				A	A	A	L	2						
Str4 - Outlet	QEW Mainline FEB				A	A	A	L	20						
Str6 - Str7	QEW Mainline FEB				A	A	A	L	2						
Str7 - Str8	QEW Mainline FEB				A	A	A	L	13						
Str8 - Outlet	QEW Mainline FEB				A	A	A	L		6					
Str10 - Str11	QEW Mainline FEB				A	A	A	L	2						
Str11 - Str12	QEW Mainline FEB				A	A	A	L	13						
Str12 - Outlet	QEW Mainline FEB				A	A	A	L		6					
Str 14 - Str15	QEW Mainline FEB				A	A	A	L	2						
Str15 - Str15A	QEW Mainline FEB				A	A	A	L							13
Str15A - Outlet	QEW Mainline FEB				A	A	A	L							6
Str15 - Str18	QEW Mainline FEB				A	A	A	L					91		
	Sub - Totals Carried Forward:								73	12		91		19	
									(P)	(P)		(P)		(P)	
	TOTALS														
	UNIT								m (P)	m (P)		m (P)		m (P)	
	ITEM No.									25		26		27	

Pipe Material Code - 6 digits defined as noted below:

1st digit = Concrete
- 1 - 50-D
- 2 - 65-D
- 3 - 100-D
- 4 - 140-D

2nd digit = PVC/PP
- 1 - PVC
- 2 - PP

3rd digit = HDPE
- 1 - Open profile
- 2 - Closed profile

4th digit = Galv; 5th digit = Alum & 6th digit = Polymer Steel
- 1 - 1.6 mm thick
- 2 - 2.0 mm thick
- 3 - 2.8, 3.0 & 3.18 mm thick
- 4 - 3.5, 3.81 & 4.0 mm thick
- 5 - 4.2, 4.45 & 5.0 mm thick
- 6 - 5.08 & 6.0 mm thick
- 7 - 5.72 & 7.0 mm thick
- 8 - 6.35 mm thick

Note: '0' for any digit means the pipe material is not acceptable. Higher pipe material code values are also acceptable, unless otherwise stated. Galv. means galvanized coating. Alum means aluminized coated or aluminum alloy materials. Polymer means both laminated and coated steel pipes.

Pipe Joints
- **S -** Soil tight
- **F -** Silt/Fines tight
- **L -** Leak tight

Note: S joints is specified if no code is entered.

Pipe Type
- **S -** Smooth inner wall pipe
- **C -** Corrugated inner wall pipe

Depth to Pipe is from the surface at the upstream invert to top of base pipe opening unless otherwise stated.

Pipe Fill Material
- **N -** Native or Granular
- **G -** Granular A or B Type I, II or III
- **B -** Granular A or B Type II
- **A -** Granular A
- **U -** Unshrinkable fill

Notes: N applies to cover and backfill only.
1 letter code specifies material for all pipes.
2 letter codes specify fill materials for rigid and flexible pipes respectively.
G for bedding and N for cover and backfill are specified if no code is entered.
Embedment material for flexible pipes specified in bedding material column.

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APPR. _____
DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

PIPE SEWER

QUANTITIES - SEWERS

W.P. No. 2116-16-00
Contract No. 2019-2003

SHEET 33

Str. No to Str. No or Station to Station	Location and Position	Inv Elevation Upstream	Inv Elevation Downstream	Depth to Pipe	Pipe Fill Material Bedding	Pipe Fill Material Cover	Pipe Fill Material Backfill	Pipe Joints	*300 mm Pipe Sewer 300mm S211000 N/A*	*300 mm Pipe Sewer 375mm S211000 N/A*		*400 mm Pipe Sewer 450mm S 211000 N/A*		*500 mm Pipe Sewer 525mm S 211000 N/A*	References
Sub - Totals Brought Forward:									73	12		91		19	
Str17 - Str18	QEW Mainline FEB				A	A	A	L	2						
Str18 - Str19	QEW Mainline FEB				A	A	A	L	13						
Str18 - Str22	QEW Mainline FEB				A	A	A	L				90			
Str 21 - Str22	QEW Mainline FEB				A	A	A	L	2						
Str22 - Str23	QEW Mainline FEB				A	A	A	L	15						
Str25 - Str29	QEW Mainline FEB				A	A	A	L	36						
Str27 - Str28	QEW Mainline FEB				A	A	A	L	2						
Str28 - Str29	QEW Mainline FEB				A	A	A	L	17						
Str28 - Str32	QEW Mainline FEB				A	A	A	L		100					
Str31 - Str32	QEW Mainline FEB				A	A	A	L	2						
Str32 - Str33	QEW Mainline FEB				A	A	A	L	18						
Str32 - Str36	QEW Mainline FEB				A	A	A	L				92			
Str35 - Str36	QEW Mainline FEB				A	A	A	L	2						
Sub - Totals Carried Forward:									182	112		273		19	
									(P)	(P)		(P)		(P)	
TOTALS															
UNIT									m (P)	m (P)		m (P)		m (P)	
ITEM No.										25		26		27	

Pipe Material Code - 6 digits defined as noted below:

1st digit = Concrete
- 1 - 50-D
- 2 - 65-D
- 3 - 100-D
- 4 - 140-D

2nd digit = PVC/PP
- 1 - PVC
- 2 - PP

3rd digit = HDPE
- 1 - Open profile
- 2 - Closed profile

4th digit = Galv; 5th digit = Alum & 6th digit = Polymer Steel
- 1 - 1.6 mm thick
- 2 - 2.0 mm thick
- 3 - 2.8, 3.0 & 3.18 mm thick
- 4 - 3.5, 3.81 & 4.0 mm thick
- 5 - 4.2, 4.45 & 5.0 mm thick
- 6 - 5.08 & 6.0 mm thick
- 7 - 5.72 & 7.0 mm thick
- 8 - 6.35 mm thick

Note: '0' for any digit means the pipe material is not acceptable. Higher pipe material code values are also acceptable, unless otherwise stated. Galv. means galvanized coating. Alum means aluminized coated or aluminum alloy materials. Polymer means both laminated and coated steel pipes.

Pipe Joints
- **S -** Soil tight
- **F -** Silt/Fines tight
- **L -** Leak tight

Note: S joints is specified if no code is entered.

Pipe Type
- **S -** Smooth inner wall pipe
- **C -** Corrugated inner wall pipe

Depth to Pipe is from the surface at the upstream invert to top of base pipe opening unless otherwise stated.

Pipe Fill Material
- **N -** Native or Granular
- **G -** Granular A or B Type I, II or III
- **B -** Granular A or B Type II
- **A -** Granular A
- **U -** Unshrinkable fill

Notes: N applies to cover and backfill only.
1 letter code specifies material for all pipes.
2 letter codes specify fill materials for rigid and flexible pipes respectively.
G for bedding and N for cover and backfill are specified if no code is entered.
Embedment material for flexible pipes specified in bedding material column.

CHKD. _____
APPR. _____
DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

PIPE SEWER

QUANTITIES - SEWERS

W.P. No. 2116-16-00
Contract No. 2019-2003

SHEET 34

Str. No to Str. No or Station to Station	Location and Position	Inv Elevation Upstream	Inv Elevation Downstream	Depth to Pipe	Pipe Fill Material Bedding	Pipe Fill Material Cover	Pipe Fill Material Backfill	Pipe Joints	*300 mm Pipe Sewer 300mm S211000 N/A*	*300 mm Pipe Sewer 375mm S211000 N/A*		*400 mm Pipe Sewer 450mm S 211000 N/A*		*500 mm Pipe Sewer 525mm S 211000 N/A*	References
	Sub - Totals Brought Forward:								182	112		273		19	
Str36 - 14+273	QEW Mainline FEB				A	A	A	L				6			
Str37 - Str38	QEW Mainline FEB				A	A	A	L	10						
Str38 - Str39	QEW Mainline FEB				A	A	A	L		4					
Str39 - 14+273	QEW Mainline FEB				A	A	A	L				6			
Str41 - Str42	QEW Mainline FEB				A	A	A	L	2						
Str42 - Str43	QEW Mainline FEB				A	A	A	L		13					
Str43 - Outlet	QEW Mainline FEB				A	A	A	L		9					
Str45 - Str46	QEW Mainline FEB				A	A	A	L	2						
Str46 - Outlet	QEW Mainline FEB				A	A	A	L						27	
Str46 - Str48	QEW Mainline FEB				A	A	A	L		101					
Str47 - Str48	QEW Mainline FEB				A	A	A	L	2						
Str49 - Outlet	QEW Mainline FEB				A	A	A	L	23						
Str5 - Str6	QEW Mainline TB				A	A	A	L	13						
Str9 - Str10	QEW Mainline TB				A	A	A	L	13						
	Sub - Totals Carried Forward:								247	239		285		46	
									(P)	(P)		(P)		(P)	
	TOTALS														
	UNIT								m (P)	m (P)		m (P)		m (P)	
	ITEM No.									25		26		27	

Pipe Material Code - 6 digits defined as noted below:

1st digit = Concrete
- 1 - 50-D
- 2 - 65-D
- 3 - 100-D
- 4 - 140-D

2nd digit = PVC/PP
- 1 - PVC
- 2 - PP

3rd digit = HDPE
- 1 - Open profile
- 2 - Closed profile

4th digit = Galv; 5th digit = Alum & 6th digit = Polymer Steel
- 1 - 1.6 mm thick
- 2 - 2.0 mm thick
- 3 - 2.8, 3.0 & 3.18 mm thick
- 4 - 3.5, 3.81 & 4.0 mm thick
- 5 - 4.2, 4.45 & 5.0 mm thick
- 6 - 5.08 & 6.0 mm thick
- 7 - 5.72 & 7.0 mm thick
- 8 - 6.35 mm thick

Note: '0' for any digit means the pipe material is not acceptable. Higher pipe material code values are also acceptable, unless otherwise stated. Galv. means galvanized coating. Alum means aluminized coated or aluminum alloy materials. Polymer means both laminated and coated steel pipes.

Pipe Joints
- **S -** Soil tight
- **F -** Silt/Fines tight
- **L -** Leak tight

Note: S joints is specified if no code is entered.

Pipe Type
- **S -** Smooth inner wall pipe
- **C -** Corrugated inner wall pipe

Depth to Pipe is from the surface at the upstream invert to top of base pipe opening unless otherwise stated.

Pipe Fill Material
- **N -** Native or Granular
- **G -** Granular A or B Type I, II or III
- **B -** Granular A or B Type II
- **A -** Granular A
- **U -** Unshrinkable fill

Notes: N applies to cover and backfill only.
1 letter code specifies material for all pipes.
2 letter codes specify fill materials for rigid and flexible pipes respectively.
G for bedding and N for cover and backfill are specified if no code is entered.
Embedment material for flexible pipes specified in bedding material column.

CHKD. _____
APPR. _____
DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

PIPE SEWER

QUANTITIES - SEWERS

W.P. No. 2116-16-00
Contract No. 2019-2003

SHEET 35

Str. No to Str. No or Station to Station	Location and Position	Inv Elevation Upstream	Inv Elevation Downstream	Depth to Pipe	Pipe Fill Material Bedding	Pipe Fill Material Cover	Pipe Fill Material Backfill	Pipe Joints	*300 mm Pipe Sewer 300mm S211000 N/A*	*300 mm Pipe Sewer 375mm S211000 N/A*		*400 mm Pipe Sewer 450mm S 211000 N/A*		*500 mm Pipe Sewer 525mm S 211000 N/A*	References
	Sub - Totals Brought Forward:								247	239		285		46	
Str13 - Str14	QEW Mainline TB				A	A	A	L	13						
Str16 - Str17	QEW Mainline TB				A	A	A	L	13						
Str20 - Str21	QEW Mainline TB				A	A	A	L	13						
Str20 - Str24	QEW Mainline TB				A	A	A	L	58						
Str26 - Str27	QEW Mainline TB				A	A	A	L	13						
Str30 - Str31	QEW Mainline TB				A	A	A	L	15						
Str34 - 14+273	QEW Mainline TB				A	A	A	L	6						
Str40 - Str41	QEW Mainline TB				A	A	A	L	16						
Str44 - Str45	QEW Mainline TB				A	A	A	L	16						
Str45A - Str45	QEW Mainline TB				A	A	A	L	10						
Str45 - Str45B	QEW Mainline TB				A	A	A	L	10						
	Sub - Totals Carried Forward:								430	239		285		46	
	TOTALS								430 (P)	239 (P)		(P)		(P)	
	UNIT								m (P)	669 m (P)		285 m (P)		46 m (P)	
	ITEM No.									25		26		27	

Pipe Material Code - 6 digits defined as noted below:

1st digit = Concrete
- 1 - 50-D
- 2 - 65-D
- 3 - 100-D
- 4 - 140-D

2nd digit = PVC/PP
- 1 - PVC
- 2 - PP

3rd digit = HDPE
- 1 - Open profile
- 2 - Closed profile

4th digit = Galv; 5th digit = Alum & 6th digit = Polymer Steel
- 1 - 1.6 mm thick
- 2 - 2.0 mm thick
- 3 - 2.8, 3.0 & 3.18 mm thick
- 4 - 3.5, 3.81 & 4.0 mm thick
- 5 - 4.2, 4.45 & 5.0 mm thick
- 6 - 5.08 & 6.0 mm thick
- 7 - 5.72 & 7.0 mm thick
- 8 - 6.35 mm thick

Note: '0' for any digit means the pipe material is not acceptable. Higher pipe material code values are also acceptable, unless otherwise stated. Galv. means galvanized coating. Alum means aluminized coated or aluminum alloy materials. Polymer means both laminated and coated steel pipes.

Pipe Joints
- **S -** Soil tight
- **F -** Silt/Fines tight
- **L -** Leak tight

Note: S joints is specified if no code is entered.

Pipe Type
- **S -** Smooth inner wall pipe
- **C -** Corrugated inner wall pipe

Depth to Pipe is from the surface at the upstream invert to top of base pipe opening unless otherwise stated.

Pipe Fill Material
- **N -** Native or Granular
- **G -** Granular A or B Type I, II or III
- **B -** Granular A or B Type II
- **A -** Granular A
- **U -** Unshrinkable fill

Notes: N applies to cover and backfill only.
1 letter code specifies material for all pipes.
2 letter codes specify fill materials for rigid and flexible pipes respectively.
G for bedding and N for cover and backfill are specified if no code is entered.
Embedment material for flexible pipes specified in bedding material column.

CHKD. _____
APPR. _____
DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

PIPE SEWER

QUANTITIES - PIPE CULVERTS

W.P. No. 2116-16-00
Contract No. 2019-2003

SHEET 36

Culvert No	Station	Location and Position	Ext Left	Ext Right	Skew No	End Finish	Depth to Pipe	Pipe Fill Material: Bedding	Pipe Fill Material: Cover	Pipe Fill Material: Backfill	Pipe Joints	Treatment	Inv Elev: Upstream	Inv Elev: Downstream	*300 mm Pipe Culvert 300mm, S, 002000 N/A*		*400 mm Pipe Culvert 400m, S, 202000 400mm, C, 000211*		*600 mm Pipe Culvert . .*		References
		Sub - Totals Brought Forward:																			
6	13+600	QEW Mainline TB			90			A	A	A	L				5						
7	13+600	QEW Mainline FEB			90			A	A	A	L										
8	13+664	QEW Mainline FEB			0			A	A	A	L				2						
1	14+273	QEW Mainline			90			A	A	A	L										
2	10+069	N-EW Ramp			27			A	A	A	L										
3	10+074	N-EW Ramp			30			A	A	A	L										
4	9+927	EW-S Ramp			58			A	A	A	L										
5	9+926	EW-S Ramp			58			A	A	A	L										
12	9+860	EW-N Ramp						A	A	A	L										
10	9+868	EW-N Ramp						A	A	A	L								13		
9	9+909	EW-N Ramp			110			A	A	A	L										
11	9+914	EW-N Ramp						A	A	A	L						14				
		Sub - Totals Carried Forward:													7		14		13		

		(P)		(P)		(P)	
TOTALS		7		14		13	
UNIT		m (P)		m (P)		m (P)	
ITEM No.		28		29		30	

Pipe Material Code - 6 digits defined as noted below:

1st digit = Concrete
1 - 50-D or HE-A
2 - 65-D or HE-I
3 - 100-D or HE-II
4 - 140-D or HE-III
5 - HE-IV

2nd digit = PVC/PP
1 - PVC
2 - PP

3rd digit = HDPE
1 - Open Profile
2 - Closed Profile

4th digit = Galv; 5th digit = Alum, & 6th digit = Polymer Steel
1 - 1.6 mm thick
2 - 2.0 mm thick
3 - 2.8, 3.0 & 3.18 mm thick
4 - 3.5, 3.81 & 4.0 mm thick
5 - 4.2, 4.45 & 5.0 mm thick
6 - 5.08 & 6.0 mm thick
7 - 5.72 & 7.0 mm thick
8 - 6.35 mm thick

Note: '0' for any digit means the pipe material is not acceptable. Higher pipe material code values are also acceptable, unless otherwise stated. Galv. means galvanized coating. Alum means aluminized coated or aluminum alloy materials. Polymer means both laminated and coated steel pipes. Applies to circular and non-circular pipes.

Pipe Type
S - Smooth inner wall pipe
C - Corrugated inner wall pipe

Pipe Joints
S - Soil tight
F - Silt/Fines tight
L - Leak tight

Note: S joints is specified if no code is entered.

End Finish (OPSD 801.01 - 02 - 03)
SqE - Square End
B - Bevel
Sk - Skew End
SB - Step Bevel
ES - Steel end section
Note: All pipes are SqE and symmetrical to CL unless otherwise stated.

Treatments
F - Frost Treatment
P - Pave Invert
S - Channel Substrate
B - Fish Baffles

Depth to Pipe is from the surface downward to top of base pipe opening at midpoint by length unless otherwise stated.

Pipe Fill Material
N - Native or Granular
G - Granular A or B Type I, II or III
B - Granular A or B Type II
A - Granular A
U - Unshrinkable fill

Notes: N applies to cover and backfill only.
1 letter specifies material for all pipes.
2 letter codes specifies fill material for rigid and flexible pipes respectively.
G for bedding and N for cover and backfill is specified if no code is entered.
Embedment material for flexible pipes specified in bedding material column.

Frost Penetration
Frost Penetration depth - 1.5 m

CHKD. _____
APPR. _____
DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

PIPE CULVERTS / PIPE CULVERT EXTENSIONS

QUANTITIES - PIPE CULVERTS

W.P. No. 2116-16-00
Contract No. 2019-2003

SHEET 37

Culvert No	Station	Location and Position	Ext Left	Ext Right	Skew No	End Finish	Depth to Pipe	Pipe Fill Material: Bedding	Pipe Fill Material: Cover	Pipe Fill Material: Backfill	Pipe Joints	Treatment	Inv Elev: Upstream	Inv Elev: Downstream	*800 mm Pipe Culvert 800mm, S, 311000 600mm, C, 000111*		*600 mm Pipe Culvert Extension 600mm, S, 202000 600mm, C, 000211*		*800 mm Pipe Culvert Extension 800mm, S, 311000 600mm, C, 000111*		References
		Sub - Totals Brought Forward:																			
6	13+600	QEW Mainline TB			90			A	A	A	L										
7	13+600	QEW Mainline FEB			90			A	A	A	L						3				
8	13+664	QEW Mainline FEB			0			A	A	A	L										
1	14+273	QEW Mainline			90			A	A	A	L										
2	10+069	N-EW Ramp			27			A	A	A	L								33		
3	10+074	N-EW Ramp			30			A	A	A	L								28		
4	9+927	EW-S Ramp			58			A	A	A	L				39						
5	9+926	EW-S Ramp			58			A	A	A	L				38						
12	9+860	EW-N Ramp						A	A	A	L				6						
10	9+868	EW-N Ramp						A	A	A	L										
9	9+909	EW-N Ramp			110			A	A	A	L				31						
11	9+914	EW-N Ramp						A	A	A	L										
		Sub - Totals Carried Forward:													114		3		61		

		(P)		(P)		(P)	
TOTALS		114		3		61	
UNIT		m (P)		m (P)		m (P)	
ITEM No.		31		32		33	

Pipe Material Code - 6 digits defined as noted below:

1st digit = Concrete
1 - 50-D or HE-A
2 - 65-D or HE-I
3 - 100-D or HE-II
4 - 140-D or HE-III
5 - HE-IV

2nd digit = PVC/PP
1 - PVC
2 - PP

3rd digit = HDPE
1 - Open Profile
2 - Closed Profile

4th digit = Galv; 5th digit = Alum, & 6th digit = Polymer Steel
1 - 1.6 mm thick
2 - 2.0 mm thick
3 - 2.8, 3.0 & 3.18 mm thick
4 - 3.5, 3.81 & 4.0 mm thick
5 - 4.2, 4.45 & 5.0 mm thick
6 - 5.08 & 6.0 mm thick
7 - 5.72 & 7.0 mm thick
8 - 6.35 mm thick

Note: '0' for any digit means the pipe material is not acceptable. Higher pipe material code values are also acceptable, unless otherwise stated. Galv. means galvanized coating. Alum means aluminized coated or aluminum alloy materials. Polymer means both laminated and coated steel pipes. Applies to circular and non-circular pipes.

Pipe Type
S - Smooth inner wall pipe
C - Corrugated inner wall pipe

Pipe Joints
S - Soil tight
F - Silt/Fines tight
L - Leak tight

Note: S joints is specified if no code is entered.

End Finish (OPSD 801.01 - 02 - 03)
SqE - Square End
B - Bevel
Sk - Skew End
SB - Step Bevel
ES - Steel end section
Note: All pipes are SqE and symmetrical to CL unless otherwise stated.

Treatments
F - Frost Treatment
P - Pave Invert
S - Channel Substrate
B - Fish Baffles

Depth to Pipe is from the surface downward to top of base pipe opening at midpoint by length unless otherwise stated.

Pipe Fill Material
N - Native or Granular
G - Granular A or B Type I, II or III
B - Granular A or B Type II
A - Granular A
U - Unshrinkable fill

Notes: N applies to cover and backfill only.
1 letter specifies material for all pipes.
2 letter codes specifies fill material for rigid and flexible pipes respectively.
G for bedding and N for cover and backfill is specified if no code is entered.
Embedment material for flexible pipes specified in bedding material column.

Frost Penetration
Frost Penetration depth - 1.5 m

CHKD. _____
APPR. _____
DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

PIPE CULVERTS / PIPE CULVERT EXTENSIONS

QUANTITIES - PIPE CULVERTS

W.P. No. 2116-16-00
Contract No. 2019-2003

SHEET 38

Culvert No	Station	Location and Position	Ext Left	Ext Right	Skew No	End Finish	Depth to Pipe	Pipe Fill Material: Bedding	Pipe Fill Material: Cover	Pipe Fill Material: Backfill	Pipe Joints	Treatment	Inv Elev: Upstream	Inv Elev: Downstream	*2400 mm x 1500 mm Precast Concrete Box Culvert*						References
		Sub - Totals Brought Forward:																			
6	13+600	QEW Mainline TB			90			A	A	A	L										
7	13+600	QEW Mainline FEB			90			A	A	A	L										
8	13+664	QEW Mainline FEB			0			A	A	A	L										
1	14+273	QEW Mainline			90			A	A	A	L				56.0						
2	10+069	N-EW Ramp			27			A	A	A	L										
3	10+074	N-EW Ramp			30			A	A	A	L										
4	9+927	EW-S Ramp			58			A	A	A	L										
5	9+926	EW-S Ramp			58			A	A	A	L										
12	9+860	EW-N Ramp						A	A	A	L										
10	9+868	EW-N Ramp						A	A	A	L										
9	9+909	EW-N Ramp			110			A	A	A	L										
11	9+914	EW-N Ramp						A	A	A	L										
		Sub - Totals Carried Forward:													56.0						

	(P)						
TOTALS	56.0						
UNIT	m (P)						
ITEM No.	34						

Pipe Material Code - 6 digits defined as noted below:

1st digit = Concrete
1 - 50-D or HE-A
2 - 65-D or HE-I
3 - 100-D or HE-II
4 - 140-D or HE-III
5 - HE-IV

2nd digit = PVC/PP
1 - PVC
2 - PP

3rd digit = HDPE
1 - Open Profile
2 - Closed Profile

4th digit = Galv; 5th digit = Alum, & 6th digit = Polymer Steel
1 - 1.6 mm thick
2 - 2.0 mm thick
3 - 2.8, 3.0 & 3.18 mm thick
4 - 3.5, 3.81 & 4.0 mm thick
5 - 4.2, 4.45 & 5.0 mm thick
6 - 5.08 & 6.0 mm thick
7 - 5.72 & 7.0 mm thick
8 - 6.35 mm thick

Note: '0' for any digit means the pipe material is not acceptable. Higher pipe material code values are also acceptable, unless otherwise stated. Galv. means galvanized coating. Alum means aluminized coated or aluminum alloy materials. Polymer means both laminated and coated steel pipes. Applies to circular and non-circular pipes.

Pipe Type
S - Smooth inner wall pipe
C - Corrugated inner wall pipe

Pipe Joints
S - Soil tight
F - Silt/Fines tight
L - Leak tight

Note: S joints is specified if no code is entered.

End Finish (OPSD 801.01 - 02 - 03)
SqE - Square End
B - Bevel
Sk - Skew End
SB - Step Bevel
ES - Steel end section
Note: All pipes are SqE and symmetrical to CL unless otherwise stated.

Treatments
F - Frost Treatment
P - Pave Invert
S - Channel Substrate
B - Fish Baffles

Depth to Pipe is from the surface downward to top of base pipe opening at midpoint by length unless otherwise stated.

Pipe Fill Material
N - Native or Granular
G - Granular A or B Type I, II or III
B - Granular A or B Type II
A - Granular A
U - Unshrinkable fill

Notes: N applies to cover and backfill only.
1 letter specifies material for all pipes.
2 letter codes specifies fill material for rigid and flexible pipes respectively.
G for bedding and N for cover and backfill is specified if no code is entered.
Embedment material for flexible pipes specified in bedding material column.

Frost Penetration
Frost Penetration depth - 1.5 m

CHKD. _____
APPR. _____
DATE _____

QUANTITIES - MISCELLANEOUS 1

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 39

Location and Position	*Removal of Asphalt Pavement [Full Depth], [Pavement]*		*Removal of Asphalt Pavement, Partial Depth [90mm]*	*Removal of Asphalt Pavement, Partial Depth [50mm]*		*Removal of Asphalt Pavement from Concrete Surfaces [TBD]*		*Removal of Asphalt Pavement from Concrete Surfaces on Structures*		*Removal of Concrete Curb and Gutter [Roadway]*		*Removal of MH's, CB's, DI', and VC's*	References
Sub - Totals Brought Forward:													
Asphalt Removal													
QEW Fort Erie Bound													
13+260 - 13+340, RT			808										
13+340 - 13+888, RT	5,623												
13+888 - 13+898, RT						132							
13+898 - 14+023, RT								1,567					
14+023 - 14+034, RT						134							
14+034 - 14+580, RT	5,565												
14+580 - 15+110, RT			5,074										
QEW Toronto Bound													
13+260 - 13+340 , LT			793										
13+340 - 13+934 , LT	5,683												
13+934 - 13+943 , LT						135							
13+943 - 14+069 , LT								1,559					
14+069 - 14+080 , LT						132							
14+080 - 14+440 , LT	3,670												
14+440 - 14+800 , LT			3,928										
14+736 - 14+800 , LT	75												
Bowen Road EW-N Ramp													
9+844 - 10+000, LT	1,395												
Bowen Road S-EW Ramp													
10+157 - 10+236, CL			935										
Sub - Totals Carried Forward:	22,011		11,538	0		533		3,126		0		0	
	(P)		(P)	(P)		(P)		(P)		(P)		(P)	
TOTALS													
UNIT	m2 (P)		m2 (P)	m2 (P)		m2 (P)		m2 (P)		m (P)		each (P)	
ITEM No.	35			36		37		38		39		40	
Reference													

CHKD. _____

APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

REMOVALS ASHPHALT PAVEMENT, CC&G, MH CB DI,

QUANTITIES - MISCELLANEOUS 1

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 40

Location and Position	*Removal of Asphalt Pavement [Full Depth], [Pavement]*		*Removal of Asphalt Pavement, Partial Depth [90mm]*	*Removal of Asphalt Pavement, Partial Depth [50mm]*		*Removal of Asphalt Pavement from Concrete Surfaces [TBD]*		*Removal of Asphalt Pavement from Concrete Surfaces on Structures*		*Removal of Concrete Curb and Gutter [Roadway]*		*Removal of MH's, CB's, DI', and VC's*	References
Sub - Totals Brought Forward:	22,011		11,538	0		533		3,126		0		0	
Bowen Road N-EW Ramp													
9+950 - 10+195, CL&RT	1,568												
10+195 - 10+253, CL			722										
Bowen Road EW-S Ramp													
9+838 - 9+954, LT	1,033												
Sunset Drive													
10+004 - 10+068			507										
QEW Fort Erie Bound													
13+509 - 13+892 , RT										384			
14+032 - 14+375 , RT										353			
14+221 - 14+489 , RT										163			
QEW Toronto Bound													
13+503 - 13+912 , RT										409			
14+069 - 14+326 , RT										255			
14+629 - 14+756 , RT										55			
14+738 - 14+738, RT										3			
Bowen Road													
10+135 - 10+165, RT										32			
Bowen Road EW-S Ramp													
9+830 - 9+847, RT										40			
9+982 - 10+050, RT										138			
9+982 - 10+050, RT										43			
Sub - Totals Carried Forward:	24,612		12,767	0		533		3,126		1,875		0	
	(P)		(P)	(P)		(P)		(P)		(P)		(P)	
TOTALS													
UNIT	m2 (P)		m2 (P)	m2 (P)		m2 (P)		m2 (P)		m (P)		each (P)	
ITEM No.	35			36		37		38		39		40	
Reference													

CHKD. _____

APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

REMOVALS ASHPHALT PAVEMENT, CC&G, MH CB DI,

QUANTITIES - MISCELLANEOUS 1

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 41

Location and Position	*Removal of Asphalt Pavement [Full Depth], [Pavement]*		*Removal of Asphalt Pavement, Partial Depth [90mm]*	*Removal of Asphalt Pavement, Partial Depth [50mm]*		*Removal of Asphalt Pavement from Concrete Surfaces [TBD]*		*Removal of Asphalt Pavement from Concrete Surfaces on Structures*		*Removal of Concrete Curb and Gutter [Roadway]*		*Removal of MH's, CB's, DI', and VC's*	References
Sub - Totals Brought Forward:	24,612		12,767	0		533		3,126		1,875		0	
Sunset Drive													
10+006 - 10+031										34			
10+006 - 10+068										65			
QEW Mainline													
13+336 , 0.33LT												1	
13+515 , 2.54LT												1	
13+514 , 9.64RT												1	
13+514 , 15LT												1	
13+750 , 8.17LT												1	
13+750 , 4.27RT												1	
13+750 , 20.59LT												1	
13+842 , 23.54LT												1	
13+842 , 5.19RT												1	
13+894 , 11LT												1	
13+909 , 10.43LT												1	
14+147 , 10.33LT												1	
14+143 , 23.84LT												1	
14+268 , 21.86LT												1	
14+269 , 9.56LT												1	
14+269 , 11.76RT												1	
Sub - Totals Carried Forward:	24,612		12,767	0		533		3,126		1,974		16	
	(P)		(P)	(P)		(P)		(P)		(P)		(P)	
TOTALS													
UNIT	m2 (P)		m2 (P)	m2 (P)		m2 (P)		m2 (P)		m (P)		each (P)	
ITEM No.	35			36		37		38		39		40	
Reference													

CHKD. _____

APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

REMOVALS ASHPHALT PAVEMENT, CC&G, MH CB DI,

QUANTITIES - MISCELLANEOUS 1

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 42

Location and Position	*Removal of Asphalt Pavement [Full Depth], [Pavement]*		*Removal of Asphalt Pavement, Partial Depth [90mm]*	*Removal of Asphalt Pavement, Partial Depth [50mm]*		*Removal of Asphalt Pavement from Concrete Surfaces [TBD]*		*Removal of Asphalt Pavement from Concrete Surfaces on Structures*		*Removal of Concrete Curb and Gutter [Roadway]*		*Removal of MH's, CB's, DI', and VC's*	References
Sub - Totals Brought Forward:	24,612		12,767	0		533		3,126		1,974		16	
14+325 , 8.34LT												1	
14+325 , 20.33LT												1	
14+357 , 11.12RT												1	
14+664 , CL												1	
14+664 , 19.41LT												1	
14+735 , 12.65LT												1	
14+785 , CL												1	
Emergency Detour Route													
Stevensville Road - Foster St., Mainline				280									
Garrison Rd. - Buffalo Rd, Mainline				50									
Garrison Rd. - Municipal Dr., Mainline				140									
Garrison Rd. - Rose Hill Rd., Mainline				380									
Sub - Totals Carried Forward:	24,612		12,767	850		533		3,126		1,974		23	
	(P)		12,767 (P)	850 (P)		(P)		(P)		(P)		(P)	
TOTALS	24,612			13,617		533		3,126		1,974		23	
UNIT	m2 (P)		m2 (P)	m2 (P)		m2 (P)		m2 (P)		m (P)		each (P)	
ITEM No.	35			36		37		38		39		40	
Reference													

CHKD. _____

APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

REMOVALS ASHPHALT PAVEMENT, CC&G, MH CB DI,

QUANTITIES - MISCELLANEOUS 1

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 43

Location and Position	*Abandonment of Pipes and Culverts*		*Removal of Pipes and Culverts [800mm CSP Culvert]*										References
Sub - Totals Brought Forward:													
13+479, 24.22LT - 17.71RT	42												
13+841, 28.10LT - 21.65RT	50												
14+269 , 35.08RT - 20.85LT	56												
14+404 - 14+447 , 45.24RT - 44.71RT			43										
14+405 - 14+447 , 46.37RT - 45.61RT			42										
Sub - Totals Carried Forward:	148		85										
	(P)		(P)										
TOTALS	148		85										
UNIT	m (P)		m (P)										
ITEM No.	41		42										
Reference													

CHKD. _____

APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

REMOVAL PIPESUBDRAIN/ ABANDONMENT OF PIPES AND CULVERTS / PIPES AND PIPE CULVERTS

QUANTITIES - MISCELLANEOUS 1

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 44

Location and Position	*Removal of Ramp Closure Gates*		*Removal of Energy Attenuators [S.B.E.A.T.]*		*Removal of Steel Beam Guide Rail [Single Guiderail] [No Channel]*								References
Sub - Totals Brought Forward:													
QEW Fort Erie Bound													
13+340 - 13+897 , RT					557								
13+913 - 13+913, LT					13								
14+041 - 14+052, LT					24								
14+024 - 14+276, RT					253								
14+484 - 14+624, RT					139								
14+494 - 14+620, RT					126								
QEW Toronto Bound													
13+481 - 13+943, LT					461								
14+069 - 14+756, RT					687								
14+071 - 14+755 , LT					684								
14+598 - 14+725 , RT					127								
Bowen Road													
10+135 - 10+165, RT					34								
Bowen Road N-EW Ramp													
10+130, RT			1										
10+145 - 10+251					115								
EW-N Ramp													
9+833 - 9+894 , RT					61								
Bowen Road EW-S Ramp													
9+830 - 9+900, RT					106								
Sub - Totals Carried Forward:	0		1		3,387								
	(P)		(P)		(P)								
TOTALS													
UNIT	each (P)		each (P)		m (P)								
ITEM No.	43		44		45								
Reference													

CHKD. _____

APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

REMOVAL OF RCG/ EA / SBGR

QUANTITIES - MISCELLANEOUS 1

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 45

Location and Position	*Removal of Ramp Closure Gates*		*Removal of Energy Attenuators [S.B.E.A.T.]*		*Removal of Steel Beam Guide Rail [Single Guiderail] [No Channel]*								References
Sub - Totals Brought Forward:	0		1		3,387								
9+890, LT	1												
9+891 - 9+897, LT					9								
9+900, RT			1										
Bowen Road S-EW Ramp													
10+156 - 10+222, LT					67								
10+156			1										
Sub - Totals Carried Forward:	1		3		3,463								
	(P)		(P)		(P)								
TOTALS	1		3		3,463								
UNIT	each (P)		each (P)		m (P)								
ITEM No.	43		44		45								
Reference													

CHKD. _____

APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

REMOVAL OF RCG/ EA / SBGR

QUANTITIES - MISCELLANEOUS 1

W.P. No. 2116-16-00
Contract No. 2019-2003

SHEET 46

Location and Position	*Pavement Marking Obliterating - By Abrasive Blasting*													References
Sub - Totals Brought Forward:														
Stage Pre 1B														
QEW Fort Erie Bound														
12+335 - 13+957 , LT EP	1,622													
12+335 - 12+634 , RT SCL	299													
13+767 - 13+957 , RT SCL	190													
12+335 - 12+645 , RT EP	619													
12+645 - 13+552 , RT EP	908													
13+552 - 13+957 , RT EP	810													
13+807 - 13+957 , LL	38													
Stage 1B														
QEW Fort Erie Bound														
12+629 - 15+291 , LT EP	2,261													
12+629 - 12+849 , RT SCL	220													
15+141 - 15+291 , RT SCL	150													
12+629 - 15+291 , RT EP	5,323													
Stage 2A														
QEW Fort Erie Bound														
12+356 - 15+110 , LT EP	2,754													
12+356 - 12+656 , RT SCL	300													
12+656 - 13+599 , RT EP	943													
Sub - Totals Carried Forward:	16,437													
	(P)													
TOTALS														
UNIT	m (P)													
ITEM No.	57													
Reference														

CHKD. _____
APPR. _____
DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

PAVEMENT MARKING, OBLITERATION

QUANTITIES - MISCELLANEOUS 1

W.P. No. 2116-16-00
Contract No. 2019-2003

SHEET 47

Location and Position	*Pavement Marking Obliterating - By Abrasive Blasting*													References
Sub - Totals Brought Forward:	16,437													
13+599 - 13+815 , RT EP	431													
12+356 - 14+196 , RT SCL	1,840													
14+196 - 14+271 , RT EP	151													
14+271 - 14+499 , RT EP	227													
14+499 - 14+557 , RT EP	118													
14+557 - 15+110 , RT SCL	553													
12+356 - 12+656 , RT EP	600													
14+824 - 15+110 , LT SCL	286													
15+011 - 15+110 , RT EP	200													
Bowen Road N-EW Ramp														
9+544 - 10+000 , RT EP	913													
10+000 - 10+253 , RT EP	253													
9+925 - 10+000 , LT EP	150													
10+000 - 10+250 , LT EP	250													
10+250 - +0 ,	65													
Bowen Road EW-S Ramp														
9+827 - 10+470 , RT EP	643													
9+830 - 9+960 , LT EP	130													
9+960 - 10+017 , LT EP	115													
Stage 2B														
QEW Fort Erie Bound														
Sub - Totals Carried Forward:	23,362													
	(P)													
TOTALS														
UNIT	m (P)													
ITEM No.	57													
Reference														

CHKD. _____
APPR. _____
DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

PAVEMENT MARKING, OBLITERATION

QUANTITIES - MISCELLANEOUS 1

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 48

Location and Position	*Pavement Marking Obliterating - By Abrasive Blasting*													References
Sub - Totals Brought Forward:	23,362													
12+960 - 15+306 , LT EP														
	2,346													
12+960 - 15+306 , LL	586													
12+960 - 14+153 , RT EP	1,193													
14+153 - 14+233 , RT SCL	80													
14+233 - 14+316 , RT EP	165													
14+316 - 14+540 , RT EP	225													
14+540 - 14+660 , RT EP	239													
14+660 - 15+106 , RT SCL	446													
15+011 - 15+116 , RT EP	210													
15+116 - 15+306 , RT EP	190													
Bowen Road EW-S Ramp														
9+883 - 10+044 , RT EP	324													
10+044 - 10+253 , RT EP	209													
9+962 - 10+044 , LT EP	164													
10+044 - 10+250 , LT EP	206													
10+250 - +0 ,	59													
Bowen Road EW-S Ramp														
9+827 - 10+000 , RT EP	173													
10+000 - 10+470 , RT EP	939													
9+830 - 10+000 , LT EP	170													
Sub - Totals Carried Forward:	31,286													
	(P)													
TOTALS														
UNIT	m (P)													
ITEM No.	57													
Reference														

CHKD. _____

APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

PAVEMENT MARKING, OBLITERATION

QUANTITIES - MISCELLANEOUS 1

W.P. No. 2116-16-00
Contract No. 2019-2003

SHEET 49

Location and Position	*Pavement Marking Obliterating - By Abrasive Blasting*													References
Sub - Totals Brought Forward:	31,286													
10+000 - 10+119 , LT EP	238													
QEW Toronto Bound														
13+047 - 14+123 , RT EP	1,076													
14+123 - 14+736 , RT EP	1,226													
14+672 - 14+746 , LT EP	147													
14+338 - 14+672 , LT SCL	335													
14+672 - 14+746 , RT EP	147													
14+746 - 14+965 , RT EP	219													
14+965 - 15+045 , LT EP	159													
15+045 - 15+129 , RT SCL	84													
15+129 - 15+344 , RT EP	430													
15+344 - 15+625 , RT EP	282													
15+625 - 15+935 , LT EP	620													
15+635 - 15+935 , LT SCL	300													
13+047 - 15+935 , LT EP	2,889													
13+047 - 13+227 , LT SCL	180													
Stage 3A														
QEW Fort Erie Bound														
12+931 - 15+340 , LT EP	2,409													
12+931 - 15+340 , LL	602													
Sub - Totals Carried Forward:	42,629													
	(P)													
TOTALS														
UNIT	m (P)													
ITEM No.	57													
Reference														

CHKD. _____
APPR. _____
DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

PAVEMENT MARKING, OBLITERATION

QUANTITIES - MISCELLANEOUS 1

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 50

Location and Position	*Pavement Marking Obliterating - By Abrasive Blasting*													References
Sub - Totals Brought Forward:	42,629													
12+931 - 13+605 , RT EP	674													
13+605 - 13+789 , RT EP	369													
13+789 - 14+172 , LT SCL	383													
14+172 - 14+282 , RT EP	218													
14+282 - 14+530 , RT EP	249													
14+530 - 14+666 , RT EP	272													
14+666 - 15+100 , LT SCL	434													
15+005 - 15+110 , RT EP	210													
15+110 - 15+340 , RT EP	230													
QEW Toronto Bound														
12+819 - 13+009 , RT EP	380													
13+009 - 14+965 , RT EP	1,956													
14+965 - 15+131 , RT EP	331													
15+131 - 15+226 , RT SCL	95													
15+128 - 15+541 , RT EP	825													
15+335 - 15+541 , RT SCL	206													
12+819 - 15+541 , LT EP	2,722													
12+819 - 12+999 , RT SCL	180													
Bowen Road N-EW Ramp														
9+902 - 10+010 , LT EP	109													
Sub - Totals Carried Forward:	52,472													
	(P)													
TOTALS														
UNIT	m (P)													
ITEM No.	57													
Reference														

CHKD. _____

APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

PAVEMENT MARKING, OBLITERATION

QUANTITIES - MISCELLANEOUS 1

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 51

Location and Position	*Pavement Marking Obliterating - By Abrasive Blasting*													References
Sub - Totals Brought Forward:	52,472													
10+010 - 10+251 , LT EP	241													
9+518 - 10+010 , RT EP	983													
10+010 - 10+253 , RT EP	243													
10+250 - +0 ,	59													
Bowen Road EW-S Ramp														
9+827 - 9+990 , RT EP	163													
9+990 - 10+464 , RT EP	947													
9+830 - 9+990 , LT EP	160													
9+990 - 10+125 , LT EP	270													
Bowen Road S-EW Ramp														
9+805 - 9+969 , LT EP	328													
9+969 - 10+230 , LT EP	261													
9+805 - 9+969 , RT EP	328													
9+969 - 10+211 , RT EP	242													
Stage 3B														
QEW Fort Erie Bound														
13+017 - 15+100 , LT EP	2,083													
13+017 - 15+100 , LL	521													
13+809 - 14+189 , RT SCL	190													
14+646 - 15+043 , RT SCL	198													
13+017 - 15+100 , RT EP	2,083													
Sub - Totals Carried Forward:	61,772													
	(P)													
TOTALS														
UNIT	m (P)													
ITEM No.	57													
Reference														

CHKD. _____

APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

PAVEMENT MARKING, OBLITERATION

QUANTITIES - MISCELLANEOUS 1

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 52

Location and Position	*Pavement Marking Obliterating - By Abrasive Blasting*													References
Sub - Totals Brought Forward:	61,772													
QEW Toronto Bound														
12+868 - 14+585 , RT EP	1,717													
14+585 - 14+694 , RT EP	219													
14+694 - 14+962 , RT EP	268													
14+962 - 15+032 , RT EP	140													
15+032 - 15+717 , RT EP	684													
12+868 - 13+169 , LL	75													
14+133 - 14+585 , RT SCL	226													
15+032 - 15+117 , RT SCL	42													
15+417 - 15+717 , RT SCL	150													
12+868 - 15+717 , LT EP	2,849													
Bowen Road N-EW Ramp														
9+918 - 10+249 , LT EP	332													
9+918 - 10+253 , RT EP	671													
Bowen Road EW-S Ramp														
9+830 - 9+985 , LT EP	155													
9+985 - 10+105 , LT EP	241													
9+827 - 9+985 , RT EP	158													
9+985 - 10+105 , RT EP	241													
Bowen Road EW-N														
9+835 - 10+049 , LT EP	214													
Sub - Totals Carried Forward:	70,154													
	(P)													
TOTALS														
UNIT	m (P)													
ITEM No.	57													
Reference														

CHKD. _____

APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

PAVEMENT MARKING, OBLITERATION

QUANTITIES - MISCELLANEOUS 1

W.P. No. 2116-16-00
Contract No. 2019-2003

SHEET 53

Location and Position	*Pavement Marking Obliterating - By Abrasive Blasting*													References
Sub - Totals Brought Forward:	70,154													
10+049 - 10+099 , LT EP	100													
9+838 - 10+099 , RT EP	261													
Bowen Road S-EW Ramp														
9+901 - 9+972 , RT EP	140													
9+972 - 10+211 , RT EP	240													
9+901 - 9+972 , LT EP	140													
9+972 - 10+232 , LT EP	260													
Winter Shut Down														
QEW Fort Erie Bound														
12+960 - 15+306, LT EP	2,346													
12+960 - 15+306 , LL	586													
12+960 - 13+938 , RT EP	978													
13+938 - 14+153 , RT EP	430													
14+153 - 14+233 , RT SCL	80													
14+233 - 14+281 , RT EP	96													
14+281 - 14+550 , RT EP	269													
14+550 - 14+660 , RT EP														
14+660 - 15+106 , RT SCL														
15+011 - 15+116 , RT EP	210													
15+116 - 15+306 , RT EP	190													
Bowen Road N-EW Ramp														
Sub - Totals Carried Forward:	76,480													
	(P)													
TOTALS														
UNIT	m (P)													
ITEM No.	57													
Reference														

CHKD. _____
APPR. _____
DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

PAVEMENT MARKING, OBLITERATION

QUANTITIES - MISCELLANEOUS 1

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 54

Location and Position	*Pavement Marking Obliterating - By Abrasive Blasting*													References
Sub - Totals Brought Forward:	76,480													
9+962 - 10+010 , RT EP	96													
10+010 - 10+253 , RT EP	243													
9+962 - 10+010 , LT EP	95													
10+010 - 10+257 , LT EP	247													
10+250 - +0 ,	59													
Bowen Road EW-S Ramp														
9+827 - 10+000 , RT EP	173													
10+000 - 10+470 , RT EP	939													
9+823 - 10+000 , LT EP	177													
10+000 - 10+119 , LT EP	238													
Sub - Totals Carried Forward:	78,747													
	(P)													
TOTALS	78,747													
UNIT	m (P)													
ITEM No.	57													
Reference														

CHKD. _____

APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

PAVEMENT MARKING, OBLITERATION

QUANTITIES - MISCELLANEOUS 1

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 55

Location and Position	*Pavement Marking, Durable [Solid] [Yellow, 10cm]*	*Pavement Marking, Durable [Solid] [White, 10cm]*	*Pavement Marking, Durable [3-9-3] [White, 10cm]*	*Pavement Marking, Durable [Solid] [White, 20cm]*	*Pavement Marking, Durable [3-3-3] [White, 30cm]*	*Pavement Marking, Durable [Solid] [White, 45cm]*							References
Sub - Totals Brought Forward:													
Fort Erie Bound Mainline													
13+260 - 15+100 , LT EP	1,850												
12+460 - 15+340 , CL			720										
13+260 - 13+605 , RT EP		345											
13+605 - 14+172 , RT EP				1,135									
14+172 - 14+281 , RT EP (BullNose)				217									
14+281 - 14+540 , RT EP		259											
14+540 - 14+666 , RT EP				251									
14+666 - 15+100 , SCL					434								
14+666 - 15+120, RT EP				909									
15+120 - 15+160 , RT EP		40											
13+830 - 14+172, SCL					342								
N-EW Ramp													
9+902 - 10+010 , LT EP (BullNose)				217									
9+902 - 10+010 , RT EP				217									
10+010 - 10+248 , LT EP	238												
10+010 - 10+253 , RT EP		243											
10+253 , Stopbar						54							
EW-S Ramp													
9+825, Channel	89												
9+832 - 10+000 , LT EP	168												
Sub - Totals Carried Forward:	2,345	887	720	2,946	776	54							
	(P)	(P)	(P)	(P)	(P)	(P)							
TOTALS													
UNIT	m (P)	m (P)	m (P)	m (P)	m (P)	m (P)							
ITEM No.		58											
Reference													

CHKD. _____

APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

PAVEMENT MARKING , DURABLE

QUANTITIES - MISCELLANEOUS 1

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 56

Location and Position	*Pavement Marking, Durable [Solid] [Yellow, 10cm]*	*Pavement Marking, Durable [Solid] [White, 10cm]*	*Pavement Marking, Durable [3-9-3] [White, 10cm]*	*Pavement Marking, Durable [Solid] [White, 20cm]*	*Pavement Marking, Durable [3-3-3] [White, 30cm]*	*Pavement Marking, Durable [Solid] [White, 45cm]*							References
Sub - Totals Brought Forward:	2,345	887	720	2,946	776	54							
9+827 - 10+000 , RT EP		173											
10+000 - 10+125, LT EP (BullNose)				250									
10+000 - 10+125 , RT EP				250									
Toronto Bound Mainline													
12+819 - 15+541 , CL			680										
13+260 - 14+800 , RT EP	1,540												
13+260 - 14+116 , LT EP		856											
14+116 - 14+490, RT EP				747									
14+136 - 14+576 , SCL					440								
14+576 - 14+683 , RT EP (BullNose)				214									
14+683 - 14+835 , LT EP		152											
S-EW Ramp													
10+157 - 10+236 , RT EP		79											
10+157 - 10+229 , LT EP	72												
10+266, Stopbar						54							
EW-N Ramp													
9+832 - 10+000 , RT EP		168											
9+839 - 10+000 , RT EP	161												
10+000 - 10+194 , RT EP				389									
10+000 - 10+108 , LT EP (BullNose)				310									
Sub - Totals Carried Forward:	4,118	2,315	1,400	5,106	1,216	108							
	(P)	(P)	(P)	(P)	(P)	(P)							
TOTALS													
UNIT	m (P)	m (P)	m (P)	m (P)	m (P)	m (P)							
ITEM No.		58											
Reference													

CHKD. _____

APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

PAVEMENT MARKING , DURABLE

QUANTITIES - MISCELLANEOUS 1

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 57

Location and Position	*Pavement Marking, Durable [Solid] [Yellow, 10cm]*	*Pavement Marking, Durable [Solid] [White, 10cm]*	*Pavement Marking, Durable [3-9-3] [White, 10cm]*	*Pavement Marking, Durable [Solid] [White, 20cm]*	*Pavement Marking, Durable [3-3-3] [White, 30cm]*	*Pavement Marking, Durable [Solid] [White, 45cm]*							References
Sub - Totals Brought Forward:	4,118	2,315	1,400	5,106	1,216	108							
9+995 - 10+105 , RT EP				220									
Sub - Totals Carried Forward:	4,118	2,315	1,400	5,326	1,216	108							
	4,118	2,315	1,400	5,326	1,216	108							
	(P)	(P)	(P)	(P)	(P)	(P)							
TOTALS		14,483											
UNIT	m (P)	m (P)	m (P)	m (P)	m (P)	m (P)							
ITEM No.		58											
Reference													

CHKD. _____

APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

PAVEMENT MARKING , DURABLE

QUANTITIES - MISCELLANEOUS 1

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 58

Location and Position	*Pavement Marking, Temp., Paint - Fluorescent Orange [Solid] [10cm]*	*Pavement Marking, Temp., Paint - Fluorescent Orange [3-3-3] [10cm]*	*Pavement Marking, Temp., Paint - Fluorescent Orange [3-9-3] [10cm]*	*Pavement Marking, Temp., Paint - Fluorescent Orange [Solid] [20cm]*	*Pavement Marking, Temp., Paint - Fluorescent Orange [3-3-3] [20cm]*	*Pavement Marking, Temp., Paint - Fluorescent Orange [Solid] [45cm]*							References
Sub - Totals Brought Forward:													
Stage Pre 1B													
QEW Fort Erie Bound													
12+335 - 13+957 , LT EP	1,622												
12+335 - 12+634 , RT SCL					299								
13+767 - 13+957 , RT SCL					190								
12+335 - 12+645 , RT EP				619									
12+645 - 13+552 , RT EP	908												
13+552 - 13+957 , RT EP				810									
13+807 - 13+957 , LL			38										
Stage 1B													
QEW Fort Erie Bound													
12+629 - 15+291 , LT EP	2,661												
12+629 - 12+849 , RT SCL					220								
15+141 - 15+291 , RT SCL					150								
12+629 - 15+291 , RT EP				5,323									
Stage 2A													
QEW Fort Erie Bound													
12+356 - 15+110 , LT EP	2,754												
12+356 - 12+656 , RT SCL					300								
12+656 - 13+599 , RT EP	943												
Sub - Totals Carried Forward:	8,888	0	38	6,752	1,159	0							
	(P)	(P)	(P)	(P)	(P)	(P)							
TOTALS													
UNIT	m (P)	m (P)	m (P)	m (P)	m (P)	m (P)							
ITEM No.		59											
Reference													

CHKD. _____

APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

PAVEMENT MARKING, TEMPORARY

QUANTITIES - MISCELLANEOUS 1

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 59

Location and Position	*Pavement Marking, Temp., Paint - Fluorescent Orange [Solid] [10cm]*	*Pavement Marking, Temp., Paint - Fluorescent Orange [3-3-3] [10cm]*	*Pavement Marking, Temp., Paint - Fluorescent Orange [3-9-3] [10cm]*	*Pavement Marking, Temp., Paint - Fluorescent Orange [Solid] [20cm]*	*Pavement Marking, Temp., Paint - Fluorescent Orange [3-3-3] [20cm]*	*Pavement Marking, Temp., Paint - Fluorescent Orange [Solid] [45cm]*							References
Sub - Totals Brought Forward:	8,888	0	38	6,752	1,159	0							
13+599 - 13+815 , RT EP				431									
12+356 - 14+196 , RT SCL					1,840								
14+196 - 14+271 , RT EP				151									
14+271 - 14+499 , RT EP	227												
14+499 - 14+557 , RT EP				118									
14+557 - 15+110 , RT SCL					533								
12+356 - 12+656 , RT EP				600									
14+824 - 15+110 , LT SCL					286								
15+011 - 15+110 , RT EP				200									
Bowen Road N-EW Ramp													
9+544 - 10+000 , RT EP				913									
10+000 - 10+253 , RT EP	253												
9+925 - 10+000 , LT EP				150									
10+000 - 10+250 , LT EP	250												
10+250 - +0 ,						65							
Bowen Road EW-S Ramp													
9+827 - 10+470 , RT EP	643												
9+830 - 9+960 , LT EP	130												
9+960 - 10+017 , LT EP				115									
Stage 2B													
QEW Fort Erie Bound													
Sub - Totals Carried Forward:	10,391	0	38	9,430	3,818	65							
	(P)	(P)	(P)	(P)	(P)	(P)							
TOTALS													
UNIT	m (P)	m (P)	m (P)	m (P)	m (P)	m (P)							
ITEM No.		59											
Reference													

CHKD. _____

APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

PAVEMENT MARKING, TEMPORARY

QUANTITIES - MISCELLANEOUS 1

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 60

Location and Position	*Pavement Marking, Temp., Paint - Fluorescent Orange [Solid] [10cm]*	*Pavement Marking, Temp., Paint - Fluorescent Orange [3-3-3] [10cm]*	*Pavement Marking, Temp., Paint - Fluorescent Orange [3-9-3] [10cm]*	*Pavement Marking, Temp., Paint - Fluorescent Orange [Solid] [20cm]*	*Pavement Marking, Temp., Paint - Fluorescent Orange [3-3-3] [20cm]*	*Pavement Marking, Temp., Paint - Fluorescent Orange [Solid] [45cm]*							References
Sub - Totals Brought Forward:	10,391	0	38	9,430	3,818	65							
12+960 - 15+306 , LT EP	2,436												
12+960 - 15+306 , LL			586										
12+960 - 14+153 , RT EP	1,193												
14+153 - 14+233 , RT SCL					80								
14+233 - 14+316 , RT EP				165									
14+316 - 14+540 , RT EP													
14+540 - 14+660 , RT EP				239									
14+660 - 15+106 , RT SCL					446								
15+011 - 15+116 , RT EP				210									
15+116 - 15+306 , RT EP	190												
Bowen Road EW-S Ramp													
9+883 - 10+044 , RT EP				324									
10+044 - 10+253 , RT EP	209												
9+962 - 10+044 , LT EP				164									
10+044 - 10+250 , LT EP	206												
10+250 - +0 ,						59							
Bowen Road EW-S Ramp													
9+827 - 10+000 , RT EP	173												
10+000 - 10+470 , RT EP				939									
9+830 - 10+000 , LT EP	170												
Sub - Totals Carried Forward:	14,968	0	624	11,471	4,344	124							
	(P)	(P)	(P)	(P)	(P)	(P)							
TOTALS													
UNIT	m (P)	m (P)	m (P)	m (P)	m (P)	m (P)							
ITEM No.		59											
Reference													

CHKD. _____

APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

PAVEMENT MARKING, TEMPORARY

QUANTITIES - MISCELLANEOUS 1

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 61

Location and Position	*Pavement Marking, Temp., Paint - Fluorescent Orange [Solid] [10cm]*	*Pavement Marking, Temp., Paint - Fluorescent Orange [3-3-3] [10cm]*	*Pavement Marking, Temp., Paint - Fluorescent Orange [3-9-3] [10cm]*	*Pavement Marking, Temp., Paint - Fluorescent Orange [Solid] [20cm]*	*Pavement Marking, Temp., Paint - Fluorescent Orange [3-3-3] [20cm]*	*Pavement Marking, Temp., Paint - Fluorescent Orange [Solid] [45cm]*							References
Sub - Totals Brought Forward:	14,968	0	624	11,471	4,344	124							
10+000 - 10+119 , LT EP				238									
Bowen Road EW-S Ramp													
13+047 - 14+123 , RT EP	1,076												
14+123 - 14+736 , RT EP				1,226									
14+672 - 14+746 , LT EP				147									
14+338 - 14+672 , LT SCL					335								
14+672 - 14+746 , RT EP				147									
14+746 - 14+965 , RT EP	219												
14+965 - 15+045 , LT EP				159									
15+045 - 15+129 , RT SCL					84								
15+129 - 15+344 , RT EP				430									
15+344 - 15+625 , RT EP	282												
15+625 - 15+935 , LT EP				620									
15+635 - 15+935 , LT SCL					300								
13+047 - 15+935 , LT EP	2,889												
13+047 - 13+227 , LT SCL					180								
Stage 3A													
QEW Fort Erie Bound													
12+931 - 15+340 , LT EP	2,409												
12+931 - 15+340 , LL			602										
Sub - Totals Carried Forward:	21,843	0	1,226	14,438	5,243	124							
	(P)	(P)	(P)	(P)	(P)	(P)							
TOTALS													
UNIT	m (P)	m (P)	m (P)	m (P)	m (P)	m (P)							
ITEM No.		59											
Reference													

CHKD. _____

APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

PAVEMENT MARKING, TEMPORARY

QUANTITIES - MISCELLANEOUS 1

W.P. No. 2116-16-00

Contract No. 2019-2003

Location and Position	*Pavement Marking, Temp., Paint - Fluorescent Orange [Solid] [10cm]*	*Pavement Marking, Temp., Paint - Fluorescent Orange [3-3-3] [10cm]*	*Pavement Marking, Temp., Paint - Fluorescent Orange [3-9-3] [10cm]*	*Pavement Marking, Temp., Paint - Fluorescent Orange [Solid] [20cm]*	*Pavement Marking, Temp., Paint - Fluorescent Orange [3-3-3] [20cm]*	*Pavement Marking, Temp., Paint - Fluorescent Orange [Solid] [45cm]*							References
Sub - Totals Brought Forward:	21,843	0	1,226	14,438	5,243	124							
12+931 - 13+605 , RT EP	674												
13+605 - 13+789 , RT EP				369									
13+789 - 14+172 , LT SCL					383								
14+172 - 14+282 , RT EP				218									
14+282 - 14+530 , RT EP	249												
14+530 - 14+666 , RT EP				272									
14+666 - 15+100 , LT SCL					434								
15+005 - 15+110 , RT EP				210									
15+110 - 15+340 , RT EP	230												
QEW Toronto Bound													
12+819 - 13+009 , RT EP				380									
13+009 - 14+965 , RT EP	1,956												
14+965 - 15+131 , RT EP				331									
15+131 - 15+226 , RT SCL					95								
15+128 - 15+541 , RT EP				825									
15+335 - 15+541 , RT SCL					206								
12+819 - 15+541 , LT EP	2,722												
12+819 - 12+999 , RT SCL					180								
Bowen Road N-EW Ramp													
9+902 - 10+010 , LT EP	109												
Sub - Totals Carried Forward:	27,783	0	1,226	17,043	6,541	124							
	(P)	(P)	(P)	(P)	(P)	(P)							
TOTALS													
UNIT	m (P)	m (P)	m (P)	m (P)	m (P)	m (P)							
ITEM No.		59											
Reference													

CHKD. _____

APPR. _____

DATE _____

QUANTITIES - MISCELLANEOUS 1

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 63

Location and Position	*Pavement Marking, Temp., Paint - Fluorescent Orange [Solid] [10cm]*	*Pavement Marking, Temp., Paint - Fluorescent Orange [3-3-3] [10cm]*	*Pavement Marking, Temp., Paint - Fluorescent Orange [3-9-3] [10cm]*	*Pavement Marking, Temp., Paint - Fluorescent Orange [Solid] [20cm]*	*Pavement Marking, Temp., Paint - Fluorescent Orange [3-3-3] [20cm]*	*Pavement Marking, Temp., Paint - Fluorescent Orange [Solid] [45cm]*							References
Sub - Totals Brought Forward:	27,783	0	1,226	17,043	6,541	124							
10+010 - 10+251 , LT EP	241												
9+518 - 10+010 , RT EP				983									
10+010 - 10+253 , RT EP	243												
10+250 - +0 ,						59							
Bowen Road EW-S Ramp													
9+827 - 9+990 , RT EP	163												
9+990 - 10+464 , RT EP				947									
9+830 - 9+990 , LT EP	160												
9+990 - 10+125 , LT EP				270									
Bowen Road S-EW Ramp													
9+805 - 9+969 , LT EP				328									
9+969 - 10+230 , LT EP	261												
9+805 - 9+969 , RT EP				328									
9+969 - 10+211 , RT EP	242												
Stage 3B													
QEW Fort Erie Bound													
13+017 - 15+100 , LT EP													
13+017 - 15+100 , LL													
13+809 - 14+189 , RT SCL													
14+646 - 15+043 , RT SCL													
13+017 - 15+100 , RT EP													
Sub - Totals Carried Forward:	29,093	0	1,226	19,899	6,541	183							
	(P)	(P)	(P)	(P)	(P)	(P)							
TOTALS													
UNIT	m (P)	m (P)	m (P)	m (P)	m (P)	m (P)							
ITEM No.		59											
Reference													

CHKD. _____

APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

PAVEMENT MARKING, TEMPORARY

QUANTITIES - MISCELLANEOUS 1

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 64

Location and Position	*Pavement Marking, Temp., Paint - Fluorescent Orange [Solid] [10cm]*	*Pavement Marking, Temp., Paint - Fluorescent Orange [3-3-3] [10cm]*	*Pavement Marking, Temp., Paint - Fluorescent Orange [3-9-3] [10cm]*	*Pavement Marking, Temp., Paint - Fluorescent Orange [Solid] [20cm]*	*Pavement Marking, Temp., Paint - Fluorescent Orange [3-3-3] [20cm]*	*Pavement Marking, Temp., Paint - Fluorescent Orange [Solid] [45cm]*							References
Sub - Totals Brought Forward:	29,093	0	1,226	19,899	6,541	183							
QEW Toronto Bound													
12+868 - 14+585 , RT EP	1,717												
14+585 - 14+694 , RT EP				219									
14+694 - 14+962 , RT EP	268												
14+962 - 15+032 , RT EP				140									
15+032 - 15+717 , RT EP	684												
12+868 - 13+169 , LL			75										
14+133 - 14+585 , RT SCL		226											
15+032 - 15+117 , RT SCL		42											
15+417 - 15+717 , RT SCL		150											
12+868 - 15+717 , LT EP	2,849												
Bowen Road N-EW Ramp													
9+918 - 10+249 , LT EP	332												
9+918 - 10+253 , RT EP				671									
Bowen Road EW-S Ramp													
9+830 - 9+985 , LT EP	155												
9+985 - 10+105 , LT EP				241									
9+827 - 9+985 , RT EP	158												
9+985 - 10+105 , RT EP				241									
Bowen Road EW-N													
9+835 - 10+049 , LT EP	214												
Sub - Totals Carried Forward:	35,470	418	1,301	21,411	6,541	183							
	(P)	(P)	(P)	(P)	(P)	(P)							
TOTALS													
UNIT	m (P)	m (P)	m (P)	m (P)	m (P)	m (P)							
ITEM No.		59											
Reference													

CHKD. _____

APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

PAVEMENT MARKING, TEMPORARY

QUANTITIES - MISCELLANEOUS 1

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 65

Location and Position	*Pavement Marking, Temp., Paint - Fluorescent Orange [Solid] [10cm]*	*Pavement Marking, Temp., Paint - Fluorescent Orange [3-3-3] [10cm]*	*Pavement Marking, Temp., Paint - Fluorescent Orange [3-9-3] [10cm]*	*Pavement Marking, Temp., Paint - Fluorescent Orange [Solid] [20cm]*	*Pavement Marking, Temp., Paint - Fluorescent Orange [3-3-3] [20cm]*	*Pavement Marking, Temp., Paint - Fluorescent Orange [Solid] [45cm]*							References
Sub - Totals Brought Forward:	35,470	418	1,301	21,411	6,541	183							
10+049 - 10+099 , LT EP				100									
9+838 - 10+099 , RT EP	261												
Bowen Road S-EW Ramp													
9+901 - 9+972 , RT EP				140									
9+972 - 10+211 , RT EP	240												
9+901 - 9+972 , LT EP				140									
9+972 - 10+232 , LT EP	260												
Sub - Totals Carried Forward:	36,231	418	1,301	21,791	6,541	183							
	36,231	418	1,301	21,791	6,541	183							
	(P)	(P)	(P)	(P)	(P)	(P)							
TOTALS		66,465											
UNIT	m (P)	m (P)	m (P)	m (P)	m (P)	m (P)							
ITEM No.		59											
Reference													

CHKD. _____

APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

PAVEMENT MARKING, TEMPORARY

QUANTITIES - MISCELLANEOUS 1

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 66

Location and Position	*Pavement Marking [Solid] [Yellow, 10cm]*	*Pavement Marking [Solid] [White, 10cm]*	*Pavement Marking [3-3-3] [White, 10cm]*	*Pavement Marking [3-6-3] [White, 10cm]*	*Pavement Marking [3-9-3] [White, 10cm]*		*Pavement Marking Symbols, Temporary [Turn Arrows]*						References
Sub - Totals Brought Forward:													
QEW Fort Erie Bound													
12+960 - 15+306 , LT EP	2,346												
12+960 - 15+306 , LL			586										
12+960 - 13+938 , RT EP		978											
13+938 - 14+153 , RT EP				430									
14+153 - 14+233 , RT SCL					80								
14+233 - 14+281 , RT EP				96									
14+281 - 14+550 , RT EP		269											
14+550 - 14+660 , RT EP													
14+660 - 15+106 , RT SCL													
15+011 - 15+116 , RT EP				210									
15+116 - 15+306 , RT EP		190											
Bowen Road N-EW Ramp													
9+962 - 10+010 , RT EP				96									
10+010 - 10+253 , RT EP		243											
9+962 - 10+010 , LT EP				95									
10+010 - 10+257 , LT EP	247												
10+250 - +0 ,								1					
Bowen Road EW-S Ramp													
9+827 - 10+000 , RT EP		173											
10+000 - 10+470 , RT EP				939									
Sub - Totals Carried Forward:	2,593	1,853	586	1,866	80			1					
	(P)	(P)	(P)	(P)	(P)			(P)					
TOTALS													
UNIT	m (P)	m (P)	m (P)	m (P)	m (P)			each (P)					
ITEM No.		60						61					
Reference													

CHKD. _____

APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

PAVEMENT MARKING, WINTER SHUT DOWN

QUANTITIES - MISCELLANEOUS 1

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 67

Location and Position	*Pavement Marking [Solid] [Yellow, 10cm]*	*Pavement Marking [Solid] [White, 10cm]*	*Pavement Marking [3-3-3] [White, 10cm]*	*Pavement Marking [3-6-3] [White, 10cm]*	*Pavement Marking [3-9-3] [White, 10cm]*		*Pavement Marking Symbols, Temporary [Turn Arrows]*						References
Sub - Totals Brought Forward:	2,593	1,853	586	1,866	80		1						
9+823 - 10+000 , LT EP	177												
10+000 - 10+119 , LT EP				238									
Sub - Totals Carried Forward:	2,770	1,853	586	2,104	80		1						
	2,770	1,853	586	2,104	80								
	(P)	(P)	(P)	(P)	(P)		(P)						
TOTALS		7,393					1						
UNIT	m (P)	m (P)	m (P)	m (P)	m (P)		each (P)						
ITEM No.		60					61						
Reference													

CHKD. _____

APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

PAVEMENT MARKING, WINTER SHUT DOWN

QUANTITIES - MISCELLANEOUS 1

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 68

Location and Position	*Single Rail SBGR [OPSD 912.185]*		*Energy Attenuator - Permanent, Narrow [TL-3]*		*Energy Attenuator - Temporary, Narrow [TL-2]*	*Energy Attenuator - Temporary, Narrow [TL-3]*		*Energy Attenuator - Temporary, Wide [TL-3]*		*Energy Attenuator - Relocation, Narrow [TL-2]*	*Energy Attenuator - Relocation, Narrow [TL-3]*		References
Sub - Totals Brought Forward:													
QEW Mainline													
13+340 - 13+356 , RT													
13+356 - 13+435, RT	79												
13+442 - 13+858, RT	417												
14+018 - 14+270, RT	252												
14+032 - 14+680, CL													
N-EW Ramp													
10+000 - 10+251, RT	258												
EW-S Ramp													
9+830 - 9+844, RT	45												
9+999 - 10+015, RT													
10+015 - 10+086, RT	71												
Sunset Drive													
10+007 - 10+068, RT	62												
Ramp EW-N													
9+835 - 9+880, RT	54												
9+999 - 10+015, RT													
10+015 - 10+194, RT	179												
QEW Toronto Bound													
13+481 - 13+909, RT	427												
14+067 - 14+490, RT	424												
Stage 1A													
Sub - Totals Carried Forward:	2,268		0		0	0		0		0	0		
	(P)		(P)		(P)	(P)		(P)		(P)	(P)		
TOTALS													
UNIT	m (P)		each (P)		each (P)	each (P)		each (P)		each (P)	each (P)		
ITEM No.	62		63			64		65			66		
Reference													

CHKD. _____

APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

SBGR / EA / SBEAT / TW

QUANTITIES - MISCELLANEOUS 1

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 69

Location and Position	*SBEAT System [Parallel to Roadway]*		*Tall Wall Barrier [TW] [OPSD 911.132]*										References
Sub - Totals Brought Forward:													
QEW Mainline													
13+340 - 13+356 , RT	1												
13+356 - 13+435, RT													
13+442 - 13+858, RT													
14+018 - 14+270, RT													
14+032 - 14+680, CL			648										
N-EW Ramp													
10+000 - 10+251, RT													
EW-S Ramp													
9+830 - 9+844, RT													
9+999 - 10+015, RT	1												
10+015 - 10+086, RT													
Sunset Drive													
10+007 - 10+068, RT													
Ramp EW-N													
9+835 - 9+880, RT													
9+999 - 10+015, RT	1												
10+015 - 10+194, RT													
QEW Toronto Bound													
13+481 - 13+909, RT													
14+067 - 14+490, RT													
Stage 1A													
Sub - Totals Carried Forward:	3		648										
	(P)		(P)										
TOTALS													
UNIT	each (P)		m (P)										
ITEM No.	67		68										
Reference													

CHKD. _____

APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

SBGR / EA / SBEAT / TW

QUANTITIES - MISCELLANEOUS 1

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 70

Location and Position	*Single Rail SBGR [OPSD 912.185]*		*Energy Attenuator - Permanent, Narrow [TL-3]*		*Energy Attenuator - Temporary, Narrow [TL-2]*	*Energy Attenuator - Temporary, Narrow [TL-3]*		*Energy Attenuator - Temporary, Wide [TL-3]*		*Energy Attenuator - Relocation, Narrow [TL-2]*	*Energy Attenuator - Relocation, Narrow [TL-3]*		References
Sub - Totals Brought Forward:	2,268		0		0	0		0		0	0		
QEW Fort Erie Bound													
13+100, CL						1							
Stage Pre 1B													
QEW Fort Erie Bound													
12+939, LT											1		
QEW Toronto Bound													
12+939, LT						1							
Stage 1B													
QEW Fort Erie Bound													
13+156, LT											1		
QEW Toronto Bound													
13+156, LT											1		
Stage Winter Shut Down													
QEW Fort Erie Bound													
13+260, LT											1		
14+916, LT											1		
Stage 2B													
QEW Fort Erie Bound													
13+158, LT											1		
15+084, LT											1		
QEW Toronto Bound													
13+260, LT						1							
14+939, LT						1							
Stage 3A													
QEW Fort Erie Bound													
13+260, LT						1							
Sub - Totals Carried Forward:	2,268		0		0	5		0		0	7		
	(P)		(P)		(P)	(₱)		(P)		(P)	(₱)		
TOTALS													
UNIT	m (P)		each (P)		each (P)	each (P)		each (P)		each (P)	each (P)		
ITEM No.	62		63			64		65			66		
Reference													

CHKD. _____

APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

SBGR / EA / SBEAT / TW

QUANTITIES - MISCELLANEOUS 1

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 71

Location and Position	*SBEAT System [Parallel to Roadway]*		*Tall Wall Barrier [TW] [OPSD 911.132]*										References
Sub - Totals Brought Forward:	3		648										
QEW Fort Erie Bound													
13+100, CL													
Stage Pre 1B													
QEW Fort Erie Bound													
12+939, LT													
QEW Toronto Bound													
12+939, LT													
Stage 1B													
QEW Fort Erie Bound													
13+156, LT													
QEW Toronto Bound													
13+156, LT													
Stage Winter Shut Down													
QEW Fort Erie Bound													
13+260, LT													
14+916, LT													
Stage 2B													
QEW Fort Erie Bound													
13+158, LT													
15+084, LT													
QEW Toronto Bound													
13+260, LT													
14+939, LT													
Stage 3A													
QEW Fort Erie Bound													
13+260, LT													
Sub - Totals Carried Forward:	3		648										
	(P)		(P)										
TOTALS													
UNIT	each (P)		m (P)										
ITEM No.	67		68										
Reference													

CHKD. _____

APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

SBGR / EA / SBEAT / TW

QUANTITIES - MISCELLANEOUS 1

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 72

Location and Position	*Single Rail SBGR [OPSD 912.185]*		*Energy Attenuator - Permanent, Narrow [TL-3]*		*Energy Attenuator - Temporary, Narrow [TL-2]*	*Energy Attenuator - Temporary, Narrow [TL-3]*		*Energy Attenuator - Temporary, Wide [TL-3]*		*Energy Attenuator - Relocation, Narrow [TL-2]*	*Energy Attenuator - Relocation, Narrow [TL-3]*		References
Sub - Totals Brought Forward:	2,268		0		0	5		0		0	7		
QEW Toronto Bound													
14+906, LT											1		
14+625, LT								1					
Ramp S-EW													
10+102, LT										1			
10+229, LT										1			
Stage 3B													
QEW Fort Erie Bound													
13+171, LT											1		
14+840, LT											1		
QEW Toronto Bound													
13+169, LT											1		
14+840, LT											1		
New Construction													
13+323 , CL			1										
14+687 , CL			1										
Construction Access Road #2													
16+871 , 31.57LT (Ramp W-N)					1								
Construction Access Road #4													
10+340 , 4.85LT					1								
Sub - Totals Carried Forward:	2,268		2		2	5		1		2	12		
	(P)		(P)		(P)	(₱)		(P)		(P)	(₱)		
					2	5				2	12		
TOTALS	2,268		2			7		1			14		
UNIT	m (P)		each (P)		each (P)	each (P)		each (P)		each (P)	each (P)		
ITEM No.	62		63			64		65			66		
Reference													

CHKD. _____

APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

SBGR / EA / SBEAT / TW

QUANTITIES - MISCELLANEOUS 1

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 73

Location and Position	*SBEAT System [Parallel to Roadway]*		*Tall Wall Barrier [TW] [OPSD 911.132]*										References
Sub - Totals Brought Forward:	3		648										
QEW Toronto Bound													
14+906, LT													
14+625, LT													
Ramp S-EW													
10+102, LT													
10+229, LT													
Stage 3B													
QEW Fort Erie Bound													
13+171, LT													
14+840, LT													
QEW Toronto Bound													
13+169, LT													
14+840, LT													
New Construction													
13+323 , CL													
14+687 , CL													
Construction Access Road #2													
16+871 , 31.57LT (Ramp W-N)													
Construction Access Road #4													
10+340 , 4.85LT													
Sub - Totals Carried Forward:	3		648										
	(P)		(P)										
TOTALS	3		648										
UNIT	each (P)		m (P)										
ITEM No.	67		68										
Reference													

CHKD. _____

APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

SBGR / EA / SBEAT / TW

QUANTITIES - MISCELLANEOUS 1

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 74

MINISTRY OF TRANSPORTATION - ONTARIO

Location and Position	*Temporary Concrete Barrier*		*Temporary Concrete Barrier Restraint System, Pinned*		*Temporary Concrete Barrier, Relocation*								References
Sub - Totals Brought Forward:													
Stage 1A													
13+100 - 13+325 , RT	224												
14+627 - 15+111 , RT	484												
Pre Stage 1B													
QEW Fort Erie Bound													
12+939 - 13+807, RT	159				708								
Stage 1B													
QEW Toronto Bound													
12+939 - 13+913, LT	990												
QEW Fort Erie Bound													
13+214 - 13+882, LT					668								
13+882 - 14+046, LT			164										
14+046 - 15+111, LT	775				290								
Stage 2A													
QEW Fort Erie Bound													
13+156 - 14+721, LT					1,565								
QEW Toronto Bound													
13+149 - 13+916, LT			767										
Stage Winter Shut Down													
13+260 - 14+916, LT					1,928								
Stage 2B													
QEW Fort Erie Bound													
13+156 - 15+084, LT					1,928								
QEW Toronto Bound													
13+908 - 14+064, LT			156										
14+064 - 14+939, LT	471				404								
Sub - Totals Carried Forward:	3,103		1,087		7,491								
	(P)		(P)		(P)								
TOTALS													
UNIT	m (P)		m (P)		m (P)								
ITEM No.	69		71		70								
Reference													

CHKD. _____

APPR. _____

DATE _____

TCB

QUANTITIES - MISCELLANEOUS 1

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 75

Location and Position	*Temporary Concrete Barrier*		*Temporary Concrete Barrier Restraint System, Pinned*		*Temporary Concrete Barrier, Relocation*								References
Sub - Totals Brought Forward:	3,103		1,087		7,491								
Stage 3A													
QEW Fort Erie Bound													
13+260 - 13+904 , LT					644								
14+308 - 14+742, LT					704								
QEW Toronto Bound													
12+999 - 14+906, LT	452				1,455								
14+605 - 14+643, RT	38												
S-EW Ramp													
10+102 - 10+230, LT	128												
Stage 3B													
QEW Fort Erie Bound													
13+171 - 14+840, LT					1,668								
QEW Toronto Bound													
13+169 - 14+840, LT					1,671								
New Construction (Gilmore)													
W-N Ramp													
16+813 - 16+869, 25.28LT					56								
10+300 - 10+337 , 24.54LT - 5.69LT					37								
Sub - Totals Carried Forward:	3,721		1,087		13,726								
	(P)		(P)		(P)								
TOTALS	3,721		1,087		13,726								
UNIT	m (P)		m (P)		m (P)								
ITEM No.	69		71		70								
Reference													

CHKD. _____

APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

TCB

QUANTITIES - MISCELLANEOUS 1

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 76

Location and Position	*Ramp Closure Gates*		*Concrete in Ramp Closure Gate Support Footings*										References
Sub - Totals Brought Forward:													
Bowen Road EW-S Ramp													
9+865 , LT	1		1										
Bowen Road EW-N Ramp													
9+883 , LT	1		1										
Sub - Totals Carried Forward:	2		2										
	(P)		(P)										
TOTALS	2		2										
UNIT	each (P)		each (P)										
ITEM No.	72		73										
Reference													

CHKD. _____

APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

RAMP CLOSURE GATES

QUANTITIES - MISCELLANEOUS 1

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 77

Location and Position	*Rip-Rap (R-50)*		*Geotextile (Class II) (Non-Woven) (FOS 75-150 Micron)*		*Dewatering System*		*Temporary Flow Passage System*						References
Sub - Totals Brought Forward:													
QEW Fort Erie Bound													
13+330, 21.59 - 18.40RT	5												
13+405, 25.95-19.48RT	10												
13+456, 24.96-14.95RT	10												
13+475, 25.59-19.47RT	10												
13+567, 30.01-19.92RT	16												
13+660, 33.38-18.59RT	23												
14+386, 24.87-22.60RT	4												
14+452, 21.98-14.84RT	7												
14+467, 20.10RT	7												
14+708, 27.05-21.91RT	8												
QEW Toronto Bound													
13+447, 31.24-15.20LT	17												
N-EW Ramp													
10+068, 12.99RT	9												
10+074, 13.09RT	9												
10+135, 21.11LT	9												
EW-S Ramp													
9+865, 14.53-3.81 RT	33												
9+915, 24.23LT	9												
9+935, 9.05RT	9												
Sub - Totals Carried Forward:	195		0		0 %		0 %						
	(P)		(P)										
TOTALS													
UNIT	m2 (P)		m2 (P)		lump sum		lump sum						
ITEM No.	46		47		48		49						
Reference													

CHKD. _____

APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

RIP RAP / GEOTEXTILE / DEWATERING SYS/ TEMP FLOW PASS SYS

QUANTITIES - MISCELLANEOUS 1

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 78

Location and Position	*Rip-Rap (R-50)*		*Geotextile (Class II) (Non-Woven) (FOS 75-150 Micron)*		*Dewatering System*		*Temporary Flow Passage System*						References
Sub - Totals Brought Forward:	195		0		0 %		0 %						
9+982, 9.77-3.07RT	7												
EW-N Ramp													
9+985, 12.68-2.98RT	30												
Site No. 34-455C - Gilmore Road					100 %		100 %						
Construction Access Road #1													
16+757 - 16+767 , 47.15-57.29RT - 44.88-55.00RT			62										
16+762 - 16+813 , 57.29-53.49RT - 52.07-48.04RT			212										
Laydown Area #1													
16+785 - 16+798 , 53.49-45.49RT			100										
Laydown Area #2													
16+816 - 16+821 , 47.42-40.27RT - 47.99-40.27RT			40										
16+821 - 16+826 , 47.99-43.32RT - 47.99-42.86RT			24										
Construction Access Road #2													
16+844 - 16+897 , 37.10-32.95LT - 51.87-48.64LT			240										
Laydown Area #1													
16+835 - 16+844 , 52.55-32.50LT - 52.55-32.88LT			83										
Site 34-454C - Gilmore Road					100 %		100 %						
Construction Access Road #3													
10+230 - 10+264 , 63.90-60.48RT - 63.99-60.32RT			81										
Laydown Area #1													
10+235 - 10+230 , 63.75-54.98RT - 67.38-55.82RT			107										
Construction Access Road #4													
10+286 - 10+291 , 54.58-42.28LT - 50.48-46.36LT			38										
10+291 - 10+299 , 50.48-46.36LT - 48.46-43.57LT			36										
10+299 - 10+303 , 48.46-43.57LT - 29.65-26.05LT			79										
Sub - Totals Carried Forward:	232		1,102		100 %		100 %						
	(P)		(P)										
TOTALS													
UNIT	m2 (P)		m2 (P)		lump sum		lump sum						
ITEM No.	46		47		48		49						
Reference													

CHKD. _____

APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

RIP RAP / GEOTEXTILE / DEWATERING SYS/ TEMP FLOW PASS SYS

QUANTITIES - MISCELLANEOUS 1

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 79

Location and Position	*Rip-Rap (R-50)*		*Geotextile (Class II) (Non-Woven) (FOS 75-150 Micron)*		*Dewatering System*		*Temporary Flow Passage System*						References
Sub - Totals Brought Forward:	232		1,102		100 %		100 %						
Laydown Area #4													
10+303 - 10+308 , 42.32-34.74LT - 43.19-36.50LT			70										
Sub - Totals Carried Forward:	232		1,172		100 %		100 %						
	(P)		(P)										
TOTALS	232		1,172		100 %		100 %						
UNIT	m2 (P)		m2 (P)		lump sum		lump sum						
ITEM No.	46		47		48		49						
Reference													

CHKD. _____

APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

RIP RAP / GEOTEXTILE / DEWATERING SYS/ TEMP FLOW PASS SYS

QUANTITIES - MISCELLANEOUS 1

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 80

Location and Position	*Small Signs, Ground Mounted, New*		*Small Signs, Relocation*		*Small Signs, Removal*		*Flexible Delineator Post - Temporary Type A (Fixed Surface Mount Base)*		*PVMS (Temporary) [English] [Existing Ground]*		*Temporary Traffic Control Signs*		References
Sub - Totals Brought Forward:													
Throughout Contract Limits	53		8		2								
Stage 1A													
13+084 - 19+095 , (Fort Erie Bound)							5						
Stage Pre 1B													
12+923 - 12+935, LT (Fort Erie Bound)							5						
12+923 - 12+935 (Toronto Bound)							5						
Stage 1B													
13+197 - 13+207 , LT (Fort Erie Boud)							5						
13+002 - 13+009 , LT (Toronto Bound)							4						
Stage 2A													
13+139 - 13+149, LT (Fort Erie Bound)							5						
13+139 - 13+149, LT (Toronto Bound)							5						
Winter Shut Down													
13+242 - 13+252, LT (Fort Erie Bound)							5						
14+924 - 14+934, LT (Fort Erie Bound)							5						
Stage 2B													
13+139 - 13+149, LT (Fort Erie Bound)							5						
15+084 - 15+101, LT (Fort Erie Bound)							5						
13+243 - 13+253, LT (Toronto Bound)							5						
14+439 - 14+956, LT (Toronto Bound)							5						
Stage 3A													
13+243 - 13+253, LT (Fort Erie Bound)							5						
14+913 - 14+923, LT (Toronto Bound)							5						
Sub - Totals Carried Forward:	53		8		2		74		0		0 %		
	(P)		(P)		(P)		(P)		(P)				
TOTALS													
UNIT	each (P)		each (P)		each (P)		each (P)		each (P)		lump sum		
ITEM No.	50		51		52		53		54		55		
Reference													

CHKD. _____

APPR. _____

DATE _____

QUANTITIES - MISCELLANEOUS 1

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 81

Location and Position	*Advance Notification / Warning / Detour Route TC-64 Signs*													References
Sub - Totals Brought Forward:														
Throughout Contract Limits														
Stage 1A														
13+084 - 19+095 , (Fort Erie Bound)														
Stage Pre 1B														
12+923 - 12+935, LT (Fort Erie Bound)														
12+923 - 12+935 (Toronto Bound)														
Stage 1B														
13+197 - 13+207 , LT (Fort Erie Boud)														
13+002 - 13+009 , LT (Toronto Bound)														
Stage 2A														
13+139 - 13+149, LT (Fort Erie Bound)														
13+139 - 13+149, LT (Toronto Bound)														
Winter Shut Down														
13+242 - 13+252, LT (Fort Erie Bound)														
14+924 - 14+934, LT (Fort Erie Bound)														
Stage 2B														
13+139 - 13+149, LT (Fort Erie Bound)														
15+084 - 15+101, LT (Fort Erie Bound)														
13+243 - 13+253, LT (Toronto Bound)														
14+439 - 14+956, LT (Toronto Bound)														
Stage 3A														
13+243 - 13+253, LT (Fort Erie Bound)														
14+913 - 14+923, LT (Toronto Bound)														
Sub - Totals Carried Forward:	0													
	(P)													
TOTALS														
UNIT	each (P)													
ITEM No.	56													
Reference														

CHKD. _____

APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

SMALL SIGNS / FLEXIBLE DILINEATOR POSTS / PVMS / TEMP TRAFFIC CONTROL SIGNS / TC-64

QUANTITIES - MISCELLANEOUS 1

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 82

Location and Position	*Small Signs, Ground Mounted, New*		*Small Signs, Relocation*		*Small Signs, Removal*		*Flexible Delineator Post - Temporary Type A (Fixed Surface Mount Base)*		*PVMS (Temporary) [English] [Existing Ground]*		*Temporary Traffic Control Signs*		References
Sub - Totals Brought Forward:	53		8		2		74		0		0 %		
10+086 - 10+096, LT (S-EW Ramp)							5						
Throughout Contract Limits											100 %		
									1				
500m North of Netherby Rd Interchange													
500 South of Concession Rd Interchange									1				
Sub - Totals Carried Forward:	53		8		2		79		2		100 %		
	(P)		(P)		(P)		(P)		(P)				
TOTALS	53		8		2		79		2		100 %		
UNIT	each (P)		each (P)		each (P)		each (P)		each (P)		lump sum		
ITEM No.	50		51		52		53		54		55		
Reference													

CHKD. _____

APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

SMALL SIGNS / FLEXIBLE DILINEATOR POSTS / PVMS / TEMP TRAFFIC CONTROL SIGNS / TC-64

QUANTITIES - MISCELLANEOUS 1

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 83

Location and Position	*Advance Notification / Warning / Detour Route TC-64 Signs*													References
Sub - Totals Brought Forward:	0													
10+086 - 10+096, LT (S-EW Ramp)														
Throughout Contract Limits	25													
500m North of Netherby Rd Interchange														
500 South of Concession Rd Interchange														
Sub - Totals Carried Forward:	25													
	(P)													
TOTALS	25													
UNIT	each (P)													
ITEM No.	56													
Reference														

CHKD. _____

APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

SMALL SIGNS / FLEXIBLE DILINEATOR POSTS / PVMS / TEMP TRAFFIC CONTROL SIGNS / TC-64

QUANTITIES - MISCELLANEOUS 1

W.P. No. 2116-16-00
Contract No. 2019-2003

SHEET 84

Location and Position	*Topsoil from Stockpiles*		*Seed and Erosion Control Blanket Custom Roadside Pollinator Mix Seeding*	*Seed and Erosion Control Blanket Riparian Mix Seeding*	*Seed and Erosion Control Blanket Lowland Mix Seeding*								References
Sub - Totals Brought Forward:													
Throughtout Contract Limits	1,875												
QEW Toronto Bound													
13+259.5 - 13+273.65 , 20.39-12.43LT - 21.05-14.25LT			43										
13+273.65 - 13+390 , 21.05-14.25lLT - 27.29-14.65LT			1,098										
13+390 - 13+400 , 27.29-14.65LT - 27.00-14.25LT			134										
13+400 - 13+581.2 , 27.00-14.25LT - 43.46-14.75LT			3,753										
13+581.2 - 13+590 , 43.46-14.75LT - 50.0-14.75LT			294										
13+590 - 13+891 , 50.0-14.75LT - 55.2-14.5LT			11,419										
13+891 - 13+922 , 55.2-14.5LT - 20.0-14.0LT			623										
13+922 - 13+930 , 20.0-14.0LT - 19.5-14.5LT			74										
14+030 - 14+050 , 19.5-14.3LT - 20.0-14.6LT			80										
14+050 - 14+151 , 20.0-14.6 - 39.0-15.0LT			2,431										
14+151 - 14+200 , 39.0-15.0LT - 21.5-17.1LT			659										
14+175 - 14+200 , 25.0-21.6LT - 25.5-21.5LT				91									
14+200 - 14+300 , 27.6-17.1LT - 25.6-18.0LT			129										
14+200 - 14+265 , 25.5-21.5LT - 24.7-20.0LT				274									
14+265 - 14+280 , 48.0-20.0LT - 47.0-24.0LT				429									
14+280 - 14+300 , 24.0-20.0LT - 23.5-20.0LT				82									
14+300 - 14+400 , 46.0-18.0LT - 30.0-18.0LT			2,057										
14+300 - 14+477 , 23.5-20.0LT - 21.2-16.7LT				752									
Sub - Totals Carried Forward:	1,875		22,794	1,628	0								
			(P)	(P)	(P)								
TOTALS													
UNIT	m3		m2 (P)	m2 (P)	m2 (P)								
ITEM No.	74			75									
Reference													

CHKD. _____
APPR. _____
DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

TOPSOIL / SEED & MULCH

QUANTITIES - MISCELLANEOUS 1

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 85

Location and Position	*Topsoil from Stockpiles*		*Seed and Erosion Control Blanket Custom Roadside Pollinator Mix Seeding*	*Seed and Erosion Control Blanket Riparian Mix Seeding*	*Seed and Erosion Control Blanket Lowland Mix Seeding*								References
Sub - Totals Brought Forward:	1,875		22,794	1,628	0								
14+477 - 14+500 , 21.2-16.7LT - 25.5-17.2LT			744										
14+500 - 14+600 , 25.5-17.2LT - 28.0-18.0LT			921										
14+600 - 14+629 , 28.0-18.0LT - 20.5-20.0LT			159										
Bowen Road EW-N Ramp													
9+892 - 10+005 , LT			2,312										
9+892 - 10+005 , LT					168								
9+892 - 10+005 , RT			1,352										
Sunset Drive													
10+010 - 10+040 , RT			171										
Bowen Road EW-S Ramp													
9+823 - 10+040 , LT			2,182										
9+823 - 10+040 , LT				577									
9+866 - 10+000 , RT			1,310										
9+900 - 9+950 , RT				239									
9+866 - 9+925 , RT					637								
QEW Earth Ditch Cleanout													
15+689 - 15+110.4 , 2.25LT-2.25RT - 3.2LT-3.6RT			2,037										
13+260 - 13+325 , 2.3LT-2.3RT - 2.5LT-2.5RT			250										
QEW Fort Erie Bound													
13+259.5 - 13+273.65 , 23.0-13.5RT - 23.2-14.4RT			43										
13+273 - 13+415 , 23.2-14.4RT - 25.8-13.5RT			1,098										
Sub - Totals Carried Forward:	1,875		35,373	2,444	805								
			(P)	(P)	(P)								
TOTALS													
UNIT	m3		m2 (P)	m2 (P)	m2 (P)								
ITEM No.	74			75									
Reference													

CHKD. _____

APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

TOPSOIL / SEED & MULCH

QUANTITIES - MISCELLANEOUS 1

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 86

Location and Position	*Topsoil from Stockpiles*		*Seed and Erosion Control Blanket Custom Roadside Pollinator Mix Seeding*	*Seed and Erosion Control Blanket Riparian Mix Seeding*	*Seed and Erosion Control Blanket Lowland Mix Seeding*								References
Sub - Totals Brought Forward:	1,875		35,373	2,444	805								
13+415 - 13+422 , 27.0-18.2RT - 27.5-15.0RT			134										
13+422 - 13+431 , 27.7-15.75RT - 28-15.75RT			3,753										
13+431 - 13+441 , 28.0-18.0RT - 28.0-18.2RT			294										
13+441 - 13+452 , 28.0-18.2RT - 29.2-14.7RT			11,419										
13+452 - 13+878 , 29.6-14.7RT - 36.5-17.5RT			623										
13+610 - 13+850 , RT			74										
13+875 - 13+910 , 36.5-17.5RT - 18.0-17.5RT			80										
14+018 - 14+200 , 26.2-17.6RT - 26.1-20.1RT			2,431										
14+018 - 14+200 , 35.6-17.6RT - 36.5-26.1RT			1,130										
14+200 - 14+300 , RT				91									
14+260 - 14+300 , 47.7-36RT - 46.7-41.0RT			3,170										
14+200 - 14+300 , 26-20RT - 33.7-38RT				274									
14+380 - 14+468 , RT				429									
14+300 - 14+540 , RT				82									
14+300 - 14+500 , RT			2,057										
14+615 - 15+110.4 , 37-20RT - 27-11.6RT				752									
14+639 - 15+091 , 34.6-30.9RT - 28.8-26.3RT			744										
Bowen Road N-EW Ramp													
9+980 - 10+200 , RT				420									
9+980 - 10+257 , RT			7,635										
Sub - Totals Carried Forward:	1,875		68,917	4,492	805								
			(P)	(P)	(P)								
TOTALS													
UNIT	m3		m2 (P)	m2 (P)	m2 (P)								
ITEM No.	74			75									
Reference													

CHKD. _____

APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

TOPSOIL / SEED & MULCH

QUANTITIES - MISCELLANEOUS 1

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 87

Location and Position	*Topsoil from Stockpiles*		*Seed and Erosion Control Blanket Custom Roadside Pollinator Mix Seeding*	*Seed and Erosion Control Blanket Riparian Mix Seeding*	*Seed and Erosion Control Blanket Lowland Mix Seeding*								References
Sub - Totals Brought Forward:	1,875		68,917	4,492	805								
9+980 - 10+210 , LT			1,352										
9+980 - 10+165 , LT				532									
Sub - Totals Carried Forward:	1,875		70,269	5,024	805								
			70,269 (P)	5,024 (P)	805 (P)								
TOTALS	1,875			76,098									
UNIT	m3		m2 (P)	m2 (P)	m2 (P)								
ITEM No.	74			75									
Reference													

CHKD. _____

APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

TOPSOIL / SEED & MULCH

QUANTITIES - MISCELLANEOUS 1

W.P. No. 2116-16-00
Contract No. 2019-2003

SHEET 88

Location and Position	*Light-Duty Silt Fence Barriers*		*Straw Bale Flow Check Dams*		*Wildlife Fence - Type B, 6.35 mm Fabric Opening, Steel Posts*								References
Sub - Totals Brought Forward:													
Site No.34-455C													
Construction Access Road #1													
16+757 - 16+760 , 47.06RT - 57.06RT	10												
16+760 - 16+774 , 57.06RT - 58.7RT	14												
16+760 , 58.7RT			1										
16+767 , 47.06RT - 56.06RT	9												
16+767 - 16+777 , 56.06RT - 54.63RT	10												
16+774 - 16+798 , 58.7RT - 55.97RT	24												
16+777 , 54.63RT			1										
16+777 - 16+800 , 54.63RT - 52.26RT	23												
16+798 , RT			1										
16+798 - 16+822 , 55.97RT - 48.59RT	24												
16+800 , 52.26RT			1										
16+800 - 16+816 , 52.26RT - 46.65RT	16												
16+816 - 16+817 , 46.65RT - 40.47RT	6												
16+816 , 44.65RT			1										
16+817 - 16+822 , 40.47RT	5												
16+822 , RT			1										
16+822 - 16+825 , 48.59RT - 48.72RT	3												
Construction Access Road #2													
16+833 - 16+837 , 33.00LT - 31.79LT	4												
Sub - Totals Carried Forward:	148		6		0								
	(P)		(P)		(P)								
TOTALS													
UNIT	m (P)		each (P)		m (P)								
ITEM No.	76		77		78								
Reference													

CHKD. _____
APPR. _____
DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

LD SILT FENCE / SB FC DAMS / WLDFENCE

QUANTITIES - MISCELLANEOUS 1

W.P. No. 2116-16-00
Contract No. 2019-2003

SHEET 89

Location and Position	*Light-Duty Silt Fence Barriers*		*Straw Bale Flow Check Dams*		*Wildlife Fence - Type B, 6.35 mm Fabric Opening, Steel Posts*								References
Sub - Totals Brought Forward:	148		6		0								
16+833 - 16+841 , 45.41LT	8												
16+837 , 31.79LT			1										
16+837 - 16+856 , 31.79LT - 34.35LT	19												
16+839 , LT			1										
16+841 , 45.41LT - 36.61LT	9												
16+841 - 16+856 , 36.61LT - 39.57LT	15												
16+851 , 38.30LT			1										
16+856 , 38.26LT			1										
16+856 - 16+878 , 34.35LT - 41.00LT	22												
16+856 - 16+871 , 38.26LT - 44.51LT	15												
16+871 , 44.51LT			1										
16+871 - 16+891 , 44.51LT - 53.45LT	20												
16+878 , 41.00LT			1										
16+878 - 16+897 , 41.00LT - 49.82LT	19												
16+891 , 53.45LT			1										
16+891 - 16+901 , 53.45LT - 50.96LT	10												
16+897 , 49.71LT			1										
16+897 - 16+901 , 49.82LT - 48.47LT	4												
Construction Access Road #3													
Sub - Totals Carried Forward:	289		14		0								
	(P)		(P)		(P)								
TOTALS													
UNIT	m (P)		each (P)		m (P)								
ITEM No.	76		77		78								
Reference													

CHKD. _____
APPR. _____
DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

LD SILT FENCE / SB FC DAMS / WLDFENCE

QUANTITIES - MISCELLANEOUS 1

W.P. No. 2116-16-00
Contract No. 2019-2003

SHEET 90

Location and Position	*Light-Duty Silt Fence Barriers*		*Straw Bale Flow Check Dams*		*Wildlife Fence - Type B, 6.35 mm Fabric Opening, Steel Posts*								References
Sub - Totals Brought Forward:	289		14		0								
10+234 - 10+240 , 62.08RT - 67.00RT	5												
10+234 , 63.94RT			1										
10+235 , 63.90RT			1										
10+240 - 10+247 , 67.00RT - 62.94RT	7												
16+897 - 16+901 , 49.82LT - 48.47LT	10												
10+247 - 10+253 , 62.94RT - 66.18RT	6												
10+251 , 65.22RT			1										
10+251 - 10+264 , 65.22RT - 63.29RT	13												
10+252 , 61.77RT			1										
10+254 - 10+264 , 62.37RT - 59.47RT	10												
10+260 , 61.47RT			1										
10+261 , 63.29RT			1										
Construction Access Road #4													
10+287 - 10+298 , 43.87LT	11												
10+287 - 10+299 , 52.39LT - 47.86LT	12												
10+291 , 45.86LT			1										
10+291 , 49.86LT			1										
10+298 - 10+310 , 43.87LT - 25.00LT	19												
10+298 , 40.48LT			1										
10+299 - 10+303 , 47.86LT - 43.02LT	6												
Sub - Totals Carried Forward:	388		23		0								
	(P)		(P)		(P)								
TOTALS													
UNIT	m (P)		each (P)		m (P)								
ITEM No.	76		77		78								
Reference													

CHKD. _____
APPR. _____
DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

LD SILT FENCE / SB FC DAMS / WLDFENCE

QUANTITIES - MISCELLANEOUS 1

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 91

Location and Position	*Light-Duty Silt Fence Barriers*		*Straw Bale Flow Check Dams*		*Wildlife Fence - Type B, 6.35 mm Fabric Opening, Steel Posts*								References
Sub - Totals Brought Forward:	388		23		0								
10+300 , 28.63LT			1										
10+303 - 10+308 , 43.02LT - 43.53LT	5												
10+303 - 10+308 , 34.17LT - 35.91LT	5												
10+303 , 34.17LT - 28.42LT	6												
10+303 , 30.02LT			1										
10+305 , 43.21LT			1										
10+308 - 10+311 , 43.53LT - 36.01LT	9												
QEW Mainline (FEB)													
13+303 - 13+309 , 15.15RT - 18.41Rt	6												
13+309 - 13+314 , 18.41RT - 18.08RT	5												
13+314 - 13+340 , 18.08RT - 23.10RT	26												
13+340 - 13+437 , 23.10RT - 28.29RT	97												
13+437 - 13+450 , 28.29RT - 25.58Rt	13												
13+450 - 13+600 , 25.58RT - 32.08RT	150												
13+600 - 13+608 , 32.08RT - 30.37RT	8												
13+610 , 29.82RT			1										
14+262 , 32.46RT			1										
14+283 , 33.51RT			1										
14+641 , 32.37RT			1										
Sub - Totals Carried Forward:	718		30		0								
	(P)		(P)		(P)								
TOTALS													
UNIT	m (P)		each (P)		m (P)								
ITEM No.	76		77		78								
Reference													

CHKD. _____

APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

LD SILT FENCE / SB FC DAMS / WLDFENCE

QUANTITIES - MISCELLANEOUS 1

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 92

Location and Position	*Light-Duty Silt Fence Barriers*		*Straw Bale Flow Check Dams*		*Wildlife Fence - Type B, 6.35 mm Fabric Opening, Steel Posts*								References
Sub - Totals Brought Forward:	718		30		0								
N-EW Ramp													
10+100 , 11.25RT			1										
10+127 , 22.86LT			1										
10+142 , 20.07LT			1										
10+144 - 10+194 , 10.21RT - 9.24RT	50												
10+194 - 10+204 , 9.24RT - 6.24RT	10												
10+204 - 10+234 , 6.24RT - 6.57RT	30												
10+234 - 10+249 , 6.57RT - 19.92RT	20												
EW-S Ramp													
9+925 , 10.57RT			1										
9+949 , 8.57RT			1										
QEW Mainline TB													
13+447, 31.84LT			1										
13+369 - 13+374 , 14.75LT - 20.39LT	5												
13+374 - 13+481 , 20.39LT - 34.55LT	107												
13+481 - 13+499 , 34.29LT - 21.95LTT	18												
13+499 - 13+600 , 21.95LTT - 27.66LT	101												
13+585 - 13+589, 25.87LT - 28.37LT	6												
13+589 - 13+660, 28.13LT - 29.19LT	72												
13+600 , 30.90LT			1										
13+600 - 13+660 , 27.66LT - 27.27LT	60												
Sub - Totals Carried Forward:	1,197		37		0								
	(P)		(P)		(P)								
TOTALS													
UNIT	m (P)		each (P)		m (P)								
ITEM No.	76		77		78								
Reference													

CHKD. _____

APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

LD SILT FENCE / SB FC DAMS / WLDFENCE

QUANTITIES - MISCELLANEOUS 1

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 93

Location and Position	*Light-Duty Silt Fence Barriers*		*Straw Bale Flow Check Dams*		*Wildlife Fence - Type B, 6.35 mm Fabric Opening, Steel Posts*								References
Sub - Totals Brought Forward:	1,197		37		0								
13+660 - 13+670 , 27.27LT - 22.76Lt	10												
13+660 - 13+670, 29.27LT - 24.7LT	10												
13+670 - 13+927 , 22.67Lt - 20.18LT	257												
13+670 - 13+927, 24.67LT - 22.18LT													
13+927 - 13+930 , 20.18LT - 14.25LT	3												
13+927 - 13+930, 22.18LT - 16.2LT	3												
14+034 - 14+042 , 15.38LT - 19.82LT	8												
14+034 - 14+042, 17.38LT - 21.8LT	8												
14+042 - 14+182, 19.82LT - 23.98LT	140												
14+042 - 14+182, 21.82LT - 25.9LT	140												
14+182 - 14+628, 26.54LT - 22.41LT	449												
14+182 - 14+479, 27.80LT - 23.35	299												
14+479 - 14+628, 23.3LT - 24.65LT	150												
14+274, 31.39LT			1										
EW-N Ramp													
9+836 - 9+868 , 31.00RT - 27.44RT	32												
9+836 - 9+886, 30.91RT - 24.46RT	19												
9+868 - 9+889, 9.21 - 19.07RT	21												
9+868 - 9+959 , 27.44RT - 34.60RT	91												
Sub - Totals Carried Forward:	2,837		38		0								
	(P)		(P)		(P)								
TOTALS													
UNIT	m (P)		each (P)		m (P)								
ITEM No.	76		77		78								
Reference													

CHKD. _____

APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

LD SILT FENCE / SB FC DAMS / WLDFENCE

QUANTITIES - MISCELLANEOUS 1

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 94

Location and Position	*Light-Duty Silt Fence Barriers*		*Straw Bale Flow Check Dams*		*Wildlife Fence - Type B, 6.35 mm Fabric Opening, Steel Posts*								References
Sub - Totals Brought Forward:	2,837		38		0								
9+889 - 9+955 , 19.07RT - 6.93RT	87												
9+904, 17.05LT			1										
9+913, 15.80LT			1										
9+924 - 9+954, 14.39RT - 26.24RT	30												
9+924 - 9+981, 14.39RT - 3.15RT	57												
9+954 - 9+959, 26.24RT - 34.60RT	5												
Wildlife Fence QEW (FEB)													
13+590 - 13+639 , 41.2RT - 39.61RT					263								
13+639 - 13+640 , 39.61RT - 38.69RT					1								
13+647 - 13+648 , 38.41RT - 39.47RT					1								
13+648 - 13+659 , 39.47RT - 39.21RT					11								
13+659 - 13+666 , 39.21RT - 33.28RT					7								
13+666 - 13+701 , 76.68RT - 32.48RT					35								
Wildlife Fence (N-EW Ramp)													
10+033 - 10+047 , 10.33RT - 13.48RT					14								
10+047 - 10+053 , 13.48RT - 20.70RT					9								
10+053 - 10+054 , 20.70RT - 19.98RT					1								
10+062 - 10+063 , 20.57RT - 21.45RT					1								
10+063 - 10+071 , 21.45RT - 15.18RT					9								
10+071 - 10+105 , 15.18RT - 13.61RT					34								
Sub - Totals Carried Forward:	3,016		40		386								
	(P)		(P)		(P)								
TOTALS													
UNIT	m (P)		each (P)		m (P)								
ITEM No.	76		77		78								
Reference													

CHKD. _____

APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

LD SILT FENCE / SB FC DAMS / WLDFENCE

QUANTITIES - MISCELLANEOUS 1

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 95

Location and Position	*Light-Duty Silt Fence Barriers*		*Straw Bale Flow Check Dams*		*Wildlife Fence - Type B, 6.35 mm Fabric Opening, Steel Posts*								References
Sub - Totals Brought Forward:	3,016		40		386								
10+105 - 10+121 , 13.61RT - 12.45RT					16								
10+121 - 10+144 , 12.45RT - 10.16RT					23								
10+144 - 10+234 , 10.16RT - 12.72RT					90								
10+234 - 10+245 , 12.72RT - 24.83RT					17								
Wildlife Fence QEW (TB)													
13+590 - 13+637 , 50.27LT - 51.11LT					47								
13+637 - 13+639 , 51.11LT - 50.23LT					2								
13+646 - 13+647 , 50.29LT - 51.36LT					1								
13+647 - 13+889 , 51.36LT - 55.49LT					242								
13+889 - 13+921 , 55.49LT - 14.83LT					32								
14+042 - 14+074 , 14.25LT - 44.80LT					32								
14+074 - 14+083 , 44.80LT - 44.18LT					9								
14+083 - 14+084 , 44.18LT - 43.16LT					1								
14+091 - 14+092 , 42.54LT - 43.51LT					1								
14+092 - 14+170 , 43.51LT - 37.83LT					78								
14+170 - 14+181 , 37.83LT - 25.79LT					18								
14+181 - 14+284 , 25.79LT - 24.00LT					103								
14+384 - 14+477 , 21.71LT - 21.01LT					93								
14+477 - 14+523 , 21.01LT - 19.21LT					46								
14+523 - 14+546 , 19.21LT - 19.13LT					23								
Sub - Totals Carried Forward:	3,016		40		1,260								
	(P)		(P)		(P)								
TOTALS													
UNIT	m (P)		each (P)		m (P)								
ITEM No.	76		77		78								
Reference													

CHKD. _____

APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

LD SILT FENCE / SB FC DAMS / WLDFENCE

QUANTITIES - MISCELLANEOUS 1

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 96

Location and Position	*Light-Duty Silt Fence Barriers*		*Straw Bale Flow Check Dams*		*Wildlife Fence - Type B, 6.35 mm Fabric Opening, Steel Posts*								References
Sub - Totals Brought Forward:	3,016		40		1,260								
14+546 - 14+578 , 19.13LT - 18.52LT					32								
14+578 - 14+627 , 18.52LT - 20.48LT					49								
14+627 - 14+632 , 20.48LT - 24.71LT					6								
Sub - Totals Carried Forward:	3,016		40		1,347								
	(P)		(P)		(P)								
TOTALS	3,016		40		1,347								
UNIT	m (P)		each (P)		m (P)								
ITEM No.	76		77		78								
Reference													

CHKD. _____

APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

LD SILT FENCE / SB FC DAMS / WLDFENCE

QUANTITIES - MISCELLANEOUS 1

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 97

Location and Position	*Relocation of Telephone Utilities*												References
Sub - Totals Brought Forward:													
Throughout Contract Limits	100 %												
Sub - Totals Carried Forward:	100 %												
TOTALS	100 %												
UNIT	lump sum												
ITEM No.	79												
Reference													

CHKD. _____

APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

Relocation of Telephone Utilities

QUANTITIES - ELECTRICAL MAINTENANCE HOLES AND HANDHOLES

W.P. No. 2116-16-00
Contract No. 2019-2003

Location	Maintenance Hole No. or Handhole No.	Station	Offset (m) to CL of Structure (Note 1)	Depth (m)	Elevations: Top of Cover	Elevations:	Elevations: Drain Invert	Elevations:	*Electrical Maintenance Holes [OPSD 2111.020]*	*Elec Chamber Drains [OPSD 2116.02], [Drain to Embankment Slope]* [1]	*Ground Electrodes [Rods]*	*#6 AWG, Bare Ground Wires*	*Electrical Handholes [600x600 mm], [2112.040]*						
Sub - Totals Brought Forward:																			
DRAWING L-1																			
QEW Fort Erie Bound	HH1	13+318	5.0*		Fin EL								1						
	HH1B	13+456	5.0*		Fin EL								1						
	MH2	13+433	5.0*		Fin EL	Note 1			1	4									
DRAWING L-2																			
QEW Fort Erie Bound	HH2	13+548	5.0*		Fin EL								1						
	MH3	13+642	5.0*		Fin EL	Note 1			1	5	1	3							
	HH3	13+780	5.0*		Fin EL								1						
	MH4	13+884	5.0*		Fin EL	Note 1			1	4	1	3							
DRAWING L-3																			
QEW Fort Erie Bound	MH4A	14+022	5.0*		Fin EL	Note 1			1	4	1	3							
	HH4	14+080	5.0*		Fin EL								1						
	HH4A	14+184	5.0*		Fin EL								1						
RAMP N-E/W	MH5	0+288	5.0*		Fin EL	Note 1			1	5	1	3							
Sub - Totals Carried Forward:									5	22	4	12	6						
									(P)	(P)	(P)	(P)	(P)						
TOTALS									5	22	4	12	6						
UNIT									each (P)	m (P)	each (P)	m (P)	each (P)						
ITEM No.									80	82	88	87	81						

Remarks: *1.* Drain Invert elevation shall be minimum 2.1m from top of MH cover

Note: 1 When shown without *, offset is from centre or control line of roadway.
When shown with *, offset is from edge of travelled pavement (EP).

CHKD. _____

APPR. _____

DATE _____

QUANTITIES - RIGID DUCTS AND ASSOCIATED WIRING

W.P. No. 2116-16-00

Contract No. 2019-2003

Location	From - To OR Station	Distance (m)	UPC No.	*Rigid Ducts, Direct Buried*	*75 mm*	*50 mm*	*25 mm*	*Cable Brick*	*#2 AWG, Low Voltage Cables, in Ducts*	*#6 AWG, Insulated Ground Wires*	*12SM/12MM, Fibre Optic Comm. Cables, in Ducts*	*Drop Cables*	*#14 AWG, 2-Cond., Extra Low Voltage Cables, in Ducts*	*#14 AWG, 4-Cond Traffic Signal Cables, in Ducts*		
Sub - Totals Brought Forward:																
DRAWING L-1																
QEW Fort Erie Bound	MH1 - REF 1	67											268			
	REF 1 - HH1	71		71	71	71							284			
	HH1 - MH2	115		115		230							460			
	MH2 - QEWCS0900SES	7		7		49			21	7			112	7		
	MH2 - CP1	4		4		8					[1] 12					
	CP1 - QEWCS0900SES	5		5		5	5					[3] 5				
	MH2 - QEW0900LES	12		12		84							144	12		
	QEW0900LES - HH1B	12		12		60							144			
	HH1B - HH2	92		92		368			276	92	92		736			
DRAWING L-2																
QEW Fort Erie Bound	HH2 - MH3	95		95		380			285	95	95		760			
	MH3 - HH3	138		138		552			414	138	138		1,104			
	HH3 - MH4	104		104		312			312	104	104		416			
	MH4 - REF 2	6		6	6	12			18	6	6		24			
	REF 2 - REF 3	127							[4] 381	[4] 127	[4] 127		[4] 508			
DRAWING L-3																
QEW Fort Erie Bound	REF 3 - MH4A	6		6	6	12			18	6	6		24			
	MH4A - HH4	58		58		174			174	58	58		232			
	HH4 - HH4A	104		104		208			312	104	104					
	HH4A - MH5	104		104		208			312	104	104					
	MH5 - MH5A	100		100		200			300	100	100					
	MH5A - CP1A	5									[1] 17					
Sub - Totals Carried Forward:				1,033	83	2,933	5	0	2,823	941	963	5	5,216	19		
				(P)					(P)	(P)	963 (P)		(P)	(P)		
TOTALS				1,033					2,823	941	963		5,216	19		
UNIT				m (P)	m (P)	m (P)	m (P)	m (P)	m (P)	m (P)	m (P)	m (P)	m (P)	m (P)		
ITEM No.				83					84	87	99		85	86		

Remarks: *1.* Includes 12m slack in Base Mounted Pedestal
3. MM Fibre Drop Cable/Fibre Interconnect Panel
4. In embedded ducts in structure.

CHKD. _____

APPR. _____

DATE _____

QUANTITIES - POWER SUPPLY EQUIPMENT, CONCRETE PADS, HIGH VOLTAGE CABLES TERMINATIONS, GROUNDINGS & ROCK EXCAVATIONS

W.P. No. 2116-16-00

Contract No. 2019-2003

Location	Location Code	Station	Offset (m) to CL of Structure/Equip't (Note 1)	Metering Provisions Yes or No	*ATMS Field Equipment Cabinet Maintenance Sites [MTOD 2940.2200]*	*Concrete Pads [MTOD 2940.010]*	*Controller Cabinets [Type 401-D]*	*Power Supply Cabinets [5 KVA]*	*Panelboard in Power Supply Cabinet*	*600 V Tripac Breaker Rating (Amp)*	*Secondary Breakers (Amp)*	*Concrete Footings In Earth [MTOD 2940.115]*	*Base Mounted Communication Pedestals*	*Splice Enclosures for Fibre Optic Cables (Pedestal Installation)*	*#6 AWG, Bare Ground Wires*	*Ground Electrodes [Rods]*	
Sub - Totals Brought Forward:																	
Drawing L-1																	
QEW Fort Erie Bound																	
QEWCS0900SES		13+427	6.0*		1	1	1	1		15	15				5	2	
CP1		13+433	6.0*									1	1	1	5		
Sub - Totals Carried Forward:					1	1	1	1	0	15	15	1	1	1	10	2	
								1									
					(P)	(P)	(P)	(P)				(P)	(P)	(P)	(P)	(P)	
TOTALS					1	1	1	1				1	1	1	10	2	
UNIT					each (P)	each (P)	each (P)	each (P)	each (P)	each (P)	each (P)	each (P)	each (P)	each (P)	m (P)	each (P)	
ITEM No.					92	90	94	101				89	93	98	87	88	

Remarks:

Note: 1 When shown without *, offset is from centre or control line of roadway.
When shown with *, offset is from edge of travelled pavement (EP).

CHKD. _____

APPR. _____

DATE _____

QUANTITIES - TRAFFIC SIGNAL CONTROLLER, CONTROLLER COMPONENTS AND EXTERNAL DETECTION DEVICES

W.P. No. 2116-16-00

Contract No. 2019-2003

Location	Controller Number or Detector Number	Size of Loop (m)	Number of Turns	Loop Inductance (uH)	*ATMS Loop Detectors Diamond Loop in Pavment*	*Input File Connection Terminal*	*Controllers*	*Loop Vehicle Detector Sensor Units (Model:222)*									
Sub - Totals Brought Forward:																	
Drawing L-1																	
QEW Fort Erie Bound																	
QEWCS0900SES							[1] 1	8									
QEWDS1010DES		1.8x1.8	4	118	4												
Drawing L-2																	
QEW Fort Erie Bound																	
QEWDS1020DES		1.8x1.8	4	118	4												
Drawing L-3																	
QEW Fort Erie Bound																	
QEWDS1030DES		1.8x1.8	5	177	4												
Sub - Totals Carried Forward:					12	0	1	8									
					12 (P)		(P)	(P)									
TOTALS					12		1	8									
UNIT					each (P)	each (P)	each (P)	each (P)									
ITEM No.					91		95	96									

Remarks: *1.* Reinstallation and wiring of salvaged equipment only.

CHKD. _____

APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

ATMS - Queue Warning Vehicle Loop Detectors

QUANTITIES - REMOVAL OF ELECTRICAL EQUIPMENT

W.P. No. 2116-16-00

Contract No. 2019-2003

Location	Removal Number	Station	Removal of ATMS Equipment Maintenance Hole and Handholes	Removal of ATMS Equipment Concrete Pad and Footing	Removal of ATMS Equipment Controller Cabinet	Removal of ATMS Equipment ATC (Salvage)	Removal of ATMS Equipment QWS/CMS Controller (Salvage)	Removal of ATMS Equipment Fibre Optic Modem (Salvage)	Removal of ATMS Equipment Base Mounted Pedestal	Removal of ATMS Equipment Power Supply Cabinet	Removal of ATMS Equipment QWS/CMS Structure Static Sign and Flashers	Removal of ATMS Equipment Surface Mounted Duct System --	Removal of ATMS Equipment Power, Communication and Detector Cables		
Sub - Totals Brought Forward:															
DRAWING R-1															
MH1 to HH2													100 %		
HH1	R1	As Shown	100 %												
CP1	R2	As Shown		100 %					100 %						
QEWCS0900SES	R3	As Shown		100 %	100 %	100 %	100 %	100 %		100 %					
QEW0900LES	R4	As Shown									100 %				
MH2	R5	As Shown	100 %												
DRAWING R-2															
HH2 to REF 2													100 %		
HH2	R6	As Shown	100 %												
HH3	R7	As Shown	100 %												
MH3	R8	As Shown	100 %												
MH4	R9	As Shown	100 %												
REF 2 to REF 3												100 %	100 %		
DRAWING R-3															
REF 3 to HH4													100 %		
MH5	R10	As Shown	100 %												
HH4	R11	As Shown	100 %												
DRAWING R-4															
HH4 to MH5A			100 %										100 %		
HH5	R12	As Shown	100 %												
Sub - Totals Carried Forward:			100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %		
			100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %		
UNIT			LUMP SUM												
ITEM No.				97											

Remarks:

CHKD. _____

APPR. _____

DATE _____

QUANTITIES - MISCELLANEOUS

W.P. No. 2116-16-00

Contract No. 2019-2003

Description	*Variable Message Signs Other Monochrome 15 Degree LED*													
Sub - Totals Brought Forward:														
Drawing L-1														
QEW Fort Erie Bound														
QEW0900LES	1													
Sub - Totals Carried Forward:	1													
TOTALS	1 (P)													
UNIT	each (P)													
ITEM No.	100													

CHKD. _____

APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

ATMS - Variable Message Sign

QUANTITIES - ELECTRICAL MAINTENANCE HOLES AND HANDHOLES

W.P. No. 2116-16-00

Contract No. 2019-2003

Location	Maintenance Hole No. or Handhole No.	Station	Offset (m) to CL of Structure (Note 1)	Depth (m)	Elevations				*Electrical Handholes [600 mm], [OPSD 2112.040]*										
					Top of Cover		Drain Invert												
Sub - Totals Brought Forward:																			
QEW RAMP N-E/W TO BOWEN RD																			
	HH1	10+058	6.3						1										
	HH2	10+134	5.2						1										
Sub - Totals Carried Forward:									2										
TOTALS									2										
UNIT									each (P)										
ITEM No.									102										

(P)

Remarks:

Note: 1 When shown without *, offset is from centre or control line of roadway.
When shown with *, offset is from edge of travelled pavement (EP).

CHKD. _____

APPR. _____

DATE _____

QUANTITIES - RIGID DUCTS AND ASSOCIATED WIRING

W.P. No. 2116-16-00

Contract No. 2019-2003

Location	From - To OR Station	Distance (m)	UPC No.	*Rigid Ducts, Concrete Encased*	*100 mm*	*Rigid Ducts, Direct Buried*	*50 mm*	*Cable Brick*	*#4 AWG, Low Voltage Cables, in Ducts*	*#6 AWG, Insulated Ground Wires*						
Sub - Totals Brought Forward:																
QEW RAMP N-E/W TO BOWEN RD																
	P1-P2	81				81	81		243	81						
	P2-HH1	72				72	72		432	72						
	HH1-REF1	2				2	4		6	2						
	REF1-REF2	10	1	10	20		20		30	10						
	REF2-P3	11				11	22		33	11						
	HH1-HH2	76				76	76		228	76						
	HH2-EHH1	69				69	69		207	69						
	EHH1-EP1	60							180	60						
QEW RAMP S-E/W TO BOWEN RD																
	EP4-REF3	13				13	26									
	REF3-EHH3	23	2	23	46		46									
Sub - Totals Carried Forward:				33	66	324	416	0	1,359	381						
				(P)		(P)			(P)	(P)						
TOTALS				33		324			1,359	381						
UNIT				m (P)	m (P)	m (P)	m (P)	m (P)	m (P)	m (P)						
ITEM No.				103		104			106	107						

Remarks:

CHKD. _____

APPR. _____

DATE _____

QUANTITIES - POLE ASSEMBLIES AND FOOTINGS

W.P. No. 2116-16-00

Contract No. 2019-2003

Location	Pole No. or Footing No.	Station	Offset (m) to CL of Pole or CL of Footing (Note 1)	*15.1 m, Steel Poles, Base Mounted Octagonal Type*	*10.5 m, Steel Poles, Base Mounted Octagonal Type*	*12 m, Steel Poles, Base Mounted Octagonal Type*	*Concrete Footings In Rock [OPSD 2200.030]*	*Ground Electrodes [Rods]*	*#6 AWG, Bare Ground Wires*	*219 W LED Luminaire 120 V LED Luminaire*	*2.4 m Al. Tapered Elliptical Bracket*	*#12 AWG Riser Wires 3 Wires/Pole*	*Frangible Bases [OPSD 2428.010]*	*Breakaway Base Anti-Theft Device*	*Rock Excavation for Electrical Installations*	
Sub - Totals Brought Forward:																
QEW RAMP N-E/W TO BOWEN RD																
	P1	9+905	1m BGR	[1] 1			1	1	1	[1] 1	[1] 1	18			0.20	
	P2	9+986	1m BGR	[1] 1			1			[1] 1	[1] 1	18			0.20	
	P3	14+336	15	[1] 1			1			[1] 1	[1] 1	18	1	1	0.20	
	P4	10+188	14			1	1	1	1							
QEW RAMP S-E/W TO BOWEN RD																
	P5	10+187	10		1		1	1	1							
Sub - Totals Carried Forward:				3	1	1	5	3	3	3	3	54	1	1	0.60	
				3 (P)	1 (P)	1 (P)				3 (P)						
TOTALS					5		5	3	3	3			1	1	0.6	
UNIT				each (P)	each (P)	each (P)	each (P)	each (P)	m (P)	each (P)	each (P)	m (P)	each (P)	each (P)	m3 (P)	
ITEM No.					110		113	108	107	114			111	112	105	

Remarks: *1.* Re-install salvaged equipment.

Note: 1 When shown without *, offset is from centre or control line of roadway.
When shown with *, offset is from edge of travelled pavement (EP).

CHKD. _____

APPR. _____

DATE _____

QUANTITIES - TRAFFIC SIGNAL CONTROLLER, CONTROLLER COMPONENTS AND EXTERNAL DETECTION DEVICES

W.P. No. 2116-16-00

Contract No. 2019-2003

Location	Controller Number or Detector Number	Size of Loop (m)	Number of Turns	Loop Inductance (uH)	*Remote Non-Intrusive Traffic Sensors (RNITS) System* [1]
Sub - Totals Brought Forward:					
QEW RAMP N-E/W TO BOWEN RD ON P4	MD1				1
QEW RAMP E/W-S FROM BOWEN RD ON P4	MD2				1
QEW RAMP E/W-N FROM BOWEN RD ON P5	MD3				1
QEW RAMP S-E/W TO BOWEN RD ON P5	MD4				1
Sub - Totals Carried Forward:					
TOTALS					4
UNIT					each
ITEM No.					

Remarks: *1.* Solar Powered.

CHKD. _____

APPR. _____

DATE _____

QUANTITIES - REMOVAL OF ELECTRICAL EQUIPMENT

W.P. No. 2116-16-00

Contract No. 2019-2003

Location	Removal Number	Station	Removal of Electrical Equipment [Handhole]	Removal of Electrical Equipment [Pole] [1]	Removal of Electrical Equipment [Bracket] [1]	Removal of Electrical Equipment [Luminaire] [1]	Removal of Electrical Equipment [Footing]	Removal of Electrical Equipment [Ground Rod]	Removal of Electrical Equipment [Cable]	Removal of Electrical Equipment [Conduit]	Removal of Electrical Equipment [Wood Pole]	Removal of Electrical Equipment [Guy Anchor]	Removal of Electrical Equipment [Detector Equipment]	Removal of Electrical Equipment [Traffic Signal Head]	Removal of Electrical Equipment [Traffic Controller]
Sub - Totals Brought Forward:															
QEW RAMP N-E/W TO BOWEN RD															
	R1			100 %	100 %	100 %	100 %	100 %							
	R2			100 %	100 %	100 %	100 %								
	R3		100 %												
	R4		100 %												
	R5			100 %	100 %	100 %	100 %	100 %							
	R6		100 %												
	R7			100 %	100 %	100 %	100 %								
	R8		100 %												
		R1-R2							100 %	100 %					
		R2-R4							100 %	100 %					
		R4-R5							100 %	100 %					
		R4-R6							100 %	100 %					
		R6-EHH1							100 %	100 %					
		EHH1-R7							100 %	100 %					
QEW RAMP S-E/W TO BOWEN RD															
	R9		100 %												
	R10			100 %	100 %	100 %	100 %	100 %							
	R11		100 %												
	R12		100 %												
		EP4-R9							100 %	100 %					
		R9EHH3							100 %	100 %					
Gilmore Rd and Pettit Rd															
	R14										100 %	100 %	100 %		
	R15							100 %			100 %	100 %	100 %		
	R16													100 %	
	R17													100 %	
	R18										100 %	100 %			
Sub - Totals Carried Forward:			100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	0 %
UNIT			L U M P S U M												
ITEM No.				109											

Remarks: *1.* Salvage and relocate to new location.

CHKD. _____

APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

Electrical - Removal

QUANTITIES - REMOVAL OF ELECTRICAL EQUIPMENT

W.P. No. 2116-16-00

Contract No. 2019-2003

Location	Removal Number	Station	*Removal of Electrical Equipment [Power Supply Panel]*	*Removal of Electrical Equipment [Aerial calbes and wires]*												
Sub - Totals Brought Forward:																
QEW RAMP N-E/W TO BOWEN RD																
	R1															
	R2															
	R3															
	R4															
	R5															
	R6															
	R7															
	R8															
		R1-R2														
		R2-R4														
		R4-R5														
		R4-R6														
		R6-EHH1														
		EHH1-R7														
QEW RAMP S-E/W TO BOWEN RD																
	R9															
	R10															
	R11															
	R12															
		EP4-R9														
		R9EHH3														
Gilmore Rd and Pettit Rd																
	R14			100 %												
	R15															
	R16															
	R17															
	R18															
Sub - Totals Carried Forward:			0 %	100 %												
		UNIT	L U M P S U M													
		ITEM No.														

Remarks:

CHKD. _____

APPR. _____

DATE _____

QUANTITIES - REMOVAL OF ELECTRICAL EQUIPMENT

W.P. No. 2116-16-00

Contract No. 2019-2003

Location	Removal Number	Station	Removal of Electrical Equipment [Handhole]	Removal of Electrical Equipment [Pole] [1]	Removal of Electrical Equipment [Bracket] [1]	Removal of Electrical Equipment [Luminaire] [1]	Removal of Electrical Equipment [Footing]	Removal of Electrical Equipment [Ground Rod]	Removal of Electrical Equipment [Cable]	Removal of Electrical Equipment [Conduit]	Removal of Electrical Equipment [Wood Pole]	Removal of Electrical Equipment [Guy Anchor]	Removal of Electrical Equipment [Detector Equipment]	Removal of Electrical Equipment [Traffic Signal Head]	Removal of Electrical Equipment [Traffic Controller]
Sub - Totals Brought Forward:			100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	0 %
	R19													100 %	
	R20													100 %	
	R21							100 %			100 %	100 %	100 %		
	R22										100 %	100 %	100 %		
	R23													100 %	
	R24													100 %	
	R25										100 %	100 %			100 %
	R26										100 %				
	R27							100 %			100 %				
	R28													100 %	
	R29													100 %	
		R14-R15													
		R15-R18													
		R18-R21													
		R21-R22													
		R21-R25													
		R25-R15													
		R25-R26													
		R26-R27													
		R27-EH7													
Sub - Totals Carried Forward:			100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %
			100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %
UNIT			L U M P S U M												
ITEM No.				109											

Remarks: *1.* Salvage and relocate to new location.

CHKD. _____

APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

Electrical - Removal

QUANTITIES - REMOVAL OF ELECTRICAL EQUIPMENT

W.P. No. 2116-16-00

Contract No. 2019-2003

Location	Removal Number	Station	*Removal of Electrical Equipment [Power Supply Panel]*	*Removal of Electrical Equipment [Aerial calbes and wires]*											
Sub - Totals Brought Forward:			0 %	100 %											
	R19														
	R20														
	R21														
	R22														
	R23														
	R24														
	R25														
	R26														
	R27		100 %												
	R28														
	R29														
		R14-R15		100 %											
		R15-R18		100 %											
		R18-R21		100 %											
		R21-R22		100 %											
		R21-R25		100 %											
		R25-R15		100 %											
		R25-R26		100 %											
		R26-R27		100 %											
		R27-EH7		100 %											
Sub - Totals Carried Forward:			100 %	100 %											
			100 %	100 %											
UNIT			L U M P S U M												
ITEM No.															

Remarks:

CHKD. _____

APPR. _____

DATE _____

QUANTITIES - STRUCTURE

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 112

MINISTRY OF TRANSPORTATION - ONTARIO

QEW CNR/CPR Overheads, NBL & SBL, Site No. 34X-0129/B1&B2

QEW CNR/CPR Overheads, NBL & SBL, Site No. 34X-0129/B1&B2	*Removal of Bridge Structure*	*Removal of Bridge Footings*	*Protection System*	*Retained Soil System with Finishing Cap, Wall/Slope, High Performance*	*Backfill for Retained Soil System, High Performance*	*Management and Disposal of Materials Containing Asbestos*	*Earth Excavation for Structure*	*Supply Equipment for Driving Piles*	*Supply Equipment for Installing Caisson Piles*	*Caisson Piles*	*Driving Shoes*	*Concrete in Footings*	*Concrete in Barrier Wall Footings*	*Concrete in Substructure and Retaining Walls [(30 mpa)]*	*Concrete in Deck*	References
LUMP SUM																
	100 %															
		192														
			100 %													
				100 %												
					16,990											
						100 %										
							1,016									
								100 %								
									100 %							
										90.00						
											52					
												28.00				
													170			
														100 %		
															100 %	
	100 %	192	100 %	100 %	16,990	100 %	1,016	100 %	100 %	90.00	52	28.00	170	100 %	100 %	
							(P)				(P)	(P)	(P)			
TOTALS	100 %	192	100 %	100 %	16,990	100 %	1,016	100 %	100 %	90.00	52	28.0	170	100 %	100 %	
UNIT	lump sum	m3	lump sum	lump sum	t	lump sum	m3 (P)	lump sum	lump sum	m	each (P)	m3 (P)	m3 (P)	lump sum	lump sum	
ITEM No.	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	

Remarks:

CHKD. _____

APPR. _____

DATE _____

QEW CNR/CPR Overheads, NBL & SBL, Site No. 34X-0129/B1&B2

QUANTITIES - STRUCTURE

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 113

QEW CNR/CPR Overheads, NBL & SBL, Site No. 34X-0129/B1&B2	*Concrete in Barrier Walls*	*Concrete in Approach Slabs*	*Reinforcing Steel Bar*	*Stainless Steel Reinforcing Bar*	*Mechanical Connectors*	*Stainless Steel Mechanical Connectors*	*Fabrication of Structural Steel*	*Delivery of Structural Steel*	*Erection of Structural Steel*	*Coating New Structural Steel*	*Embedded Work in Structure (Ministry)*	*Bridge Deck Waterproofing*	*Form and Fill Grooves*	*Deck Joint Assemblies, Installation*	*Bearings*	References
LUMP SUM																
	100 %															
		100 %														
			100 %													
				100 %												
					954											
						18										
							100 %									
								100 %								
									100 %							
										100 %						
											100 %					
												100 %				
													66.00			
														100 %		
															100 %	
	100 %	100 %	100 %	100 %	954	18	100 %	100 %	100 %	100 %	100 %	100 %	66.00	100 %	100 %	
					(P)	(P)							(P)			
TOTALS	100 %	100 %	100 %	100 %	954	18	100 %	100 %	100 %	100 %	100 %	100 %	66.00	100 %	100 %	
UNIT	lump sum	lump sum	lump sum	lump sum	each (P)	each (P)	lump sum	lump sum	lump sum	lump sum	lump sum	lump sum	m (P)	lump sum	lump sum	
ITEM No.	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	

Remarks:

CHKD. _____

APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

QEW CNR/CPR Overheads, NBL & SBL, Site No. 34X-0129/B1&B2

QUANTITIES - STRUCTURE

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 114

QEW CNR/CPR Overheads, NBL & SBL, Site No. 34X-0129/B1&B2	*Access to Work Area, Work Platform and Scaffolding*	*CSP for Integral Abutment*	*H-Piles - HP 310 X 132*													References
LUMP SUM																
	100 %															
		100 %	1,138													
	100 %	100 %	1,138													
TOTALS	100 %	100 %	1,138													
UNIT	lump sum	lump sum	m													
ITEM No.	145	146	147													

Remarks:

CHKD. _____

APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

QEW CNR/CPR Overheads, NBL & SBL, Site No. 34X-0129/B1&B2

QUANTITIES - STRUCTURE

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 115

Frenchman's Creek Culvert at QEW Ramp W-W & Ramp E-E/W, Site No. 34-454/C	*Protection System*	*Earth Excavation for Structure*	*Dewatering Structure Excavation*	*Concrete in Culverts*	*Concrete in Substructure and Retaining Walls [(30 mpa)]*	*Access to Work Area, Work Platform and Scaffolding*	*Concrete Removal - Partial Depth - Type B*	*Concrete Removal - Partial Depth - Type C*	*Concrete Removal - Full Depth*	*Abrasive Blast Cleaning of Reinforcing Steel*	*Concrete Patches, Formed Surface*	*Concrete Patches, Form and Pump*	*Crack Injection*	*Dowels Into Concrete*	*Culvert Waterproofing*	References
LUMP SUM																
	100 %															
		66														
			100 %													
				25.00												
					100 %											
						100 %										
							2.00									
								1.00								
									21.00							
										19.0						
											1.0					
												2.0				
													145			
														400		
															59.0	
	100 %	66	100 %	25.00	100 %	100 %	2.00	1.00	21.00	19.0	1.0	2.0	145	400	59.0	
		(P)		(P)										(P)	(P)	
TOTALS	100 %	66	100 %	25.0	100 %	100 %	2.0	1.0	21.0	19	1.0	2.0	145	400	59	
UNIT	lump sum	m3 (P)	lump sum	m3 (P)	lump sum	lump sum	m3	m3	m3	m2	m3	m3	m	each (P)	m2 (P)	
ITEM No.	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	

Remarks:

CHKD. _____

APPR. _____

DATE _____

QUANTITIES - STRUCTURE

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 116

Frenchman's Creek Culvert at QEW, Site No. 34-455/C

	Protection System	*Earth Excavation for Structure*	*Dewatering Structure Excavation*	*Concrete in Culverts*	*Concrete in Substructure and Retaining Walls [(30 mpa)]*	*Access to Work Area, Work Platform and Scaffolding*	*Concrete Removal - Partial Depth - Type B*	*Concrete Removal - Partial Depth - Type C*	*Concrete Removal - Full Depth*	*Abrasive Blast Cleaning of Reinforcing Steel*	*Concrete Patches, Formed Surface*	*Concrete Patches, Form and Pump*	*Crack Injection*	*Dowels Into Concrete*	*Culvert Waterproofing*	References
LUMP SUM																
	100 %															
		38														
			100 %													
				19.00												
					100 %											
						100 %										
							2.00									
								1.00								
									17.00							
										17.0						
											1.0					
												2.0				
													139			
														344		
															50.0	
	100 %	38	100 %	19.00	100 %	100 %	2.00	1.00	17.00	17.0	1.0	2.0	139	344	50.0	
		(P)		(P)										(P)	(P)	
TOTALS	100 %	38	100 %	19.0	100 %	100 %	2.0	1.0	17.0	17	1.0	2.0	139	344	50	
UNIT	lump sum	m3 (P)	lump sum	m3 (P)	lump sum	lump sum	m3	m3	m3	m2	m3	m3	m	each (P)	m2 (P)	
ITEM No.	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	

Remarks:

CHKD. _____

APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

Frenchman's Creek Culvert at QEW, Site No. 34-455/C

QUANTITIES - STRUCTURE

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 117

Retained Soil System Wall #1	*Retained Soil System with Finishing Cap, Wall/Slope, High Performance*	*Backfill for Retained Soil System, High Performance*	*Earth Excavation for Structure*														References
LUMP SUM																	
	100 %																
		6,990															
			735														
	100 %	6,990	735														
			(P)														
TOTALS	100 %	6,990	735														
UNIT	lump sum	t	m3 (P)														
ITEM No.	178	179	180														

Remarks:

CHKD. _____

APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

Retained Soil System Wall #1

QUANTITIES - STRUCTURE

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 118

Retained Soil System Wall #2	*Retained Soil System with Finishing Cap, Wall/Slope, High Performance*	*Backfill for Retained Soil System, High Performance*	*Earth Excavation for Structure*														References
LUMP SUM																	
	100 %																
		15,330															
			1,165														
	100 %	15,330	1,165														
			(P)														
TOTALS	100 %	15,330	1,165														
UNIT	lump sum	t	m3 (P)														
ITEM No.	181	182	183														

Remarks:

CHKD. _____

APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

Retained Soil System Wall #2

QUANTITIES - STRUCTURE

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 119

Retained Soil System Wall #3	*Retained Soil System with Finishing Cap, Wall/Slope, High Performance*	*Backfill for Retained Soil System, High Performance*	*Earth Excavation for Structure*													References
LUMP SUM																
	100 %															
		1,503														
			310													
	100 %	1,503	310													
			(P)													
TOTALS	100 %	1,503	310													
UNIT	lump sum	t	m3 (P)													
ITEM No.	184	185	186													

Remarks:

CHKD. _____

APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

Retained Soil System Wall #3

QUANTITIES - STRUCTURE

W.P. No. 2116-16-00

Contract No. 2019-2003

SHEET 120

Sign Support Structures	*Steel Column Breakaway Sign Support Structures*	*Steel Column Non-Breakaway Sign Support Structures*	*Attachment of Signboards*													References
LUMP SUM																
	3															
		2														
			5													
	3	2	5													
	(P)	(P)	(P)													
TOTALS	3	2	5													
UNIT	each (P)	each (P)	each (P)													
ITEM No.	187	188	189													

Remarks:

CHKD. _____

APPR. _____

DATE _____

MINISTRY OF TRANSPORTATION - ONTARIO

Sign Support Structures