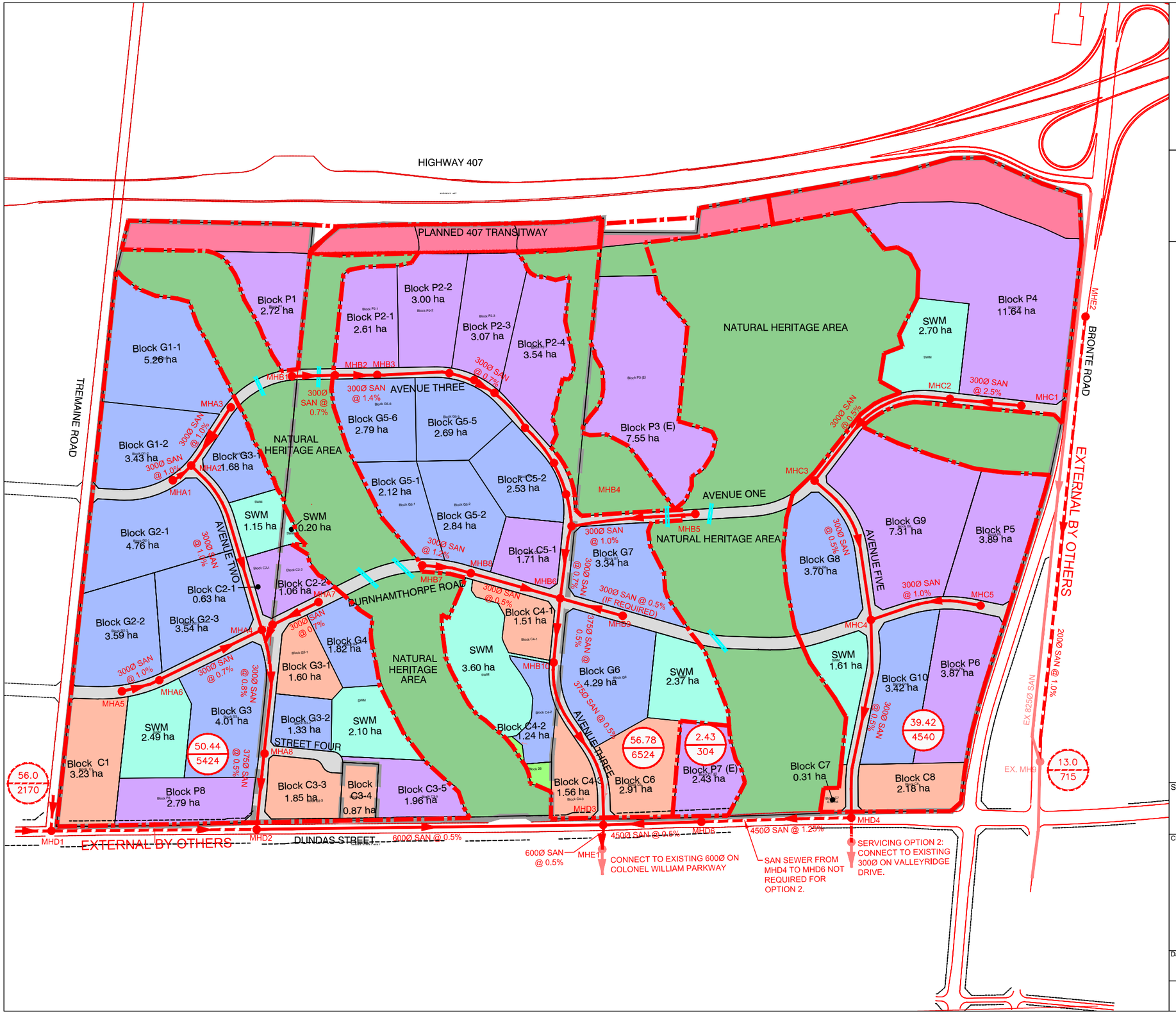
Appendix 8.0

8.1 Wastewater Sewer Design Sheets
8.2 Water Peak Hour and Maximum Day Model Results
8.3 Stormwater Design Sheets
8.4 Conceptual Plan-Profiles of the Wastewater Sewer
8.5 Conceptual Grading Plan

Appendix 8.1 – Wastewater/Sanitary Design Sheets

Environmental Implementation Report / Functional Servicing Study for 14 Mile Creek West and the Lazy Pat Farm Property

WASTEWATER ANALYSIS PLAN



LEGEND

- SANITARY SEWER
- SANITARY MANHOLE
- SANITARY DRAINAGE BOUNDARY
- ALTERNATIVE SANITARY SEWER ALIGNMENT
- EXTERNAL SANITARY SEWER (B.O.)
- EXISTING SANITARY SEWER
- 39.40 / 4533 — TRIBUTARY AREA (Ha) / TRIBUTARY POPULATION
- 13.0 / 715 — EXTERNAL TRIBUTARY AREA (Ha) / EXTERNAL TRIBUTARY POPULATION
- FUTURE CULVERT CROSSING
- 407 WEST EMPLOYMENT AREA
- PROPERTY BOUNDARIES

NOTES:

- For the purposes of the analysis land use, natural heritage and storm water sizing and location assumptions have been made for the entire 407 West Employment Area
- Right-of-way requirements for future 407 Transitway to be determined
- The Natural Heritage System on lands owned by others is conceptual, as shown in the North Oakville West Secondary Plan, and is subject to further study.

Scale: 0 100 200 300 400 500m

Client: QuadReal

Prepared by: wsp

Date: AUGUST 2018

Project No. 1409222.001

FIGURE A-8.1

FILE NAME: X:\DIV10\14-09222\MUN\ASP-FSS Exhibits\APP B1-8.1_Wastewater Analysis Plan.dwg_Fig A-8.1

THE REGIONAL MUNICIPALITY OF HALTON

SANITARY DESIGN SHEET

PROJECT No.: 14-09222

PROJECT NAME: 407 West Employment Area

CONSULTANT: WSP

DATE PRINTED: 24-Aug-18

DATE REVISED: 26-Jul-18

DESIGNED BY: SW

CHECKED BY: AW

Street	Manhole From	Manhole To	Length in metres	Tributary Area (Hectares) Increment Res.	Comm.	Ind.	Inst.	Road	Total	Accumulated Res.	Comm.	Ind.	Inst.	Road	Total	Tributary Population Increment Res.	Comm.	Ind.	Inst.	Total	Accumulated Res.	Comm.	Ind.	Inst.	Total	Q Average L/s	K Average	Peaking Factor M	Q Peak Dry L/s	Total Infil-tration L/s	Q Total L/s	SEWER Size (mm)	Slope (m/m)	Q (L/s)	V (m/s) Full Flow	V (m/s) Act. Flow	REMARKS
Avenue 3-Avenue 2-Burnhamthorpe Road-Dundas Street																																					
Block G1-2	PLUG	A1				3.43			3.43			3.43			3.43			429		429			429		429													
Avenue 3	A1	A2	50			0.00		0.11	0.11			3.43		0.11	3.54			0		0			429		429	1.365	0.80	4.008	4.38	1.01	5.39	300	0.010	96.701	1.37	0.71	
Block G1-1	PLUG	A3				5.26			5.26			5.26			5.26			658		658			658		658													
Avenue 3	A3	A2	150			0.00		0.33	0.33			5.26		0.33	5.59			0		0			658		658	2.093	0.80	3.910	6.55	1.60	8.14	300	0.010	96.701	1.37	0.75	
Block G2-1	PLUG	A2				4.76			4.76			4.76			4.76			595		595			595		595													
Block G3-1	PLUG	A2				1.60			1.60			1.60			1.60			200		200			200		200													
Block C2-1	PLUG	A2				0.63			0.63			0.63			0.63			79		79			79		79													
Avenue 2	A2	A4	380			0.00		0.84	0.84			15.68		1.28	16.96			0		0			1960		1960	6.238	0.80	3.593	17.93	4.85	22.78	300	0.010	96.701	1.37	1.12	
Block G2-2	PLUG	A5				3.59			3.59			3.59			3.59			449		449			449		449													
Block C1	PLUG	A5				3.23			3.23			3.23			3.23			404		404			404		404													
Burnhamthorpe Road	A5	A6	82			0.00		0.47	0.47			6.82		0.47	7.29			0		0			853		853	2.713	0.80	3.844	8.34	2.09	10.43	300	0.010	96.701	1.37	0.86	
Block G2-3	PLUG	A6				3.54			3.54			3.54			3.54			443		443			443		443													
Burnhamthorpe Road	A6	A4	225			0.00		0.59	0.59			10.36		1.06	11.42			0		0			1295		1295	4.122	0.80	3.725	12.28	3.27	15.55	300	0.007	80.906	1.14	0.86	
Block C2-2	PLUG	A7				1.06			1.06			1.06			1.06			133		133			133		133													
Block G4	PLUG	A7				1.80			1.80			1.80			1.80			225		225			225		225													
Burnhamthorpe Road	A7	A4	130			0.00		0.34	0.34			2.86		0.34	3.20			0		0			358		358	1.138	0.80	4.045	3.68	0.91	4.60	300	0.007	80.906	1.14	0.60	
Block G3-1	PLUG	A4				1.68			1.68			1.68			1.68			210		210			210		210													
Block G3-2	PLUG	A4				1.33			1.33			1.33			1.33			166		166			166		166													
Avenue 2	A4	A8	260			0.00		0.57	0.57			31.91		3.24	35.15			0		0			3989		3989	12.696	0.80	3.334	33.87	10.05	43.92	300	0.008	86.492	1.22	1.24	
Block G3	PLUG	A8				4.01			4.01			4.01			4.01			501		501			501		501													
Block C3-3	PLUG	A8				1.85			1.85			1.85			1.85			231		231			231		231													
Block P8	PLUG	A8				2.79			2.79			2.79			2.79			349		349			349		349													
Avenue 2	A8	D2	160			0.00		0.35	0.35			40.56		3.60	44.16			0		0			5070		5070	16.137	0.80	3.239	41.82	12.63	54.45	375	0.005	123.977	1.12	1.08	
External 1	TO	D1		56.00		0.00			56.00	56.00					56.00	2170				2170	2170				2170													
Dundads Street	D1	D2	430			0.00		1.29	1.29	56.00		0.00		1.29	57.29			0		0	2170		0		2170	6.907	1.00	3.558	24.57	16.38	40.96	450	0.005	201.600	1.27	0.96	
															0.00																						
Block C3-4	PLUG	D2				0.87			0.87			0.87			0.87			109		109			109		109													
Block C3-5	PLUG	D2				1.96			1.96			1.96			1.96			245		245			245		245													
Dundas Street	D2	D3	720			0.00		2.16	2.16	56.00		43.39		7.05	106.44			0		0	2170		5424		7594	24.170	0.91	3.072	67.77	30.44	98.22	600	0.005	434.172	1.54	1.24	
															0.00																						

THE REGIONAL MUNICIPALITY OF HALTON

SANITARY DESIGN SHEET

PROJECT No.: 14-09222

PROJECT NAME: 407 West Employment Area

CONSULTANT: WSP

DATE PRINTED: 24-Aug-18

DATE REVISED: 26-Jul-18

DESIGNED BY: SW

CHECKED BY: AW

Street	Manhole From	Manhole To	Length in metres	Tributary Area (Hectares) Increment Res.	Comm.	Ind.	Inst.	Road	Total	Accumulated Res.	Comm.	Ind.	Inst.	Road	Total	Tributary Population Increment Res.	Comm.	Ind.	Inst.	Total	Accumulated Res.	Comm.	Ind.	Inst.	Total	Q Average L/s	K Average	Peaking Factor M	Q Peak Dry L/s	Total Infil-tration L/s	Q Total L/s	SEWER Size (mm)	Slope (m/m)	Q (L/s)	V (m/s) Full Flow	V (m/s) Act. Flow	REMARKS
Avenue 3-Avenue 3-Burnhamthorpe Road																																					
Block P1	PLUG	B1				2.72			2.72			2.72			2.72			340		340			340		340													
Avenue 3	B1	B2	90			0.00		0.20	0.20			2.72		0.20	2.92			0		0			340		340	1.082	0.80	4.055	3.51	0.83	4.34	300	0.007	80.906	1.14	0.55	
Avenue 3	B2	B3	90			0.00		0.20	0.20			2.72		0.40	3.12			0		0			340		340	1.082	0.80	4.055	3.51	0.89	4.40	300	0.020	136.756	1.93	0.79	
Block P2-1	PLUG	B3				2.61			2.61			2.61			2.61			326		326			326		326												
Block P2-2	PLUG	B3				3.00			3.00			3.00			3.00			375		375			375		375												
Block P2-3	PLUG	B3				3.07			3.07			3.07			3.07			384		384			384		384												
Block P2-4	PLUG	B3				3.54			3.54			3.54			3.54			443		443			443		443												
Block G5-5	PLUG	B3				2.69			2.69			2.69			2.69			336		336			336		336												
Block G5-6	PLUG	B3				2.79			2.79			2.79			2.79			349		349			349		349												
Avenue 3	B3	B4	555			0.00		1.22	1.22			20.42		1.62	22.04			0		0			2553		2553	8.124	0.80	3.501	22.75	6.30	29.06	300	0.007	80.906	1.14	1.05	
Block P3	PLUG	B5				7.55			7.55			7.55			7.55			944		944			944		944												
Avenue 1	B5	B4	220			0.00		0.48	0.48			7.55		0.48	8.03			0		0			944		944	3.004	0.80	3.816	9.17	2.30	11.47	300	0.010	96.701	1.37	0.88	
Block C5-2	PLUG	B4				2.53			2.53			2.53			2.53			316		316			316		316												
Block G7	PLUG	B4				3.51			3.51			3.51			3.51			439		439			439		439												
Avenue 3	B4	B6	225			0.00		0.50	0.50			34.01		2.60	36.61			0		0			4251		4251	13.531	0.80	3.310	35.83	10.47	46.29	300	0.007	80.906	1.14	1.19	
Block G5-1	PLUG	B7				2.12			2.12			2.12			2.12			265		265			265		265												
Burnhamthorpe Road	B7	B8	150			0.00		0.39	0.39			2.12		0.39	2.51			0		0			265		265	0.843	0.80	4.101	2.77	0.72	3.49	300	0.012	105.930	1.50	0.61	
Block G5-2	PLUG	B8				2.84			2.84			2.84			2.84			355		355			355		355												
Block C5-1	PLUG	B8				1.71			1.71			1.71			1.71			214		214			214		214												
Burnhamthorpe Road	B8	B6	195			0.00		0.51	0.51			6.67		0.90	7.57			0		0			834		834	2.654	0.80	3.850	8.17	2.16	10.34	300	0.005	68.378	0.97	0.68	
Block C4-1	PLUG	B6				1.51			1.51			1.51			1.51			189		189			189		189												
Avenue 3	B6	B10	135			0.00		0.30	0.30			42.19		3.79	45.98			0		0			5274		5274	16.786	0.80	3.223	43.29	13.15	56.44	375	0.005	123.977	1.12	1.10	
Block C4-2	PLUG	B10				1.24			1.24			1.24			1.24			155		155			155		155												
Block G6	PLUG	B10				4.29			4.29			4.29			4.29			536		536			536		536												
Block C4-3	PLUG	B10				1.56			1.56			1.56			1.56			195		195			195		195												
Block C6	PLUG	B10				2.91			2.91			2.91			2.91			364		364			364		364												
Avenue 3	B10	D3	365			0.00		0.80	0.80			52.19		4.59	56.78			0		0	0		6524		6524	20.764	0.80	3.136	52.09	16.24	68.33	375	0.005	123.977	1.12	1.16	
Avenue One-Avenue Five-Burnhamthorpe Road-Dundas Street																																					
Block P4	PLUG	C1				11.64			11.64			11.64			11.64			1455		1455			1455		1455												
Avenue 1	C1	C2	150			0.00		0.33	0.33			11.64		0.33	11.97			0		0			1455		1455	4.631	0.80	3.689	13.67	3.42	17.09	300	0.025	152.897	2.16	1.36	
Avenue 1	C2	C3	95			0.00		0.21	0.21			11.64		0.54	12.18			0		0			1455		1455	4.631	0.80	3.689	13.67	3.48	17.15	300	0.005	68.378	0.97	0.80	
Block G8	PLUG	C3				3.70			3.70			3.70			3.70			463		463			463		463												
Block G9	PLUG	C3				7.31			7.31			7.31			7.31			914		914			914		914												
Avenue 5	C3	C4	330			0.00		0.86	0.86			22.65		1.40	24.05			0		0			2831		2831	9.012	0.80	3.464	24.97	6.88	31.85	300	0.005	68.378	0.97	0.95	
Block P5	PLUG	C5				3.89			3.89			3.89			3.89			486		486			486		486												
Block P6	PLUG	C5				3.87			3.87			3.87			3.87			484		484			484		484												
Burnhamthorpe Road	C5	C4	235			0.00		0.61	0.61			7.76		0.61	8.37			0		0			970		970	3.087	0.80	3.808	9.41	2.39	11.80	300	0.010	96.701	1.37	0.88	
Block G10	PLUG	C4				3.42			3.42			3.42			3.42			428		428			428		428												
Block C7	PLUG	C4				0.31			0.31			0.31			0.31			39		39			39		39												
Block C8	PLUG	C4				2.18			2.18			2.18			2.18			273		273			273		273												
Avenue 5	C4	D4	420			0.00		1.09	1.09			36.32		3.10	39.42			0		0			4540		4540	14.450	0.80	3.284	37.96	11.27	49.23	300	0.005	68.378	0.97	1.06	
Dundas Street	D4	D6	315			0.00		0.95	0.95			36.32	0.00	4.05	40.37			0		0			4540		4540	14.450	0.80	3.284	37.96	11.54	49.50	450	0.013	318.758	2.00	1.42	
Block P7	PLUG	D6				2.43			2.43			2.43			2.43			304		304			304		304												
Dundas Street	D6	D3	210			0.00		0.63	0.63			38.75	0.00	4.68	43.43			0		0			4844		4844	15.417	0.80	3.258	40.18	12.42	52.60	450	0.005	201.600	1.27	1.06	
Colonel William Parkway	D3	E1	55			0.00		0.14	0.14	56.00	0.00	134.33	0.00	16.46	206.79			0		0	2170	0	16791	0	18961	60.351	0.86	2.676	138.69	59.14	197.83	600	0.005	434.172	1.54	1.50	

THE REGIONAL MUNICIPALITY OF HALTON

SANITARY DESIGN SHEET

PROJECT No.: 14-09222

PROJECT NAME: 407 West Employment Area

CONSULTANT: WSP

DATE PRINTED: 24-Aug-18

DATE REVISED: 26-Jul-18

DESIGNED BY: SW

CHECKED BY: AW

Street	Manhole From	Manhole To	Length in metres	Tributary Area (Hectares) Increment Res.	Comm.	Ind.	Inst.	Road	Total	Accumulated Res.	Comm.	Ind.	Inst.	Road	Total	Tributary Population Increment Res.	Comm.	Ind.	Inst.	Total	Accumulated Res.	Comm.	Ind.	Inst.	Total	Q Average L/s	K Average	Peaking Factor M	Q Peak Dry L/s	Total Infil-tration L/s	Q Total L/s	SEWER Size (mm)	Slope (m/m)	Q (L/s)	V (m/s) Full Flow	V (m/s) Act. Flow	REMARKS
Existing - By Others																																					
Colonel William Parkway	E1	23A		0.00					0.00	56.00	0.00	134.33	0.00	16.46	206.79	0				0	2170	0	16791	0	18961	60.351	0.86	2.676	138.69	59.14	197.83	600	0.017	800.573	2.83	2.35	
Colonel William Parkway	23A	22A		0.09					0.09	56.09	0.00	134.33	0.00	16.46	206.88	0				0	2170	0	16791	0	18961	60.351	0.86	2.676	138.70	59.17	197.87	600	0.017	800.573	2.83	2.35	
Colonel William Parkway	22A	21A		0.11					0.11	56.20	0.00	134.33	0.00	16.46	206.99	0				0	2170	0	16791	0	18961	60.351	0.86	2.676	138.71	59.20	197.91	600	0.017	800.573	2.83	2.35	
Fut. Phase 6	Plug 4	20A		4.88					4.88	4.88	0.00	0.00	0.00	0.00	4.88	659				659	659	0	0	0	659	2.098	1.00	3.910	8.20	1.40	9.60	200	0.005	23.192	0.74	0.70	
Colonel William Parkway	21A	20A		0.08					0.08	56.28	0.00	134.33	0.00	16.46	207.07	0				0	2170	0	16791	0	18961	60.351	0.86	2.676	138.72	59.22	197.95	600	0.017	800.573	2.83	2.35	
Colonel William Parkway	20A	19A		0.00					0.00	61.16	0.00	134.33	0.00	16.46	211.95	0				0	2829	0	16791	0	19620	62.449	0.86	2.661	143.33	60.62	203.95	600	0.004	363.254	1.28	1.32	
Colonel William Parkway	19A	18A		0.00					0.00	61.16	0.00	134.33	0.00	16.46	211.95	0				0	2829	0	16791	0	19620	62.449	0.86	2.661	143.33	60.62	203.95	600	0.004	363.254	1.28	1.32	
Colonel William Parkway	18A	17A		0.00					0.00	61.16	0.00	134.33	0.00	16.46	211.95	0				0	2829	0	16791	0	19620	62.449	0.86	2.661	143.33	60.62	203.95	600	0.004	363.254	1.28	1.32	
Colonel William Parkway	17A	16A		0.00					0.00	61.16	0.00	134.33	0.00	16.46	211.95	0				0	2829	0	16791	0	19620	62.449	0.86	2.661	143.33	60.62	203.95	600	0.004	363.254	1.28	1.32	
Fut. Phase 5B	Plug 3	148A		8.84					8.84	8.84	0.00	0.00	0.00	0.00	8.84	796				796	796	0	0	0	796	2.534	1.00	3.862	9.78	2.53	12.31	200	0.005	23.192	0.74	0.75	
Colonel William Parkway	148A	147A		0.59					0.59	9.43	0.00	0.00	0.00	0.00	9.43	32				32	828	0	0	0	828	2.635	1.00	3.851	10.15	2.70	12.85	200	0.005	23.192	0.74	0.76	
Colonel William Parkway	147A	141A		0.34					0.34	9.77	0.00	0.00	0.00	0.00	9.77	19				19	847	0	0	0	847	2.696	1.00	3.845	10.37	2.79	13.16	200	0.005	23.192	0.74	0.77	
Street A	145A	144A		0.76					0.76	0.76	0.00	0.00	0.00	0.00	0.76	42				42	42	0	0	0	42	0.134	1.00	4.329	0.58	0.22	0.80	200	0.012	35.929	1.14	0.43	
Street A	144A	143A		0.73					0.73	1.49	0.00	0.00	0.00	0.00	1.49	40				40	82	0	0	0	82	0.261	1.00	4.266	1.11	0.43	1.54	200	0.014	38.808	1.24	0.54	
Street A	143A	142A		0.19					0.19	1.68	0.00	0.00	0.00	0.00	1.68	10				10	92	0	0	0	92	0.293	1.00	4.253	1.25	0.48	1.73	200	0.015	40.170	1.28	0.56	
Street A	142A	141A		0.37					0.37	2.05	0.00	0.00	0.00	0.00	2.05	20				20	112	0	0	0	112	0.356	1.00	4.230	1.51	0.59	2.09	200	0.030	56.809	1.81	0.80	
Colonel William Parkway	141A	16A		0.00					0.00	11.82	0.00	0.00	0.00	0.00	11.82	0				0	959	0	0	0	959	3.052	1.00	3.812	11.63	3.38	15.02	250	0.005	42.050	0.86	0.79	
Colonel William Parkway	16A	15A		0.00					0.00	72.98	0.00	134.33	0.00	16.46	223.77	0				0	3788	0	16791	0	20579	65.501	0.87	2.640	150.51	64.00	214.51	600	0.004	363.254	1.28	1.35	
Colonel William Parkway	15A	14A		0.00					0.00	72.98	0.00	134.33	0.00	16.46	223.77	0				0	3788	0	16791	0	20579	65.501	0.87	2.640	150.51	64.00	214.51	600	0.004	363.254	1.28	1.35	
Colonel William Parkway	14A	13A		0.00					0.00	72.98	0.00	134.33	0.00	16.46	223.77	0				0	3788	0	16791	0	20579	65.501	0.87	2.640	150.51	64.00	214.51	600	0.004	363.254	1.28	1.35	
Colonel William Parkway	13A	Ex. 11A		0.00					0.00	72.98	0.00	134.33	0.00	16.46	223.77	0				0	3788	0	16791	0	20579	65.501	0.87	2.640	150.51	64.00	214.51	600	0.003	341.867	1.21	1.28	
Fut. Phase 5A	Plug 2	106A		7.30					7.30	7.30	0.00	0.00	0.00	0.00	7.30	548				548	548	0	0	0	548	1.744	1.00	3.953	6.90	2.09	8.98	200	0.004	20.744	0.66	0.63	
Street A	118A	117A		0.34					0.34	0.34	0.00	0.00	0.00	0.00	0.34	19				19	19	0	0	0	19	0.060	1.00	4.383	0.27	0.10	0.36	200	0.018	44.004	1.40	0.42	
Street A	117A	116A		0.23					0.23	0.57	0.00	0.00	0.00	0.00	0.57	13				13	32	0	0	0	32	0.102	1.00	4.350	0.44	0.16	0.61	200	0.011	34.399	1.09	0.42	
Street A	116A	115A		0.75					0.75	1.32	0.00	0.00	0.00	0.00	1.32	41				41	73	0	0	0	73	0.232	1.00	4.279	0.99	0.38	1.37	200	0.012	35.929	1.14	0.50	
Street A	115A	114A		0.65					0.65	1.97	0.00	0.00	0.00	0.00	1.97	36				36	109	0	0	0	109	0.347	1.00	4.233	1.47	0.56	2.03	200	0.013	37.396	1.19	0.57	
Street A	114A	113A		0.47					0.47	2.44	0.00	0.00	0.00	0.00	2.44	26				26	135	0	0	0	135	0.430	1.00	4.206	1.81	0.70	2.50	200	0.011	34.399	1.09	0.59	
Street A	113A	112A		0.24					0.24	2.68	0.00	0.00	0.00	0.00	2.68	13				13	148	0	0	0	148	0.471	1.00	4.193	1.98	0.77	2.74	200	0.012	35.929	1.14	0.63	
Street A	112A	111A		0.18					0.18	2.86	0.00	0.00	0.00	0.00	2.86	10				10	158	0	0	0	158	0.503	1.00	4.184	2.10	0.82	2.92	200	0.010	32.798	1.04	0.61	
Street A	111A	106A		0.22					0.22	3.08	0.00	0.00	0.00	0.00	3.08	12				12	170	0	0	0	170	0.541	1.00	4.173	2.26	0.88	3.14	200	0.025	51.859	1.65	0.86	
Fut. Phase 5A	Plug 1	106A		1.97					1.97	1.97	0.00	0.00	0.00	0.00	1.97	108				108	108	0	0	0	108	0.344	1.00	4.234	1.46	0.56	2.02	200	0.032	58.672	1.87	0.77	
Street B	106A	101A		0.18					0.18	12.53	0.00	0.00	0.00	0.00	12.53	0				0	826	0	0	0	826	2.629	1.00	3.852	10.13	3.58	13.71	200	0.004	20.744	0.66	0.71	
Colonel William Parkway	104A	103A		0.98					0.98	0.98	0.00	0.00	0.00	0.00	0.98	54				54	54	0	0	0	54	0.172	1.00	4.308	0.74	0.28	1.02	200	0.011	34.399	1.09	0.45	
Colonel William Parkway	103A	102A		0.33					0.33	1.31	0.00	0.00	0.00	0.00	1.31	18				18	72	0	0	0	72	0.229	1.00	4.280	0.98	0.37	1.36	200	0.010	32.798	1.04	0.46	
Colonel William Parkway	102A	101A		0.15					0.15	1.46	0.00	0.00	0.00	0.00	1.46	8				8	80	0	0	0	80	0.255	1.00	4.269	1.09	0.42	1.50	200	0.010	32.798	1.04	0.50	
Colonel William Parkway	101A	100A		0.19					0.19	14.18	0.00	0.00	0.00	0.00	14.18	10				10	916	0	0	0	916	2.916	1.00	3.824	11.15	4.06	15.21	200	0.004	20.744	0.66	0.73	
Colonel William Parkway	100A	Ex. 12A		0.41					0.41	14.59	0.00	0.00	0.00	0.00	14.59	23				23	939	0	0	0	939	2.989	1.00	3.817	11.41	4.17	15.58	200	0.005	22.959	0.73	0.79	
Colonel William Parkway	Ex. 12A	Ex. 11A		0.00					0.00	14.59	0.00	0.00	0.00	0.00	14.59	0				0	939	0	0	0	939	2.989	1.00	3.817	11.41	4.17	15.58	200	0.009	31.288	1.00	1.00	
Colonel William Parkway	Ex. 11A	Ex. 10A		0.00					0.00	87.57	0.00	134.33	0.00	16.46	238.36	0				0	4727	0	16791	0	21518	68.490	0.88	2.621	157.75	68.17	225.92	600	0.006	455.363	1.61	1.61	
Old Bronte Road External - By Others																																					
External 2	TO	E2		13.00					13.00	13.00					13.00	715				1635	715				715												
Old Bronte Road	E2	EX. MH9	415			0.00		1.25	1.25	13.00		0.00	0.00	1.25	14.25			0		0	715				715	2.276	1.00	3.889	8.85	4.07	12.93	200	0.010	32.798	1.04		

Existing Sewer built by others

External Sewer to be built by others

THE REGIONAL MUNICIPALITY OF HALTON

SANITARY DESIGN SHEET
OPTION 2

PROJECT No.: 14-09222
PROJECT NAME: 407 West Employment Area
CONSULTANT: WSP

DATE PRINTED: 24-Aug-18
DATE REVISED: 26-Jul-18
DESIGNED BY: SW
CHECKED BY: AW

Street	Manhole From	Manhole To	Length in metres	Tributary Area (Hectares) Increment Res.	Comm.	Ind.	Inst.	Road	Total	Accumulated Res.	Comm.	Ind.	Inst.	Road	Total	Tributary Population Increment Res.	Comm.	Ind.	Inst.	Total	Accumulated Res.	Comm.	Ind.	Inst.	Total	Q Average L/s	K Average	Peaking Factor M	Q Peak Dry L/s	Total Infil-tration L/s	Q Total L/s	SEWER Size (mm)	Slope (m/m)	Q (L/s)	V (m/s) Full Flow	V (m/s) Act. Flow	REMARKS
Avenue 3-Avenue 2-Burnhamthorpe Road-Dundas Street																																					
Block G1-2	PLUG	A1				3.43			3.43			3.43			3.43			429		429			429		429													
Avenue 3	A1	A2	50			0.00		0.11	0.11			3.43		0.11	3.54			0		0			429		429	1.365	0.80	4.008	4.38	1.01	5.39	300	0.010	96.701	1.37	0.71	
Block G1-1	PLUG	A3				5.26			5.26			5.26			5.26			658		658			658		658													
Avenue 3	A3	A2	150			0.00		0.33	0.33			5.26		0.33	5.59			0		0			658		658	2.093	0.80	3.910	6.55	1.60	8.14	300	0.010	96.701	1.37	0.75	
Block G2-1	PLUG	A2				4.76			4.76			4.76			4.76			595		595			595		595													
Block G3-1	PLUG	A2				1.60			1.60			1.60			1.60			200		200			200		200													
Block C2-1	PLUG	A2				0.63			0.63			0.63			0.63			79		79			79		79													
Avenue 2	A2	A4	380			0.00		0.84	0.84			15.68		1.28	16.96			0		0			1960		1960	6.238	0.80	3.593	17.93	4.85	22.78	300	0.010	96.701	1.37	1.12	
Block G2-2	PLUG	A5				3.59			3.59			3.59			3.59			449		449			449		449													
Block C1	PLUG	A5				3.23			3.23			3.23			3.23			404		404			404		404													
Burnhamthorpe Road	A5	A6	82			0.00		0.47	0.47			6.82		0.47	7.29			0		0			853		853	2.713	0.80	3.844	8.34	2.09	10.43	300	0.010	96.701	1.37	0.86	
Block G2-3	PLUG	A6				3.54			3.54			3.54			3.54			443		443			443		443													
Burnhamthorpe Road	A6	A4	225			0.00		0.59	0.59			10.36		1.06	11.42			0		0			1295		1295	4.122	0.80	3.725	12.28	3.27	15.55	300	0.007	80.906	1.14	0.86	
Block C2-2	PLUG	A7				1.06			1.06			1.06			1.06			133		133			133		133													
Block G4	PLUG	A7				1.82			1.82			1.82			1.82			228		228			228		228													
Burnhamthorpe Road	A7	A4	130			0.00		0.34	0.34			2.88		0.34	3.22			0		0			360		360	1.146	0.80	4.043	3.71	0.92	4.63	300	0.007	80.906	1.14	0.60	
Block G3-1	PLUG	A4				1.68			1.68			1.68			1.68			210		210			210		210													
Block G3-2	PLUG	A4				1.33			1.33			1.33			1.33			166		166			166		166													
Avenue 2	A4	A8	260			0.00		0.57	0.57			31.93		3.24	35.17			0		0			3991		3991	12.704	0.80	3.334	33.89	10.06	43.94	300	0.008	86.492	1.22	1.24	
Block G3	PLUG	A8				4.01			4.01			4.01			4.01			501		501			501		501													
Block C3-3	PLUG	A8				1.85			1.85			1.85			1.85			231		231			231		231													
Block P8	PLUG	A8				2.79			2.79			2.79			2.79			349		349			349		349													
Avenue 2	A8	D2	160			0.00		0.35	0.35			40.58		3.60	44.18			0		0			5073		5073	16.145	0.80	3.239	41.84	12.63	54.47	375	0.005	123.977	1.12	1.08	
External 1	TO	D1		56.00		0.00			56.00	56.00					56.00	2170				2170	2170				2170													
Dundads Street	D1	D2	430			0.00		1.29	1.29	56.00		0.00		1.29	57.29			0		0	2170		0		2170	6.907	1.00	3.558	24.57	16.38	40.96	450	0.005	201.600	1.27	0.96	
															0.00																							
Block C3-4	PLUG	D2				0.87			0.87			0.87			0.87			109		109			109		109													
Block C3-5	PLUG	D2				1.96			1.96			1.96			1.96			245		245			245		245													
Dundas Street	D2	D3	720			0.00		2.16	2.16	56.00		43.41		7.05	106.46			0		0	2170		5426		7596	24.178	0.91	3.072	67.79	30.45	98.24	600	0.005	434.172	1.54	1.24	
															0.00																							

THE REGIONAL MUNICIPALITY OF HALTON

PROJECT No.: 14-09222

PROJECT NAME: 407 West Employment Area

CONSULTANT: WSP

SANITARY DESIGN SHEET

OPTION 2

DATE PRINTED: 24-Aug-18

DATE REVISED: 26-Jul-18

DESIGNED BY: SW

CHECKED BY: AW

Street	Manhole From	Manhole To	Length in metres	Tributary Area (Hectares) Increment Res.	Comm.	Ind.	Inst.	Road	Total	Accumulated Res.	Comm.	Ind.	Inst.	Road	Total	Tributary Population Increment Res.	Comm.	Ind.	Inst.	Total	Accumulated Res.	Comm.	Ind.	Inst.	Total	Q Average L/s	K Average	Peaking Factor M	Q Peak Dry L/s	Total Infil-tration L/s	Q Total L/s	SEWER Size (mm)	Slope (m/m)	Q (L/s)	V (m/s) Full Flow	V (m/s) Act. Flow	REMARKS
Avenue 3-Avenue 3-Burnhamthorpe Road																																					
Block P1	PLUG	B1				2.72			2.72			2.72			2.72			340		340			340		340													
Avenue 3	B1	B2	90			0.00		0.20	0.20			2.72		0.20	2.92			0		0			340		340	1.082	0.80	4.055	3.51	0.83	4.34	300	0.007	80.906	1.14	0.55	
Avenue 3	B2	B3	90			0.00		0.20	0.20			2.72		0.40	3.12			0		0			340		340	1.082	0.80	4.055	3.51	0.89	4.40	300	0.020	136.756	1.93	0.79	
Block P2-1	PLUG	B3				2.61			2.41			2.61			2.61			326		326			326		326													
Block P2-2	PLUG	B3				3.00			3.06			3.00			3.00			375		375			375		375													
Block P2-3	PLUG	B3				3.07			3.11			3.07			3.07			384		384			384		384													
Block P2-4	PLUG	B3				3.54			3.58			3.54			3.54			443		443			443		443													
Block G5-5	PLUG	B3				2.69			2.69			2.69			2.69			336		336			336		336													
Block G5-6	PLUG	B3				2.79			2.79			2.79			2.79			349		349			349		349													
Avenue 3	B3	B4	555			0.00		1.22	1.22			20.42		1.62	22.04			0		0			2553		2553	8.124	0.80	3.501	22.75	6.30	29.06	300	0.007	80.906	1.14	1.05	
Block P3	PLUG	B5				7.55			7.55			7.55			7.55			944		944			944		944													
Avenue 1	B5	B4	220			0.00		0.48	0.48			7.55		0.48	8.03			0		0			944		944	3.004	0.80	3.816	9.17	2.30	11.47	300	0.005	68.378	0.97	0.70	
Block C5-2	PLUG	B4				2.53			2.53			2.53			2.53			316		316			316		316													
Block G7	PLUG	B4				3.51			3.51			3.51			3.51			439		439			439		439													
Avenue 3	B4	B6	225			0.00		0.50	0.50			34.01		2.60	36.61			0		0			4251		4251	13.531	0.80	3.310	35.83	10.47	46.29	300	0.005	68.378	0.97	1.04	
Block G5-1	PLUG	B7				2.12			2.12			2.12			2.12			265		265			265		265													
Burnhamthorpe Road	B7	B8	150			0.00		0.39	0.39			2.12		0.39	2.51			0		0			265		265	0.843	0.80	4.101	2.77	0.72	3.49	300	0.012	105.930	1.50	0.61	
Block G5-2	PLUG	B8				2.84			2.84			2.84			2.84			355		355			355		355													
Block C5-1	PLUG	B8				1.71			1.71			1.71			1.71			214		214			214		214													
Burnhamthorpe Road	B8	B6	195			0.00		0.51	0.51			6.67		0.90	7.57			0		0			834		834	2.654	0.80	3.850	8.17	2.16	10.34	300	0.005	68.378	0.97	0.68	
Block C4-1	PLUG	B6				1.51			1.51			1.51			1.51			189		189			189		189													
Avenue 3	B6	B10	135			0.00		0.30	0.30			42.19		3.79	45.98			0		0			5274		5274	16.786	0.80	3.223	43.29	13.15	56.44	375	0.005	123.977	1.12	1.10	
Block C4-2	PLUG	B10				1.24			1.24			1.24			1.24			155		155			155		155													
Block G6	PLUG	B10				4.29			4.29			4.29			4.29			536		536			536		536													
Block C4-3	PLUG	B10				1.56			1.56			1.56			1.56			195		195			195		195													
Block C6	PLUG	B10				2.91			2.91			2.91			2.91			364		364			364		364													
Avenue 3	B10	D3	365			0.00		0.80	0.80			52.19		4.59	56.78			0		0	0		6524		6524	20.764	0.80	3.136	52.09	16.24	68.33	375	0.005	123.977	1.12	1.16	
Block P7	PLUG	D6				2.43			2.43			2.43			2.43			304		304			304		304													
Dundas Street	D6	D3	210			0.00		0.63	0.63			2.43	0.00	0.63	3.06			0		0			304		304	0.967	0.80	4.076	3.15	0.88	4.03	450	0.005	201.600	1.27	0.48	
Colonel William Parkway	D3	E1	55			0.00		0.14	0.14	56.00	0.00	98.03	0.00	12.41	166.44			0		0	2170	0	12254	0	14424	45.909	0.87	2.795	112.00	47.60	159.60	600	0.005	434.172	1.54	1.43	
Avenue One-Avenue Five-Burnhamthorpe Road-Dundas Street																																					
Block P4	PLUG	C1				11.64			11.64			11.64			11.64			1455		1455			1455		1455													
Avenue 1	C1	C2	150			0.00		0.33	0.33			11.64		0.33	11.97			0		0			1455		1455	4.631	0.80	3.689	13.67	3.42	17.09	300	0.025	152.897	2.16	1.36	
Avenue 1	C2	C3	95			0.00		0.21	0.21			11.64		0.54	12.18			0		0			1455		1455	4.631	0.80	3.689	13.67	3.48	17.15	300	0.005	68.378	0.97	0.80	
Block G8	PLUG	C3				3.70			3.70			3.70			3.70			463		463			463		463													
Block G9	PLUG	C3				7.31			7.31			7.31			7.31			914		914			914		914													
Avenue 5	C3	C4	330			0.00		0.86	0.86			22.65		1.40	24.05			0		0			2831		2831	9.012	0.80	3.464	24.97	6.88	31.85	300	0.005	68.378	0.97	0.95	
Block P5	PLUG	C5				3.89			3.89			3.89			3.89			486		486			486		486													
Block P6	PLUG	C5				3.87			3.87			3.87			3.87			484		484			484		484													
Burnhamthorpe Road	C5	C4	235			0.00		0.61	0.61			7.76		0.61	8.37			0		0			970		970	3.087	0.80	3.808	9.41	2.39	11.80	300	0.010	96.701	1.37	0.88	
Block G10	PLUG	C4				3.42			3.42			3.42			3.42			428		428			428		428													
Block C7	PLUG	C4				0.31			0.31			0.31			0.31			39		39			39		39													
Block C8	PLUG	C4				2.18			2.18			2.18			2.18			273		273			273		273													
Avenue 5	C4	D4	420			0.00		1.09	1.09			36.32		3.10	39.42			0		0			4540		4540	14.450	0.80	3.284	37.96	11.27	49.23	300	0.005	68.378	0.97	1.06	
Dundas Street	D4	EX. VALLEY-RIDGE	50			0.00		0.15	0.15			36.32	0.00	3.25	39.57			0		0			4540		4540	14.450	0.80	3.284	37.96	11.32	49.28	450	0.013	318.758	2.00	1.40	

THE REGIONAL MUNICIPALITY OF HALTON

PROJECT No.: 14-09222

PROJECT NAME: 407 West Employment Area

CONSULTANT: WSP

SANITARY DESIGN SHEET

OPTION 2

DATE PRINTED: 24-Aug-18

DATE REVISED: 26-Jul-18

DESIGNED BY: SW

CHECKED BY: AW

Street	Manhole From	Manhole To	Length in metres	Tributary Area (Hectares) Increment Res.	Comm.	Ind.	Inst.	Road	Total	Accumulated Res.	Comm.	Ind.	Inst.	Road	Total	Tributary Population Increment Res.	Comm.	Ind.	Inst.	Total	Accumulated Res.	Comm.	Ind.	Inst.	Total	Q Average L/s	K Average	Peaking Factor M	Q Peak Dry L/s	Total Infil-tration L/s	Q Total L/s	SEWER Size (mm)	Slope (m/m)	Q (L/s)	V (m/s) Full Flow	V (m/s) Act. Flow	REMARKS
Existing - By Others																																					
Colonel William Parkway	E1	23A		0.00					0.00	56.00	0.00	98.03	0.00	12.41	166.44	0				0	2170	0	12254	0	14424	45.909	0.87	2.795	112.00	47.60	159.60	600	0.017	800.573	2.83	2.15	
Colonel William Parkway	23A	22A		0.09					0.09	56.09	0.00	98.03	0.00	12.41	166.53	0				0	2170	0	12254	0	14424	45.909	0.87	2.795	112.01	47.63	159.63	600	0.017	800.573	2.83	2.15	
Colonel William Parkway	22A	21A		0.11					0.11	56.20	0.00	98.03	0.00	12.41	166.64	0				0	2170	0	12254	0	14424	45.909	0.87	2.795	112.02	47.66	159.68	600	0.017	800.573	2.83	2.15	
Fut. Phase 6	Plug 4	20A		4.88					4.88	4.88	0.00	0.00	0.00	0.00	4.88	659				659	659	0	0	0	659	2.098	1.00	3.910	8.20	1.40	9.60	200	0.005	23.192	0.74	0.70	
Colonel William Parkway	21A	20A		0.08					0.08	56.28	0.00	98.03	0.00	12.41	166.72	0				0	2170	0	12254	0	14424	45.909	0.87	2.795	112.03	47.68	159.71	600	0.017	800.573	2.83	2.15	
Colonel William Parkway	20A	19A		0.00					0.00	61.16	0.00	98.03	0.00	12.41	171.60	0				0	2829	0	12254	0	15083	48.006	0.88	2.776	116.85	49.08	165.92	600	0.004	363.254	1.28	1.26	
Colonel William Parkway	19A	18A		0.00					0.00	61.16	0.00	98.03	0.00	12.41	171.60	0				0	2829	0	12254	0	15083	48.006	0.88	2.776	116.85	49.08	165.92	600	0.004	363.254	1.28	1.26	
Colonel William Parkway	18A	17A		0.00					0.00	61.16	0.00	98.03	0.00	12.41	171.60	0				0	2829	0	12254	0	15083	48.006	0.88	2.776	116.85	49.08	165.92	600	0.004	363.254	1.28	1.26	
Colonel William Parkway	17A	16A		0.00					0.00	61.16	0.00	98.03	0.00	12.41	171.60	0				0	2829	0	12254	0	15083	48.006	0.88	2.776	116.85	49.08	165.92	600	0.004	363.254	1.28	1.26	
Fut. Phase 5B	Plug 3	148A		8.84					8.84	8.84	0.00	0.00	0.00	0.00	8.84	796				796	796	0	0	0	796	2.534	1.00	3.862	9.78	2.53	12.31	200	0.005	23.192	0.74	0.75	
Colonel William Parkway	148A	147A		0.59					0.59	9.43	0.00	0.00	0.00	0.00	9.43	32				32	828	0	0	0	828	2.635	1.00	3.851	10.15	2.70	12.85	200	0.005	23.192	0.74	0.76	
Colonel William Parkway	147A	141A		0.34					0.34	9.77	0.00	0.00	0.00	0.00	9.77	19				19	847	0	0	0	847	2.696	1.00	3.845	10.37	2.79	13.16	200	0.005	23.192	0.74	0.77	
Street A	145A	144A		0.76					0.76	0.76	0.00	0.00	0.00	0.00	0.76	42				42	42	0	0	0	42	0.134	1.00	4.329	0.58	0.22	0.80	200	0.012	35.929	1.14	0.43	
Street A	144A	143A		0.73					0.73	1.49	0.00	0.00	0.00	0.00	1.49	40				40	82	0	0	0	82	0.261	1.00	4.266	1.11	0.43	1.54	200	0.014	38.808	1.24	0.54	
Street A	143A	142A		0.19					0.19	1.68	0.00	0.00	0.00	0.00	1.68	10				10	92	0	0	0	92	0.293	1.00	4.253	1.25	0.48	1.73	200	0.015	40.170	1.28	0.56	
Street A	142A	141A		0.37					0.37	2.05	0.00	0.00	0.00	0.00	2.05	20				20	112	0	0	0	112	0.356	1.00	4.230	1.51	0.59	2.09	200	0.030	56.809	1.81	0.80	
Colonel William Parkway	141A	16A		0.00					0.00	11.82	0.00	0.00	0.00	0.00	11.82	0				0	959	0	0	0	959	3.052	1.00	3.812	11.63	3.38	15.02	250	0.005	42.050	0.86	0.79	
Colonel William Parkway	16A	15A		0.00					0.00	72.98	0.00	98.03	0.00	12.41	183.42	0				0	3788	0	12254	0	16042	51.059	0.89	2.749	124.26	52.46	176.72	600	0.004	363.254	1.28	1.27	
Colonel William Parkway	15A	14A		0.00					0.00	72.98	0.00	98.03	0.00	12.41	183.42	0				0	3788	0	12254	0	16042	51.059	0.89	2.749	124.26	52.46	176.72	600	0.004	363.254	1.28	1.27	
Colonel William Parkway	14A	13A		0.00					0.00	72.98	0.00	98.03	0.00	12.41	183.42	0				0	3788	0	12254	0	16042	51.059	0.89	2.749	124.26	52.46	176.72	600	0.004	363.254	1.28	1.27	
Colonel William Parkway	13A	Ex. 11A		0.00					0.00	72.98	0.00	98.03	0.00	12.41	183.42	0				0	3788	0	12254	0	16042	51.059	0.89	2.749	124.26	52.46	176.72	600	0.003	341.867	1.21	1.23	
Fut. Phase 5A	Plug 2	106A		7.30					7.30	7.30	0.00	0.00	0.00	0.00	7.30	548				548	548	0	0	0	548	1.744	1.00	3.953	6.90	2.09	8.98	200	0.004	20.744	0.66	0.63	
Street A	118A	117A		0.34					0.34	0.34	0.00	0.00	0.00	0.00	0.34	19				19	19	0	0	0	19	0.060	1.00	4.383	0.27	0.10	0.36	200	0.018	44.004	1.40	0.42	
Street A	117A	116A		0.23					0.23	0.57	0.00	0.00	0.00	0.00	0.57	13				13	32	0	0	0	32	0.102	1.00	4.350	0.44	0.16	0.61	200	0.011	34.399	1.09	0.42	
Street A	116A	115A		0.75					0.75	1.32	0.00	0.00	0.00	0.00	1.32	41				41	73	0	0	0	73	0.232	1.00	4.279	0.99	0.38	1.37	200	0.012	35.929	1.14	0.50	
Street A	115A	114A		0.65					0.65	1.97	0.00	0.00	0.00	0.00	1.97	36				36	109	0	0	0	109	0.347	1.00	4.233	1.47	0.56	2.03	200	0.013	37.396	1.19	0.57	
Street A	114A	113A		0.47					0.47	2.44	0.00	0.00	0.00	0.00	2.44	26				26	135	0	0	0	135	0.430	1.00	4.206	1.81	0.70	2.50	200	0.011	34.399	1.09	0.59	
Street A	113A	112A		0.24					0.24	2.68	0.00	0.00	0.00	0.00	2.68	13				13	148	0	0	0	148	0.471	1.00	4.193	1.98	0.77	2.74	200	0.012	35.929	1.14	0.63	
Street A	112A	111A		0.18					0.18	2.86	0.00	0.00	0.00	0.00	2.86	10				10	158	0	0	0	158	0.503	1.00	4.184	2.10	0.82	2.92	200	0.010	32.798	1.04	0.61	
Street A	111A	106A		0.22					0.22	3.08	0.00	0.00	0.00	0.00	3.08	12				12	170	0	0	0	170	0.541	1.00	4.173	2.26	0.88	3.14	200	0.025	51.859	1.65	0.86	
Fut. Phase 5A	Plug 1	106A		1.97					1.97	1.97	0.00	0.00	0.00	0.00	1.97	108				108	108	0	0	0	108	0.344	1.00	4.234	1.46	0.56	2.02	200	0.032	58.672	1.87	0.77	
Street B	106A	101A		0.18					0.18	12.53	0.00	0.00	0.00	0.00	12.53	0				0	826	0	0	0	826	2.629	1.00	3.852	10.13	3.58	13.71	200	0.004	20.744	0.66	0.71	
Colonel William Parkway	104A	103A		0.98					0.98	0.98	0.00	0.00	0.00	0.00	0.98	54				54	54	0	0	0	54	0.172	1.00	4.308	0.74	0.28	1.02	200	0.011	34.399	1.09	0.45	
Colonel William Parkway	103A	102A		0.33					0.33	1.31	0.00	0.00	0.00	0.00	1.31	18				18	72	0	0	0	72	0.229	1.00	4.280	0.98	0.37	1.36	200	0.010	32.798	1.04	0.46	
Colonel William Parkway	102A	101A		0.15					0.15	1.46	0.00	0.00	0.00	0.00	1.46	8				8	80	0	0	0	80	0.255	1.00	4.269	1.09	0.42	1.50	200	0.010	32.798	1.04	0.50	
Colonel William Parkway	101A	100A		0.19					0.19	14.18	0.00	0.00	0.00	0.00	14.18	10				10	916	0	0	0	916	2.916	1.00	3.824	11.15	4.06	15.21	200	0.004	20.744	0.66	0.73	
Colonel William Parkway	100A	Ex. 12A		0.41					0.41	14.59	0.00	0.00	0.00	0.00	14.59	23				23	939	0	0	0	939	2.989	1.00	3.817	11.41	4.17	15.58	200	0.005	22.959	0.73	0.79	
Colonel William Parkway	Ex. 12A	Ex. 11A		0.00					0.00	14.59	0.00	0.00	0.00	0.00	14.59	0				0	939	0	0	0	939	2.989	1.00	3.817	11.41	4.17	15.58	200	0.009	31.288	1.00	1.00	
Colonel William Parkway	Ex. 11A	Ex. 10A		0.00					0.00	87.57	0.00	98.03	0.00	12.41	198.01	0				0	4727	0	12254	0	16981	54.048	0.89	2.724	131.67	56.63	188.30	600	0.006	455.363	1.61	1.53	
Old Bronte Road External - By Others																																					
External 2	TO	E2		13.00					13.00	13.00					13.00	715				1635	715				715													
Old Bronte Road	E2	EX. MH9	415			0.00		1.25	1.25	13.00		0.00	0.00	1.25	14.25			0		0	715				715	2.276	1.00	3.889	8.85	4.07	12.93	200	0.010	32.798	1.04		

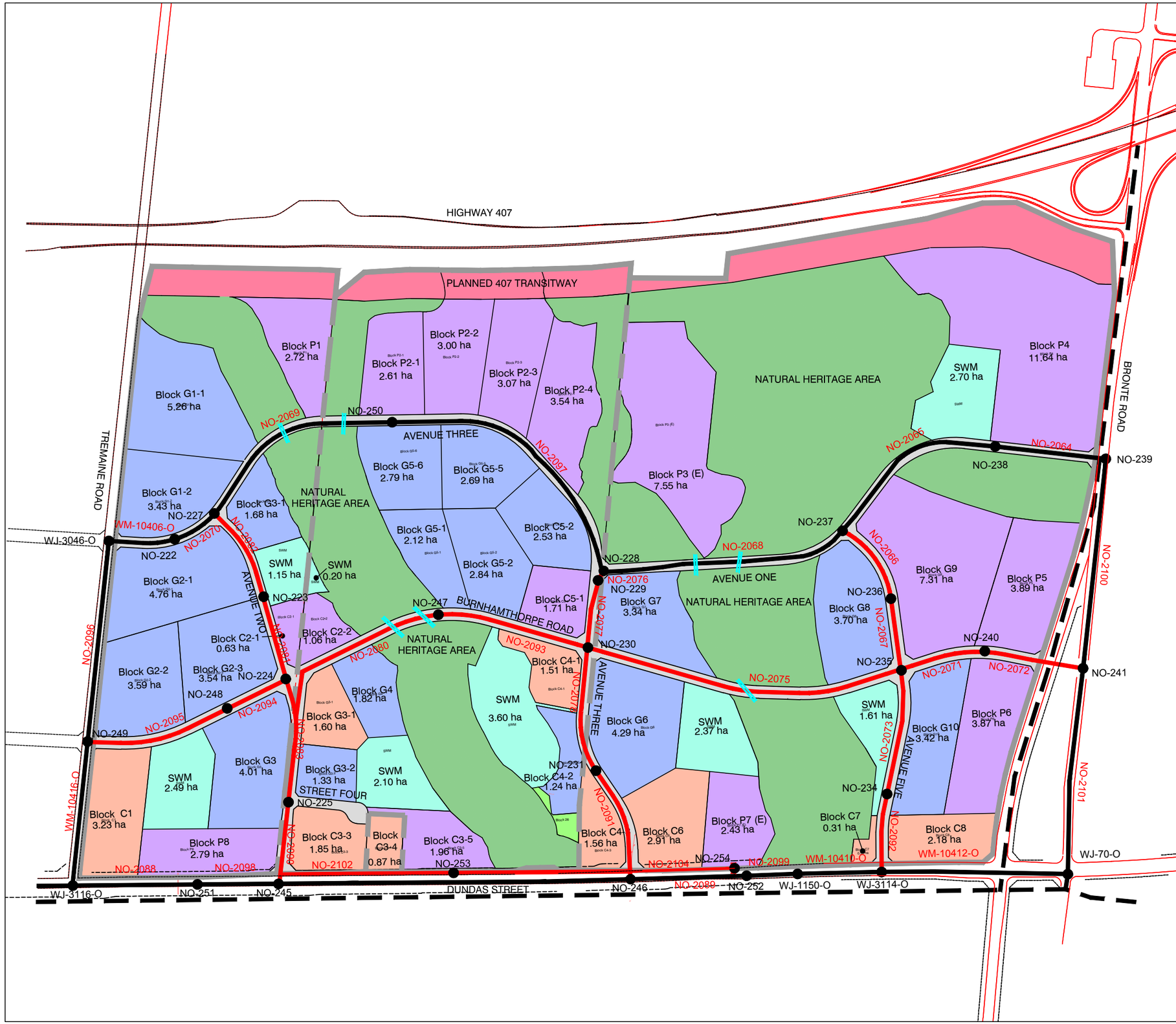
Existing Sewer built by others

External Sewer to be built by others

Appendix 8.2 – Water Analysis

Environmental Implementation Report / Functional Servicing Study for 14 Mile Creek West and the Lazy Pat Farm Property

WATER ANALYSIS PLAN



LEGEND

- EXISTING REGIONAL WATERMAIN
- PROPOSED REGIONAL WATERMAIN
- PROPOSED LOCAL WATERMAIN
- WATER ANALYSIS NODE
- FUTURE CULVERT CROSSING
- 407 WEST EMPLOYMENT AREA
- PROPERTY BOUNDARIES

NOTES:

- For the purposes of the analysis land use, natural heritage and storm water sizing and location assumptions have been made for the entire 407 West Employment Area
- Right-of-way requirements for future 407 Transitway to be determined
- The Natural Heritage System on lands owned by others is conceptual, as shown in the North Oakville West Secondary Plan, and is subject to further study.

Scale

0 100 200 300 400 500m

Client

QuadReal

Prepared by

wsp

Date

AUGUST 2018

Project No.

1409222.001

FIGURE A-8.2

407 West Employment Lands
14-09222
Water Analysis
Maximum Daily Flow - Pipe Report

ID	From Node	To Node	Length (m)	Diameter (mm)	Roughness	Flow (L/s)	Velocity (m/s)	Headloss (m)	HL/1000 (m/km)	Status	Total Forward Flow (ML)	Total Reverse Flow (ML)	Total Net Flow (ML)	Flow Reversal Count
NO-2064	NO-239	NO-238	201.06	600	120	14.87	0.05	0	0.01	Open				0
NO-2065	NO-238	NO-237	397.08	600	120	5.2	0.02	0	0	Open				0
NO-2066	NO-237	NO-236	177.95	300	120	5.2	0.07	0.01	0.03	Open				0
NO-2067	NO-236	NO-235	149.93	300	120	-3.94	0.06	0	0.02	Open				0
NO-2068	NO-237	NO-228	538.90	600	120	0	0	0	0	Closed				0
NO-2069	NO-227	NO-250	454.68	600	120	0	0	0	0	Closed				0
NO-2070	NO-222	NO-227	91.03	600	120	7.77	0.03	0	0	Open				0
NO-2071	NO-235	NO-240	179	300	120	-0.72	0.01	0	0	Open				0
NO-2072	NO-240	NO-241	137.52	300	120	-7.16	0.1	0.01	0.06	Open				0
NO-2073	NO-235	NO-234	259.63	300	120	-3.22	0.05	0	0.01	Open				0
NO-2075	NO-235	NO-230	667.9	300	120	0	0	0	0	Closed				0
NO-2076	NO-228	NO-229	8.23	300	120	-6.27	0.09	0	0.04	Open				0
NO-2077	NO-229	NO-230	145.77	300	120	-10.64	0.15	0.02	0.12	Open				0
NO-2078	NO-230	NO-231	261.63	300	120	-8.22	0.12	0.02	0.07	Open				0
NO-2080	NO-247	NO-224	357.76	300	120	-8.77	0.12	0.03	0.08	Open				0
NO-2081	NO-223	NO-224	197.08	300	120	0	0	0	0	Closed				0
NO-2082	NO-227	NO-223	180.27	300	120	7.77	0.11	0.01	0.07	Open				0
NO-2083	NO-224	NO-225	253.2	300	120	-8.77	0.12	0.02	0.08	Open				0
NO-2088	WJ-3116-O	NO-251	257.6	1,200.00	130	-11.75	0.01	0	0	Open				0
NO-2089	NO-246	NO-252	239.94	1,200.00	130	-49.2	0.04	0	0	Open				0
NO-2090	NO-225	NO-245	162.33	300	120	-15.36	0.22	0.04	0.23	Open				0
NO-2091	NO-231	NO-246	235.73	300	120	-17.78	0.25	0.07	0.3	Open				0
NO-2092	NO-234	WJ-3114-O	155.42	300	120	-8.12	0.11	0.01	0.07	Open				0
NO-2093	NO-230	NO-247	318.32	300	120	-2.42	0.03	0	0.01	Open				0
NO-2094	NO-224	NO-248	122.04	300	120	0	0	0	0	Closed				0
NO-2095	NO-249	NO-248	302.87	300	120	28.75	0.41	0.22	0.74	Open				0
NO-2096	NO-249	WJ-3046-O	417.52	600	120	14.57	0.05	0	0.01	Open				0
NO-2097	NO-250	NO-228	595.06	600	120	0	0	0	0	Open				0
NO-2098	NO-251	NO-245	164.44	1,200.00	130	-11.75	0.01	0	0	Open				0
NO-2099	NO-252	WJ-1150-O	144.25	1,200.00	130	-49.2	0.04	0	0	Open				0
NO-2100	NO-239	NO-241	433.99	600.00	120	-14.87	0.05	0	0.01	Open				0
NO-2101	NO-241	WJ-70-O	444.61	600.00	120	-22.03	0.08	0.01	0.02	Open				0
NO-2102	NO-245	NO-253	370.30	300.00	120	0.91	0.01	0	0	Open				0
NO-2103	NO-253	NO-246	365.89	300.00	120	-1.38	0.02	0	0	Open				0
NO-2104	NO-246	NO-254	241.64	150.00	120	2.01	0.11	0.04	0.16	Open				0
WM-10406-O	WJ-3046-O	NO-222	137.39	600	120	14.57	0.05	0	0.01	Open				0
WM-10408-O	NO-245	NO-246	733.46	1,200.00	130	-28.03	0.02	0	0	Open				0
WM-10410-O	WJ-3114-O	WJ-1150-O	139.97	1,200.00	130	59.02	0.05	0	0	Open				0
WM-10416-O	WJ-3116-O	NO-249	294.55	600	120	43.32	0.15	0.02	0.05	Open				0

407 West Employment Lands
14-09222
Water Analysis
Maximum Daily Flow - Junction Report

ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (psi)
NO-222	6.8	160	196.22	51.49
NO-223	8.19	159	196.21	52.89
NO-224	0	157.8	196.18	54.56
NO-225	6.29	152	196.2	62.84
NO-227	0	159.7	196.22	51.92
NO-228	6.27	152.4	196.13	62.17
NO-229	4.2	152	196.13	62.74
NO-230	0	151.3	196.15	63.76
NO-231	9.56	149	196.17	67.05
NO-234	4.9	153	196.23	61.46
NO-235	0	153.5	196.23	60.74
NO-236	9.14	155	196.22	58.6
NO-237	0	156	196.23	57.19
NO-238	9.67	157	196.23	55.77
NO-239	0	162	196.23	48.66
NO-240	6.44	155	196.23	58.61
NO-241	0	156	196.24	57.2
NO-245	0	153.8	196.24	60.33
NO-246	0	148	196.24	68.58
NO-247	6.52	153	196.15	61.34
NO-248	29.09	157	196	55.44
NO-249	0	158	196.22	54.34
NO-250	0	155	196.13	58.47
NO-251	0	154	196.24	60.05
NO-252	0	147	196.24	70
NO-253	2.36	151	196.24	64.31
NO-254	2.01	147	196.2	69.95
WJ-1150-O	0	152	196.24	62.89
WJ-3046-O	0	159	196.22	52.91
WJ-3114-O	0	152	196.24	62.89
WJ-3116-O	0	157	196.24	55.78

407 West Employment Lands
14-09222
Water Analysis
Peak Daily Flow - Pipe Report

ID	From Node	To Node	Length (m)	Diameter (mm)	Roughness	Flow (L/s)	Velocity (m/s)	Headloss (m)	HL/1000 (m/km)	Status	Total Forward Flow (ML)	Total Reverse Flow (ML)	Total Net Flow (ML)	Flow Reversal Count
NO-2064	NO-239	NO-238	201.06	600	120	23.51	0.08	0	0.02	Open				0
NO-2065	NO-238	NO-237	397.08	600	120	8.24	0.03	0	0	Open				0
NO-2066	NO-237	NO-236	177.95	300	120	8.24	0.12	0.01	0.07	Open				0
NO-2067	NO-236	NO-235	149.93	300	120	-6.19	0.09	0.01	0.04	Open				0
NO-2068	NO-237	NO-228	538.90	600	120	0	0	0	0	Closed				0
NO-2069	NO-227	NO-250	454.68	600	120	0	0	0	0	Closed				0
NO-2070	NO-222	NO-227	91.03	600	120	12.27	0.04	0	0.01	Open				0
NO-2071	NO-235	NO-240	179	300	120	-1.19	0.02	0	0	Open				0
NO-2072	NO-240	NO-241	137.52	300	120	-11.36	0.16	0.02	0.13	Open				0
NO-2073	NO-235	NO-234	259.63	300	120	-5	0.07	0.01	0.03	Open				0
NO-2075	NO-235	NO-230	667.9	300	120	0	0	0	0	Closed				0
NO-2076	NO-228	NO-229	8.23	300	120	-9.9	0.14	0.01	0.1	Open				0
NO-2077	NO-229	NO-230	145.77	300	120	-16.8	0.24	0.04	0.27	Open				0
NO-2078	NO-230	NO-231	261.63	300	120	-13.01	0.18	0.04	0.17	Open				0
NO-2080	NO-247	NO-224	357.76	300	120	-13.81	0.2	0.07	0.19	Open				0
NO-2081	NO-223	NO-224	197.08	300	120	0	0	0	0	Closed				0
NO-2082	NO-227	NO-223	180.27	300	120	12.27	0.17	0.03	0.15	Open				0
NO-2083	NO-224	NO-225	253.2	300	120	-13.81	0.2	0.05	0.19	Open				0
NO-2088	WJ-3116-O	NO-251	257.6	1,200.00	130	-39.54	0.03	0	0	Open				0
NO-2089	NO-246	NO-252	239.94	1,200.00	130	-98.67	0.09	0	0.01	Open				0
NO-2090	NO-225	NO-245	162.33	300	120	-24.22	0.34	0.09	0.54	Open				0
NO-2091	NO-231	NO-246	235.73	300	120	-28.1	0.4	0.17	0.71	Open				0
NO-2092	NO-234	WJ-3114-O	155.42	300	120	-12.74	0.18	0.03	0.16	Open				0
NO-2093	NO-230	NO-247	318.32	300	120	-3.79	0.05	0.01	0.02	Open				0
NO-2094	NO-224	NO-248	122.04	300	120	0	0	0	0	Closed				0
NO-2095	NO-249	NO-248	302.87	300	120	45.39	0.64	0.52	1.73	Open				0
NO-2096	NO-249	WJ-3046-O	417.52	600	120	23.01	0.08	0.01	0.02	Open				0
NO-2097	NO-250	NO-228	595.06	600	120	0	0	0	0	Open				0
NO-2098	NO-251	NO-245	164.44	1,200.00	130	-39.54	0.03	0	0	Open				0
NO-2099	NO-252	WJ-1150-O	144.25	1,200.00	130	-98.67	0.09	0	0.01	Open				0
NO-2100	NO-239	NO-241	433.99	600.00	120	-23.51	0.08	0.01	0.02	Open				0
NO-2101	NO-241	WJ-70-O	444.61	600.00	120	-34.87	0.12	0.02	0.04	Open				0
NO-2102	NO-245	NO-253	370.30	300.00	120	1.07	0.02	0	0	Open				0
NO-2103	NO-253	NO-246	365.89	300.00	120	-2.56	0.04	0	0.01	Open				0
NO-2104	NO-246	NO-254	241.64	150.00	120	3.18	0.18	0.09	0.37	Open				0
WM-10406-O	WJ-3046-O	NO-222	137.39	600	120	23.01	0.08	0	0.02	Open				0
WM-10408-O	NO-245	NO-246	733.46	1,200.00	130	-64.83	0.06	0	0	Open				0
WM-10410-O	WJ-3114-O	WJ-1150-O	139.97	1,200.00	130	135.36	0.12	0	0.01	Open				0
WM-10416-O	WJ-3116-O	NO-249	294.55	600	120	68.4	0.24	0.04	0.13	Open				0

407 West Employment Lands
14-09222
Water Analysis
Peak Daily Flow - Junction Report

ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (psi)
NO-222	10.74	160	190.92	43.96
NO-223	12.93	159	190.89	45.34
NO-224	0	157.8	190.83	46.96
NO-225	9.93	152	190.88	55.27
NO-227	0	159.7	190.92	44.38
NO-228	9.9	152.4	190.71	54.46
NO-229	6.63	152	190.72	55.04
NO-230	0	151.3	190.76	56.09
NO-231	15.09	149	190.8	59.43
NO-234	7.74	153	190.95	53.95
NO-235	0	153.5	190.94	53.23
NO-236	14.43	155	190.94	51.08
NO-237	0	156	190.95	49.68
NO-238	15.27	157	190.95	48.26
NO-239	0	162	190.95	41.16
NO-240	10.17	155	190.94	51.09
NO-241	0	156	190.96	49.7
NO-245	0	153.8	190.97	52.84
NO-246	0	148	190.97	61.09
NO-247	10.29	153	190.76	53.68
NO-248	45.93	157	190.41	47.49
NO-249	0	158	190.93	46.81
NO-250	0	155	190.71	50.77
NO-251	0	154	190.97	52.55
NO-252	0	147	190.97	62.51
NO-253	3.72	151	190.97	56.82
NO-254	3.18	147	190.88	62.38
WJ-1152-O	0	152	190.27	54.4
WJ-3046-O	0	159	190.92	45.38
WJ-3114-O	0	152	190.97	55.41
WJ-3116-O	0	157	190.97	48.29

407 West Employment Lands
14-09222
Water Analysis
Fire Flow Report

ID	Static Demand (L/s)	Static Pressure (psi)	Static Head (m)	Fire-Flow Demand (L/s)	Residual Pressure (psi)	Available Flow @Hydrant (L/s)	Available Flow Pressure (psi)
NO-222	6.8	51.49	196.22	250	46.96	954.72	20
NO-223	8.19	52.89	196.21	250	37.16	394.19	20
NO-224	0	54.56	196.18	250	40.64	430.62	20
NO-225	6.29	62.84	196.2	250	53.98	665.6	20
NO-227	0	51.92	196.22	250	47.2	916.73	20
NO-228	6.27	62.17	196.13	250	32.95	316.07	20
NO-229	4.2	62.74	196.13	250	38.17	350.74	20
NO-230	0	63.76	196.15	250	48.27	467.15	20
NO-231	9.56	67.05	196.17	250	55.95	614.62	20
NO-234	4.9	61.46	196.23	250	55.14	819.94	20
NO-235	0	60.74	196.23	250	54.98	877.51	20
NO-236	9.14	58.6	196.22	250	51.65	742.5	20
NO-237	0	57.19	196.23	250	52.59	1,019.99	20
NO-238	9.67	55.77	196.23	250	51.58	1,112.43	20
NO-239	0	48.66	196.23	250	44.74	1,024.89	20
NO-240	6.44	58.61	196.23	250	52.35	798.2	20
NO-241	0	57.2	196.24	205	54.63	1,592.04	20
NO-245	0	60.33	196.24	250	57.8	2,376.18	20
NO-246	0	68.58	196.24	250	66.09	2,694.72	20
NO-247	6.52	61.34	196.15	250	44.59	434.61	20
NO-248	29.09	55.44	196	250	31.02	342.64	20
NO-249	0	54.34	196.22	250	51.03	1,498.52	20
NO-250	0	58.47	196.13	250	28.11	287.10	20
NO-251	0	60.05	196.24	250	57.51	2,352.33	20
NO-252	0	70	196.24	250	67.53	2,765.65	20
NO-253	2.36	64.31	196.24	250	55.82	675.71	20
NO-254	2.01	69.95	196.2	250	-347.47	79.74	20
WJ-1150-O	0	62.89	196.24	250	60.43	2,566.58	20
WJ-3046-O	0	52.91	196.22	250	48.69	1,048.24	20
WJ-3114-O	0	62.89	196.24	250	60.44	2,581.93	20
WJ-3116-O	0	55.78	196.24	250	53.23	2,198.68	20

407 West Employment Lands
14-09222
Water Analysis
Average Daily Flow - Junction Demands

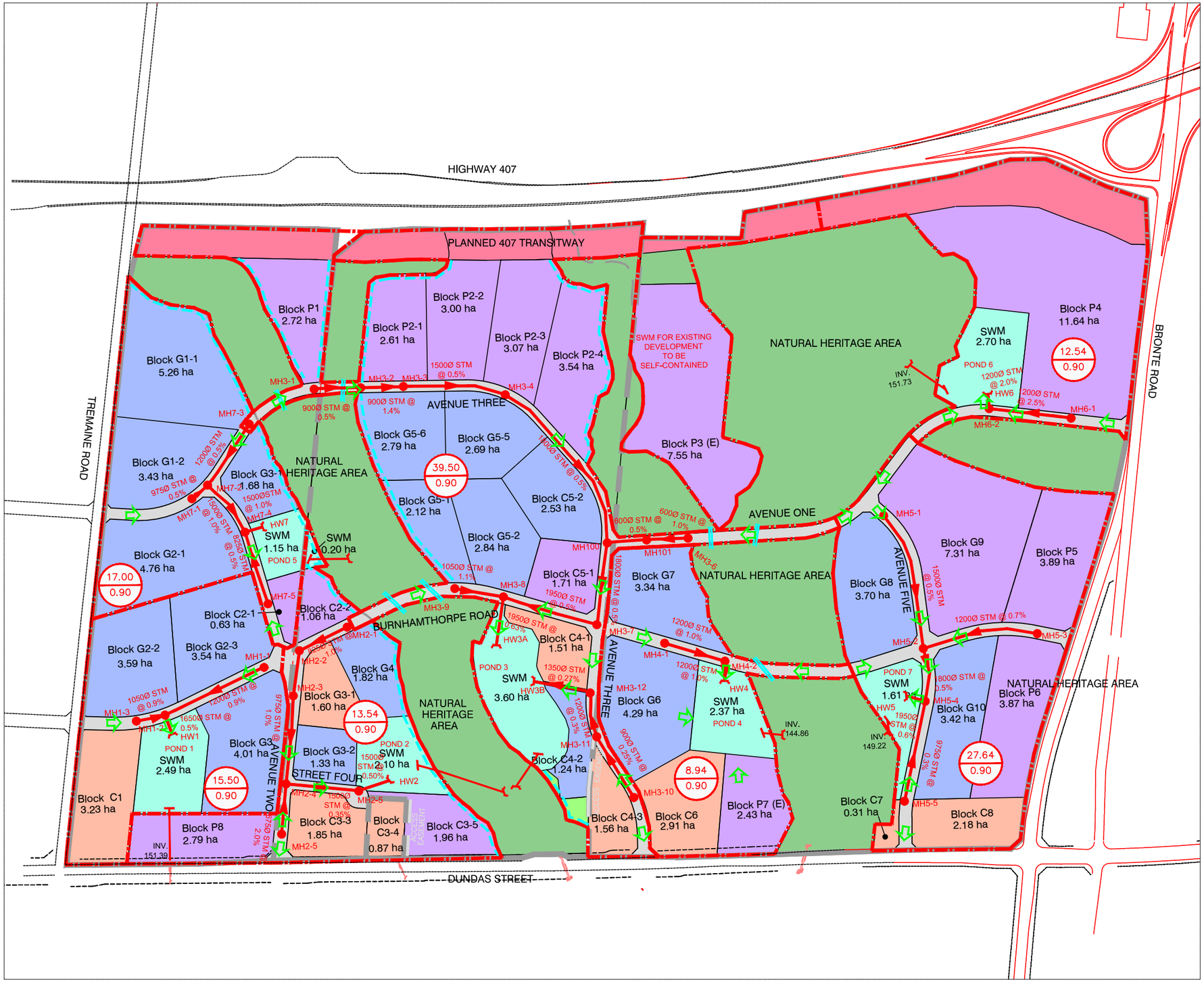
ID	Area (ha)	Demand (L/s)	Elevation (m)
NO-222	8.19	3.58	160.0
NO-223	9.86	4.31	159.0
NO-224	0.00	0.00	157.8
NO-225	7.57	3.31	152.0
NO-227	0.00	0.00	159.7
NO-228	7.55	3.30	152.4
NO-229	5.05	2.21	152.0
NO-230	0.00	0.00	151.3
NO-231	11.52	5.03	149.0
NO-234	5.91	2.58	153.0
NO-235	0.00	0.00	153.5
NO-236	11.01	4.81	155.0
NO-237	0.00	0.00	156.0
NO-238	11.64	5.09	157.0
NO-239	0.00	0.00	162.0
NO-240	7.76	3.39	155.0
NO-241	0.00	0.00	156.0
NO-245	0.00	0.00	153.8
NO-246	0.00	0.00	148.0
NO-247	7.84	3.43	153.0
NO-248	35.03	15.31	157.0
NO-249	0.00	0.00	158.0
NO-250	0.00	0.00	155.0
NO-251	0.00	0.00	154.0
NO-252	0.00	0.00	147.0
NO-253	2.83	1.24	151.0
NO-254	2.43	1.06	147.0
WJ-1150-O	0.00	0.00	152.0
WJ-3046-O	0.00	0.00	159.0
WJ-3114-O	0.00	0.00	151.5
WJ-3116-O	0.00	0.00	156.5

Demand Rate: 302 l/cap/day

Appendix 8.3 – Stormwater Design Sheets

Environmental Implementation Report / Functional Servicing Study for 14 Mile Creek West and the Lazy Pat Farm Property

STORMWATER ANALYSIS PLAN



LEGEND

- STORM SEWER
- STORM MANHOLE
- STORM DRAINAGE BOUNDARY
- OVERLAND FLOW ROUTE
- 34.0 / 0.90 — TRIBUTARY AREA (Ha) / RUN-OFF CO-EFFICIENT
- FUTURE CULVERT CROSSING
- PROPOSED INFILTRATION SWALE
- 407 WEST EMPLOYMENT AREA
- PROPERTY BOUNDARIES

NOTES:

- For the purposes of the analysis land use, natural heritage and storm water sizing and location assumptions have been made for the entire 407 West Employment Area
- Right-of-way requirements for future 407 Transitway to be determined
- The Natural Heritage System on lands owned by others is conceptual, as shown in the North Oakville West Secondary Plan, and is subject to further study.

Scale

0 100 200 300 400 500m

Client: QuadReal

Prepared by: wsp

Date: AUGUST 2018

Project No. 1409222.001

FIGURE A-8.3

FILE NAME: X:\DIVIO\14-09222\MUN\ASP-FSS Exhibits\APP 8.3_Stormwater Analysis.dwg_Fig A-8.3

SUBDIVISION: 407 West Employment Area

TOWN OF OAKVILLE

STORM SEWER DESIGN SHEET

SHEET NO.: 1 OF 1

I= 1170 / (tc+5.8)^0.843

PROJECT NO.: 14-09222 n= 0.013

CONSULTANT : WSP

DESIGNED BY: SW

DRAINAGE AREA PLAN NO.:

CHECKED BY: AW DATE REVISED: 18-Jul-18

LOCATION	FROM MH	TO MH	AREA (ha)	ACCUM AREA (ha)	RUNOFF CO-EFFICIENT	AxR	ACCUM. AxR	Tc minutes	INTENSITY (mm/hr)	EXPECTED FLOW (m³/s)	FALL (m)	LENGTH (m)	GRADIENT (%)	PIPE SIZE (mm)	CAPACITY (m³/s)	VELOCITY (m/s)	TIME OF FLOW (min)	DROP IN LOWER MH
Pond One																		
Block G2-3	PLUG	1-1	3.54		0.90	3.19												
Block G3	PLUG	1-1	4.01		0.90	3.61												
Burnhamthorpe Road	1-1	1-2	0.69	8.24	0.85	0.59	7.3807	10.00	114.21	2.342	1.980	220.0	0.9	1200	3.699	3.27	1.12	0.08
Block G2-2	PLUG	1-3	3.59		0.90	3.23												
Block C1	PLUG	1-3	3.23		0.90	2.91												
Burnhamthorpe Road	1-3	1-2	0.44	7.26	0.85	0.38	6.51	10.00	114.21	2.067	0.540	60.0	0.9	1050	2.591	2.99	0.33	0.08
Outlet	1-2	HW1	0.00	15.50	0.00	0.00	13.89	11.12	107.80	4.161	0.300	60.0	0.5	1650	6.445	3.01	0.33	0
Pond Two																		
Block C2-2	PLUG	2-1	1.06		0.90	0.95												
Block G4	PLUG	2-1	1.82		0.90	1.64												
Burnhamthorpe Road	2-1	2-2	0.42	3.30	0.85	0.35	2.95	10.00	114.21	0.935	1.600	160.0	1	825	1.435	2.69	0.99	0.03
Block G3-1	PLUG	2-2	1.60		0.90	1.44												
Avenue 2	2-2	2-3	0.50	5.39	0.85	0.42	4.81	10.99	108.49	1.448	2.250	225.0	1	975	2.241	3.00	1.25	0.03
Block P8	PLUG	2-4	2.79		0.90	2.51												
Avenue 2	2-4	2-3	0.22	3.01	0.85	0.19	2.70	10.00	114.21	0.856	2.000	100.0	2	675	1.189	3.32	0.50	0.05
Block G3-2	PLUG	2-3	1.33		0.90	1.20												
Block C3-3	PLUG	2-3	1.85		0.90	1.67												
Block C3-4	PLUG	2-3	0.87		0.90	0.78												
Block C3-5	PLUG	2-3	1.96		0.90	1.76												
Outlet	2-3	2-4	0.00	13.54	0.85	0.00	12.1304	12.24	102.12	3.441	0.490	140.0	0.35	1500	4.182	2.37	0.99	0
Outlet	2-4	HW2	0.00	13.54	0.85	0.00	12.1304	13.23	97.65	3.290	0.300	60.0	0.5	1500	4.998	2.83	0.35	0

SUBDIVISION: 407 West Employment Area

TOWN OF OAKVILLE

STORM SEWER DESIGN SHEET

SHEET NO.: 1 OF 1

I= 1170 / (tc+5.8)^0.843

PROJECT NO.: 14-09222 n= 0.013

CONSULTANT : WSP

DESIGNED BY: SW

DRAINAGE AREA PLAN NO.:

CHECKED BY: AW DATE REVISED: 18-Jul-18

LOCATION	FROM MH	TO MH	AREA (ha)	ACCUM AREA (ha)	RUNOFF CO-EFFICIENT	AxR	ACCUM. AxR	Tc minutes	INTENSITY (mm/hr)	EXPECTED FLOW (m³/s)	FALL (m)	LENGTH (m)	GRADIENT (%)	PIPE SIZE (mm)	CAPACITY (m³/s)	VELOCITY (m/s)	TIME OF FLOW (min)	DROP IN LOWER MH
Pond Three A (WEST)																		
Block P1	Plug	3-1	2.72		0.90	2.45												
Avenue 3	3-1	3-2	0.53	3.25	0.85	0.45	2.90	10.00	114.21	0.919	0.450	90.0	0.5	900	1.280	2.01	0.75	0.05
Avenue 3	3-2	3-3	0.19	3.44	0.85	0.16	3.06	10.75	109.86	0.933	1.190	85.0	1.4	900	2.142	3.37	0.42	0.05
Block P2-1	PLUG	3-3	2.61		0.90	2.35												
Block P2-2	PLUG	3-3	3.00		0.90	2.70												
Block G5-6	PLUG	3-3	2.79		0.90	2.51												
Avenue 3	3-3	3-4	0.45	12.29	0.85	0.38	11.00	11.17	107.56	3.286	1.025	205.0	0.5	1500	4.998	2.83	1.21	0.03
Block P2-3	PLUG	3-4	3.07		0.90	2.76												
Block P2-4	PLUG	3-4	3.54		0.90	3.19												
Block G5-5	PLUG	3-4	2.69		0.90	2.42												
Avenue 3	3-4	100	0.83	22.41	0.85	0.70	20.07035	12.37	101.50	5.659	1.875	375.0	0.5	1800	8.128	3.19	1.96	0.03
Avenue 1	3-6	101	0.85	0.85	0.85	0.72		10.00	114.21	0.000	0.600	60.0	1	600	0.614	2.17	0.46	0.03
Avenue 1	101	100	0.18	0.18	0.85	0.15	0.86955	10.46	111.48	0.269	0.400	80.0	0.5	600	0.434	1.54	0.87	0.03
Block C5-2	PLUG	100	2.84		0.90	2.56												
Avenue 3	100	3-7	0.35	26.45	0.85	0.30	22.93	14.33	93.12	5.930	0.800	160.0	0.5	1800	8.128	3.19	0.83	0.05
Block C5-1	PLUG	3-7	1.71		0.90	1.54												
Burnhamthorpe Road	3-7	3-8	0.51	28.67	0.85	0.43	24.90	15.17	89.98	6.223	0.975	195.0	0.5	1950	10.062	3.37	0.96	0.05
Block G5-1	PLUG	3-9	2.12		0.90	1.91												
Block G5-2	PLUG	3-9	2.84		0.90	2.56												
Burnhamthorpe Road	3-9	3-8	0.85	5.81	0.85	0.72	5.18	10.00	114.21	1.644	1.100	100.0	1.1	1050	2.864	3.31	0.50	0.03
Outlet	3-8	HW3A	0.00	34.47	0.85	0.00	30.08	16.13	86.63	7.238	0.536	85.0	0.63	1950	11.295	3.78	0.37	0
														*Install equivalent horizontal elliptical pipe (1750x2700)				
Pond Three B (EAST)																		
Block C4-3	PLUG	3-10	1.56		0.90	1.40												
Avenue 3	3-10	3-11	0.31	1.87	0.85	0.26	1.67	10.00	114.21	0.591	0.350	140.0	0.25	900	0.905	1.42	1.64	0.05
										*Pipe to convey 100-year flow from road area								
Block C4-2	PLUG	3-11	1.24		0.90	1.12												
Avenue 3	3-11	3-12	0.20	3.31	0.85	0.17	2.95	11.64	105.09	0.956	0.270	90.0	0.3	1200	2.135	1.89	0.79	0.05
										*Pipe to convey 100-year flow from road area								
Block C4-1	PLUG	3-12	1.51		0.90	1.36												
Outlet	3-12	HW3B	0.21	5.03	0.85	0.18	4.49	12.43	101.22	1.390	0.365	135.0	0.27	1350	2.773	1.94	1.16	0
										*Pipe to convey 100-year flow from road area				*Install equivalent horizontal elliptical pipe (1100x1750)				

SUBDIVISION: 407 West Employment Area

TOWN OF OAKVILLE

STORM SEWER DESIGN SHEET

I= 1170 / (tc+5.8)^0.843

SHEET NO.: 1 OF 1

PROJECT NO.: 14-09222

n= 0.013

CONSULTANT : WSP

DRAINAGE AREA PLAN NO.:

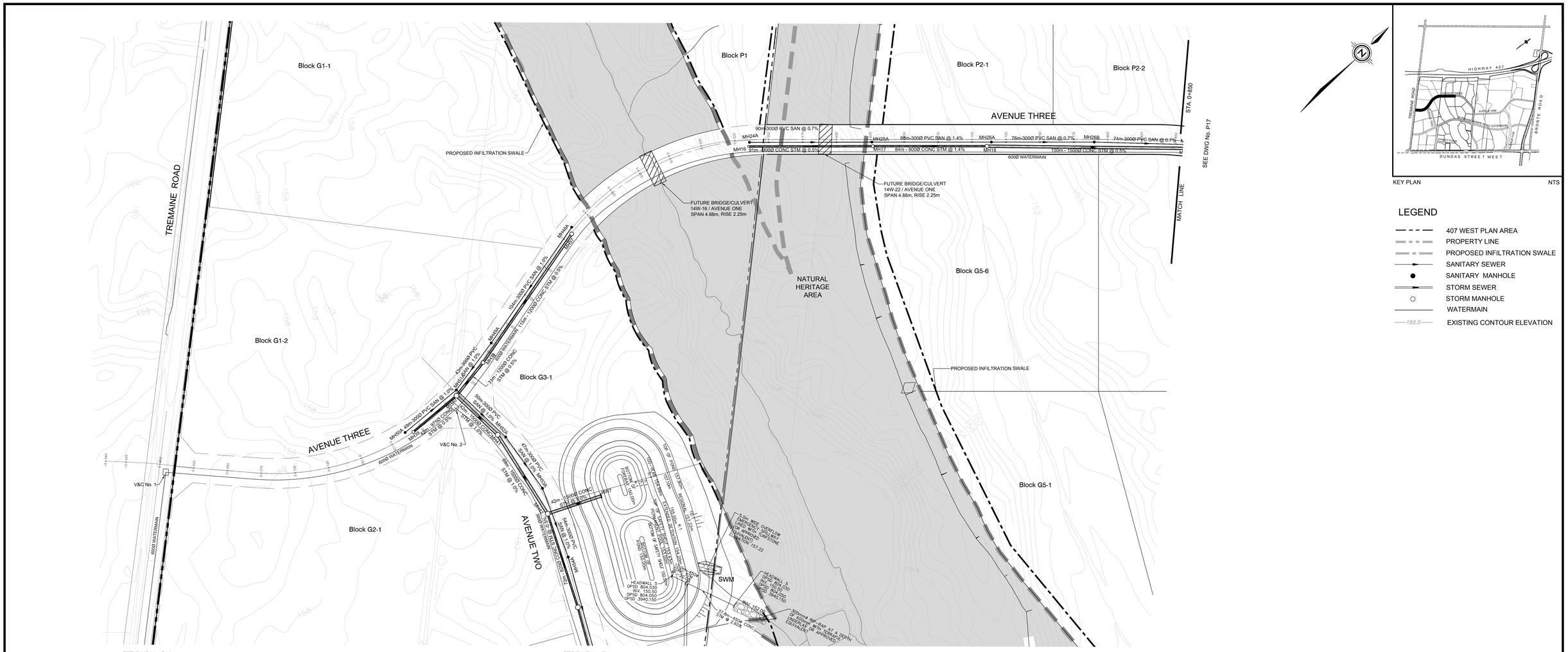
DESIGNED BY: SW

CHECKED BY: AW

DATE REVISED: 18-Jul-18

LOCATION	FROM MH	TO MH	AREA (ha)	ACCUM AREA (ha)	RUNOFF CO-EFFICIENT	AxR	ACCUM. AxR	Tc minutes	INTENSITY (mm/hr)	EXPECTED FLOW (m³/s)	FALL (m)	LENGTH (m)	GRADIENT (%)	PIPE SIZE (mm)	CAPACITY (m³/s)	VELOCITY (m/s)	TIME OF FLOW (min)	DROP IN LOWER MH
Pond Four																		
Block G7	PLUG	4-1	3.34		0.90	3.01												
Block G6	PLUG	4-1	4.29		0.90	3.86												
Burnhamthorpe Road	4-1	4-2	0.66	8.29	0.85	0.56	7.43	10.00	114.21	2.357	1.300	130.0	1	1200	3.899	3.45	0.63	0.08
Outlet	4-2	HW4	0.65	8.94	0.85	0.55	7.98	10.63	110.52	2.451	0.400	40.0	1	1200	3.899	3.45	0.19	0
Pond Five																		
Block G1-2	PLUG	7-1	3.43		0.90	3.09												
Avenue 3	7-1	7-2	0.33	3.76	0.85	0.28	3.37	10.00	114.21	1.068	0.200	40.0	0.5	975	1.585	2.12	0.31	0.08
Block G1-1	PLUG	7-3	5.26		0.90	4.73												
Avenue 3	7-3	7-2	0.32	5.58	0.85	0.27	5.01	10.00	114.21	1.588	0.725	145.0	0.5	1200	2.757	2.44	0.99	0.08
Block G2-1	PLUG	7-2	4.76		0.90	4.28												
Block G3-1	PLUG	7-2	1.68		0.90	1.51												
Avenue 2	7-2	7-4	0.24	16.02	0.85	0.21	14.3744	10.99	108.50	4.332	1.100	110.0	1	1500	7.069	4.00	0.46	0.08
Block C2-1	PLUG	7-5	0.63		0.90	0.57												
Avenue 2	7-5	7-4	0.35	0.98	0.85	0.30	0.8662	10.00	114.21	0.275	0.800	160.0	0.5	825	1.015	1.90	1.40	0.08
Outlet	7-4	HW7	0.00	17.00	0.85	0.00	15.24055	11.45	106.07	4.536	0.450	45.0	1	1500	7.069	4.00	0.19	0.00
Pond Six																		
Block P4	PLUG	6-1	11.64		0.90	10.48												
Avenue 1	6-1	6-2	0.54	12.18	0.85	0.46	10.934	10.00	114.21	3.469	3.250	130.0	2.5	1200	6.164	5.45	0.40	0.03
Outlet	6-2	HW6	0.36	12.54	0.85	0.31	11.24	10.40	111.85	3.493	0.600	30.0	2	1200	5.514	4.88	0.10	0
Pond Seven																		
Block G8	Plug	5-1	3.70		0.90	3.33												
Block G9	Plug	5-1	7.31		0.90	6.58												
Avenue 5	5-1	5-2	1.31	12.32	0.85	1.11	11.02	10.00	114.21	3.497	1.400	280.0	0.5	1500	4.998	2.83	1.65	0.05
Block P5	PLUG	5-3	3.89		0.90	3.50												
Block P6	PLUG	5-3	3.87		0.90	3.48												
Burnhamthorpe Road	5-3	5-2	0.77	8.53	0.85	0.65	7.64	10.00	114.21	2.423	1.575	225.0	0.7	1200	3.262	2.88	1.30	0.05
Avenue 5	5-2	5-4	0.66	21.51	0.85	0.56	19.22	11.65	105.04	5.609	0.525	105.0	0.5	1800	8.128	3.19	0.55	0.08
Block C8	Plug	5-5	2.18		0.90	1.96												
Avenue 5	5-5	5-4	0.53	2.71	0.85	0.45	2.42	10.00	114.21	0.875	0.615	205.0	0.3	975	1.227	1.64	2.08	0.05
										*Pipe to convey 100-year flow from road area								
Block G10	Plug	5-4	3.42		0.90	3.08												
Outlet	5-4	HW5	0.00	27.64	0.85	0.00	24.71590	12.20	102.34	7.123	0.240	40.0	0.6	1950	11.022	3.69	0.18	0.00
										*Pipe to convey 100-year flow from road area								

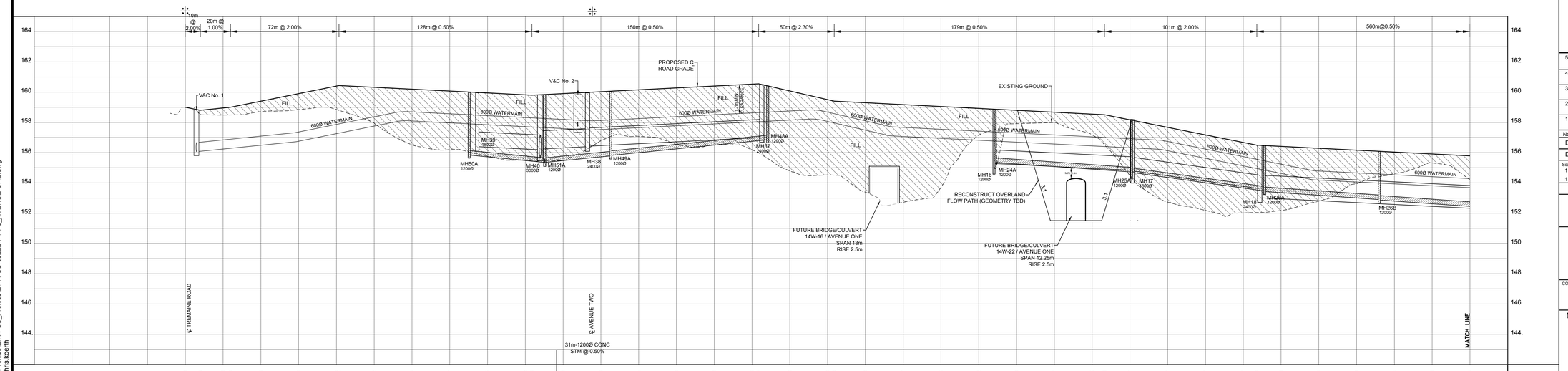
Appendix 8.4 – Conceptual Plan Profiles



KEY PLAN NTS

LEGEND

- 407 WEST PLAN AREA
- PROPERTY LINE
- PROPOSED INFILTRATION SWALE
- SANITARY SEWER
- SANITARY MANHOLE
- STORM SEWER
- STORM MANHOLE
- WATERMAIN
- 150.0 EXISTING CONTOUR ELEVATION



ALL DIMENSIONS AND ELEVATIONS ARE IN METRES UNLESS OTHERWISE NOTED.

DRAWINGS ARE NOT DIGITALLY CORRECT. LAYOUT TO BE COMPLETED BY OFFSETS.

BENCHMARKS

MTO BENCHMARK BM 81.8108. ELEVATION 167.059 TABLET ON CULVERT, SOUTHWEST CORNER OF DUNDAS STREET AND TRAFALGAR ROAD (1978 DATUM).

No	Date	By	
5	AUG 2018		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
4	JUN 2017		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
3	NOV 2014		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
2	NOV 2013		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
1	JUN 2013		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION

Design	S.W.	Ch'kd	A.W.	Date
Drawn	CAD 14	Ch'kd		DECEMBER 2012

Scale 1:1000 Horiz. 20 10 0 20 40 60 80 100
1:100 Vert. 5 4 3 2 1 0 1 2 3 4 5

References

CONSULTANT

wsp

MUNICIPALITY

Halton REGION — Regional Municipality of Halton

TOWN OF OAKVILLE

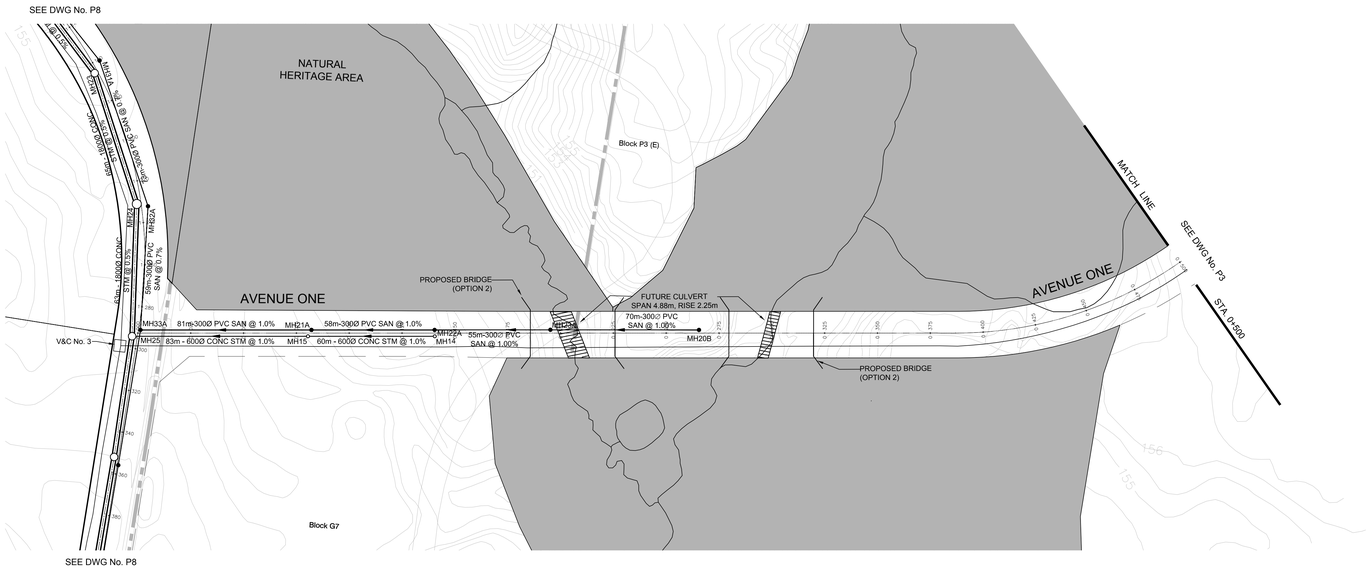
TITLE

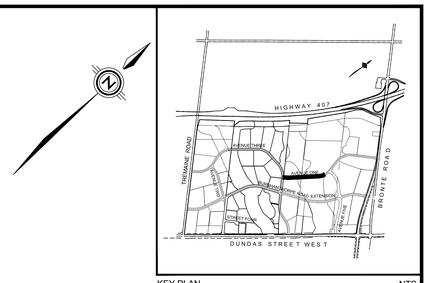
407 WEST EMPLOYMENT AREA CONCEPTUAL PLAN AND PROFILES AVENUE ONE

STA 0+000 TO STA 0+850

Municipal Drawing No	Regional Drawing No
WSP File No 14-09222	Drawing No P1

FILENAME: X:\DIV\0\14-09222\MUN\Profiles\EIR-FSS_Profiles\EIR-FSS-09222-P1-P3_AVENUE ONE.dwg
PLOTDATE: Aug 28, 2018 - 1:26pm, chris.koerth

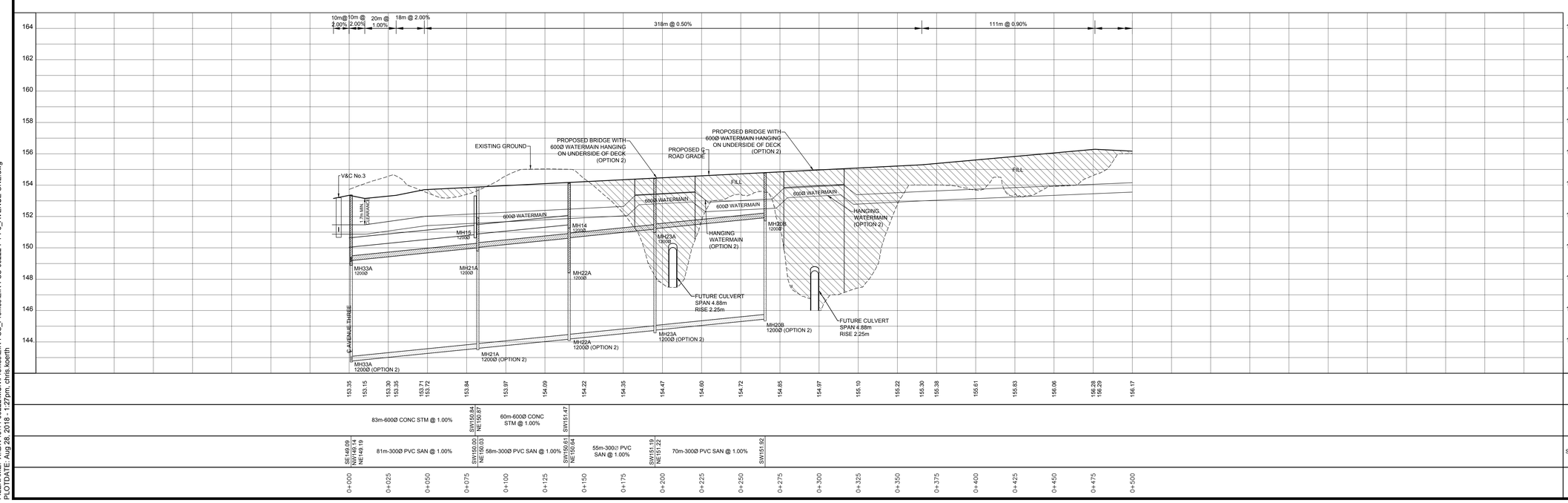




KEY PLAN NTS

LEGEND

- 407 WEST PLAN AREA
- PROPERTY LINE
- PROPOSED INFILTRATION SWALE
- SANITARY SEWER
- SANITARY MANHOLE
- STORM SEWER
- STORM MANHOLE
- WATERMAIN
- 150.0 EXISTING CONTOUR ELEVATION



ALL DIMENSIONS AND ELEVATIONS ARE IN METRES UNLESS OTHERWISE NOTED.

DRAWINGS ARE NOT DIGITALLY CORRECT. LAYOUT TO BE COMPLETED BY OFFSETS.

BENCHMARKS
MTO BENCHMARK BM 81.8108. ELEVATION 167.059
TABLET ON CULVERT, SOUTHWEST CORNER OF DUNDAS STREET AND TRAFALGAR ROAD (1978 DATUM).

No	Date	By	
5	AUG 2018		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
4	JUN 2017		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
3	NOV 2014		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
2	NOV 2013		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
1	JUN 2013		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION

Design	S.W.	Ch'kd	A.W.	Date
Drawn	CAD 14	Ch'kd		DECEMBER 2012
Scale 1:1000 Horiz. / 1:100 Vert.				References

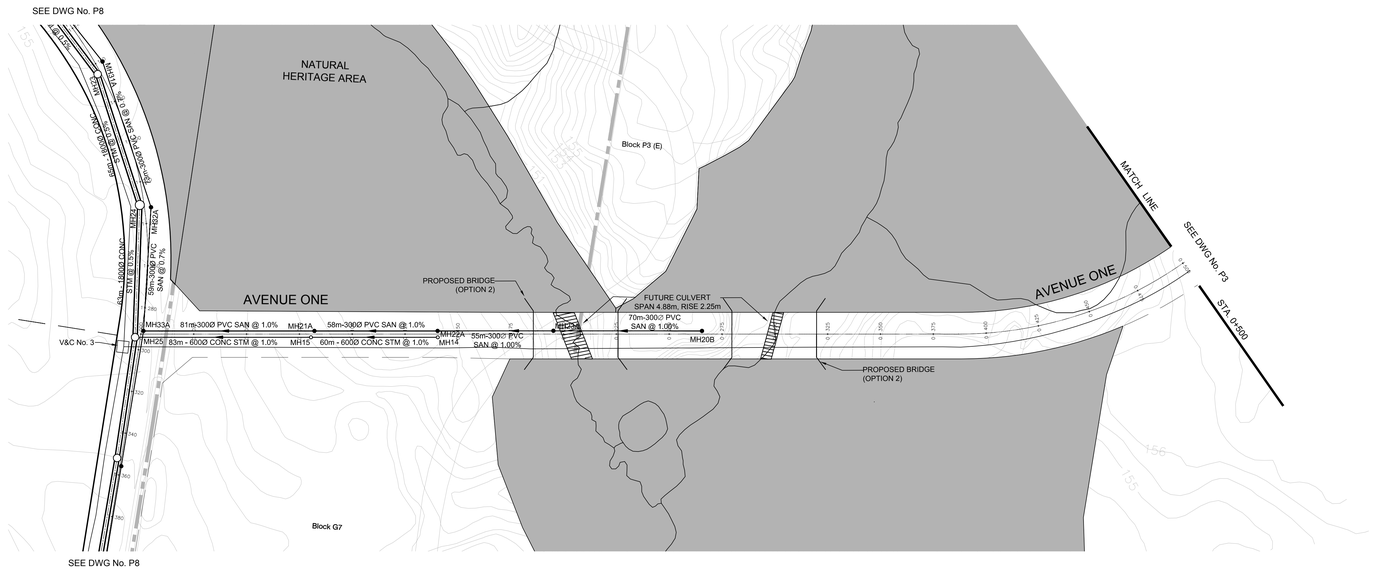
CONSULTANT

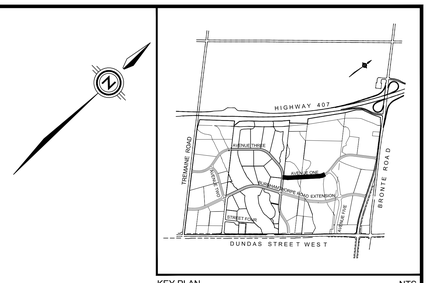
MUNICIPALITY
Halton Region — Regional Municipality of Halton
TOWN OF OAKVILLE

TITLE
407 WEST EMPLOYMENT AREA
CONCEPTUAL
PLAN AND PROFILES
AVENUE ONE
STA 0+000 TO STA 0+500

Municipal Drawing No	Regional Drawing No
WSP File No 14-09222	Drawing No P2

FILENAME: X:\DIV\10\14-09222\MUN\Profiles\EIR-FSS_Profiles\EIR-FSS-09222-P1-P3_AVENUE ONE.dwg
PLOTDATE: Aug 24, 2018 - 1:27pm, chris.north

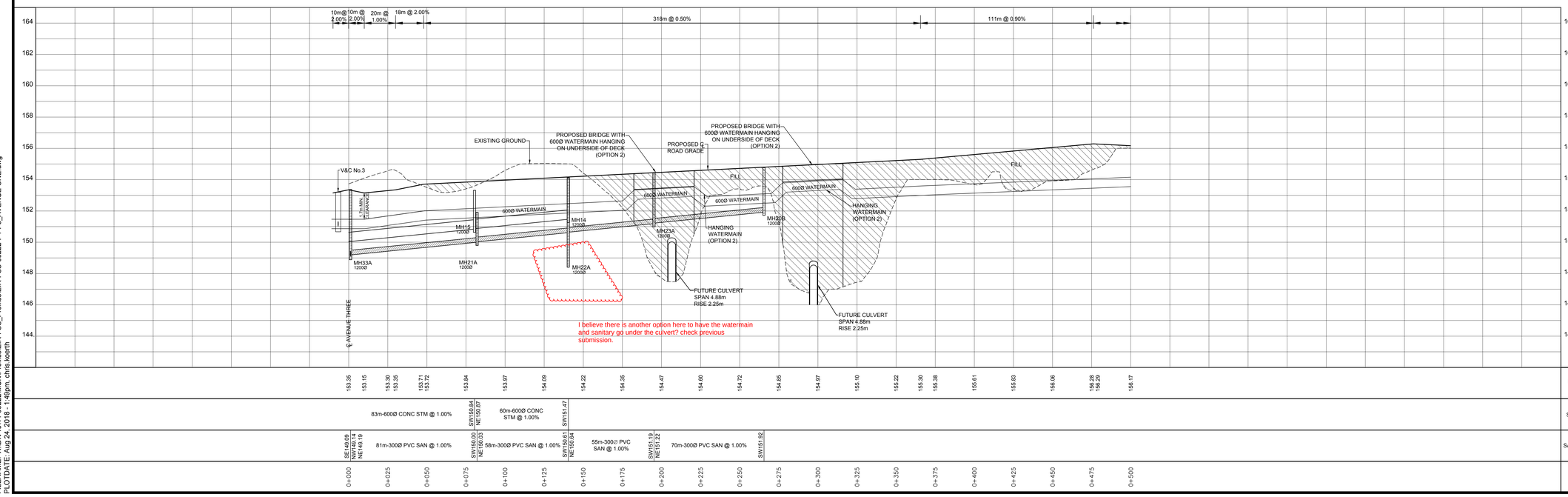




KEY PLAN NTS

LEGEND

- 407 WEST PLAN AREA
- PROPERTY LINE
- PROPOSED INFILTRATION SWALE
- SANITARY SEWER
- SANITARY MANHOLE
- STORM SEWER
- STORM MANHOLE
- WATERMAIN
- 150.0 EXISTING CONTOUR ELEVATION



ALL DIMENSIONS AND ELEVATIONS ARE IN METRES UNLESS OTHERWISE NOTED.

DRAWINGS ARE NOT DIGITALLY CORRECT. LAYOUT TO BE COMPLETED BY OFFSETS.

BENCHMARKS
MTO BENCHMARK BM 81.8108. ELEVATION 167.059
TABLET ON CULVERT, SOUTHWEST CORNER OF DUNDAS STREET AND TRAFALGAR ROAD (1978 DATUM).

No	Date	By	
5	AUG 2018		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
4	JUN 2017		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
3	NOV 2014		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
2	NOV 2013		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
1	JUN 2013		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION

Design	S.W.	Ch'kd	A.W.	Date
Drawn	CAD 14	Ch'kd		DECEMBER 2012
Scale 1:1000 Horiz. / 1:100 Vert.				References

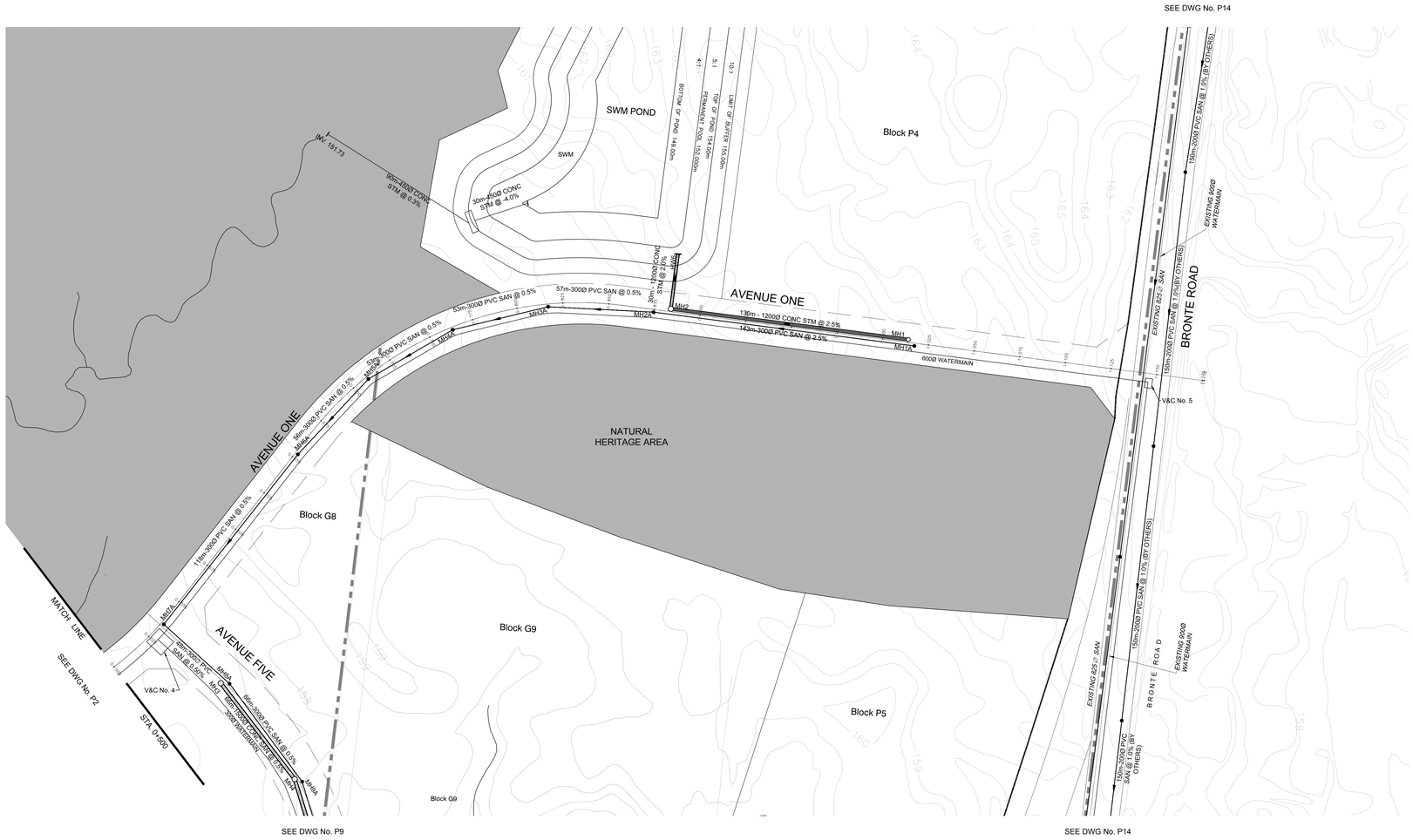
CONSULTANT

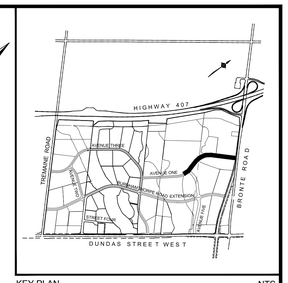
MUNICIPALITY
Halton Region — Regional Municipality of Halton
TOWN OF OAKVILLE

TITLE
407 WEST EMPLOYMENT AREA
CONCEPTUAL
PLAN AND PROFILES
AVENUE ONE
STA 0+000 TO STA 0+500

Municipal Drawing No	Regional Drawing No
WSP File No 14-09222	Drawing No P2

FILENAME: X:\DIV\10\14-09222\MUN\Profiles\EIR-FSS_Profiles\EIR-FSS-09222-P1-P3_AVENUE ONE.dwg
PLOTDATE: Aug 24, 2018 - 1:49pm, chris.north

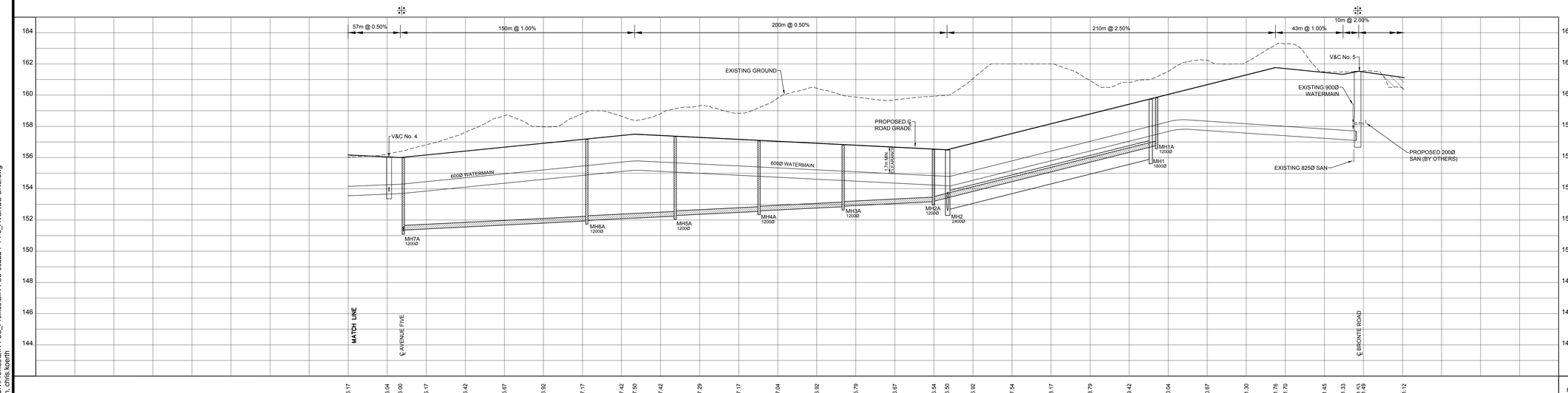




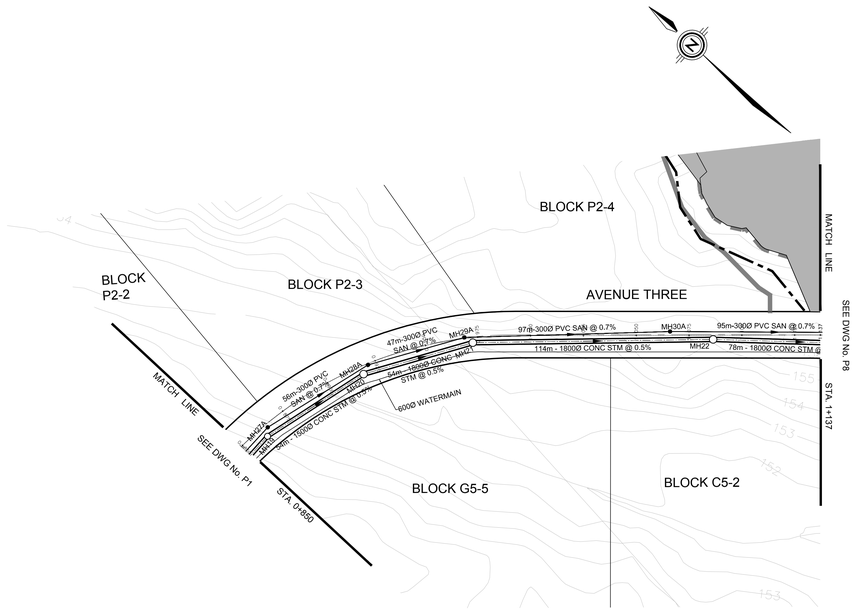
KEY PLAN NTS

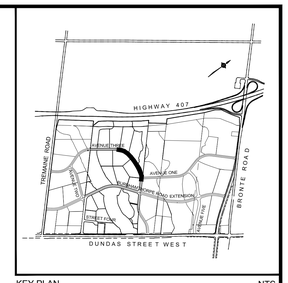
LEGEND

- 407 WEST PLAN AREA
- PROPERTY LINE
- PROPOSED INFILTRATION SWALE
- SANITARY SEWER
- SANITARY MANHOLE
- STORM SEWER
- STORM MANHOLE
- WATERMAIN
- 150.0 EXISTING CONTOUR ELEVATION



| | | |

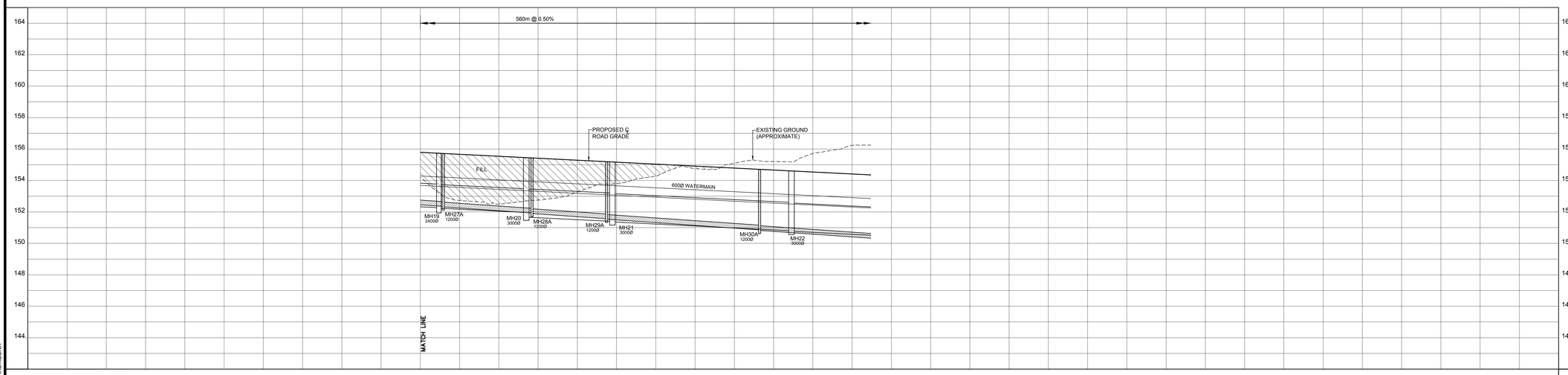




KEY PLAN NTS

LEGEND

- 407 WEST PLAN AREA
- PROPERTY LINE
- PROPOSED INFILTRATION SWALE
- SANITARY SEWER
- SANITARY MANHOLE
- STORM SEWER
- STORM MANHOLE
- WATERMAIN
- 150.0 EXISTING CONTOUR ELEVATION



CHAINAGE	PROPOSED GRADE	STORM SEWER	SANITARY SEWER (OPTION 1)
0+850	155.79		74m-300Ø PVC SAN @ 0.70%
0+875	155.66	SW152.27 NE152.24	SW152.35 NE152.32
0+900	155.54	54m-1500Ø CONC STM @ 0.50%	56m-300Ø PVC SAN @ 0.70%
0+925	155.41	SW151.96 E151.66	SW151.93 E151.90
0+950	155.29	54m-1800Ø CONC STM @ 0.50%	47m-300Ø PVC SAN @ 0.70%
0+975	155.16	W151.40 E151.37	W151.57 E151.54
1+000	155.04	114m-1800Ø CONC STM @ 0.50%	97m-300Ø PVC SAN @ 0.70%
1+025	154.91		
1+050	154.79		
1+075	154.66	W150.80 E150.77	W150.85 E150.82
1+100	154.54	78m-1800Ø CONC STM @ 0.50%	95m-300Ø PVC SAN @ 0.70%
1+125	154.41		
1+137	154.35		

ALL DIMENSIONS AND ELEVATIONS ARE IN METRES UNLESS OTHERWISE NOTED.

DRAWINGS ARE NOT DIGITALLY CORRECT. LAYOUT TO BE COMPLETED BY OFFSETS.

BENCHMARKS
MTO BENCHMARK BM 81.8108. ELEVATION 167.059
TABLET ON CULVERT, SOUTHWEST CORNER OF DUNDAS STREET AND TRAFALGAR ROAD (1978 DATUM).

No	Date	By	
5	AUG 2018		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
4	JUN 2017		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
3	NOV 2014		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
2	NOV 2013		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
1	JUN 2013		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION

Design	S.W.	Ch'kd	A.W.	Date
Drawn	CAD 14	Ch'kd		DECEMBER 2012

Scale 1:1000 Horiz. 20 10 0 20
1:100 Vert. 2 1 0 2

References

CONSULTANT wsp

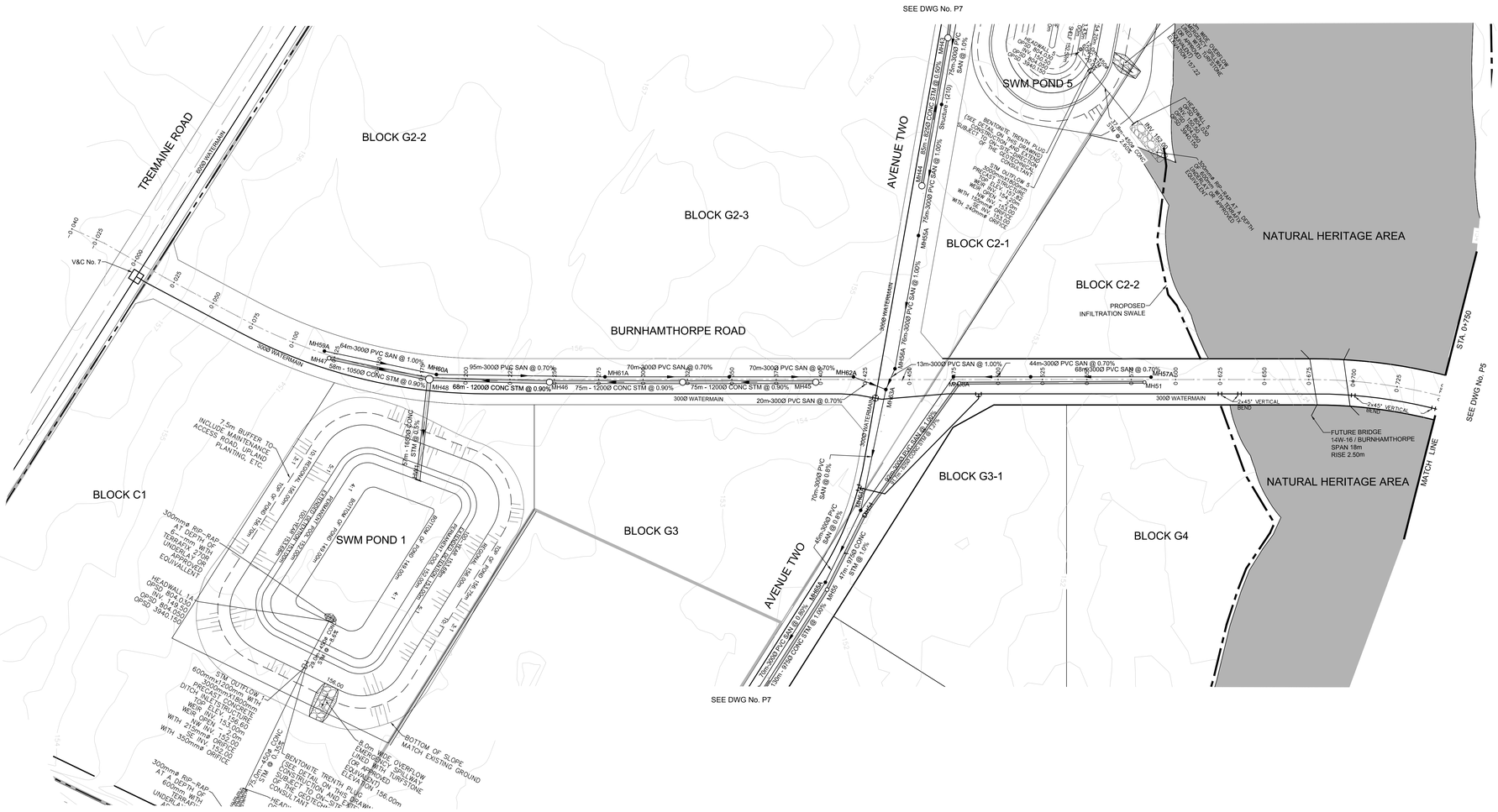
MUNICIPALITY
Halton Region — Regional Municipality of Halton
TOWN OF OAKVILLE

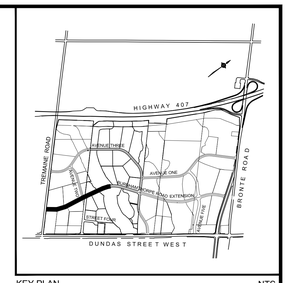
TITLE
407 WEST EMPLOYMENT AREA
CONCEPTUAL
PLAN AND PROFILES
AVENUE ONE
STA 0+850 TO STA 1+137

Municipal Drawing No | Regional Drawing No

WSP File No 14-09222 | Drawing No P17

FILENAME: X:\DIV\10\14-09222\MUN\Profiles\EIR-FSS_Profiles\EIR-FSS-09222-P1-P3_AVENUE ONE.dwg
PLOTDATE: Aug 28, 2018 - 1:29pm, chris.north

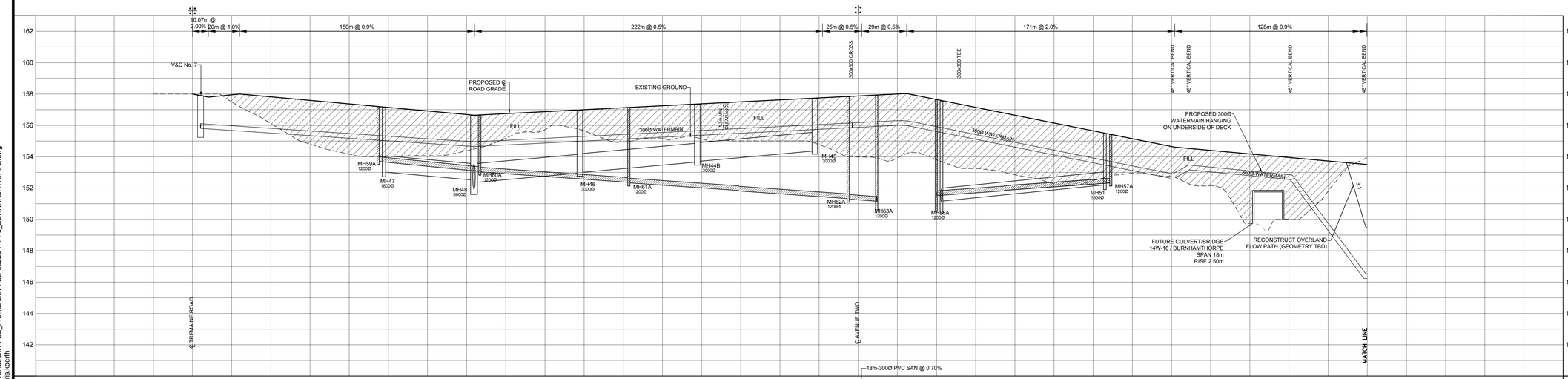




KEY PLAN NTS

LEGEND

- 407 WEST PLAN AREA
- PROPERTY LINE
- PROPOSED INFILTRATION SWALE
- SANITARY SEWER
- SANITARY MANHOLE
- STORM SEWER
- STORM MANHOLE
- WATERMAIN
- 150.0 EXISTING CONTOUR ELEVATION



ALL DIMENSIONS AND ELEVATIONS ARE IN METRES UNLESS OTHERWISE NOTED.

DRAWINGS ARE NOT DIGITALLY CORRECT. LAYOUT TO BE COMPLETED BY OFFSETS.

BENCHMARKS
MTO BENCHMARK BM 81.8108. ELEVATION 167.059
TABLET ON CULVERT, SOUTHWEST CORNER OF DUNDAS STREET AND TRAFALGAR ROAD (1978 DATUM).

No	Date	By	
5	AUG 2018		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
4	JUN 2017		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
3	NOV 2014		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
2	NOV 2013		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
1	JUN 2013		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION

Design	S.W.	Ch'kd	A.W.	Date
Drawn	CAD 14	Ch'kd		DECEMBER 2012

Scale 1:1000 Horiz. 20 10 0 20; 1:100 Vert. 2 1 0 2

References

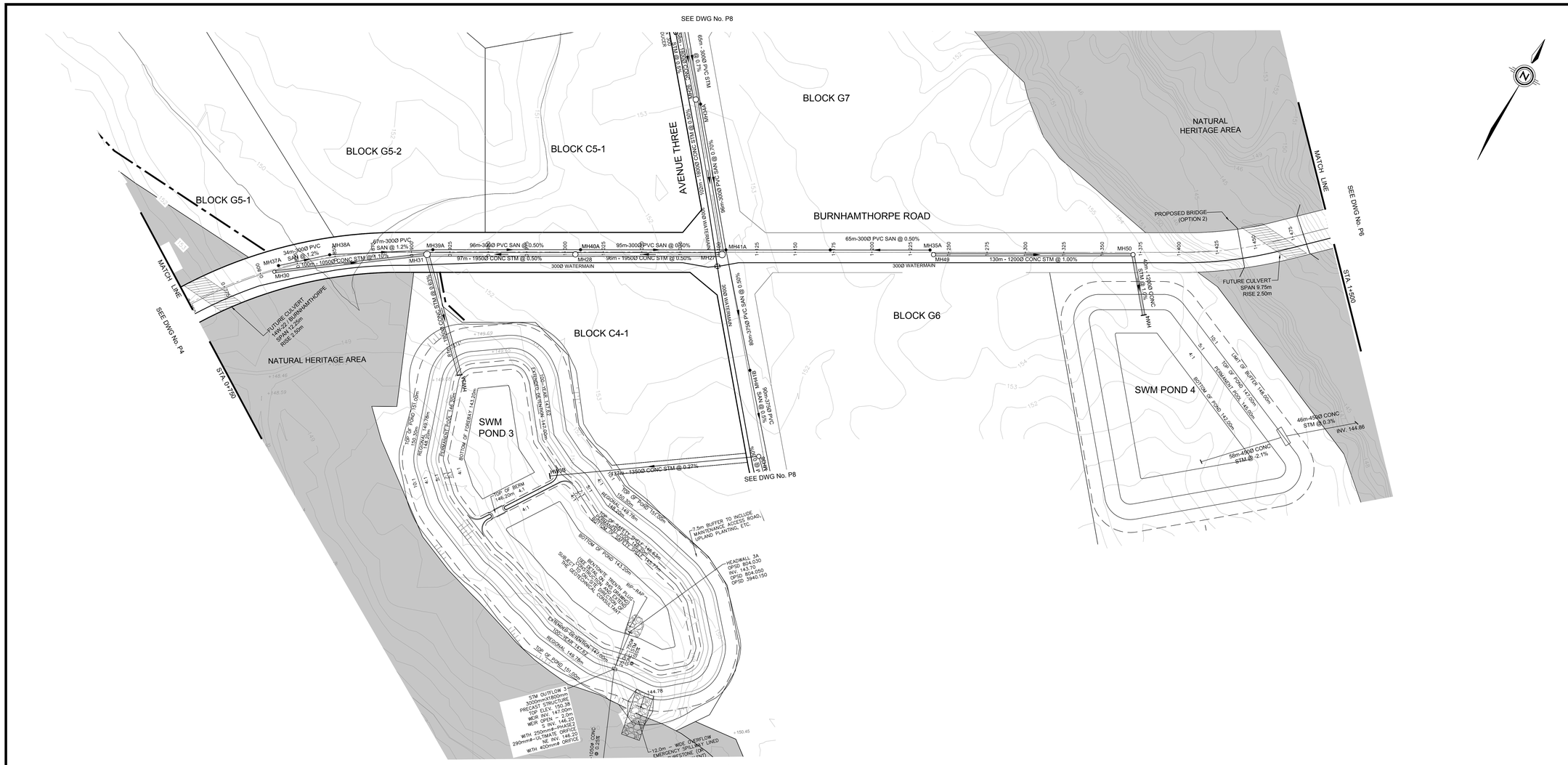
CONSULTANT

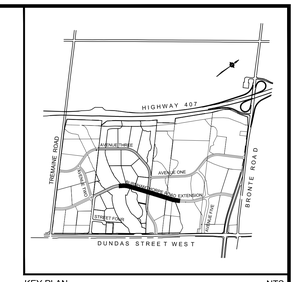
MUNICIPALITY
Halton Region — Regional Municipality of Halton
TOWN OF OAKVILLE

TITLE
407 WEST EMPLOYMENT AREA
CONCEPTUAL
PLAN AND PROFILES
BURNHAMTHORPE ROAD
STA 0+000 TO STA 0+750

Municipal Drawing No	Regional Drawing No
WSP File No 14-09222	Drawing No P4

FILENAME: X:\DIV\10\14\09222\MUN\Profiles\EIR-FSS_Profiles\EIR-FSS-09222-P4-P6_BURNHAMTHORPE.dwg
PLOTDATE: Aug 22, 2018 - 1:06pm, chris.north

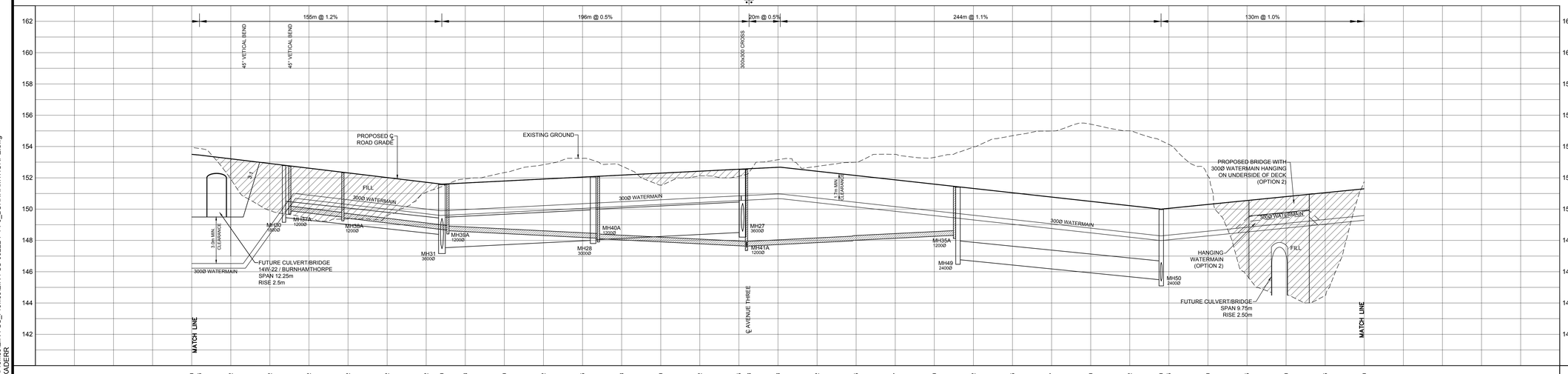




KEY PLAN NTS

LEGEND

- 407 WEST PLAN AREA
- PROPERTY LINE
- PROPOSED INFILTRATION SWALE
- SANITARY SEWER
- SANITARY MANHOLE
- STORM SEWER
- STORM MANHOLE
- WATERMAIN
- 150.0 EXISTING CONTOUR ELEVATION



PROPOSED GRADE	153.50 153.48 153.22 152.92 152.62 152.32 152.02 151.72 151.60 151.68 151.80 151.92 152.05 152.18 152.30 152.42 152.55 152.58 152.68 152.42 152.15 151.87 151.60 151.32 151.05 150.77 150.50 150.22 150.00 150.05 150.30 150.55 150.80 151.05 151.30
STORM SEWER	NE149.47; 100m-1050Ø CONC STM @ 1.10%; SE147.47 SW148.37 NE147.53; 97m-1950Ø CONC STM @ 0.50%; SW148.01 NE148.04; 96m-1950Ø CONC STM @ 0.50%; SW148.52 NW148.58; NE146.78; 130m-1200Ø CONC STM @ 1.00%; SE145.40 SW145.46
SANITARY SEWER	NE149.90; 34m-300Ø PVC SAN @ 1.20%; NE149.46 SW149.49; 67m-300Ø PVC SAN @ 1.20%; NE148.62 SW148.65; 96m-300Ø PVC SAN @ 0.50%; NE148.11 SW148.14; 95m-300Ø PVC SAN @ 0.50%; SE147.68 NE147.74 SW147.84 NW147.84; 65m-300Ø PVC SAN @ 0.50%; SW148.33
CHAINAGE	0+750 0+775 0+800 0+825 0+850 0+875 0+900 0+925 0+950 0+975 1+000 1+025 1+050 1+075 1+100 1+125 1+150 1+175 1+200 1+225 1+250 1+275 1+300 1+325 1+350 1+375 1+400 1+425 1+450 1+475 1+500

ALL DIMENSIONS AND ELEVATIONS ARE IN METRES UNLESS OTHERWISE NOTED.

DRAWINGS ARE NOT DIGITALLY CORRECT. LAYOUT TO BE COMPLETED BY OFFSETS.

BENCHMARKS
MTO BENCHMARK BM 81.8108. ELEVATION 167.059 TABLET ON CULVERT, SOUTHWEST CORNER OF DUNDAS STREET AND TRAFALGAR ROAD (1978 DATUM).

No	Date	By	
5	AUG 2018		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
4	JUN 2017		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
3	NOV 2014		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
2	NOV 2013		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
1	JUN 2013		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION

Design	S.W.	Ch'kd	A.W.	Date
Drawn	CAD 14	Ch'kd		DECEMBER 2012

Scale 1:1000 Horiz. 20 10 0 5 20; 1:100 Vert. 5 2 0 2 5

References

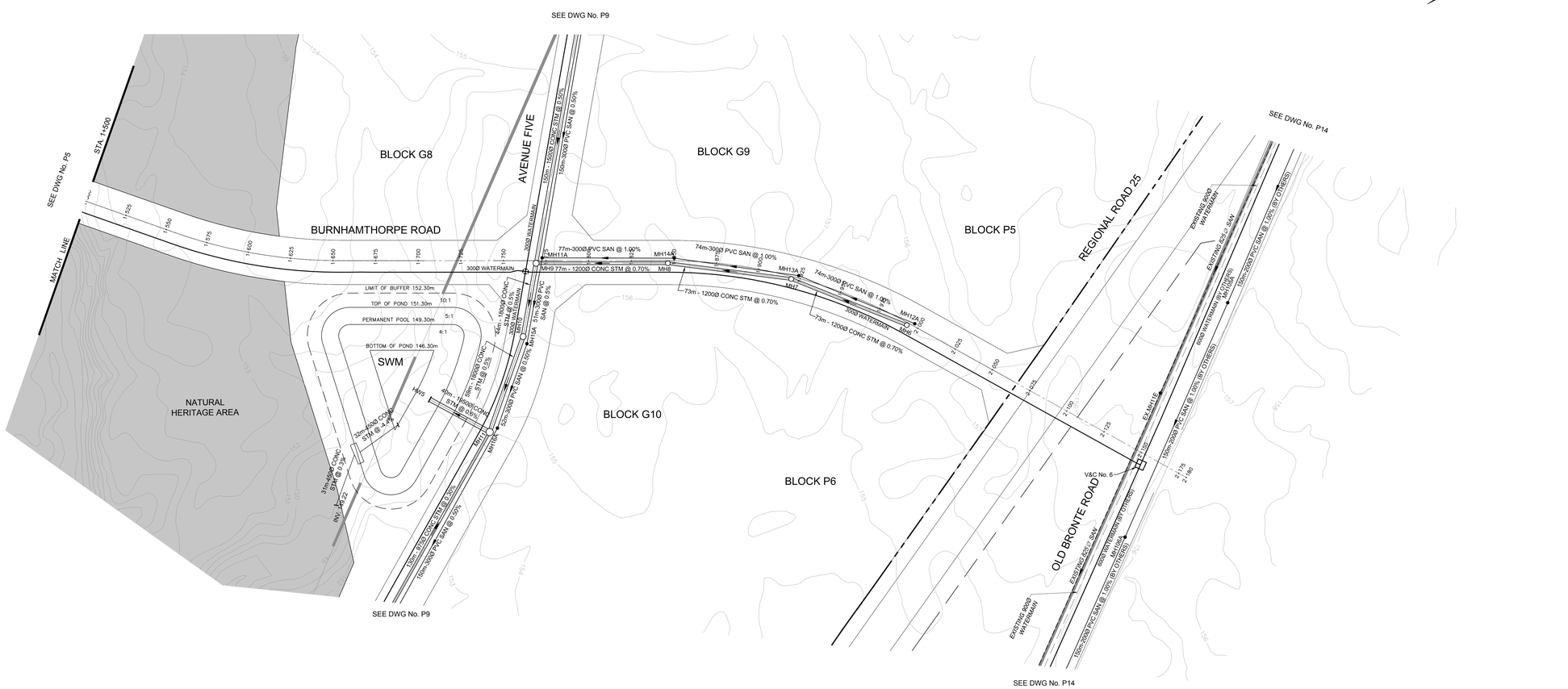
CONSULTANT wsp

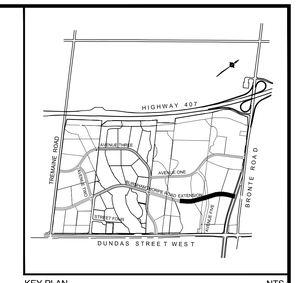
MUNICIPALITY
Halton Region — Regional Municipality of Halton
TOWN OF OAKVILLE

TITLE
407 WEST EMPLOYMENT AREA CONCEPTUAL PLAN AND PROFILES BURNHAMTHORPE ROAD
STA 0+750 TO STA 1+500

Municipal Drawing No	Regional Drawing No
WSP File No 14-09222	Drawing No P5

FILENAME: X:\DY\014-09222\MUN\Profiles\ER-FSS_Profiles\ER-FSS-09222-P4-P6_BURNHAMTHORPE.dwg
PLOTDATE: Aug 27, 2018 - 3:19pm, KADERR

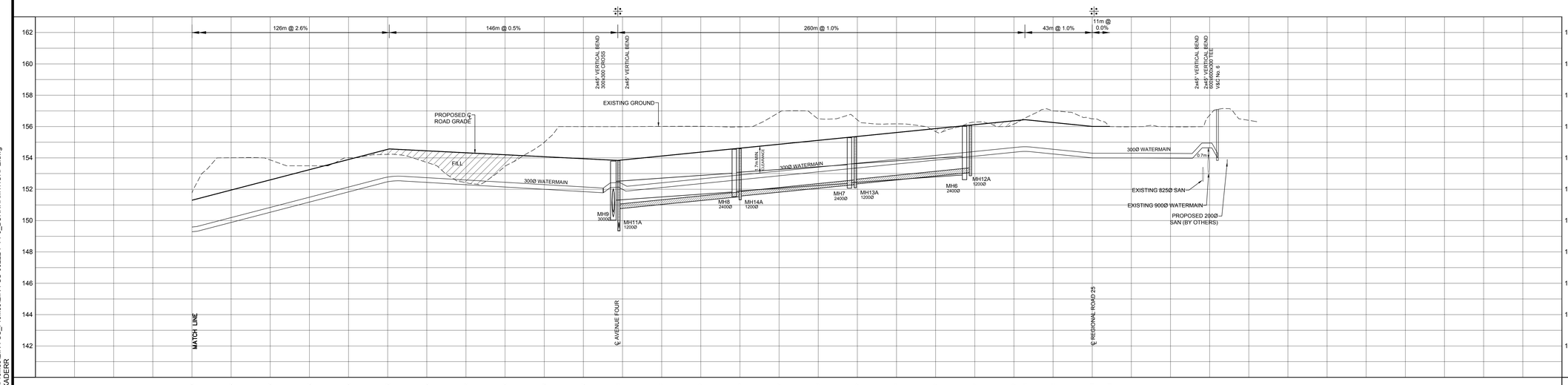




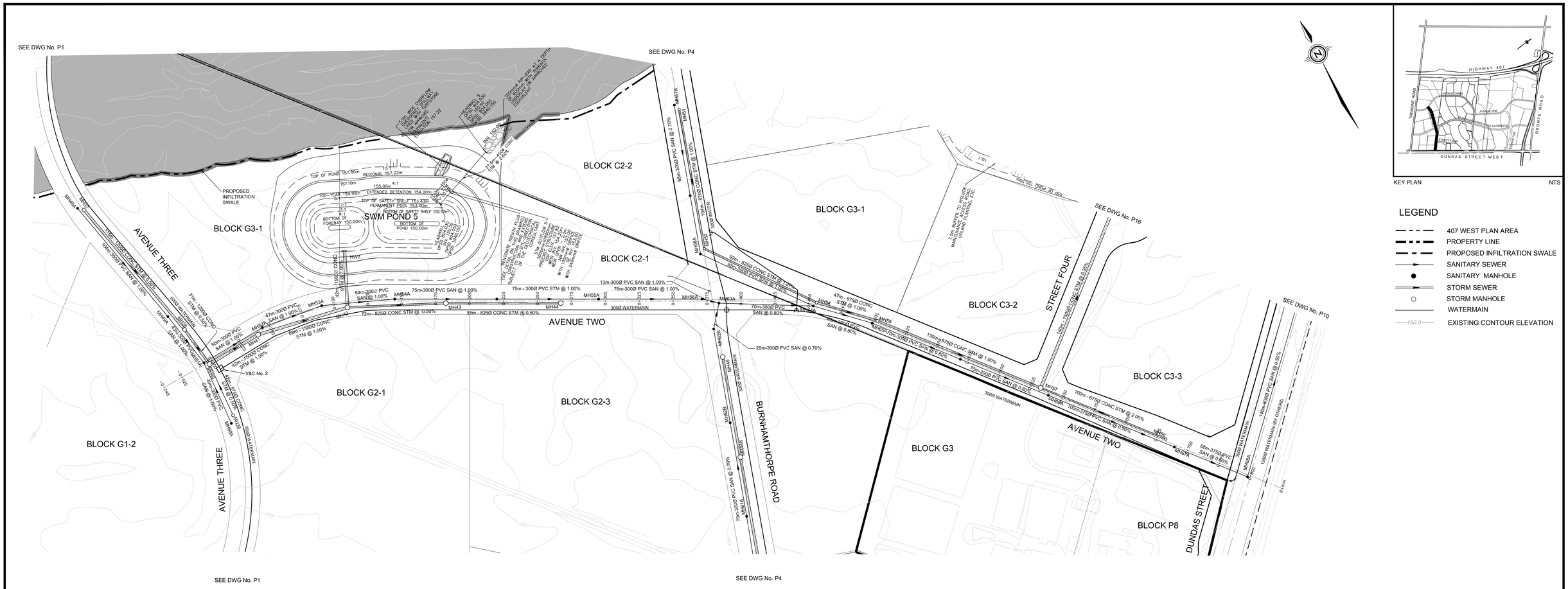
KEY PLAN NTS

LEGEND

- 407 WEST PLAN AREA
- PROPERTY LINE
- PROPOSED INFILTRATION SWALE
- SANITARY SEWER
- SANITARY MANHOLE
- STORM SEWER
- STORM MANHOLE
- WATERMAIN
- 150.0 EXISTING CONTOUR ELEVATION

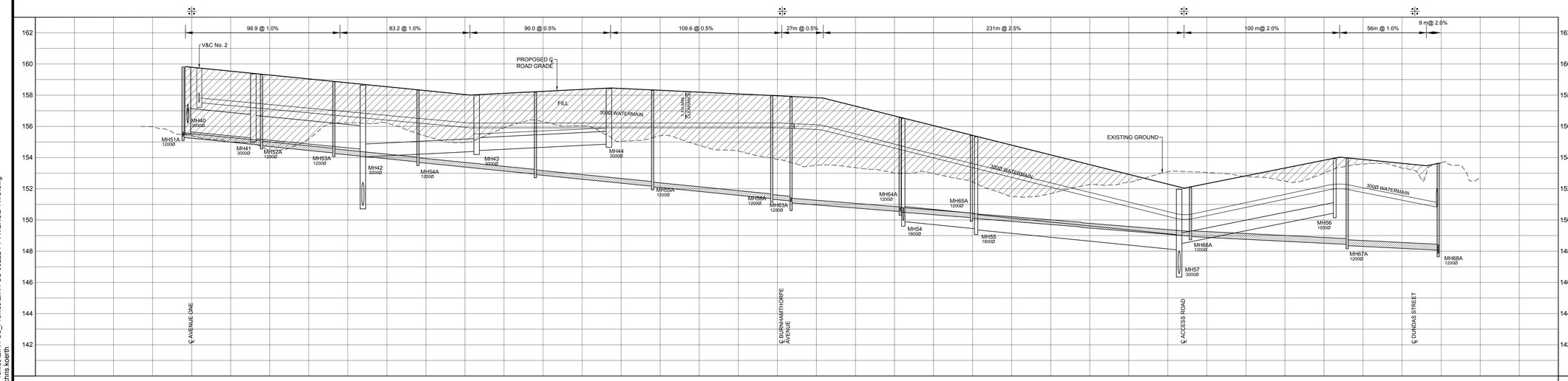


| | | |

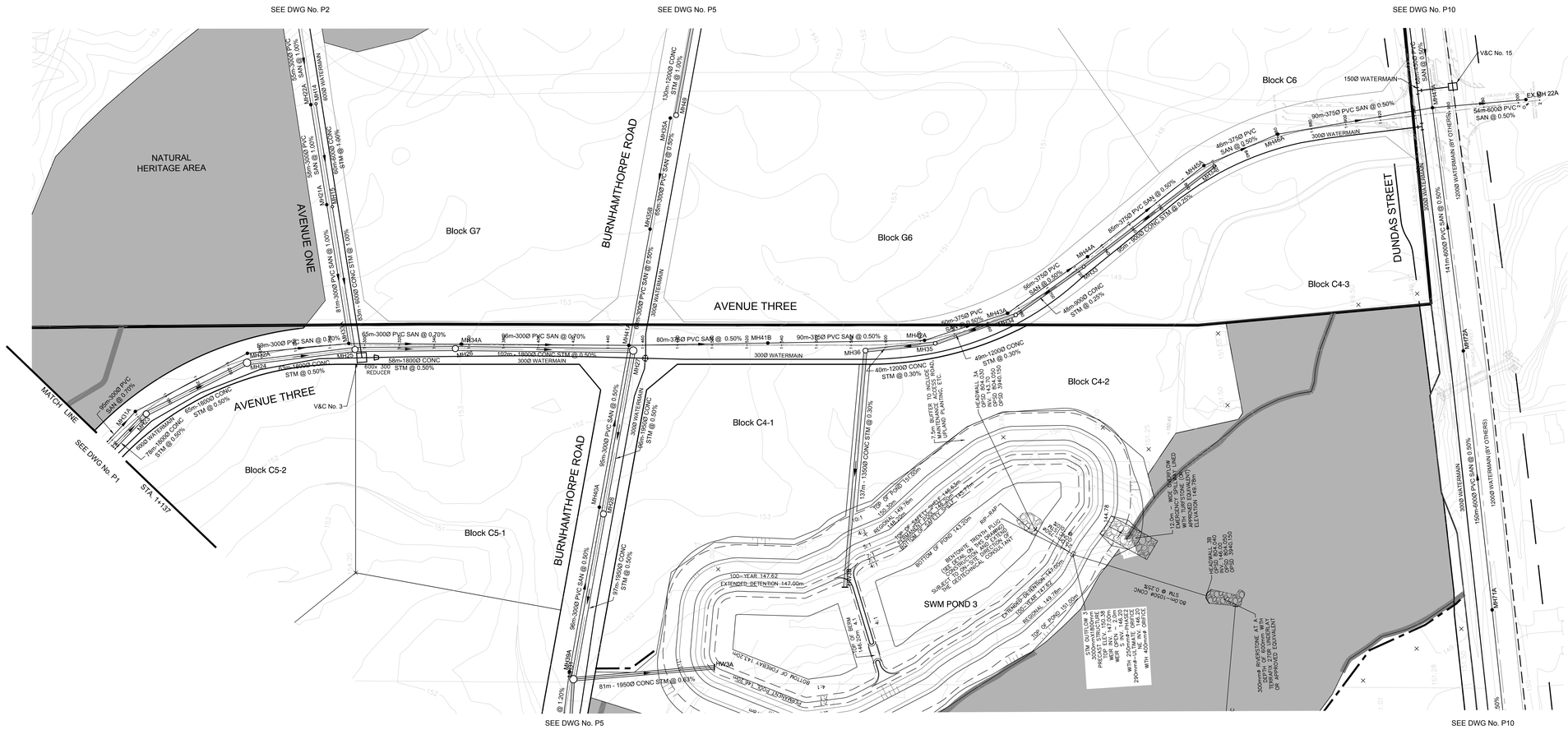


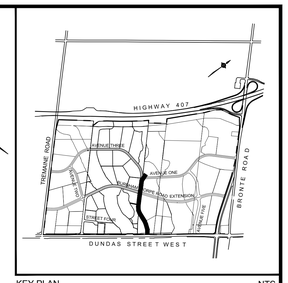
LEGEND

- 407 WEST PLAN AREA
- PROPERTY LINE
- PROPOSED INFILTRATION SWALE
- SANITARY SEWER
- SANITARY MANHOLE
- STORM SEWER
- STORM MANHOLE
- WATERMAIN
- 150.0 EXISTING CONTOUR ELEVATION



| | | |

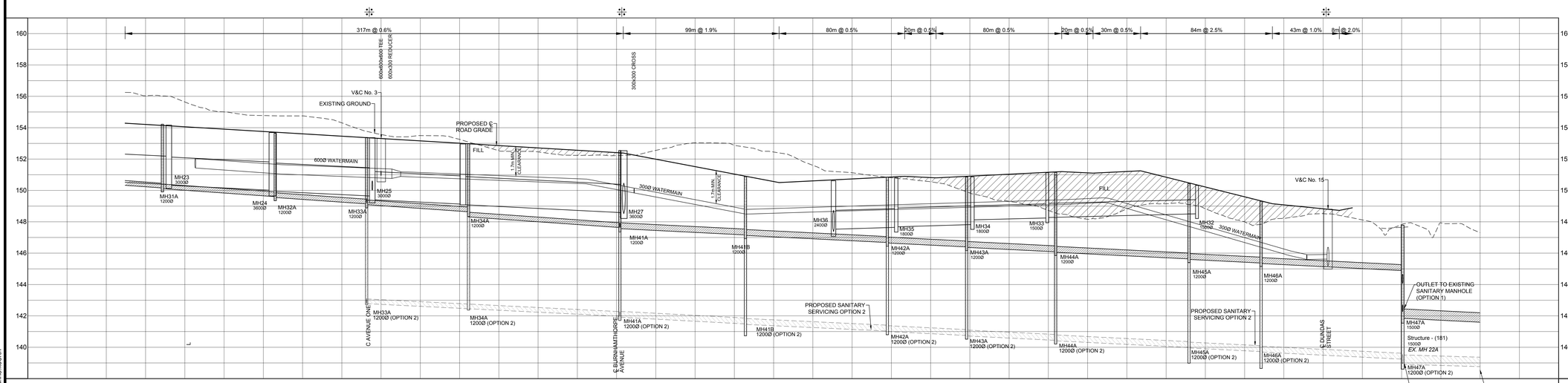




KEY PLAN NTS

LEGEND

- 407 WEST PLAN AREA
- PROPERTY LINE
- PROPOSED INFILTRATION SWALE
- SANITARY SEWER
- SANITARY MANHOLE
- STORM SEWER
- STORM MANHOLE
- WATERMAIN
- 150.0 EXISTING CONTOUR ELEVATION



PROPOSED GRADE	154.28	154.21	154.08	153.91	153.76	153.61	153.46	153.31	153.16	153.01	152.86	152.71	152.56	152.41 / 152.39	151.99	151.52	151.04	150.57 / 150.50	150.61	150.73	150.86 / 150.80	150.90	150.82 / 150.80	150.91	151.03	151.16	151.20	151.12 / 151.10	151.21	151.25	150.84	150.22	149.59	149.15	149.08	148.83	148.72	148.89
STORM SEWER	1m-1800Ø CONC STM @ 0.50%				65m-1800Ø CONC STM @ 0.50%			63m-1800Ø CONC STM @ 0.50%			57.8m-1800Ø CONC STM @ 0.50%			102.4m-1800Ø CONC STM @ 0.50%							NW148.98 SW148.92					SE147.53 SW147.38	40.4m-1200Ø CONC STM @ 0.30%		SE147.08 NW147.65	49.1m-1200Ø CONC STM @ 0.30%			SE146.72 NW147.62	48.0m-900Ø CONC STM @ 0.25%		SE148.27 W148.24				95m-900Ø CONC STM @ 0.25%				W148.51			
SANITARY SEWER (OPTION 1)	m-300Ø PVC AN @ 0.70%				73m-300Ø PVC SAN @ 0.70%			59m-300Ø PVC SAN @ 0.70%			65m-300Ø PVC SAN @ 0.70%			96m-300Ø PVC SAN @ 0.70%							80m-375Ø PVC SAN @ 0.50%					90m-375Ø PVC SAN @ 0.50%				50m-375Ø PVC SAN @ 0.50%			56m-375Ø PVC SAN @ 0.50%				85m-375Ø PVC SAN @ 0.50%						46m-375Ø PVC SAN @ 0.50%			90m-375Ø PVC SAN @ 0.50%					54m-600Ø PVC SAN @ 0.50%		
CHAINAGE	1+137	1+150	1+175	1+200	1+225	1+250	1+275	1+300	1+325	1+350	1+375	1+400	1+425	1+450	1+475	1+500	1+525	1+550	1+575	1+600	1+625	1+650	1+675	1+700	1+725	1+750	1+775	1+800	1+825	1+850	1+875	1+900	1+925	1+950	1+975	2+000			

ALL DIMENSIONS AND ELEVATIONS ARE IN METRES UNLESS OTHERWISE NOTED.

DRAWINGS ARE NOT DIGITALLY CORRECT. LAYOUT TO BE COMPLETED BY OFFSETS.

BENCHMARKS

MTO BENCHMARK BM 81.8108. ELEVATION 167.059 TABLET ON CULVERT, SOUTHWEST CORNER OF DUNDAS STREET AND TRAFALGAR ROAD (1978 DATUM).

No	Date	By	
5	AUG 2018		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
4	JUN 2017		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
3	NOV 2014		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
2	NOV 2013		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
1	JUN 2013		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION

Design	S.W.	Ch'kd	A.W.	Date DECEMBER 2012
Drawn	CAD 14	Ch'kd		References
Scale 1:1000 Horiz. / 1:100 Vert.				

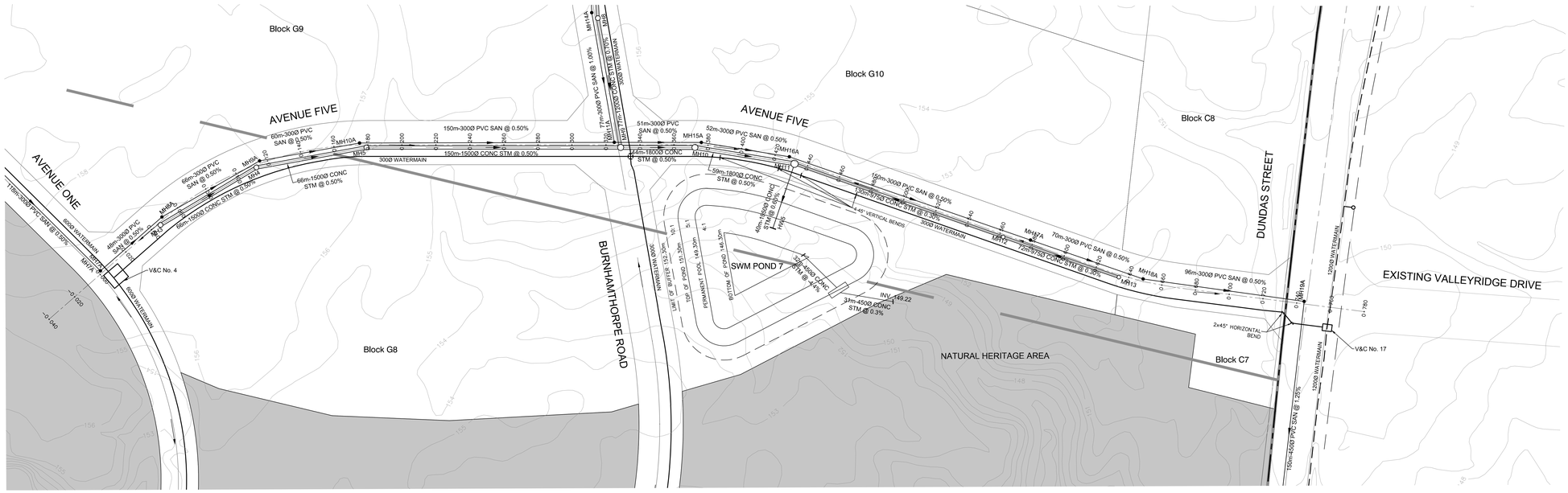
CONSULTANT wsp

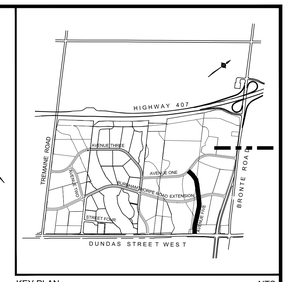
MUNICIPALITY Halton Region — Regional Municipality of Halton; TOWN OF OAKVILLE

TITLE
407 WEST EMPLOYMENT AREA CONCEPTUAL PLAN AND PROFILES AVENUE THREE
STA 1+137 TO STA 2+000

Municipal Drawing No	Regional Drawing No
WSP File No 14-09222	Drawing No P8

FILENAME: X:\DIV\01\14-09222\MUN\Profiles\EIR-FSS_Profiles\EIR-FSS-09222-P8-AVENUE THREE.dwg
PLOTDATE: Aug 28, 2018 - 12:24pm, chris.kerth

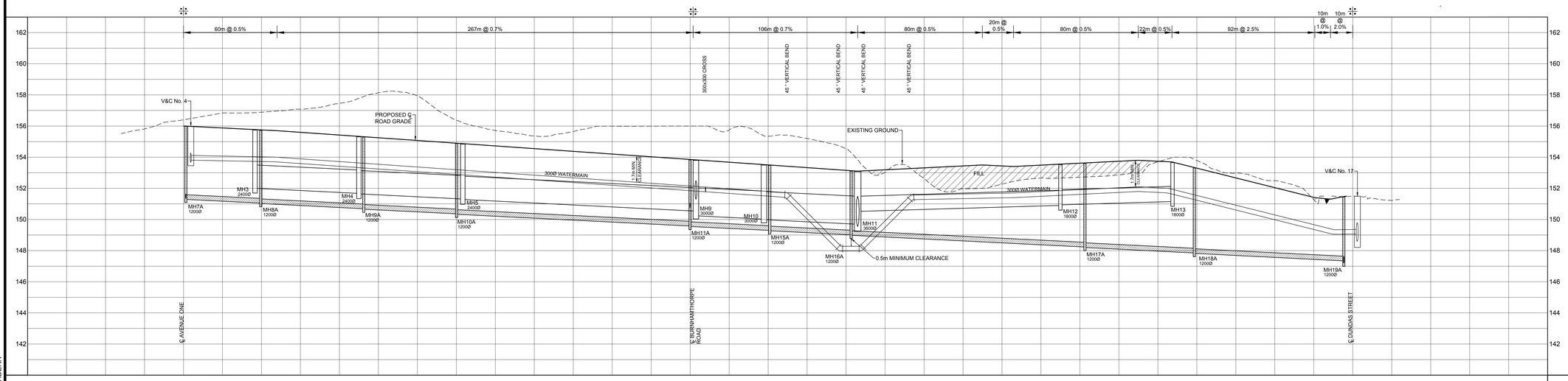




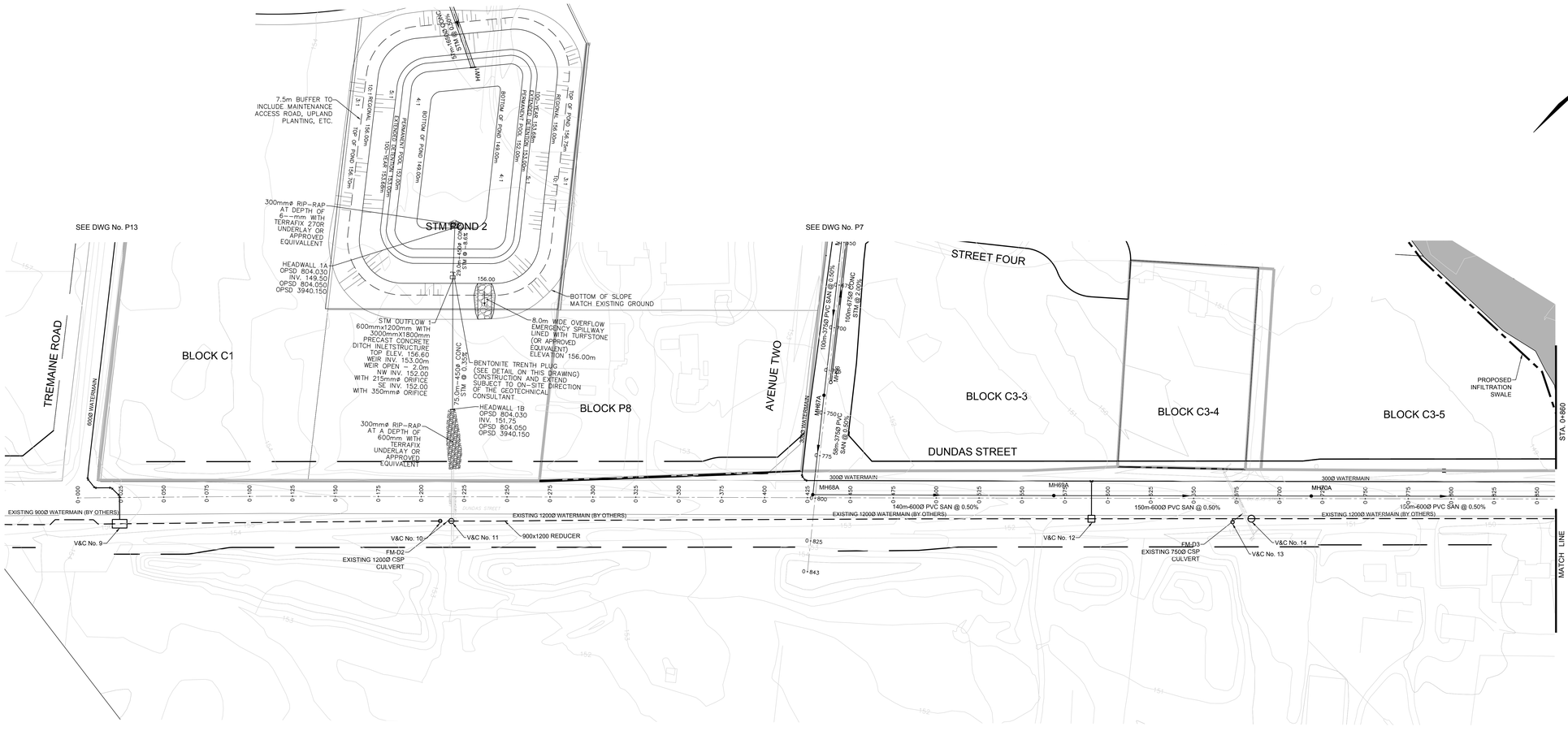
KEY PLAN NTS

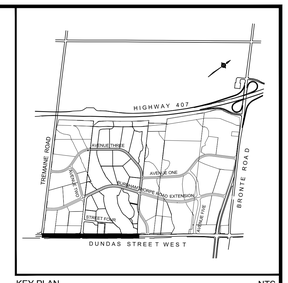
LEGEND

- 407 WEST PLAN AREA
- PROPERTY LINE
- PROPOSED INFILTRATION SWALE
- SANITARY SEWER
- SANITARY MANHOLE
- STORM SEWER
- STORM MANHOLE
- WATERMAIN
- 150.0 EXISTING CONTOUR ELEVATION



| | | |





KEY PLAN NTS

LEGEND

- 407 WEST PLAN AREA
- PROPERTY LINE
- PROPOSED INFILTRATION SWALE
- SANITARY SEWER
- SANITARY MANHOLE
- STORM SEWER
- STORM MANHOLE
- WATERMAIN
- 150.0 EXISTING CONTOUR ELEVATION

DUNDAS STREET PROPOSED WORKS ARE CONCEPTUAL ONLY. DESIGN BY OTHERS.

NOTE:

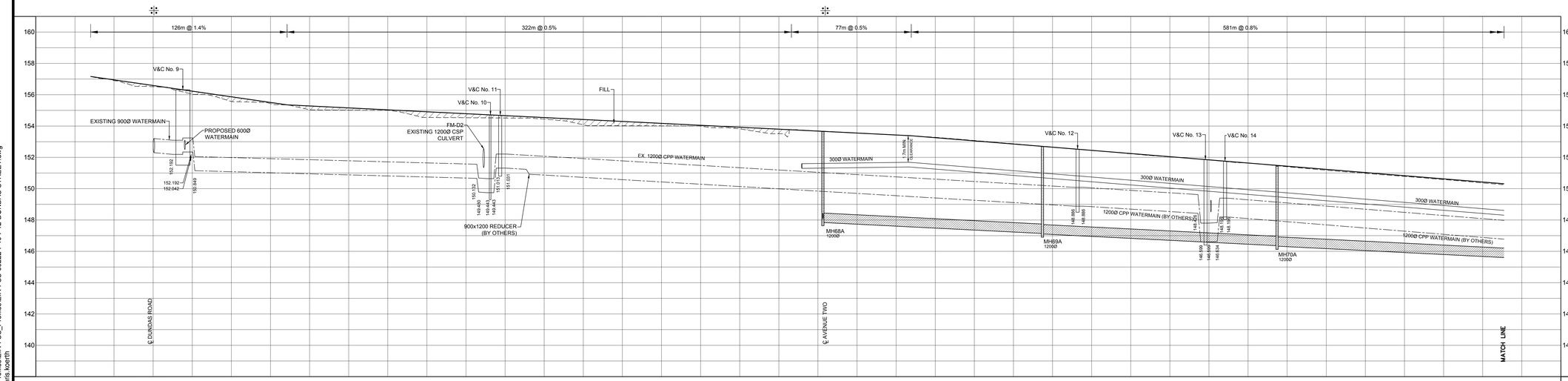
WATERMAIN AND VALVE CHAMBER LOCATIONS TO BE CONFIRMED. LOCATIONS BASED ON 900mm/1200mm DUNDAS STREET (REG. ROAD 5) DRAWINGS 8 TO 16 DATED SEPTEMBER 2011 PROVIDED BY HALTON REGION.

ALL DIMENSIONS AND ELEVATIONS ARE IN METRES UNLESS OTHERWISE NOTED.

DRAWINGS ARE NOT DIGITALLY CORRECT. LAYOUT TO BE COMPLETED BY OFFSETS.

BENCHMARKS

MTO BENCHMARK BM 81.8108. ELEVATION 167.059 TABLET ON CULVERT, SOUTHWEST CORNER OF DUNDAS STREET AND TRAFALGAR ROAD (1978 DATUM).



PROPOSED GRADE	156.89, 156.23, 155.87, 155.50, 155.35, 155.28, 155.16, 155.03, 154.91, 154.79, 154.66, 154.54, 154.42, 154.29, 154.17, 154.05, 153.92, 153.80, 153.76, 153.68, 153.55, 153.43, 153.38, 153.26, 153.05, 152.95, 152.85, 152.45, 152.25, 152.04, 151.84, 151.64, 151.44, 151.24, 151.03, 150.83, 150.63, 150.43
STORM SEWER	
SANITARY SEWER	NE:147.84 NW:146.07; 140m-600Ø PVC SAN @ 0.50%; NE:147.11 SW:147.14; 150m-600Ø PVC SAN @ 0.50%; NE:146.33 SW:146.36; 150m-600Ø PVC SAN @ 0.50%
CHAINAGE	0+000, 0+025, 0+050, 0+075, 0+100, 0+125, 0+150, 0+175, 0+200, 0+225, 0+250, 0+275, 0+300, 0+325, 0+350, 0+375, 0+400, 0+425, 0+450, 0+475, 0+500, 0+525, 0+550, 0+575, 0+600, 0+625, 0+650, 0+675, 0+700, 0+725, 0+750, 0+775, 0+800, 0+825, 0+850

No	Date	By	
5	AUG 2018		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
4	JUN 2017		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
3	NOV 2014		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
2	NOV 2013		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
1	JUN 2013		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION

Design	S.W.	Ch'kd	A.W.	Date
Drawn	CAD 14	Ch'kd		DECEMBER 2012

Scale 1:1000 Horiz. 20 10 0 20 40 60 80 100 1:100 Vert. 2 1 0 2 4 6 8 10

References

CONSULTANT

wsp

MUNICIPALITY

Halton REGION Regional Municipality of Halton

TOWN OF OAKVILLE

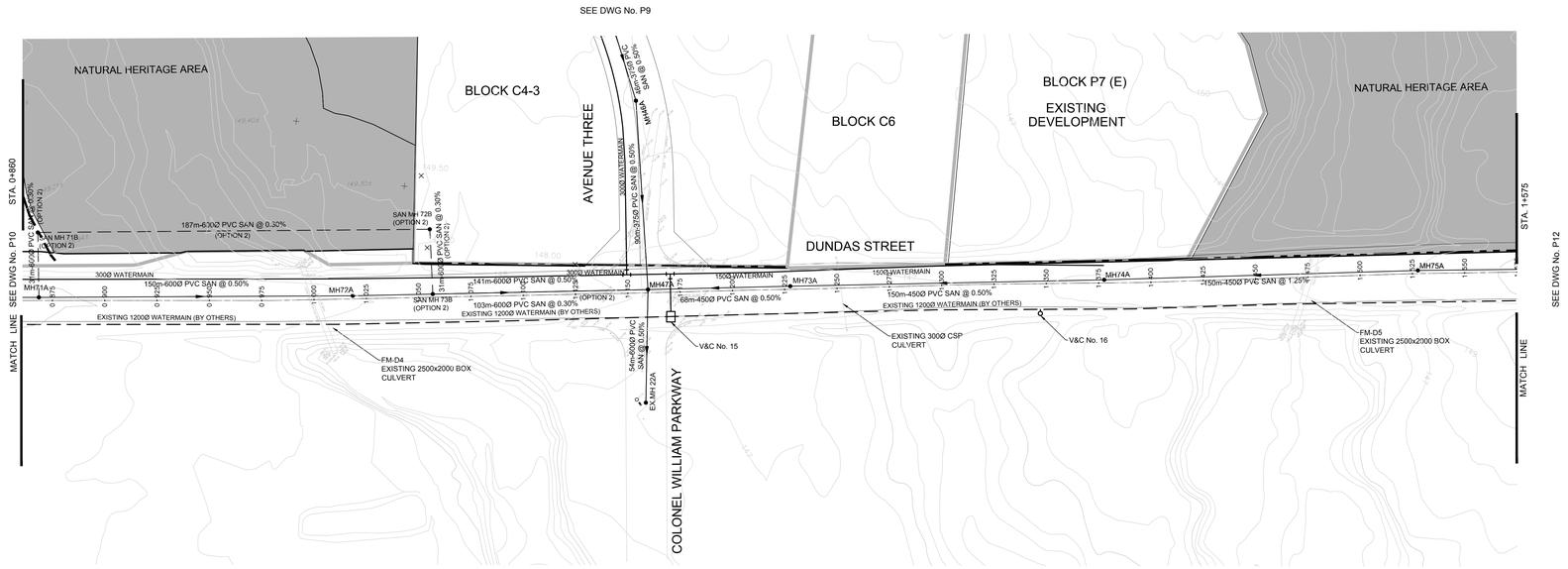
TITLE

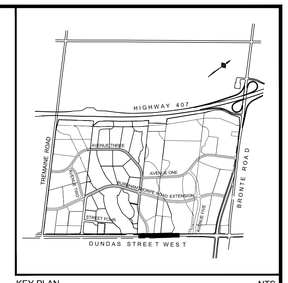
407 WEST EMPLOYMENT AREA
CONCEPTUAL
PLAN AND PROFILES
DUNDAS STREET
STA 0+000 TO STA 0+860

Municipal Drawing No | Regional Drawing No

WSP File No 14-09222 | Drawing No P10

FILENAME: X:\DIV\10\14-09222\MUN\Profiles\EIR-FSS_Profiles\EIR-FSS-09222-P10-P12-DUNDAS STREET.dwg
PLOTDATE: Aug 24, 2018 - 3:30pm, chris.kerth





KEY PLAN NTS

LEGEND

- 407 WEST PLAN AREA
- PROPERTY LINE
- PROPOSED INFILTRATION SWALE
- SANITARY SEWER
- SANITARY MANHOLE
- STORM SEWER
- STORM MANHOLE
- WATERMAIN
- 150.0 EXISTING CONTOUR ELEVATION

DUNDAS STREET PROPOSED WORKS ARE CONCEPTUAL ONLY. DESIGN BY OTHERS.

NOTE:

WATERMAIN AND VALVE CHAMBER LOCATIONS TO BE CONFIRMED. LOCATIONS BASED ON 900mm/1200mm DUNDAS STREET (REG. ROAD 5) DRAWINGS 8 TO 16 DATED SEPTEMBER 2011 PROVIDED BY HALTON REGION.

ALL DIMENSIONS AND ELEVATIONS ARE IN METRES UNLESS OTHERWISE NOTED.

DRAWINGS ARE NOT DIGITALLY CORRECT. LAYOUT TO BE COMPLETED BY OFFSETS.

BENCHMARKS

MTO BENCHMARK BM 81.8108. ELEVATION 167.059 TABLET ON CULVERT, SOUTHWEST CORNER OF DUNDAS STREET AND TRAFALGAR ROAD (1978 DATUM).

No	Date	By	
5	AUG 2018		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
4	JUN 2017		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
3	NOV 2014		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
2	NOV 2013		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
1	JUN 2013		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION

Design	S.W.	Ch'kd	A.W.	Date
Drawn	CAD 14	Ch'kd		DECEMBER 2012

Scale 1:1000 Horiz. 1:100 Vert.

References

CONSULTANT

MUNICIPALITY

Halton Region — Regional Municipality of Halton

TOWN OF OAKVILLE

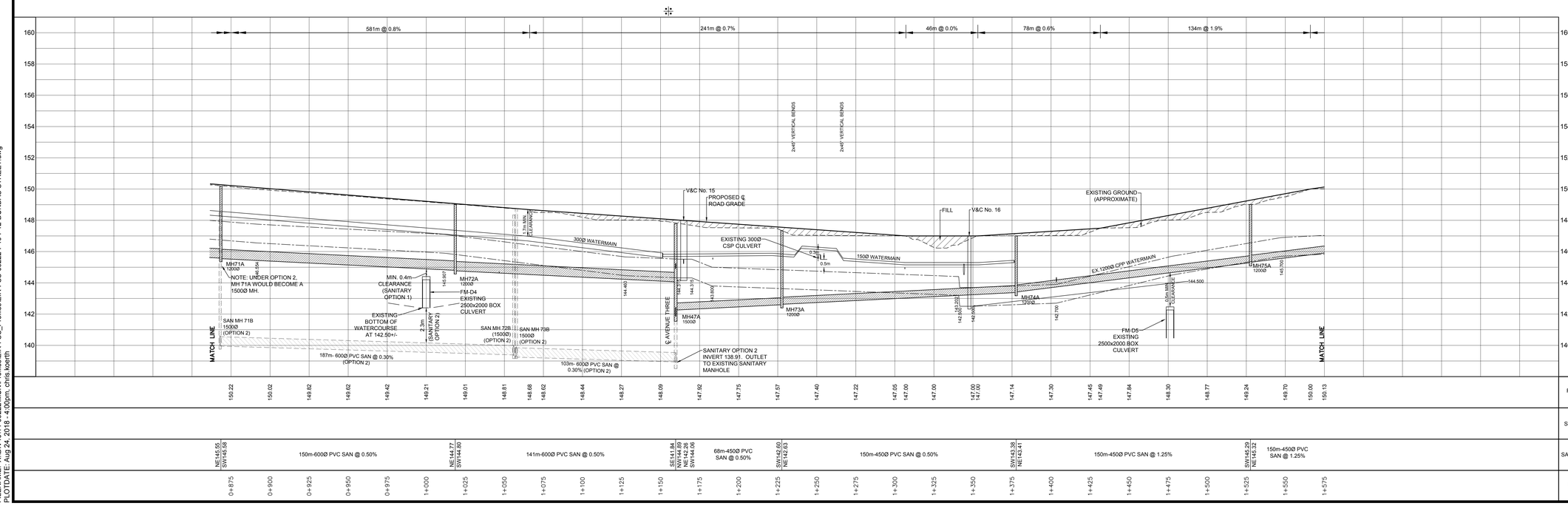
TITLE

407 WEST EMPLOYMENT AREA CONCEPTUAL PLAN AND PROFILES DUNDAS STREET

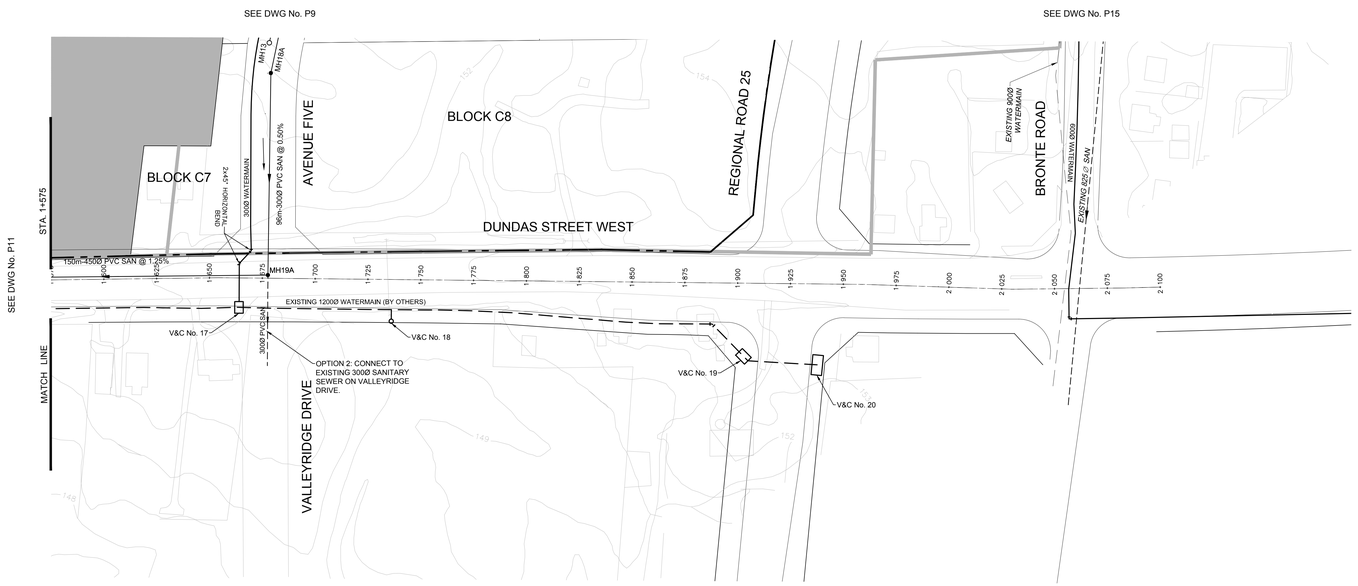
STA 0+860 TO STA 1+575

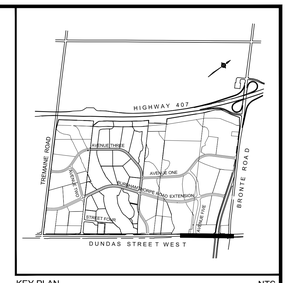
Municipal Drawing No | Regional Drawing No

WSP File No 14-09222 | Drawing No P11



FILENAME: X:\DIV\10\14-09222\MUN\Profiles\EIR-FSS_Profiles\EIR-FSS-09222-P10-P12-DUNDAS STREET.dwg
PLOTDATE: Aug 24, 2018 - 4:09pm, chris.north





KEY PLAN NTS

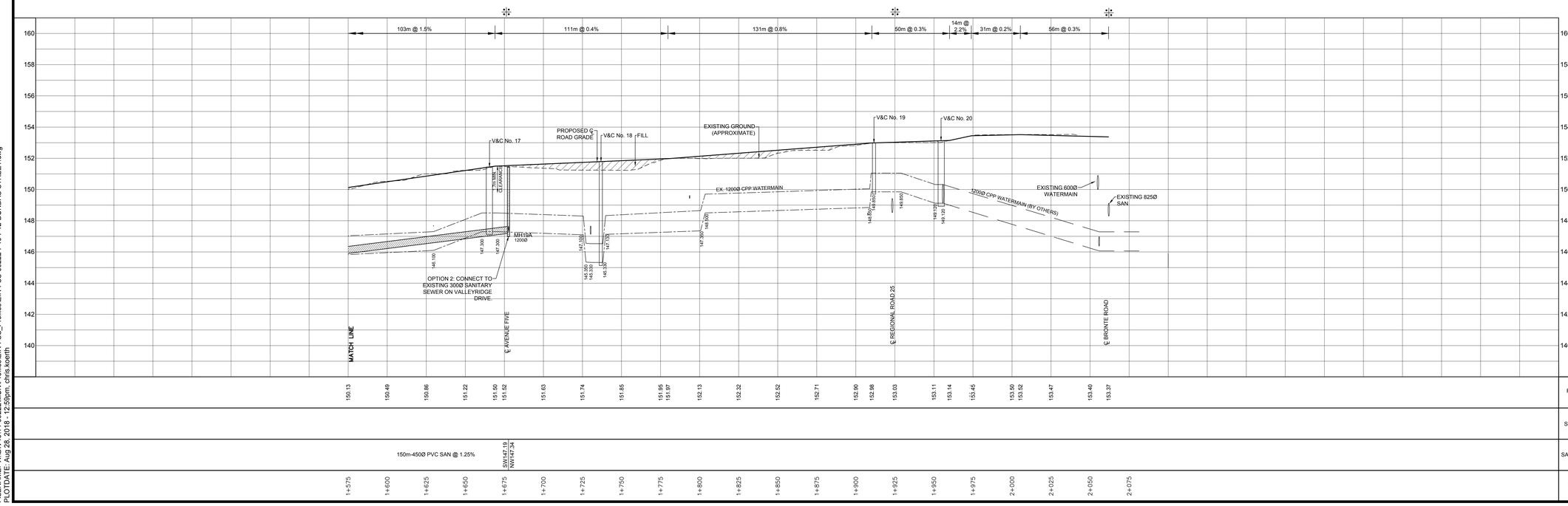
LEGEND

- 407 WEST PLAN AREA
- PROPERTY LINE
- PROPOSED INFILTRATION SWALE
- SANITARY SEWER
- SANITARY MANHOLE
- STORM SEWER
- STORM MANHOLE
- WATERMAIN
- 150.0 EXISTING CONTOUR ELEVATION

DUNDAS STREET PROPOSED WORKS ARE CONCEPTUAL ONLY. DESIGN BY OTHERS.

NOTE:

WATERMAIN AND VALVE CHAMBER LOCATIONS TO BE CONFIRMED. LOCATIONS BASED ON 900mm/1200mm DUNDAS STREET (REG. ROAD 5) DRAWINGS 8 TO 16 DATED SEPTEMBER 2011 PROVIDED BY HALTON REGION.



ALL DIMENSIONS AND ELEVATIONS ARE IN METRES UNLESS OTHERWISE NOTED.

DRAWINGS ARE NOT DIGITALLY CORRECT. LAYOUT TO BE COMPLETED BY OFFSETS.

BENCHMARKS

MTO BENCHMARK BM 81.8108. ELEVATION 167.059 TABLET ON CULVERT, SOUTHWEST CORNER OF DUNDAS STREET AND TRAFALGAR ROAD (1978 DATUM).

No	Date	By	
5	AUG 2018		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
4	JUN 2017		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
3	NOV 2014		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
2	NOV 2013		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
1	JUN 2013		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION

Design	S.W.	Ch'kd	A.W.	Date
Drawn	CAD 14	Ch'kd		DECEMBER 2012

Scale 1:1000 Horiz. 20 10 0 20; 1:100 Vert. 2 1 0 2

References

CONSULTANT wsp

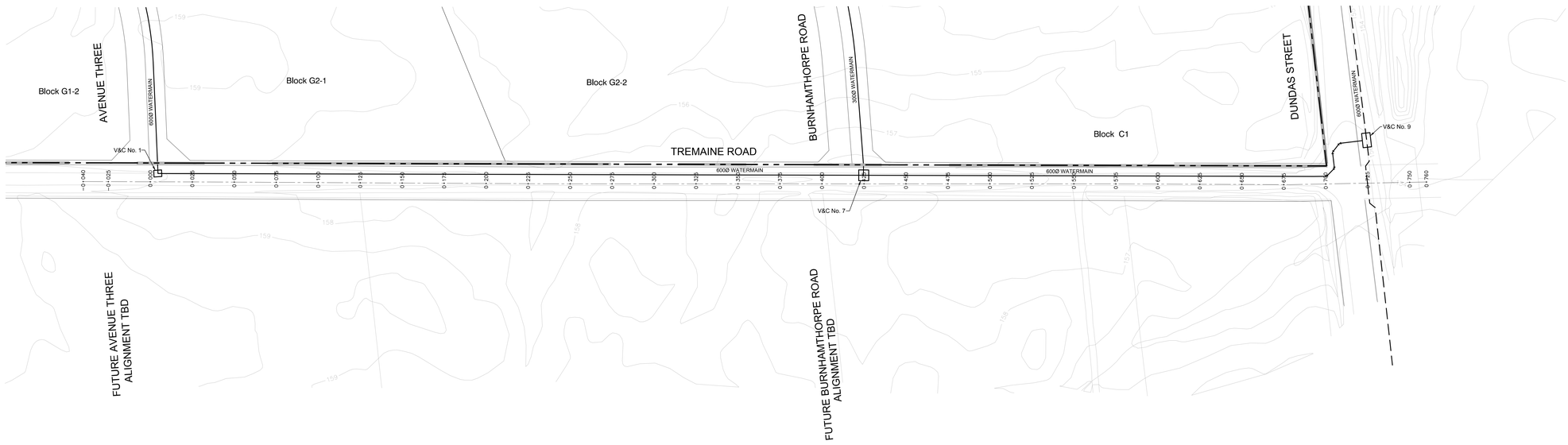
MUNICIPALITY Halton Region — Regional Municipality of Halton

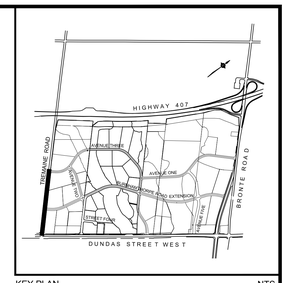
TOWN OF OAKVILLE

TITLE
407 WEST EMPLOYMENT AREA
CONCEPTUAL
PLAN AND PROFILES
DUNDAS STREET
STA 1+575 TO STA 2+075

Municipal Drawing No	Regional Drawing No
WSP File No 14-09222	Drawing No P12

FILENAME: X:\DIV\10\14-09222\MUN\Profiles\EIR-FSS_Profiles\EIR-FSS-09222-P10-P12-DUNDAS STREET.dwg
PLOTDATE: Aug 28, 2018 - 12:39pm, derek.koeth



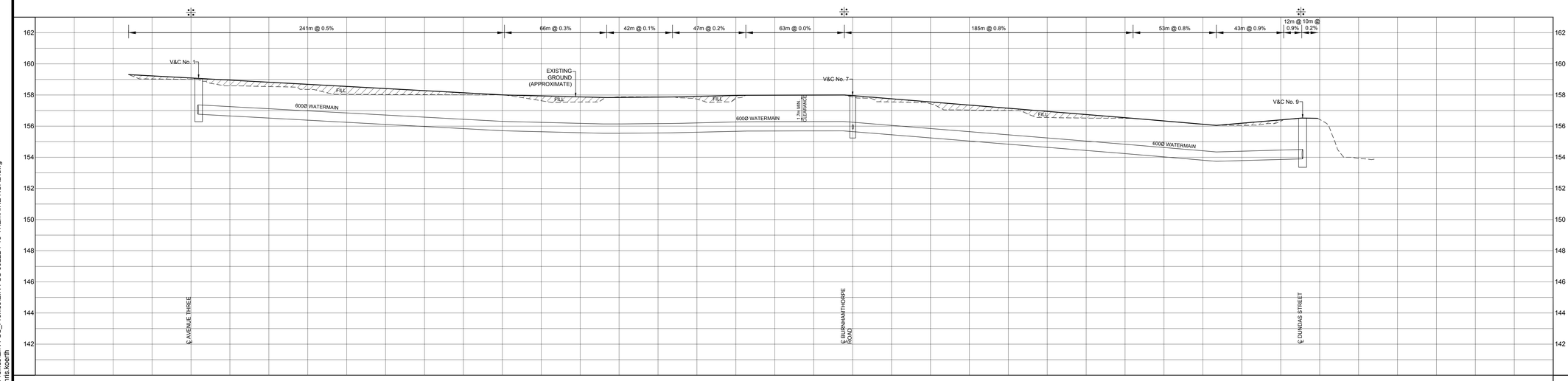


KEY PLAN NTS

LEGEND

- 407 WEST PLAN AREA
- PROPERTY LINE
- PROPOSED INFILTRATION SWALE
- SANITARY SEWER
- SANITARY MANHOLE
- STORM SEWER
- STORM MANHOLE
- WATERMAIN
- 150.0 EXISTING CONTOUR ELEVATION

TREMAINE ROAD WATERMAIN DESIGN CONCEPTUAL ONLY.



PROPOSED GRADE	159.09, 158.96, 158.82, 158.68, 158.55, 158.41, 158.28, 158.14, 158.01 158.00, 157.94, 157.88, 157.83, 157.84, 157.86, 157.87, 157.91, 157.97 157.98, 157.99, 157.99, 158.00 157.95, 157.75, 157.55, 157.35, 157.15, 156.95, 156.74, 156.54 156.50, 156.33, 156.12, 156.05, 156.19, 156.40 156.42, 156.52, 156.50
STORM SEWER	
SANITARY SEWER	
CHAINAGE	0+000, 0+025, 0+050, 0+075, 0+100, 0+125, 0+150, 0+175, 0+200, 0+225, 0+250, 0+275, 0+300, 0+325, 0+350, 0+375, 0+400, 0+425, 0+450, 0+475, 0+500, 0+525, 0+550, 0+575, 0+600, 0+625, 0+650, 0+675, 0+700, 0+725, 0+750

ALL DIMENSIONS AND ELEVATIONS ARE IN METRES UNLESS OTHERWISE NOTED.

DRAWINGS ARE NOT DIGITALLY CORRECT. LAYOUT TO BE COMPLETED BY OFFSETS.

BENCHMARKS
MTO BENCHMARK BM 81.8108. ELEVATION 167.059 TABLET ON CULVERT, SOUTHWEST CORNER OF DUNDAS STREET AND TRAFALGAR ROAD (1978 DATUM).

No	Date	By	
5	AUG 2018		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
4	JUN 2017		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
3	NOV 2014		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
2	NOV 2013		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
1	JUN 2013		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION

Design	S.W.	Ch'kd	A.W.	Date
Drawn	CAD 14	Ch'kd		DECEMBER 2012

Scale 1:1000 Horiz. 20 10 0 20; 1:100 Vert. 2 1 0 2

References

CONSULTANT wsp

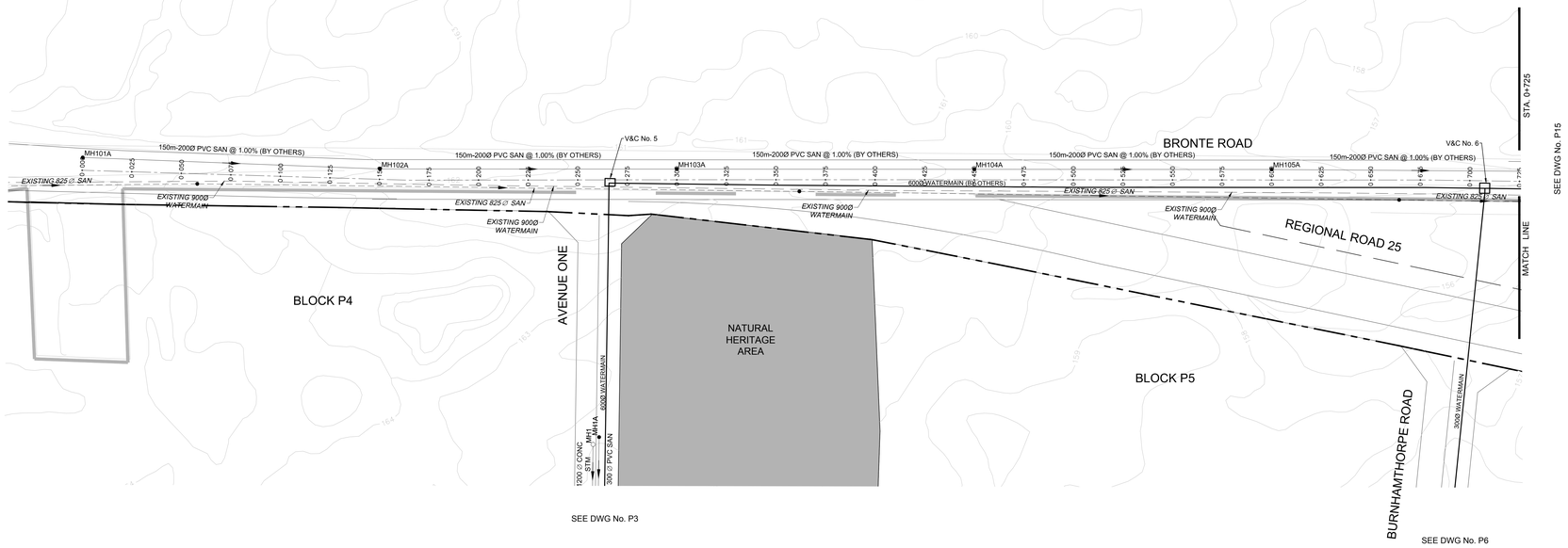
MUNICIPALITY Halton Region — Regional Municipality of Halton; TOWN OF OAKVILLE

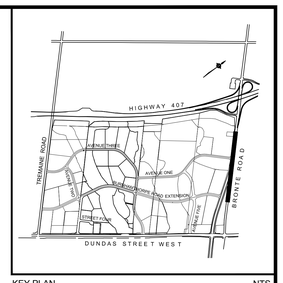
TITLE
407 WEST EMPLOYMENT AREA
CONCEPTUAL
PLAN AND PROFILES
TREMAINE ROAD
STA 0+000 TO STA 0+750

Municipal Drawing No | Regional Drawing No

WSP File No 14-09222 | Drawing No P13

FILENAME: X:\DV10\14-09222\MUN\Profiles\EIR-FSS_Profiles\EIR-FSS-09222-P13-TREMAINE ROAD.dwg
PLOTDATE: Aug 24, 2018 - 4:13pm, chris.ricciotti

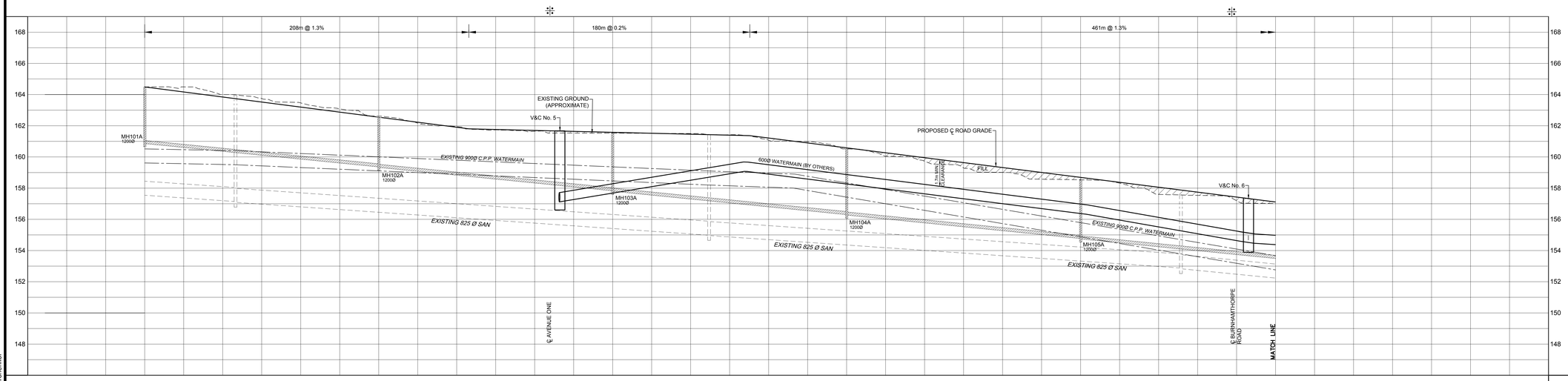




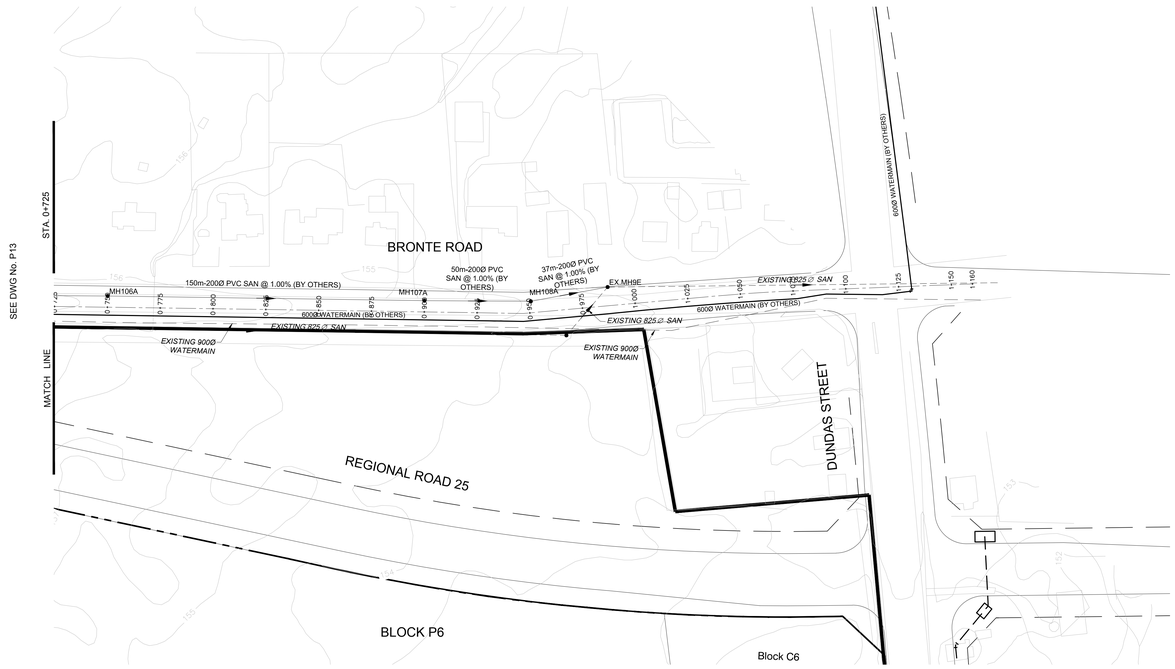
KEY PLAN NTS

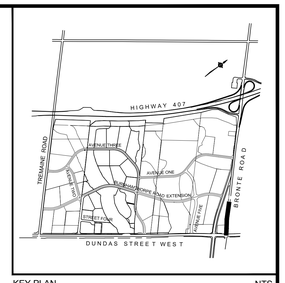
LEGEND

- 407 WEST PLAN AREA
- PROPERTY LINE
- PROPOSED INFILTRATION SWALE
- SANITARY SEWER
- SANITARY MANHOLE
- STORM SEWER
- STORM MANHOLE
- WATERMAIN
- 150.0 EXISTING CONTOUR ELEVATION



| | | |



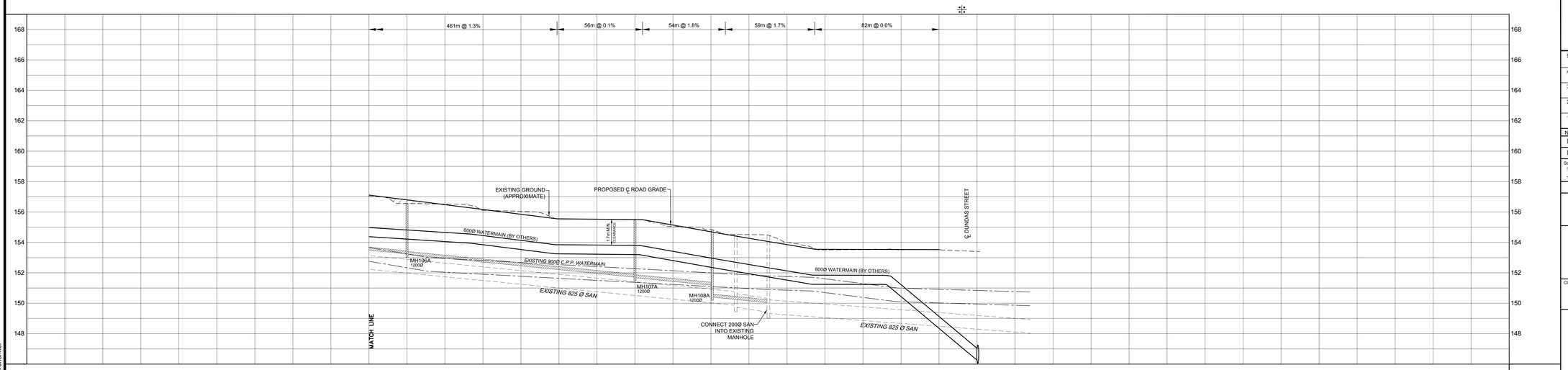


KEY PLAN NTS

LEGEND

- 407 WEST PLAN AREA
- PROPERTY LINE
- PROPOSED INFILTRATION SWALE
- SANITARY SEWER
- SANITARY MANHOLE
- STORM SEWER
- STORM MANHOLE
- WATERMAIN
- 150.0 EXISTING CONTOUR ELEVATION

BRONTE ROAD PROPOSED WORKS ARE CONCEPTUAL ONLY. DESIGN BY OTHERS.



PROPOSED GRADE	157.11	156.80	156.48	156.17	155.85	155.55	155.52	155.50	155.50	155.14	154.70	154.53	154.27	153.85	153.55	153.55	153.54	153.53	153.53				
STORM SEWER																							
SANITARY SEWER		SE153.21 NW153.24	150m-200Ø PVC SAN @ 1.00%					SE151.68 NW150.71	50m-200Ø PVC SAN @ 1.00%		SE150.40 NW151.18	37m-200Ø PVC SAN @ 1.00%											
CHAINAGE	0+725	0+750	0+775	0+800	0+825	0+850	0+875	0+900	0+925	0+950	0+975	1+000	1+025	1+050	1+075	1+100	1+125	1+150					

ALL DIMENSIONS AND ELEVATIONS ARE IN METRES UNLESS OTHERWISE NOTED.

DRAWINGS ARE NOT DIGITALLY CORRECT. LAYOUT TO BE COMPLETED BY OFFSETS.

BENCHMARKS
MTO BENCHMARK BM 81.8108. ELEVATION 167.059
TABLET ON CULVERT, SOUTHWEST CORNER OF
DUNDAS STREET AND TRAFALGAR ROAD (1978 DATUM).

No	Date	By	
5	AUG 2018		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
4	JUN 2017		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
3	NOV 2014		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
2	NOV 2013		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
1	JUN 2013		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION

Design	S.W.	Ch'kd	A.W.	Date
Drawn	CAD 14	Ch'kd		DECEMBER 2012

Scale 1:1000 Horiz. 20 10 0 20 40
1:100 Vert. 2 1 0 2 4

References

CONSULTANT wsp

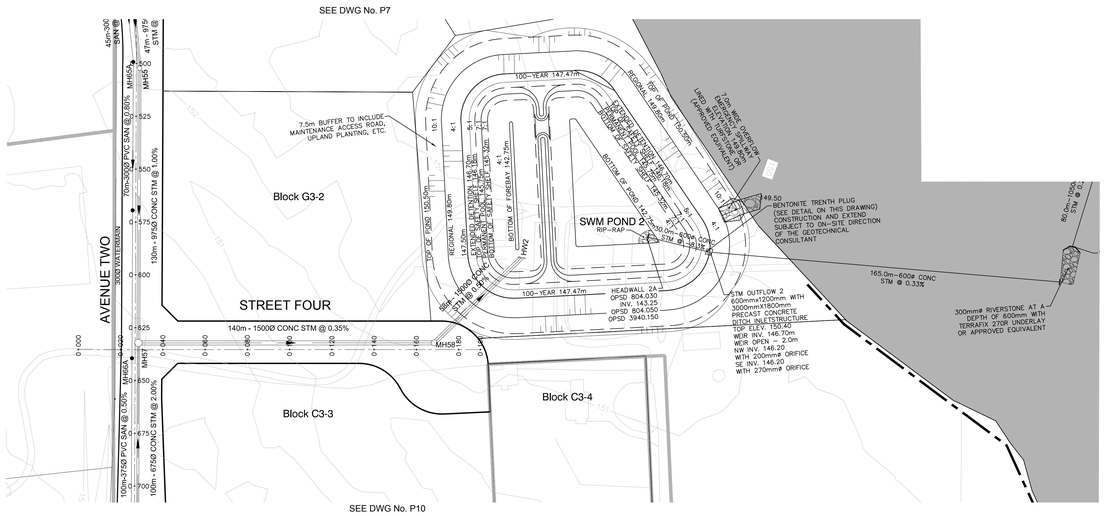
MUNICIPALITY
Halton Regional Municipality of Halton
TOWN OF OAKVILLE

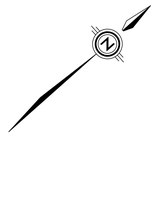
TITLE
407 WEST EMPLOYMENT AREA
CONCEPTUAL
PLAN AND PROFILES
BRONTE ROAD
STA 0+725 TO STA 1+150

Municipal Drawing No | Regional Drawing No

WSP File No 14-09222 | Drawing No P15

FILENAME: X:\DIV\0\14-09222\MUN\Profiles\EIR-FSS_Profiles\EIR-FSS-09222-P14-P15-BRONTE ROAD.dwg
PLOTDATE: Aug 24, 2018 - 3:26pm, birchenkoi

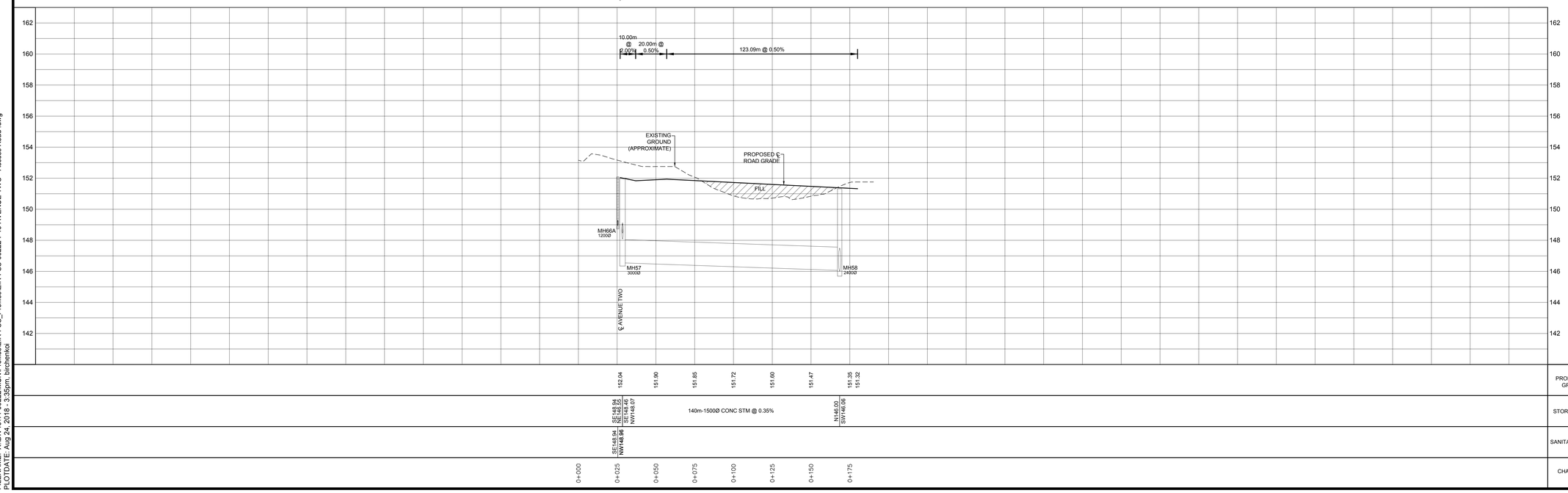




KEY PLAN NTS

LEGEND

- 407 WEST PLAN AREA
- PROPERTY LINE
- PROPOSED INFILTRATION SWALE
- SANITARY SEWER
- SANITARY MANHOLE
- STORM SEWER
- STORM MANHOLE
- WATERMAIN
- 150.0 EXISTING CONTOUR ELEVATION



ALL DIMENSIONS AND ELEVATIONS ARE IN METRES UNLESS OTHERWISE NOTED.

DRAWINGS ARE NOT DIGITALLY CORRECT. LAYOUT TO BE COMPLETED BY OFFSETS.

BENCHMARKS
MTO BENCHMARK BM 81.8108. ELEVATION 167.059
TABLET ON CULVERT, SOUTHWEST CORNER OF DUNDAS STREET AND TRAFALGAR ROAD (1978 DATUM).

No	Date	By	
5	AUG 2018		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
4	JUN 2017		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
3	NOV 2014		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
2	NOV 2013		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
1	JUN 2013		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION

Design	S.W.	Ch'kd	A.W.	Date
Drawn	CAD 14	Ch'kd		DECEMBER 2012

Scale 1:1000 Horiz. 20 10 0 20
1:100 Vert. 2 1 0 2

References

CONSULTANT

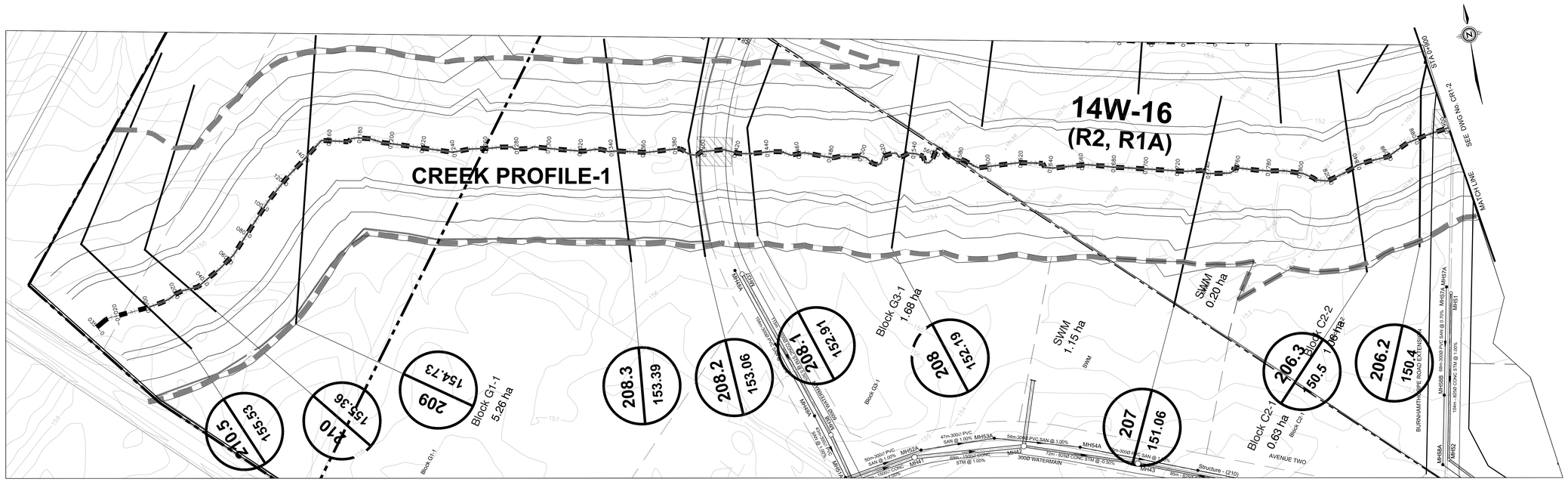
MUNICIPALITY
Halton Region — Regional Municipality of Halton
TOWN OF OAKVILLE

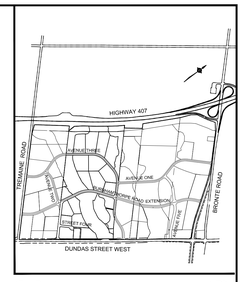
TITLE
407 WEST EMPLOYMENT AREA
CONCEPTUAL
PLAN AND PROFILES
AVENUE TWO ACCESS ROAD
STA 0+000 TO STA 0+175

Municipal Drawing No	Regional Drawing No
WSP File No 14-09222	Drawing No P16

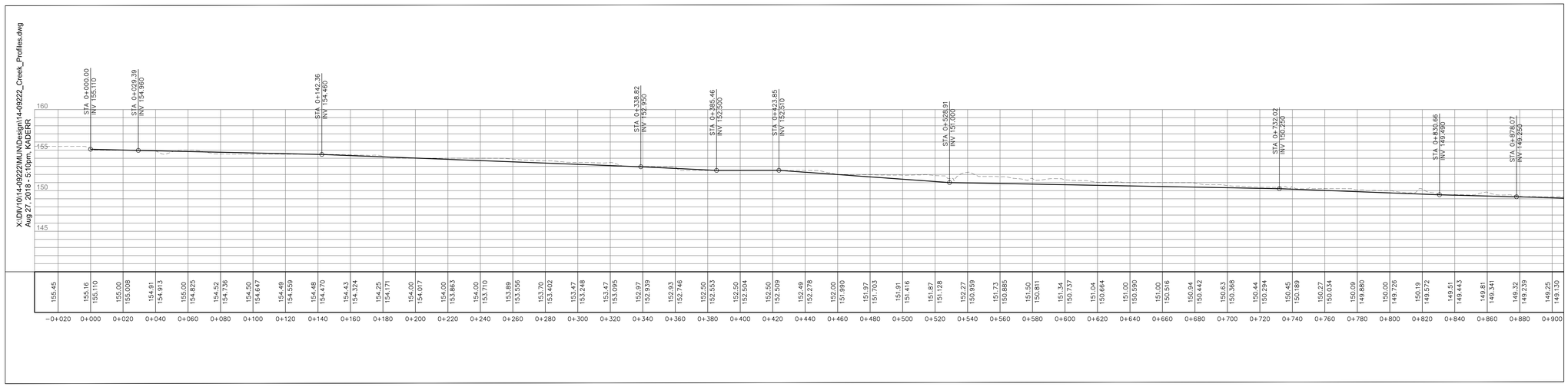
FILENAME: X:\DIV\10\14-09222\MUN\Profiles\EIR-FSS_Profiles\EIR-FSS-09222-P16-AVENUE TWO - Access Road .dwg
PLOTDATE: Aug 24, 2018 - 3:55pm, lwebenlo

Appendix 8.5 – Conceptual Grading Plan





KEY PLAN NTS



ALL DIMENSIONS AND ELEVATIONS ARE IN METRES UNLESS OTHERWISE NOTED.
DRAWINGS ARE NOT DIGITALLY CORRECT. LAYOUT TO BE COMPLETED BY OFFSETS.

BENCHMARKS

MTO BENCHMARK BM 91.8108. ELEVATION 167.059
TABLET ON CULVERT, SOUTHWEST CORNER OF DUNDAS STREET AND TRAFALGAR ROAD (1978 DATUM).

No	Date	By	
5	AUG 2018		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
4	JUN 2017		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
3	NOV 2014		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
2	NOV 2013		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
1	JUN 2013		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION

Design	S.W.	Ch'kd	A.W.	Date JULY 2018
Drawn	CAD 10/12	Ch'kd		
Scale 1:1000				References

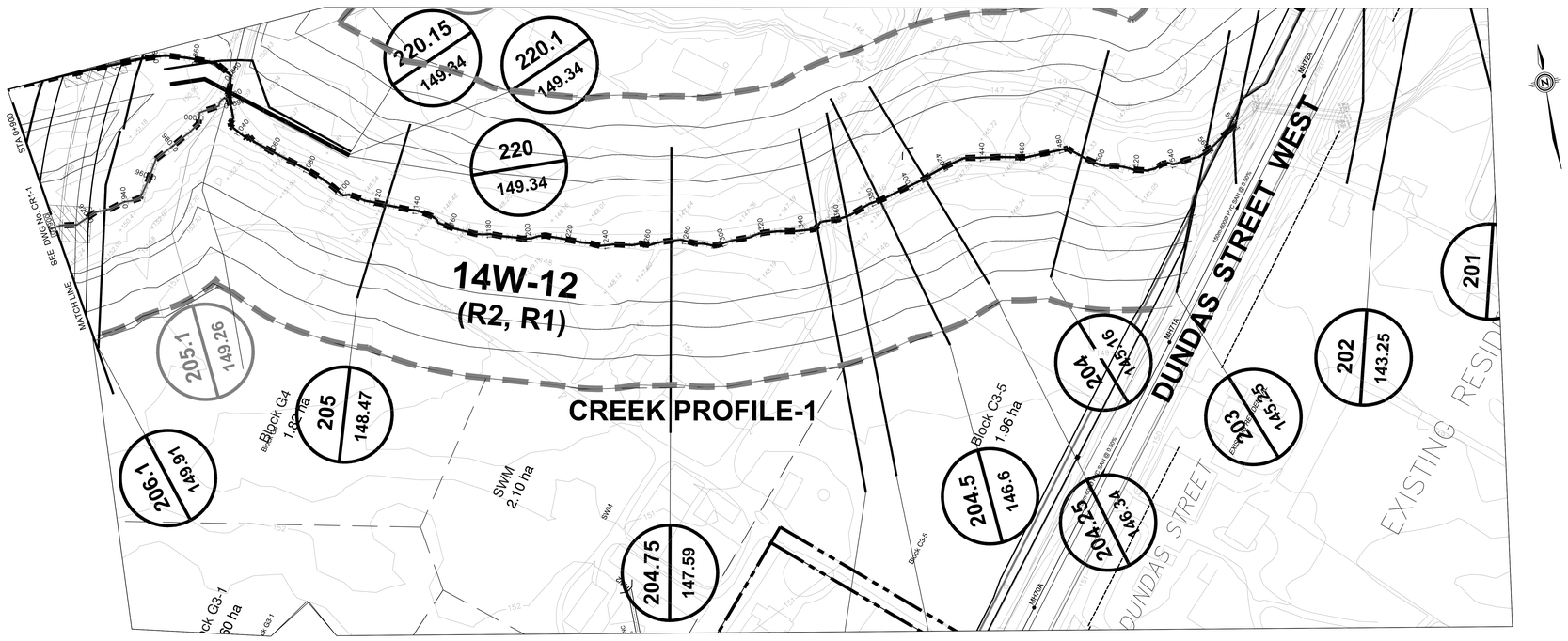
CONSULTANT wsp

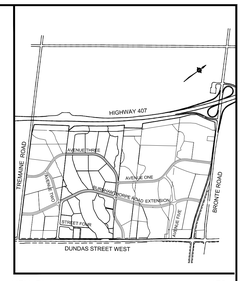
MUNICIPALITY
Halton Region — Regional Municipality of Halton
TOWN OF OAKVILLE

TITLE
407 WEST EMPLOYMENT AREA CONCEPTUAL
CREEK PROFILE 1
STA -0+20 TO STA 0+900

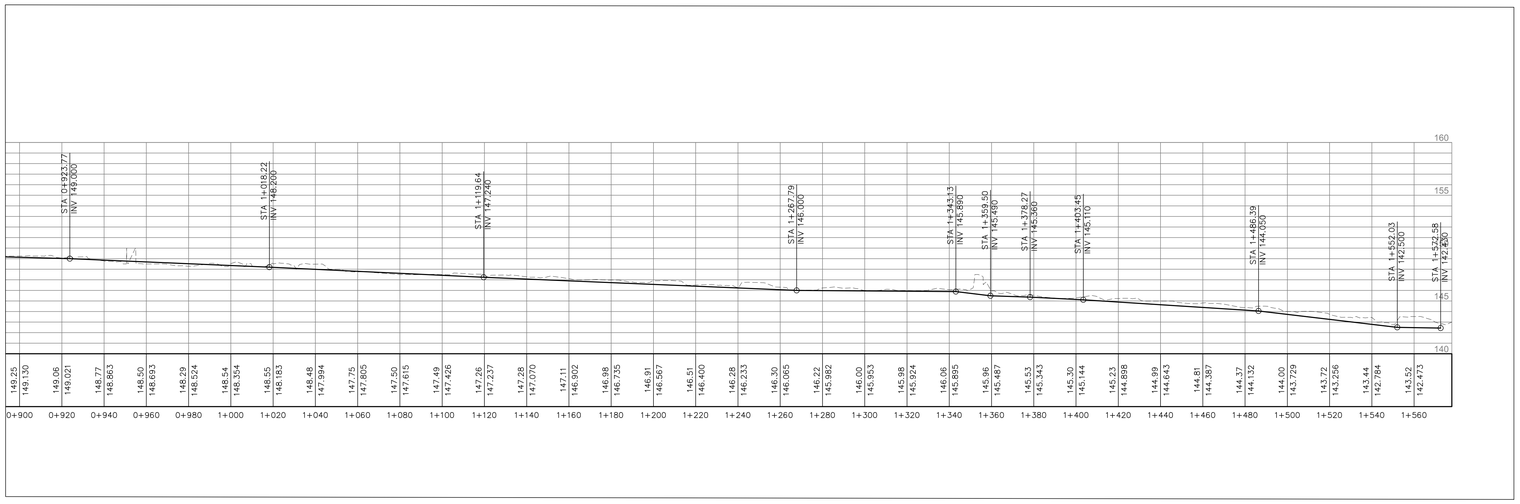
Municipal Drawing No	Regional Drawing No
WSP File No 14-09222	Drawing No CR 1-1

AUTOCAD MAP: X:\DV10\14-09222\Work\Design\14-09222_Creek_Profiles.dwg, PMSHIZ, 1:1





KEY PLAN NTS



ALL DIMENSIONS AND ELEVATIONS ARE IN METRES UNLESS OTHERWISE NOTED.
DRAWINGS ARE NOT DIGITALLY CORRECT.
LAYOUT TO BE COMPLETED BY OFFSETS.

BENCHMARKS

MTO BENCHMARK BM 81.8108. ELEVATION 167.059
TABLET ON CULVERT, SOUTHWEST CORNER OF
DUNDAS STREET AND TRAFALGAR ROAD (1978 DATUM).

No	Date	By	
5	AUG 2018		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
4	JUN 2017		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
3	NOV 2014		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
2	NOV 2013		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
1	JUN 2013		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION

Design	S.W.	Ch'kd	A.W.	Date JULY 2018
Drawn	CAD 10/12	Ch'kd		
Scale 1:1000				References

CONSULTANT wsp

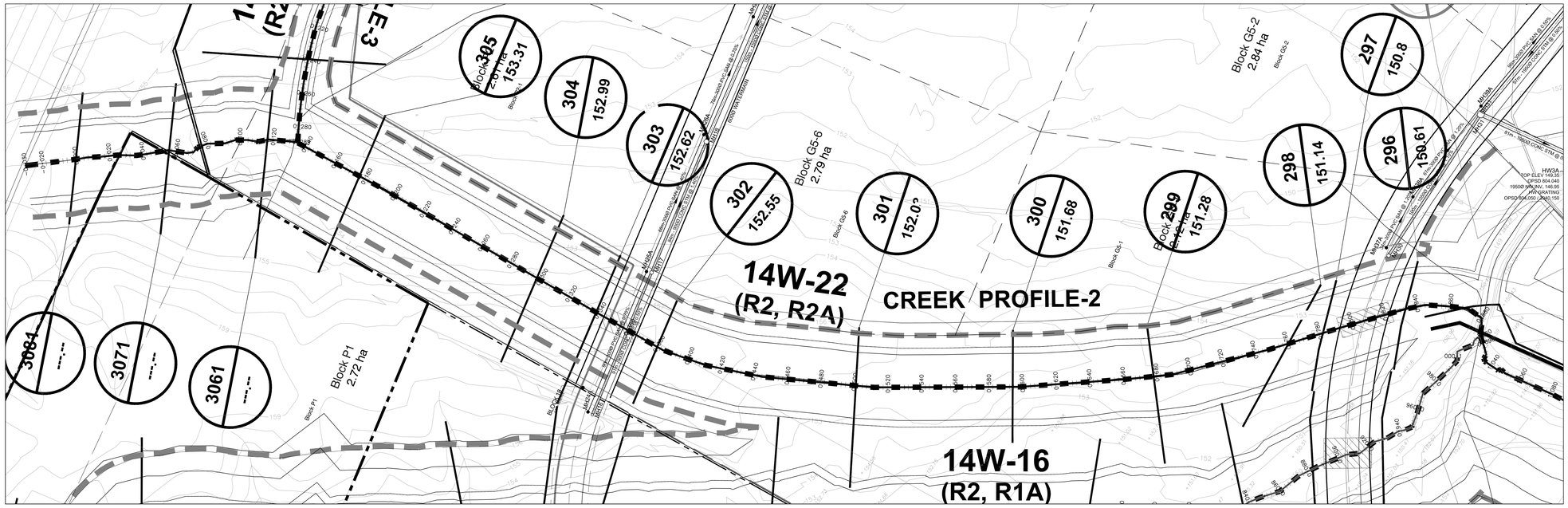
MUNICIPALITY
Halton REGION Regional Municipality of Halton
TOWN OF OAKVILLE

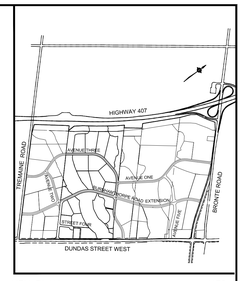
TITLE
407 WEST EMPLOYMENT AREA
CONCEPTUAL

CREEK PROFILE 1
STA 0+900 TO STA 1+560

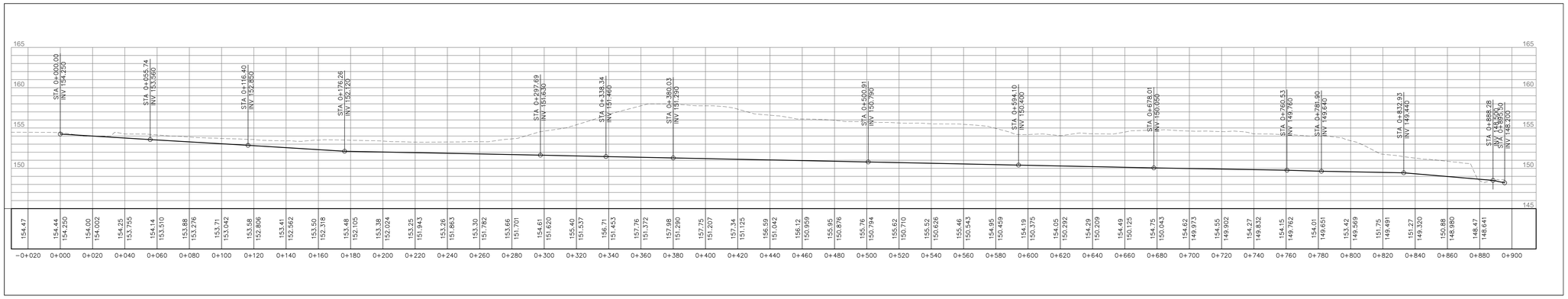
Municipal Drawing No	Regional Drawing No
WSP File No 14-09222	Drawing No CR 1-2

AE MADE: X:\2012\14-09222\Work\Design\14-09222_Creek_Profiles.dwg, PROFILE 1-2





KEY PLAN NTS



ALL DIMENSIONS AND ELEVATIONS ARE IN METRES UNLESS OTHERWISE NOTED.
DRAWINGS ARE NOT DIGITALLY CORRECT.
LAYOUT TO BE COMPLETED BY OFFSETS.

BENCHMARKS

MTO BENCHMARK BM 81.8108. ELEVATION 167.059
TABLET ON CULVERT, SOUTHWEST CORNER OF
DUNDAS STREET AND TRAFALGAR ROAD (1978 DATUM).

No	Date	By	
5	AUG 2018		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
4	JUN 2017		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
3	NOV 2014		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
2	NOV 2013		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
1	JUN 2013		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION

Design	S.W.	Ch'kd	A.W.	Date JULY 2018
Drawn	CAD 10/12	Ch'kd		
Scale 1:1000				References

CONSULTANT

MUNICIPALITY

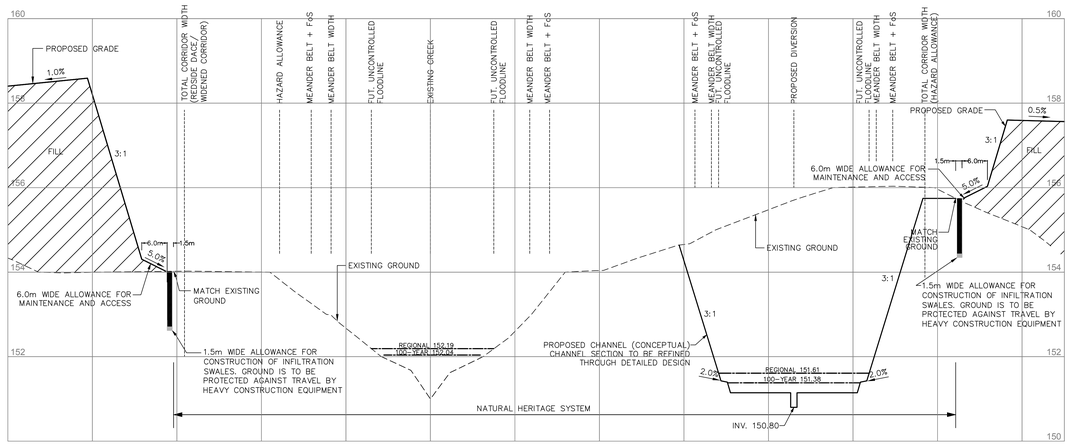
Halton Region — Regional Municipality of Halton

TOWN OF OAKVILLE

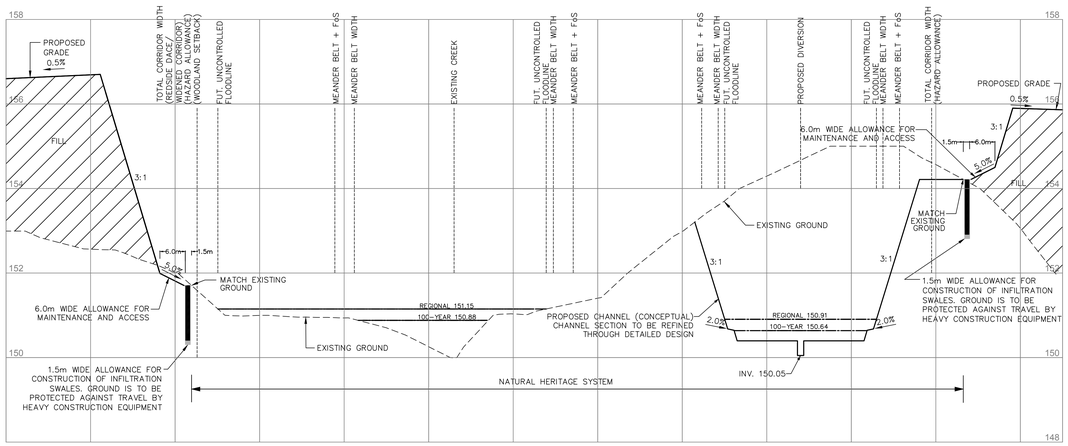
TITLE
407 WEST EMPLOYMENT AREA
CONCEPTUAL
GRADING PLAN

Municipal Drawing No	Regional Drawing No
WSP File No 14-09222	Drawing No CR 2

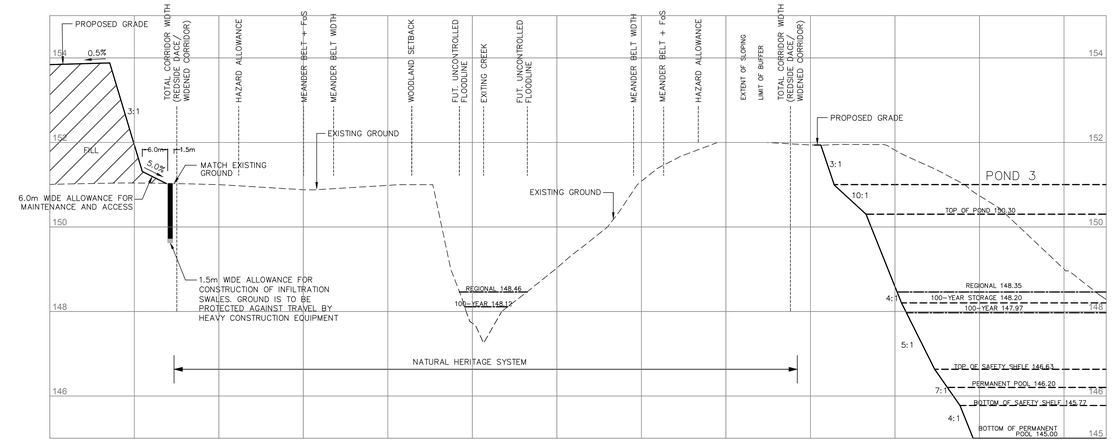
FILE NAME: R:\2014\14-09222\Mark\Design\14-09222_Cross_Profiles.dwg, PROFILE 2



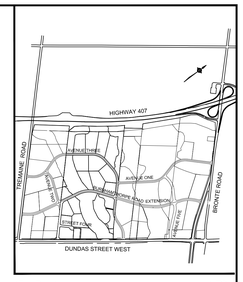
SECTION A-A
H: 1:500 V: 1:50



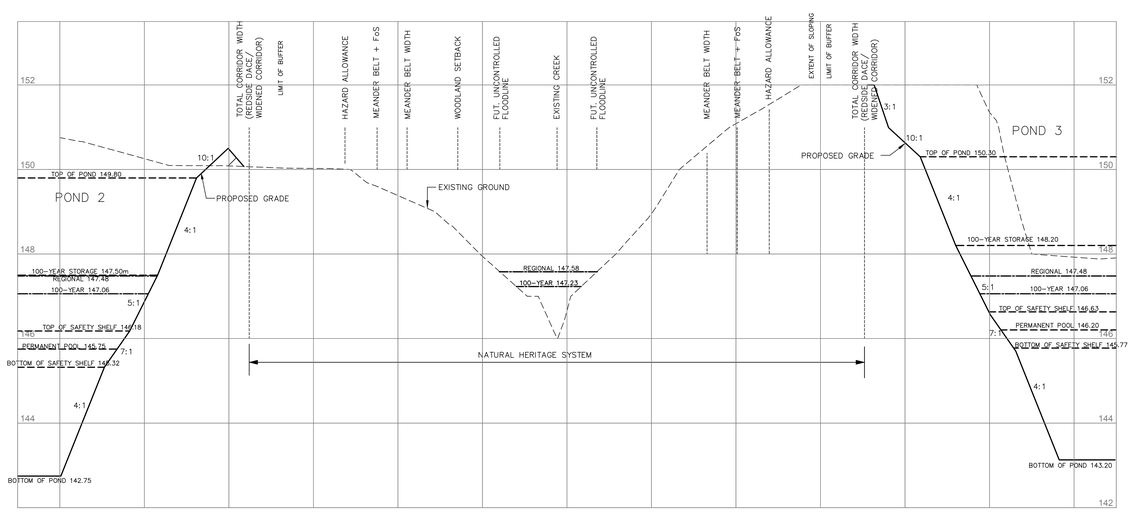
SECTION C-C
H: 1:500 V: 1:50



SECTION D-D
H: 1:500 V: 1:50



KEY PLAN NTS



SECTION E-E
H: 1:500 V: 1:50

DETAIL FOR INFILTRATION SWALE SHOWN ON DWG No. 14-09222-GR1

ALL DIMENSIONS AND ELEVATIONS ARE IN METRES UNLESS OTHERWISE NOTED.
DRAWINGS ARE NOT DIGITALLY CORRECT. LAYOUT TO BE COMPLETED BY OFFSETS.

BENCHMARKS
MTO BENCHMARK BM 81.8108. ELEVATION 167.059 TABLET ON CULVERT, SOUTHWEST CORNER OF DUNDAS STREET AND TRAFALGAR ROAD (1978 DATUM).

No	Date	By	
5	AUG 2018		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
4	JUN 2017		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
3	NOV 2014		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
2	NOV 2013		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
1	JUN 2013		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION

Design	S.W.	Ch'kd	A.W.	Date
Drawn	CAD 10/12	Ch'kd		JULY 2018
Scale	AS NOTED			References

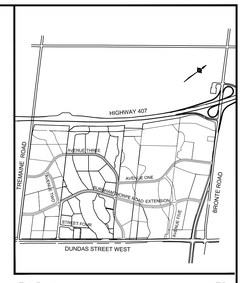
CONSULTANT
wsp

MUNICIPALITY
Halton Region — Regional Municipality of Halton
TOWN OF OAKVILLE

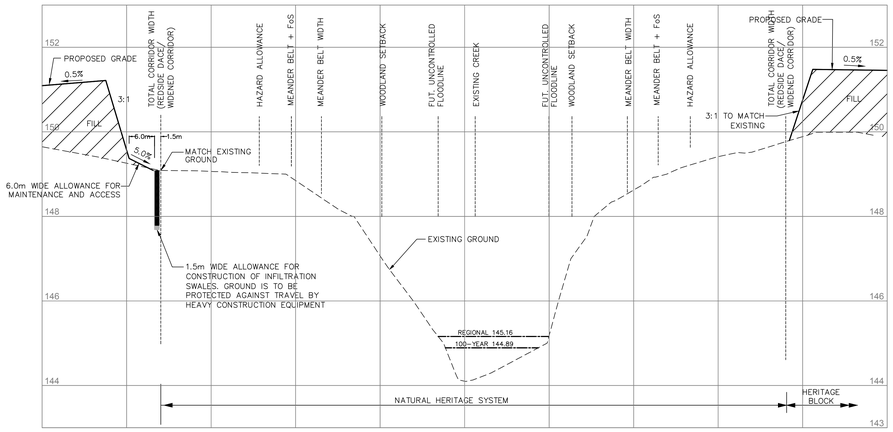
TITLE
407 WEST EMPLOYMENT AREA
CROSS-SECTION DETAILS

Municipal Drawing No	Regional Drawing No
WSP File No 14-09222	Drawing No D1

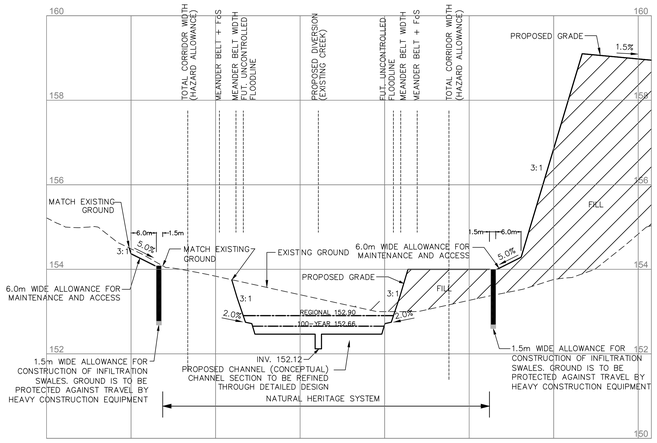
FILE NAME: N:\2014\14-09222\Work\Engineering Drawings\14-09222-GR-1_2014-Aug-20



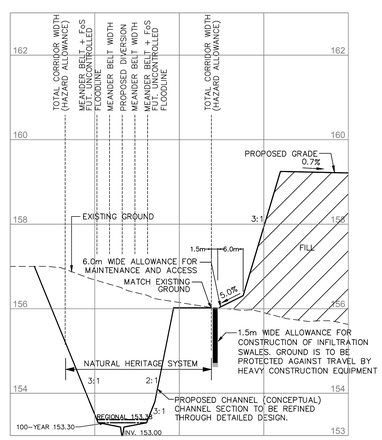
KEY PLAN NTS



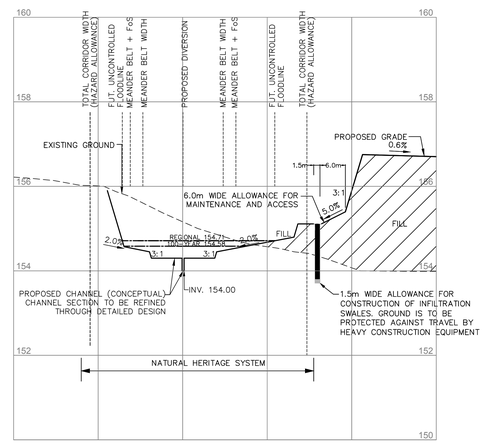
SECTION H-H
H: 1:500 V: 1:50



SECTION I-I
H: 1:500 V: 1:50



SECTION J-J
H: 1:500 V: 1:50



SECTION K-K
H: 1:500 V: 1:50

DETAIL FOR INFILTRATION SWALE SHOWN ON DWG No. 14-09222-GR1

ALL DIMENSIONS AND ELEVATIONS ARE IN METRES UNLESS OTHERWISE NOTED.
DRAWINGS ARE NOT DIGITALLY CORRECT.
LAYOUT TO BE COMPLETED BY OFFSETS.

BENCHMARKS
MTO BENCHMARK BM 81.8108. ELEVATION 167.059
TABLET ON CULVERT, SOUTHWEST CORNER OF DUNDAS STREET AND TRAFALGAR ROAD (1928 DATUM).

No	Date	By	
5	AUG 2018		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
4	JUN 2017		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
3	NOV 2014		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
2	NOV 2013		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
1	JUN 2013		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION

Design	S.W.	Ch'kd	A.W.	Date
Drawn	CAD 10/12	Ch'kd		JULY 2018
Scale AS NOTED				References

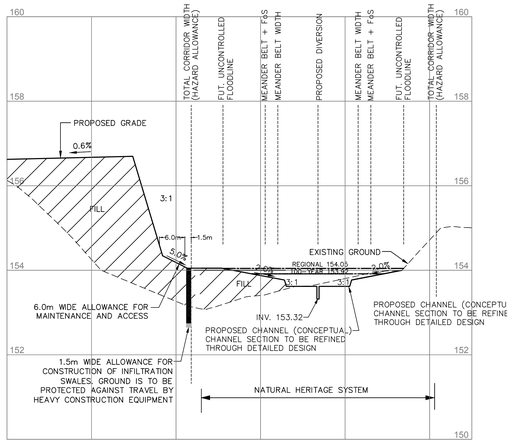
CONSULTANT
wsp

MUNICIPALITY
Halton Region — Regional Municipality of Halton
TOWN OF OAKVILLE

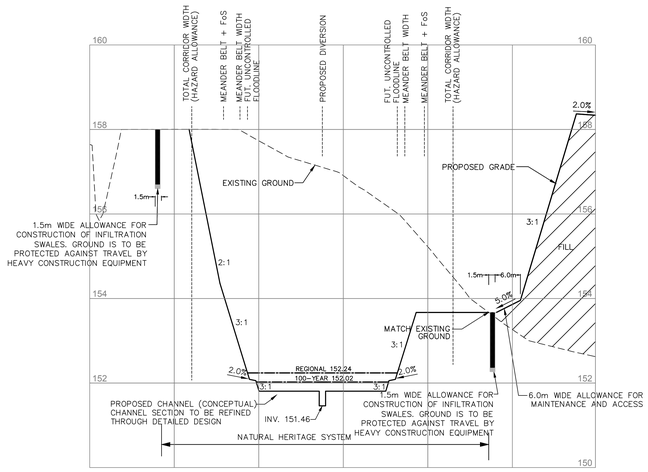
TITLE
407 WEST EMPLOYMENT AREA
CROSS-SECTION
DETAILS

Municipal Drawing No	Regional Drawing No
WSP File No 14-09222	Drawing No D2

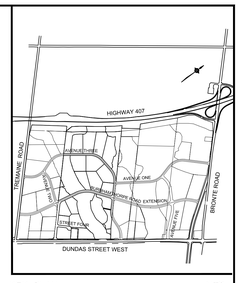
PLT NAME: X:\OAKVILLE\14-09222\WORK\Engineering Drawings\14-09222-GR-1_2013.dwg_D2



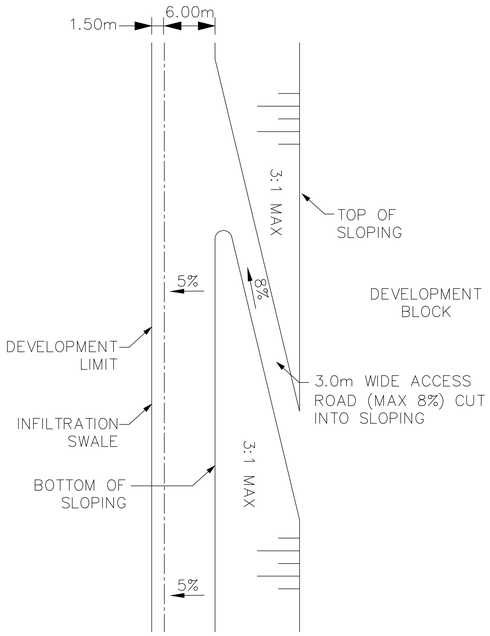
SECTION L-L
H: 1:500 V: 1:50



SECTION N-N
H: 1:500 V: 1:50



KEY PLAN NTS



TYPICAL INFILTRATION SWALE
ACCESS DETAIL
SCALE: 1:250

DETAIL FOR INFILTRATION SWALE SHOWN ON DWG No. 14-09222-GR1

ALL DIMENSIONS AND ELEVATIONS ARE IN METRES UNLESS OTHERWISE NOTED.
DRAWINGS ARE NOT DIGITALLY CORRECT. LAYOUT TO BE COMPLETED BY OFFSETS.

BENCHMARKS
MTO BENCHMARK BM 81.8108. ELEVATION 167.059
TABLET ON CULVERT, SOUTHWEST CORNER OF DUNDAS STREET AND TRAFALGAR ROAD (1978 DATUM).

No	Date	By	
5	AUG 2018		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
4	JUN 2017		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
3	NOV 2014		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
2	NOV 2013		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
1	JUN 2013		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION

Design	S.W.	Ch'kd	A.W.	Date JULY 2018
Drawn	CAD 10/12	Ch'kd		
Scale AS NOTED				References

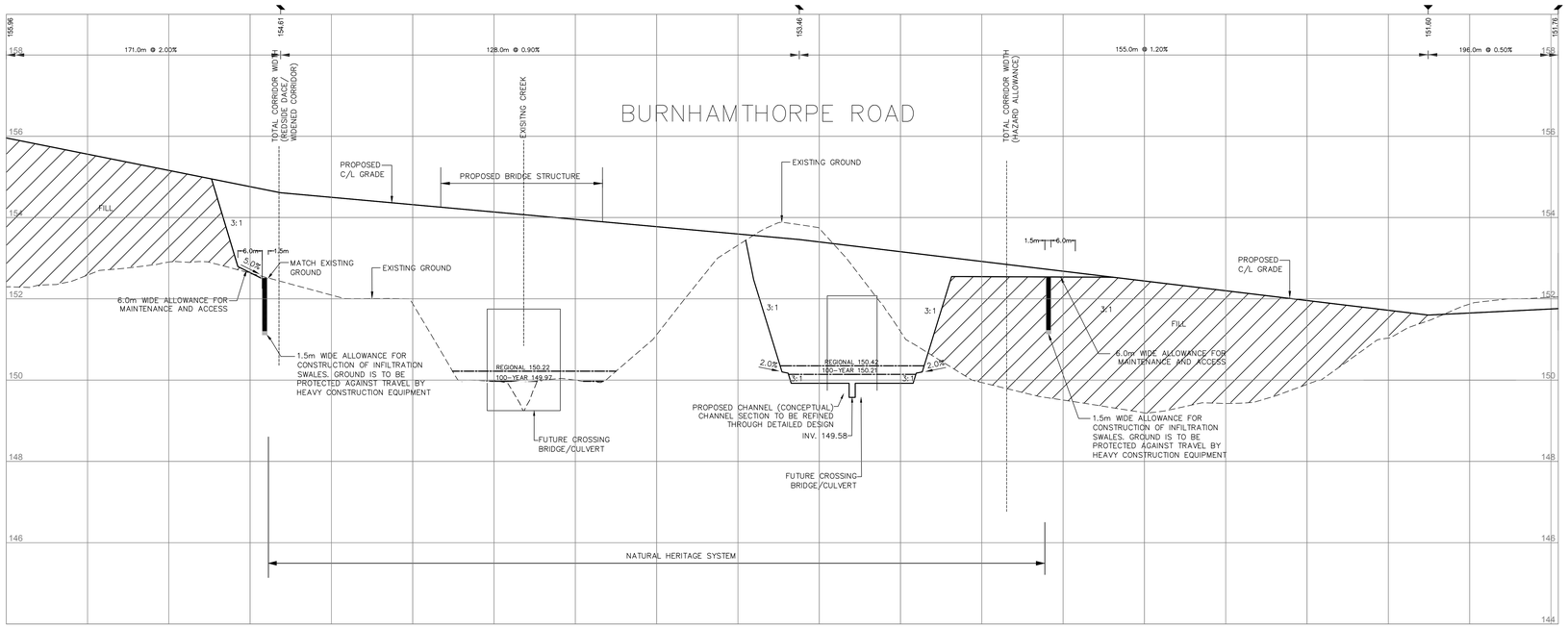
CONSULTANT
wsp

MUNICIPALITY
Halton Region — Regional Municipality of Halton
TOWN OF OAKVILLE

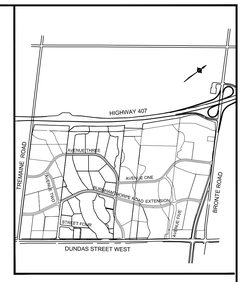
TITLE
407 WEST EMPLOYMENT AREA
CROSS-SECTION DETAILS

Municipal Drawing No	Regional Drawing No
WSP File No 14-09222	Drawing No D3

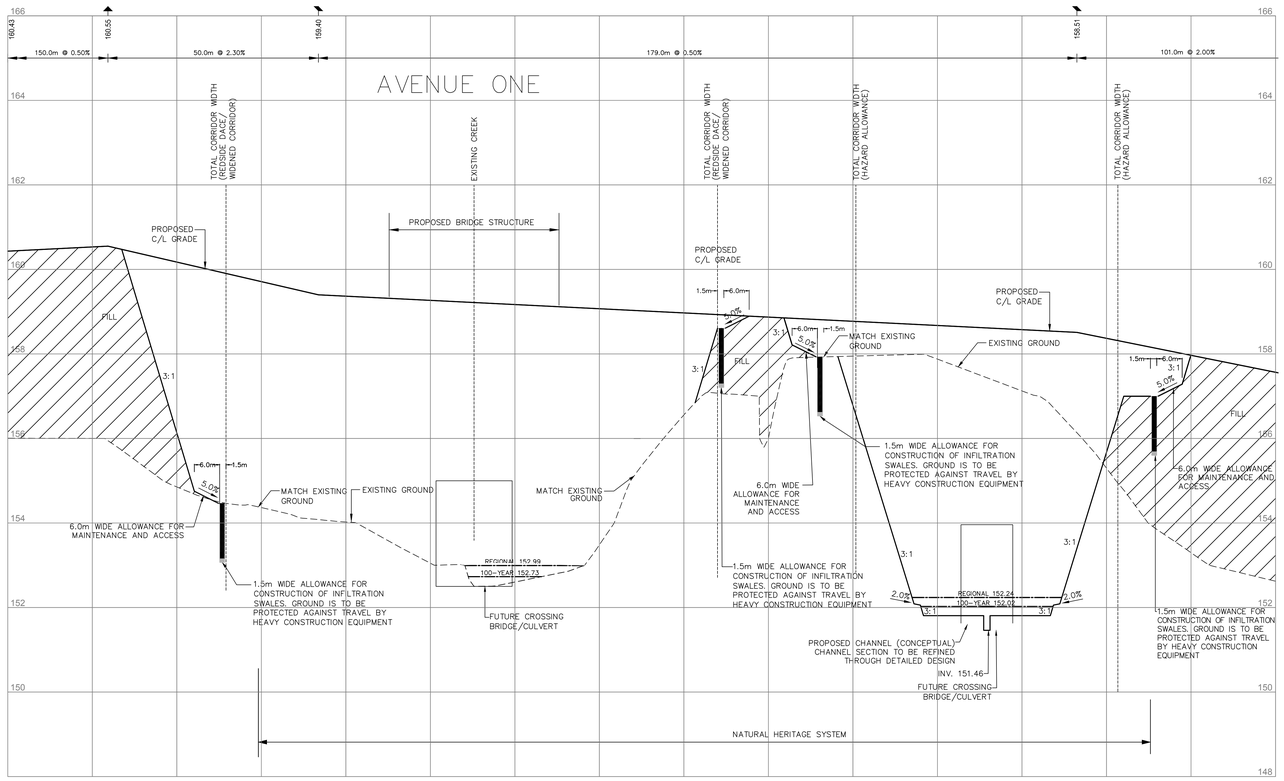
FILE NAME: X:\Oakville\14-09222\Work\Engineering Drawings\14-09222-GR-1_2013-Sep-23



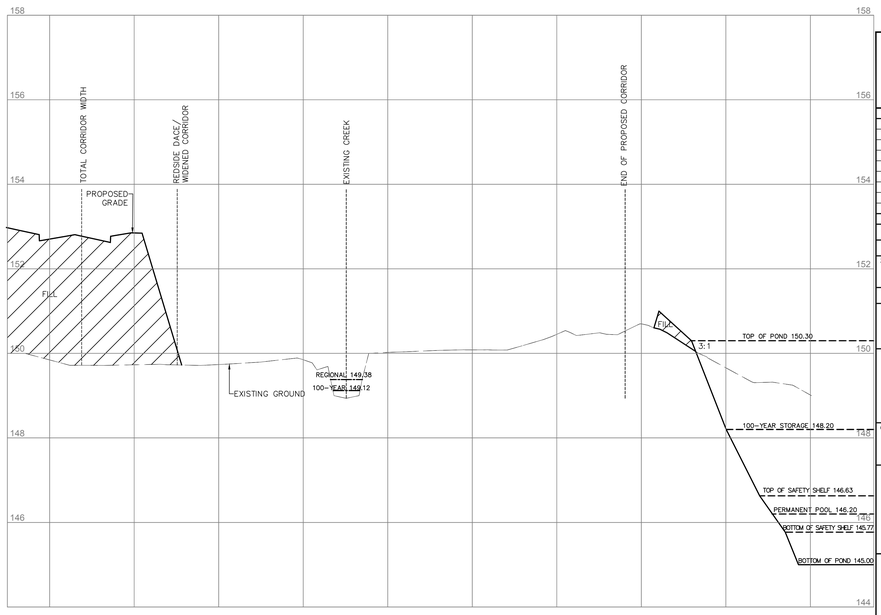
SECTION Q-Q
H: 1:500 V: 1:50



KEY PLAN NTS



SECTION R-R
H: 1:500 V: 1:50



SECTION S-S
H: 1:500 V: 1:50

DETAIL FOR INFILTRATION SWALE SHOWN ON DWG No. 14-09222-GR1

ALL DIMENSIONS AND ELEVATIONS ARE IN METRES UNLESS OTHERWISE NOTED.
DRAWINGS ARE NOT DIGITALLY CORRECT. LAYOUT TO BE COMPLETED BY OFFSETS.

BENCHMARKS
MTO BENCHMARK BM 81.8108. ELEVATION 167.059
TABLET ON CULVERT, SOUTHWEST CORNER OF DUNDAS STREET AND TRAFALGAR ROAD (1978 DATUM).

No	Date	By	
5	AUG 2018		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
4	JUN 2017		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
3	NOV 2014		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
2	NOV 2013		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
1	JUN 2013		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION

Design	S.W.	Ch'kd	A.W.	Date
Drawn	CAD 10/12	Ch'kd		JULY 2018
Scale	AS NOTED			References

CONSULTANT
wsp

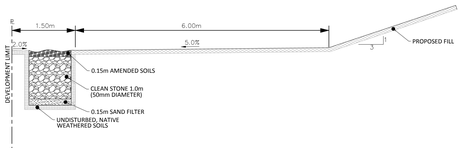
MUNICIPALITY
Halton Region — Regional Municipality of Halton
TOWN OF OAKVILLE

TITLE
407 WEST EMPLOYMENT AREA
CROSS-SECTION
DETAILS

Municipal Drawing No	Regional Drawing No
WSP File No 14-09222	Drawing No D4

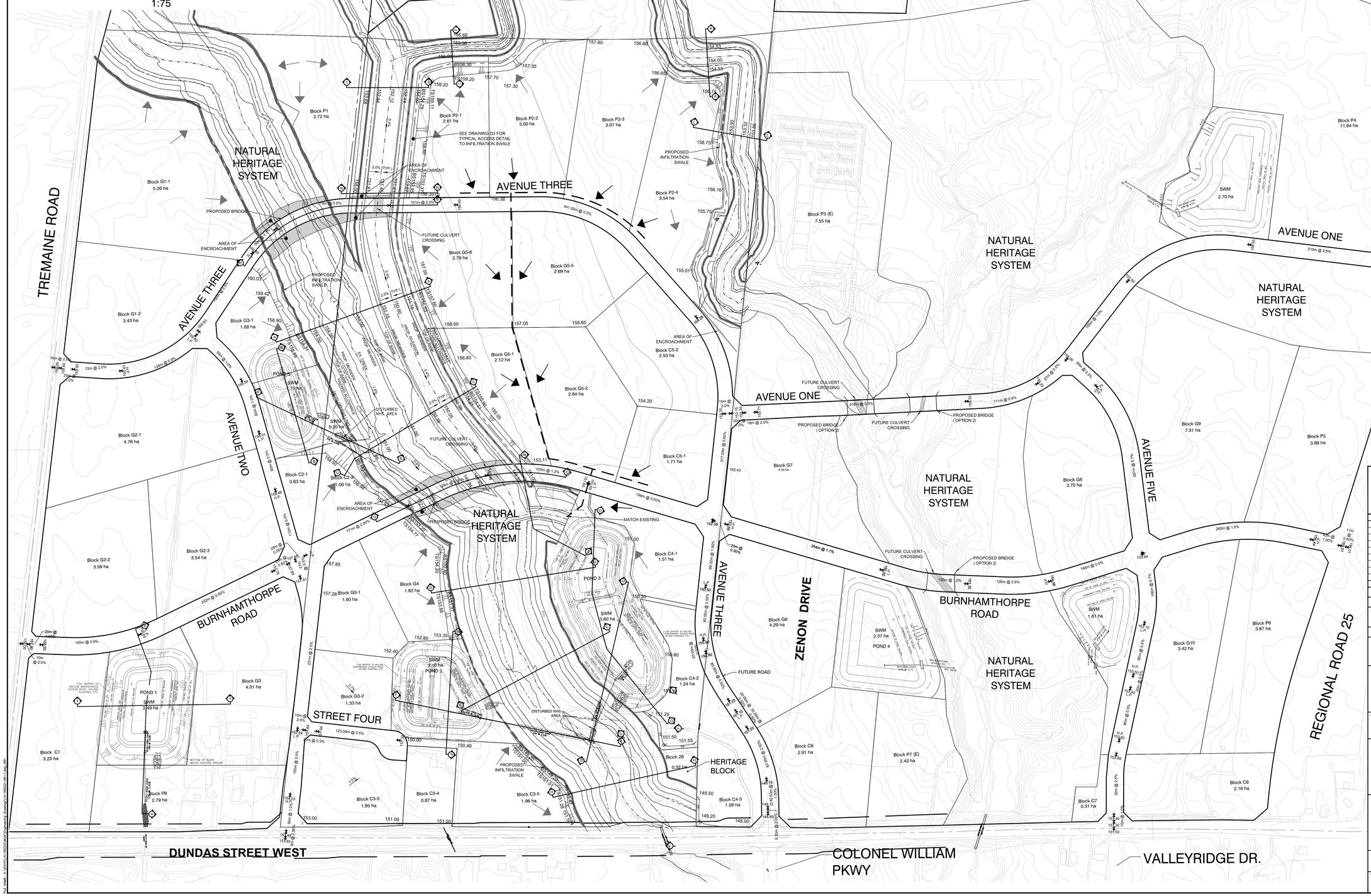
FILE NAME: W:\2014\14-09222\Work\Engineering Drawings\14-09222-GR-1_2013-Aug-24

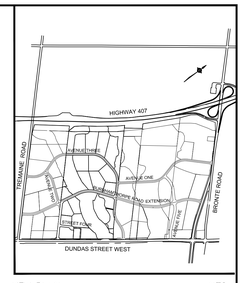
GRADING ILLUSTRATED TO THE EAST OF AVENUE THREE WITHIN SUBCATCHMENTS FM-1108, FM-1109, FM-1110 AND FM-1110.1 ARE CONCEPTUAL ONLY AND HAVE NOT BEEN EVALUATED BY THE REVIEW AGENCIES WITH RESPECT TO FEASIBILITY OF NATURAL HERITAGE SYSTEM IMPACTS AND AS SUCH ARE SUBJECT TO POTENTIALLY SUBSTANTIAL CHANGES.



CONCEPTUAL INFILTRATION SWALE (WITHOUT ADJACENT TRAIL)
1:75

NOTE: SEE DWG No. 14-09222-D1, 14-09222-D2, AND 14-09222-D3 FOR DETAILS OF CROSS-SECTIONS A-A TO P-P.





KEY PLAN NTS

LEGEND

- 150.0 — EXISTING CONTOUR ELEVATION
- 152.70 — PROPOSED GRADE
- 152.13± — EXISTING GRADE
- PROPOSED ROAD GRADE CHANGE
- PROPOSED CULVERT CROSSING
- PROPOSED NATURAL CHANNEL ALIGNMENT
- PROPOSED INFILTRATION SWALE
- ROOFTOP RUNOFF TO BE DIRECTED TO INFILTRATION SWALES
- CONCEPT FLOW MAINTENANCE PIPE
- ROOFTOP RUNOFF TO BE DIRECTED TO FLOW MAINTENANCE PIPE
- PROPERTY LINE

ALL DIMENSIONS AND ELEVATIONS ARE IN METRES UNLESS OTHERWISE NOTED.
DRAWINGS ARE NOT DIGITALLY CORRECT. LAYOUT TO BE COMPLETED BY OFFSETS.

BENCHMARKS
MTO BENCHMARK BM 81,8108. ELEVATION 167.059
TABLET ON CULVERT, SOUTHWEST CORNER OF DUNDAS STREET AND TRAFALGAR ROAD (1978 DATUM).

No.	Date	By	
5	AUG 2018		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
4	JUN 2017		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
3	NOV 2014		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
2	NOV 2013		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION
1	JUN 2013		CONCEPTUAL ONLY- SUBMITTED IN SUPPORT OF DRAFT PLAN APPLICATION

Design	S.W.	Ch'kd	A.W.	Date
Drawn	CAD 10/12	Ch'kd		JUILY 2018
Scale 1:2000				References

CONSULTANT
wsp

MUNICIPALITY
Halton Region — Regional Municipality of Halton
TOWN OF OAKVILLE

TITLE
407 WEST EMPLOYMENT AREA
CONCEPTUAL
GRADING PLAN

Municipal Drawing No	Regional Drawing No
WSP File No 14-09222	Drawing No GR1