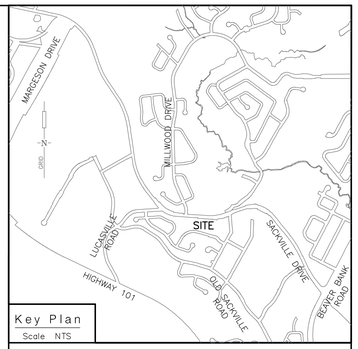

Key Plan
Scale NTS

PLAN LEGEND

- SEWERSHED BOUNDARY
- ZONING BOUNDARY
- WASTEWATER SEWER MAIN

NOTES

1. PROPERTY INFORMATION BASED ON PROVINCIAL MAPPING.
2. ZONING INFORMATION BASED ON HRM GIS DATA.
3. WASTEWATER INFRASTRUCTURE INFORMATION PROVIDED BY HALIFAX WATER.
4. POPULATION DENSITY VALUES DERIVED FROM HRM LAND-USE BY-LAW.

10 0 10 20 30 metres
1: 3000

WASTEWATER SEWER SYSTEM CAPACITY ANALYSIS
HALIFAX WATER DESIGN AND CONSTRUCTION SPECIFICATIONS 2020

Sewer Section	R-1 Zone Area (ha)	R-1 Zone Pop.	R-2 Zone Area (ha)	R-2 Zone Pop.	R-3 Zone Area (ha)	R-3 Zone Pop.	R-4 Zone Area (ha)	R-4 Zone Units	R-4 Zone Pop.	R-6 Zone Area (ha)	R-6 Zone Pop.	C-2 Zone Area (ha)	C-2 Zone Pop.	P-2 Zone Area (ha)	P-2 Zone Pop.	Proposed Apartment Units Area (ha)	Proposed Apartment Units Units	Proposed Apartment Units Pop.	Population, P Incr.	Population, P Total	P'	Harmon Factor, M	a	b	Design Flow, Q (m^3/day)	Design Flow, Q (L/s)	Design Flow, Q (cfs)	Slope of Pipe (%)	Manning's n	Minimum Diameter (m)	Existing Diameter (m)	Full Flow Capacity, Q_f (m^3/s)	Q/Q_f
A	1.806	108	12.456	1283	0.190	11	0.466	32	72	7.452	447	1.286	109	3.467	295	1.342	100	225	225	225	0.23	4.13	67.5	0.0	348.4	4.03	0.14						
B	4.882	293	12.456	1283	0.190	11	0.466	32	72	7.452	447	1.286	109	3.467	295				2510	2735	2.74	3.48	820.6	757.0	4322.9	50.03	1.77	1.00	0.013	0.2343	0.600	0.614	0.081
C	9.685	581	3.204	330	0.000	0	0.000	0	0	11.388	683	0.430	37		0	0.671	50	113	113	113	0.11	4.23	33.8	0.0	178.4	2.07	0.07						
																			1631	1743	1.74	3.63	523.0	625.2	2999.3	34.71	1.23	1.30	0.013	0.1945	0.200	0.037	0.928

Avg Dry Weather Flow, q_{ADW} =	0.3	m^3/per/day
Infiltration Allowance, I =	24	m^3/ha/day
R-1 Density =	60	per/ha
R-2 Density =	103	per/ha
R-3 Density =	60	per/ha
R-6 Density =	60	per/ha
C-2 Density =	85	per/ha (ACWWGM)
P-2 Density =	85	per/ha (ACWWGM)
Persons/apartment =	2.25	
Factor of Safety =	1.25	

$$Q = 1.25(a \times M) + b \qquad a = P \cdot q_{ADW}$$

$$M = 1 + \frac{14}{4 + \sqrt{P'}} \qquad b = I \cdot A$$

No.	Date	Revision Description	Appr'd
2			ATA
1	10 DEC 20	FOR DEVELOPMENT AGREEMENT	ATA

MARCHAND DEVELOPMENTS

NOVA SCOTIA ASSOCIATION OF PROFESSIONAL PLANNERS
10 Dec. 2020
Original Signed
A. I. ALAMO
8136
ASSOCIATION OF NOVA SCOTIA

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MIDDLE SACKVILLE, NOVA SCOTIA

WASTEWATER SYSTEM CAPACITY REVIEW

Date Dec 10, 2020	Drawn STAFF	Project No. 658-4
Scale 1: 3000	Engineer ATA	FILE NAME: 658-4-DR02.dwg
Reference	Approved	
Surveyed - - - -	Sheet DR02	