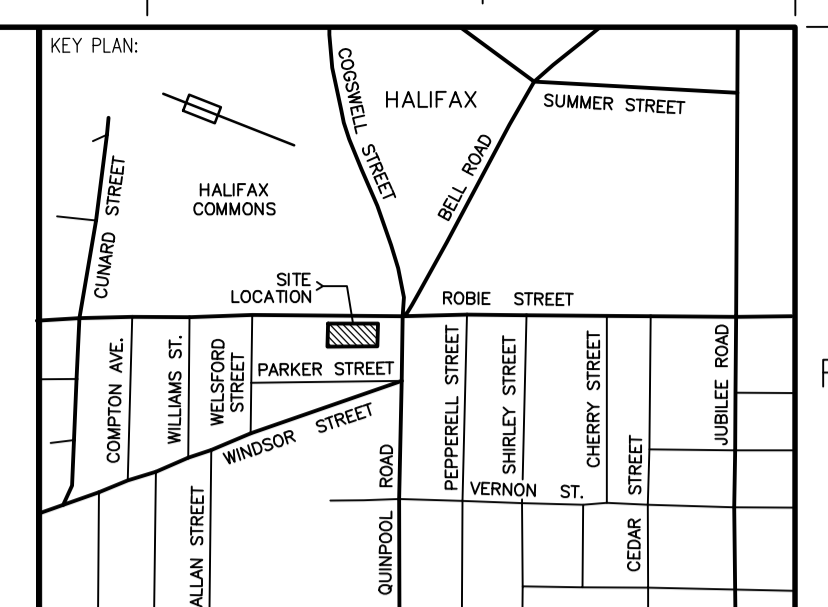
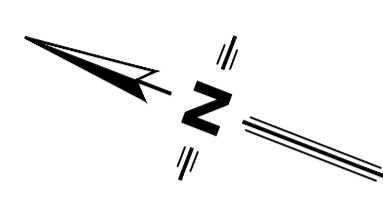


ATTACHMENT

E

PRELIMINARY
SERVICING
SCHEMATIC

NOTES:
 1. EXISTING SERVICES ARE BASED ON A COMBINATION OF RECORD DRAWINGS FROM HALIFAX WATER AND TOPOGRAPHIC SURVEY BY WSP CONDUCTED APRIL 1, 2020.
 2. ALL EXISTING WATER AND SEWER SERVICES ALONG THE FRONTAGE OF THE THREE PROPERTIES TO BE CAPPED AT MAIN TO HALIFAX WATER STANDARDS AND ABANDONED IN PLACE. REFER TO SURVEY PLAN FOR CONSOLIDATION OF THREE PROPERTIES (CIVIC NO. 2032, 2046 AND 2050 ROBIE STREET).
 3.



LEGEND:	PROPOSED	EXISTING
EDGE OF PAVEMENT	---	---
LOTLINE	---	---
WATERMAIN & GATE VALVE	EW-A3	EW-A3
SANITARY PIPE & MANHOLE	ESAN-D-NVES	ESAN-D-NVES
STORM PIPE & MANHOLE	ESTM-D-FILS	ESTM-D-FILS
UTILITY LINES & POLE	EH-HOB	EH-HOB
STREET BOUNDARY	---	---
PROPERTY BOUNDARY	---	---
EASEMENT	---	---
CURB & DRIVEWAY CUT	---	---
CATCH BASIN	CB	CB
FIRE HYDRANT	---	---
STREET TREE	---	---
ROAD SIGN	---	---
	SANITARY LATERAL	SANITARY LATERAL
	WATER LATERAL	WATER LATERAL
	STORM LATERAL	STORM LATERAL
	CATCH BASIN LEAD	CATCH BASIN LEAD
	ENDCAP	ENDCAP
	COLVERT	COLVERT
	HEADWALL	HEADWALL
	PHONE PEDESTAL	PHONE PEDESTAL
	SIDEWALK	SIDEWALK
	URD BOX	URD BOX
	FENCE	FENCE



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NO.	DATE	DESCRIPTION
0	2020/04/21	ISSUED FOR REVIEW

PROJECT NUMBER: 161-12351-01	DATE: (YYYY/MM/DD) 2020/04/21
HORIZONTAL SCALE: 1:200	VERTICAL SCALE: N/A
DESIGNED BY: A. MCCARTHY	DRAWN BY: C. LUTZ
CHECKED BY: A. MCCARTHY	APPROVED BY: A. MCCARTHY

SCALE: 1:200 METRIC

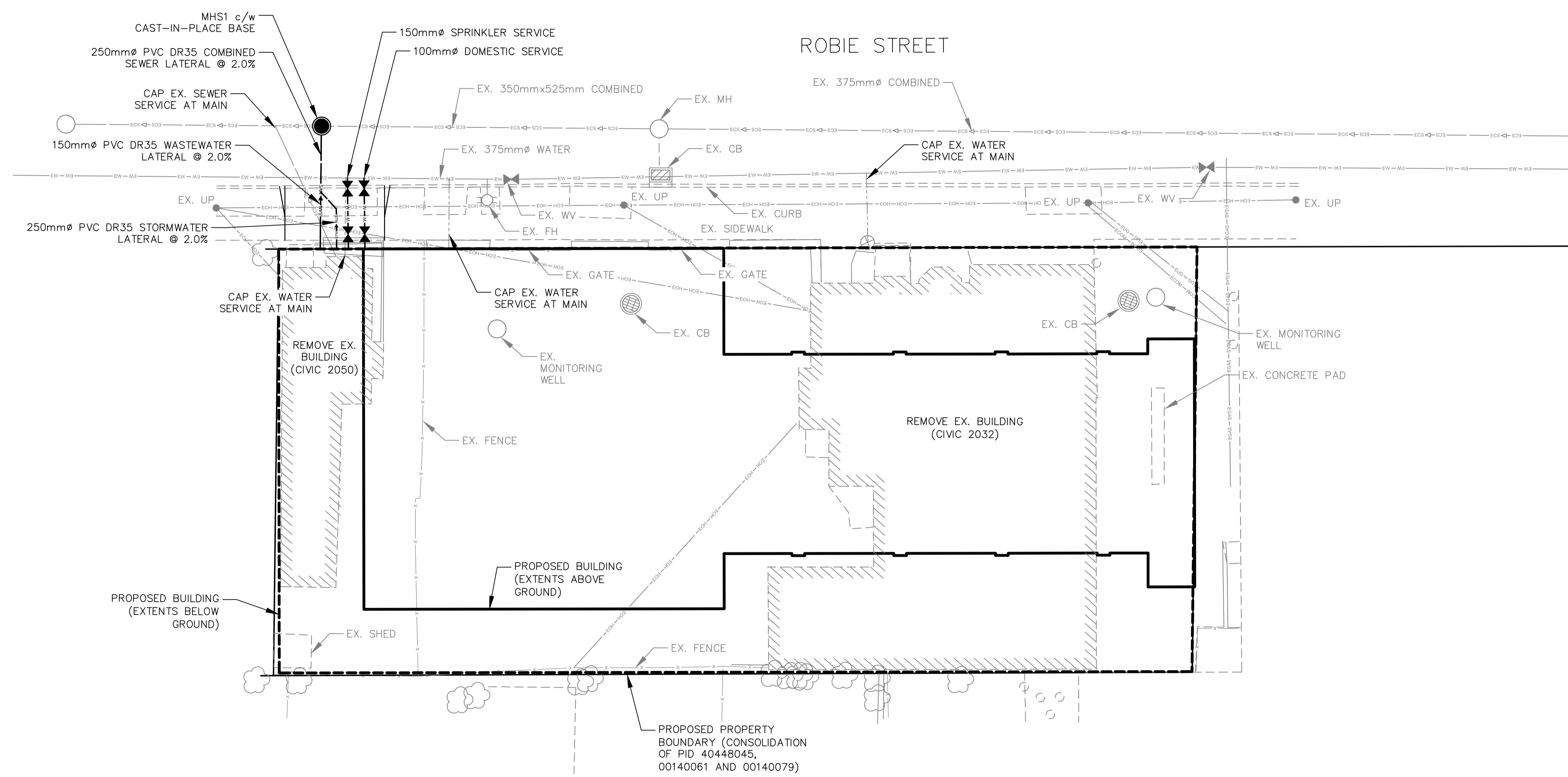
WSP Canada Inc.
 1 Spectacle Lake Drive
 Dartmouth, Nova Scotia, Canada B3B 1X7
 T 902-835-9955 F 902-835-1645 www.wsp.com

CLIENT:
WESTWOOD DEVELOPMENTS LTD.

PROJECT:
2032 - 2050 ROBIE STREET
 HALIFAX, NS

TITLE:
SERVICING SCHEMATIC

SHEET NUMBER: 1	OF 1
ISSUE: ISSUED FOR REVIEW	REV # 0
DATE OF: 2020/04/21	



WASTEWATER CALCULATIONS

RESIDENTIAL WASTEWATER CALCULATIONS
 PROPOSED MULTI-UNIT BUILDING - 102 UNITS
 DENSITY = 2.25 PERSONS/UNIT
 POPULATION(P) = 230 PEOPLE
 $Q(PEAK) = [1.25 * (Q * M)] + b$
 $M = [1 + (14 * (P / 1000)^{0.5})] = 4.13$
 $Q(PEAK) = [1.25 * (300 L/PERSON/DAY * 230 PEOPLE * 4.12)] + 4850 L/DAY$
 $Q(PEAK) = 4.18 L/s$

COMMERCIAL WASTEWATER CALCULATIONS
 AVERAGE DAILY SEWAGE FLOW = 6 L/m²/DAY
 COMMERCIAL/RETAIL AREA = 1,180m²
 $Q(PEAK) = AVERAGE DAILY SEWAGE * AREA * HOURS OF OPERATION/DAY * PEAKING FACTOR$
 $Q(PEAK) = 6 L/m^2/DAY * 1,180m^2 (24/12) * 4 = 0.66 L/s$
TOTAL PEAK FLOW FROM PROPOSED DEVELOPMENT = 4.18 + 0.66 = 4.84 L/s
 *CALCULATIONS BASED ON INFORMATION FROM THE HALIFAX WATER DESIGN AND CONSTRUCTION SPECIFICATIONS.
 LIMITING WASTEWATER PIPE - 150mm PVC DR35 SEWER @ 2.0%
 $Q(FULL) = 28 L/s > 4.84 L/s$
 $V(QPEAK) = 1.2 m/s$

STORMWATER CALCULATIONS - SCS METHOD

PRE-DEVELOPMENT CONDITIONS
 SITE DRAINAGE AREA = 2,021 m² ±
 COMPOSITE 'CN' = 96
 PRE-DEVELOPMENT PEAK DISCHARGE = 42 L/s ± (5YR)
 PRE-DEVELOPMENT PEAK DISCHARGE = 48 L/s ± (10YR)
 PRE-DEVELOPMENT PEAK DISCHARGE = 52 L/s ± (25YR)
 PRE-DEVELOPMENT PEAK DISCHARGE = 57 L/s ± (50YR)
 PRE-DEVELOPMENT PEAK DISCHARGE = 67 L/s ± (100YR)

POST-DEVELOPMENT CONDITIONS
 SITE DRAINAGE AREA = 2,021 m² ±
 COMPOSITE 'CN' = 93
 POST-DEVELOPMENT PEAK DISCHARGE = 40 L/s ± (5YR)
 POST-DEVELOPMENT PEAK DISCHARGE = 47 L/s ± (10YR)
 POST-DEVELOPMENT PEAK DISCHARGE = 51 L/s ± (25YR)
 POST-DEVELOPMENT PEAK DISCHARGE = 56 L/s ± (50YR)
 POST-DEVELOPMENT PEAK DISCHARGE = 66 L/s ± (100YR)

LIMITING STORMWATER PIPE - 250mm PVC DR35 @ 2.0%
 $Q(FULL) = 109 L/s > 40 L/s$
 $V(QPEAK) = 2.1 m/s$

COMBINED SEWER CALCULATIONS

COMBINED PEAK WASTEWATER FLOW AND 5-YEAR STORMWATER FLOW
 4.84 L/s + 40 L/s = 45 L/s
 LIMITING COMBINED SEWER PIPE - 250mm PVC DR35 @ 2.0%
 $Q(FULL) = 109 L/s > 45 L/s$
 $V(QPEAK) = 2.1 m/s$