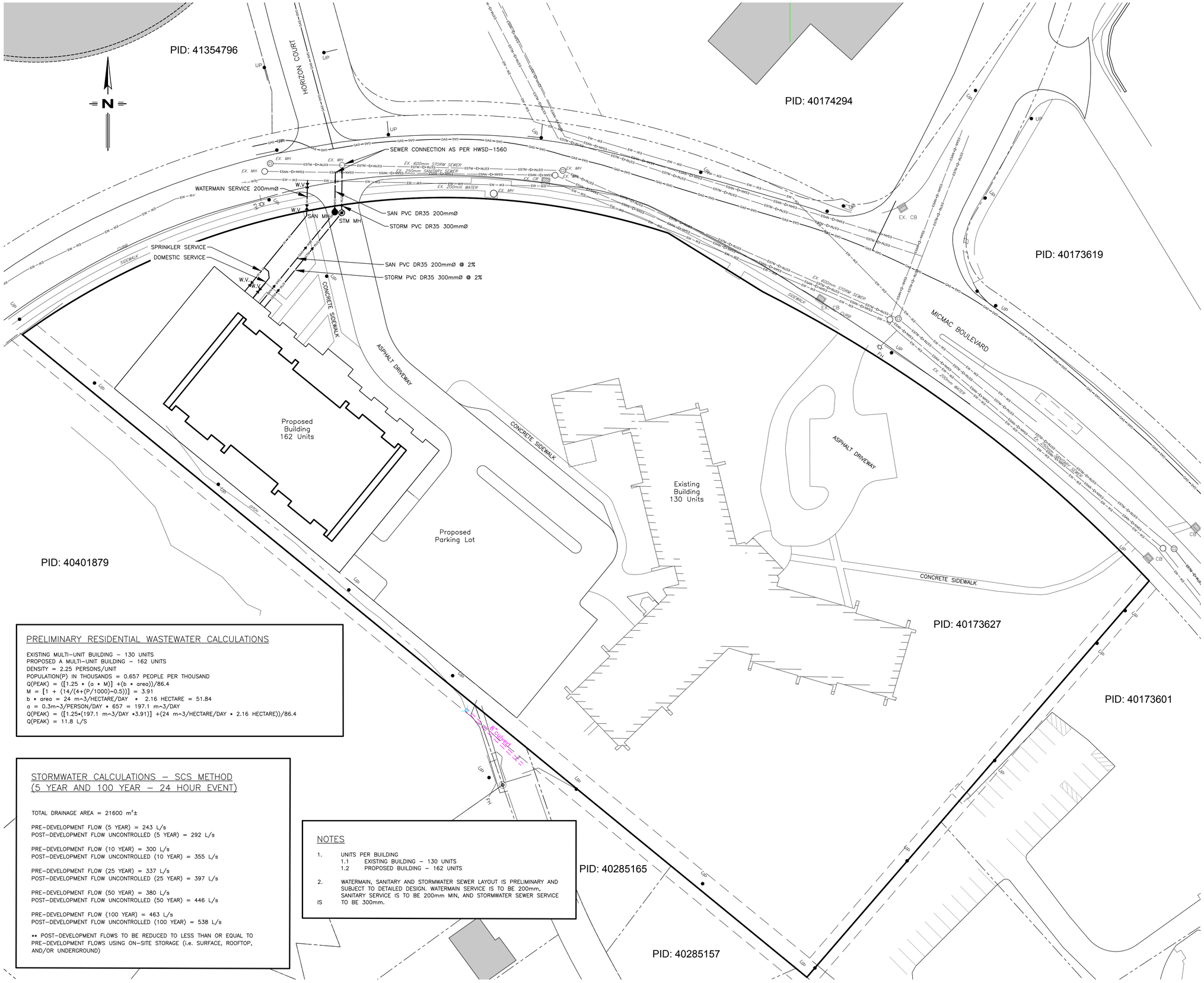

PRELIMINARY RESIDENTIAL WASTEWATER CALCULATIONS

EXISTING MULTI-UNIT BUILDING – 130 UNITS
PROPOSED A MULTI-UNIT BUILDING – 162 UNITS
DENSITY = 2.25 PERSONS/UNIT
POPULATION(P) IN THOUSANDS = 0.657 PEOPLE PER THOUSAND
Q(PEAK) = ([1.25 * (a * M)] +(b * area))/86.4
M = [1 + (14/(4+(P/1000)^0.5))] = 3.91
b * area = 24 m^3/HECTARE/DAY * 2.16 HECTARE = 51.84
a = 0.3m^3/PERSON/DAY * 657 = 197.1 m^3/DAY
Q(PEAK) = ([1.25*(197.1 m^3/DAY *3.91)] +(24 m^3/HECTARE/DAY * 2.16 HECTARE))/86.4
Q(PEAK) = 11.8 L/S

STORMWATER CALCULATIONS – SCS METHOD (5 YEAR AND 100 YEAR – 24 HOUR EVENT)

TOTAL DRAINAGE AREA = 21600 m²±

PRE-DEVELOPMENT FLOW (5 YEAR) = 243 L/s
POST-DEVELOPMENT FLOW UNCONTROLLED (5 YEAR) = 292 L/s

PRE-DEVELOPMENT FLOW (10 YEAR) = 300 L/s
POST-DEVELOPMENT FLOW UNCONTROLLED (10 YEAR) = 355 L/s

PRE-DEVELOPMENT FLOW (25 YEAR) = 337 L/s
POST-DEVELOPMENT FLOW UNCONTROLLED (25 YEAR) = 397 L/s

PRE-DEVELOPMENT FLOW (50 YEAR) = 380 L/s
POST-DEVELOPMENT FLOW UNCONTROLLED (50 YEAR) = 446 L/s

PRE-DEVELOPMENT FLOW (100 YEAR) = 463 L/s
POST-DEVELOPMENT FLOW UNCONTROLLED (100 YEAR) = 538 L/s

** POST-DEVELOPMENT FLOWS TO BE REDUCED TO LESS THAN OR EQUAL TO PRE-DEVELOPMENT FLOWS USING ON-SITE STORAGE (i.e. SURFACE, ROOFTOP, AND/OR UNDERGROUND)

NOTES

1. UNITS PER BUILDING
   1.1 EXISTING BUILDING – 130 UNITS
   1.2 PROPOSED BUILDING – 162 UNITS
2. WATERMAIN, SANITARY AND STORMWATER SEWER LAYOUT IS PRELIMINARY AND SUBJECT TO DETAILED DESIGN. WATERMAIN SERVICE IS TO BE 200mm, SANITARY SERVICE IS TO BE 200mm MIN, AND STORMWATER SEWER SERVICE IS TO BE 300mm.

LEGEND:	PROPOSED	EXISTING
EDGE OF PAVEMENT		
LOTLINE		
WATERMAIN & GATE VALVE	W — M	EW — M3
SANITARY PIPE & MANHOLE	SAN — NV5	ESAN — NV53
STORM PIPE & MANHOLE	STM — RL5	ESTM — RL53
UTILITY LINES & POLE	GAS — SVD	EGAS — SVD
STREET BOUNDARY		SANITARY LATERAL
PROPERTY BOUNDARY		STORM LATERAL
EASEMENT		WATER LATERAL
CURB & DRIVEWAY CUT		CATCH BASIN LEAD
CATCH BASIN	ENDCAP	CULVERT
FIRE HYDRANT	LIGHT STANDARD	HEADWALL
STREET TREE	PHONE PEDESTAL	SIDEWALK
ROAD SIGN	URD BOX	FENCE

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NO.	DATE YYYY/MM/DD	DESCRIPTION
1	2019/08/07	REISSUED FOR REVIEW
0	2018/09/12	ISSUED FOR REVIEW

PROJECT NUMBER: 189-00152	DATE: (YYYY/MM/DD) 2018/09/12
ORIGINAL SCALE: HORIZONTAL: 1:250 VERTICAL: N/A	IF THIS BAR IS NOT 25mm LONG, ADJUST YOUR PLOTTING SCALE. 25mm
DESIGNED BY: S. MACDONELL	DRAWN BY: S. MACDONELL
CHECKED BY: A. MCCARTHY	APPROVED BY:

SCALE: 1:250 METRIC
5 4 3 2 1 0 5 10 15

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CLIENT:
ARMOUR GROUP

PROJECT:
KINGSWOOD APARTMENTS
DARTMOUTH, NOVA SCOTIA

TITLE:
CONCEPTUAL SERVICING SCHEMATIC

SHEET NUMBER: 1
SHEET #: 1 OF 1

ISSUE: REISSUED FOR REVIEW
DATE OF: 2019/08/07
REV #: 1

WSP REF. NO.: 189-00152 \\SV2010ATA01\SHARED\189-00152-00 KINGSWOOD PLAZA\04 DRAWINGS\CIVIL\KINGSWOOD 2019 FOLDER\189-00152-103 SAM.DWG A - A1 PLAN PROFILE PRINTED: 3:03 PM 2019/09/07
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