



SANITARY SEWER DESIGN SHEET
INTERIM CONDITIONS
DERRY BRITANNIA DEVELOPMENTS LTD.
CITY OF MISSISSAUGA, REGION OF PEEL

PROJECT DETAILS

Project No: 20-652
 Date: 14-Apr-23
 Designed by: TL
 Checked by: SR

DESIGN CRITERIA

Min. Flow = 13 l/s
 Min Diameter = 250 mm
 Mannings 'n' = 0.013
 Avg. Domestic Flow = 302.8 l/c/d
 Infiltration = 0.200 l/s/ha
 Max. Peaking Factor = 4.00
 Min. Peaking Factor = 1.50
 Domestic Sewage flow for < 1000 ppl = 0.013m³/s
 (Region of Peel Std. 2-5-2)

NOMINAL PIPE SIZE USED

STREET	FROM MH	TO MH	RESIDENTIAL							COMMERCIAL/INDUSTRIAL/INSTITUTIONAL							FLOW CALCULATIONS							PIPE DATA					
			AREA (ha)	ACC. AREA (ha)	UNITS (#)	DENISTY (P/ha)	DENSITY (P/unit)	POP	ACCUM. RES. POP.	AREA (ha)	ACC. AREA (ha)	EQUIV. POP. (p/ha)	FLOW RATE (l/s/ha)	EQUIV. POP.	ACCUM. EQUIV. POP.	INFILTRATION (l/s)	TOTAL ACCUM. POP.	PEAKING FACTOR	RES. FLOW (l/s)	MIN. RES. FLOW (l/s)	COMM. FLOW (l/s)	ACCUM. COMM. FLOW (l/s)	TOTAL FLOW (l/s)	SLOPE (%)	PIPE DIAMETER (mm)	FULL FLOW CAPACITY (l/s)	FULL FLOW VELOCITY (m/s)	ACTUAL VELOCITY (m/s)	PERCENT FULL (%)
STREET A	1A	2A			15		3.4	51	51								51	4.00	0.7	13.0			13.0	0.30	375	96.0	0.87	0.61	14%
STREET A - PARK	2A	3A	0.76	0.76					51							0.2	51	4.00	0.7	13.0			13.2	0.30	375	96.0	0.87	0.61	14%
FUTURE RES		3A			25		3.4	85	85								85	4.00	1.2	13.0			13.0						
STREET A	3A	4A		0.76	30		3.4	102	238							0.2	238	4.00	3.3	13.0			13.2	0.30	375	96.0	0.87	0.61	14%
STREET A	4A	5A		0.76					238							0.2	238	4.00	3.3	13.0			13.2	0.30	375	96.0	0.87	0.61	14%
STREET A	5A	6A		0.76					238							0.2	238	4.00	3.3	13.0			13.2	0.30	375	96.0	0.87	0.61	14%
STREET A	6A	7A		0.76					238							0.2	238	4.00	3.3	13.0			13.2	0.30	375	96.0	0.87	0.61	14%
FUTURE RES	CTRL 1A	7A			36		3.4	122	122								122	4.00	1.7	13.0			13.0	0.50	250	42.0	0.86	0.75	31%
STREET A	7A	8A	0.08	0.84					360							0.2	360	4.00	5.0	13.0			13.2	0.30	375	96.0	0.87	0.61	14%
CONDO ROAD G		CTRL 2A			27		4.2	113	113								113	4.00	1.6	13.0			13.0						
CONDO ROAD G	CTRL 2A	8A			115		3.4	391	504								504	3.97	7.0	13.0			13.0	0.50	250	42.0	0.86	0.75	31%
STREET A	8A	9A	0.15	0.99					864							0.2	864	3.84	11.6	13.0			13.2	0.30	375	96.0	0.87	0.61	14%
BLOCK 8N	CTRL 3A	9A			146		1.7	248	248								248	4.00	3.5	13.0			13.0	0.50	250	42.0	0.86	0.75	31%
STREET A	9A	90A	0.50	1.49					1112							0.3	1112	3.77	14.7	14.7			15.0	0.30	375	96.0	0.87	0.63	16%
FUT CONDO BLOCK	CTRL 16A	91A			179		3.1	555	555								555	3.95	7.7	13.0			13.0	0.50	250	42.0	0.86	0.75	31%
FUT. CONDO BLOCK	CTRL 17A	91A			179		3.1	555	555								555	3.95	7.7	13.0			13.0	0.50	250	42.0	0.86	0.75	31%
STREET B	91A	90A							1110								1110	3.77	14.7	14.7			14.7	0.50	250	42.0	0.86	0.77	35%
STREET A	90A	10A		1.49					2222							0.3	2222	3.55	27.6	27.6			27.9	0.30	375	96.0	0.87	0.74	29%
BLOCK 13S	CTRL 4A	10A			146		1.7	248	248								248	4.00	3.5	13.0			13.0	0.50	250	42.0	0.86	0.75	31%
STREET A	10A	11A	0.43	1.92					2470							0.4	2470	3.51	30.4	30.4			30.8	0.30	375	96.0	0.87	0.76	32%
CONDO ROAD J	CTRL 5A	11A			118		3.4	401	401								401	4.00	5.6	13.0			13.0	0.50	250	42.0	0.86	0.75	31%
STREET A	11A	12A		1.92					2871							0.4	2871	3.46	34.8	34.8			35.2	0.30	375	96.0	0.87	0.78	37%
CONDO ROAD J	CTRL 6A	12A			14		3.4	48	48								48	4.00	0.7	13.0			13.0	0.50	250	42.0	0.86	0.75	31%
STREET A	12A	13A		1.92					2919							0.4	2919	3.45	35.3	35.3			35.7	0.30	375	96.0	0.87	0.78	37%
CONDO ROAD L	CTRL 7A	13A			53		3.4	180	180								180	4.00	2.5	13.0			13.0	0.50	250	42.0	0.86	0.75	31%
STREET A	13A	14A		1.92					3099							0.4	3099	3.43	37.3	37.3			37.6	0.30	375	96.0	0.87	0.78	39%
ELEMENTARY SCHOOL	CTRL 8A	14A						450	450	2.83	2.83					0.6	450	4.00	6.3	13.0			13.6	0.50	250	42.0	0.86	0.75	32%
CONDO ROAD K	CTRL 9A	14A			27		3.4	92	92								92	4.00	1.3	13.0			13.0	0.50	250	42.0	0.86	0.75	31%
STREET A	14A	15A	0.58	2.50					3641		2.83					1.1	3641	3.37	43.0	43.0			44.1	0.20	450	127.5	0.80	0.72	35%

STREET	FROM MH	TO MH	RESIDENTIAL							COMMERCIAL/INDUSTRIAL/INSTITUTIONAL						FLOW CALCULATIONS							PIPE DATA							
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STREET A	15A	16A		2.50					3641		2.83						1.1	3641	3.37	43.0	43.0			44.1	0.20	450	127.5	0.80	0.72	35%
STREET A	16A	17A	1.36	3.86					3641		2.83					1.3	3641	3.37	43.0	43.0			44.3	0.20	450	127.5	0.80	0.72	35%	
STREET A	17A	18A	0.13	3.99					3641		2.83					1.4	3641	3.37	43.0	43.0			44.4	0.20	450	127.5	0.80	0.72	35%	
CONDO ROAD O	CTRL 11A	18A			48		3.4	163	163							163	4.00	2.3	13.0			13.0	0.50	250	42.0	0.86	0.75	31%		
STREET A	18A	19A	0.14	4.13					3804		2.83					1.4	3804	3.35	44.7	44.7			46.1	0.20	450	127.5	0.80	0.72	36%	
CONDO ROAD P	CTRL 12A	19A			69		3.4	235	235							235	4.00	3.3	13.0			13.0	0.50	250	42.0	0.86	0.75	31%		
STREET A	19A	20A		4.13	26		3.4	89	4128		2.83					1.4	4128	3.32	48.0	48.0			49.4	0.20	450	127.5	0.80	0.72	39%	
STREET A	20A	21A		4.13					4128		2.83					1.4	4128	3.32	48.0	48.0			49.4	0.20	450	127.5	0.80	0.72	39%	
WALKWAY BLOCK	CTRL 13A	21A			96		3.4	326	326							326	4.00	4.6	13.0			13.0	0.50	250	42.0	0.86	0.75	31%		
STREET A	21A	22A		4.13	26		3.4	89	4543		2.83					1.4	4543	3.28	52.3	52.3			53.7	0.20	450	127.5	0.80	0.75	42%	
STREET A	22A	23A		4.13					4543		2.83					1.4	4543	3.28	52.3	52.3			53.7	0.20	450	127.5	0.80	0.75	42%	
CONDO ROAD R	CTRL 14A	23A			38		3.4	129	129							129	4.00	1.8	13.0			13.0	0.50	250	42.0	0.86	0.75	31%		
STREET A	23A	24A	0.12	4.25					4672		2.83					1.4	4672	3.27	53.6	53.6			55.0	0.20	450	127.5	0.80	0.75	43%	
CONDO ROAD S	CTRL 15A	24A			67		3.4	228	228							228	4.00	3.2	13.0			13.0	0.50	250	42.0	0.86	0.75	31%		
STREET A	24A	25A	0.42	4.67					4900		2.83					1.5	4900	3.25	55.9	55.9			57.4	0.20	450	127.5	0.80	0.77	45%	
STREET A	25A	26A		4.67					4900		2.83					1.5	4900	3.25	55.9	55.9			57.4	0.20	450	127.5	0.80	0.77	45%	
STREET A	26A	27A		4.67					4900		2.83					1.5	4900	3.25	55.9	55.9			57.4	0.20	450	127.5	0.80	0.77	45%	
STREET A	27A	28A		4.67					4900		2.83					1.5	4900	3.25	55.9	55.9			57.4	0.20	450	127.5	0.80	0.77	45%	
NINTH LINE	28A	29A		4.67					4900		2.83					1.5	4900	3.25	55.9	55.9			57.4	0.20	450	127.5	0.80	0.77	45%	
EXISTING NINTH LINE	A	29A						10750	10750							10750	2.92	110.1	110.1			110.1	0.15	450	110.4	0.69	0.79	100%		
NINTH LINE	29A	30A		4.67					15650		2.83					1.5	15650	2.76	151.4	151.4			152.9	0.15	600	237.8	0.84	0.87	64%	
NINTH LINE	30A	EX. MH		4.67					15650		2.83					1.5	15650	2.76	151.4	151.4			152.9	0.15	600	237.8	0.84	0.87	64%	