

**LEGEND**

150mmØ	PROPOSED WATERMAIN EXTENSION
VB	PROPOSED VALVE & VALVE BOX
BEND	PROPOSED BEND AND THRUSTBLOCK 11.25°, 22.5°, 45° or TEE
C	PROPOSED CAP
MH-COMB	EXISTING COMBINED MANHOLE & SEWER
OHW	EXISTING OVERHEAD WIRES
---	EXISTING CONCRETE CURB
---	EXISTING SANITARY MANHOLE & SEWER
HYD	EXISTING HYDRANT & VALVE
---	EXISTING TREES / VEGETATION
EX UP	EXISTING UTILITY POLE
---	EXISTING FENCE
---	EXISTING WATERMAIN

**LARCH STREET**

**BENCHMARK INFO:**

ALL ELEVATIONS ARE REFERRED TO THE CGVD28 GEODETIC DATUM, DERIVED FROM THE CITY OF OTTAWA VERTICAL CONTROL MONUMENT No. 2016-0357 HAVING AN ELEVATION OF 60.088 METRES. BEARINGS ARE MTM GRID AND ARE REFERRED TO THE SOUTHERLY LIMIT OF LARCH STREET, HAVING A BEARING OF N 86° 23' 30" E AS SHOWN ON A SURVEYOR'S REAL PROPERTY REPORT BY ANNIS, O'SULLIVAN, VOLLEBECK DATED NOVEMBER 2, 2017. THE EXISTING GRADES SHOWN ON THE PLANS ARE TAKEN DIRECTLY FROM SURVEYORS REAL PROPERTY REPORT PLAN (Ref. # 20-10-126-00), PREPARED BY J.D.BARNES LIMITED SIGNED AND DATED OCTOBER 22, 2020. SURROUNDING BACKGROUND TOPO INFORMATION BEYOND THE LIMITS OF THE SITE SURVEY ARE FROM CITY OF OTTAWA MAPPING AND UCC PLANS SHOWING CONTEXT ONLY.

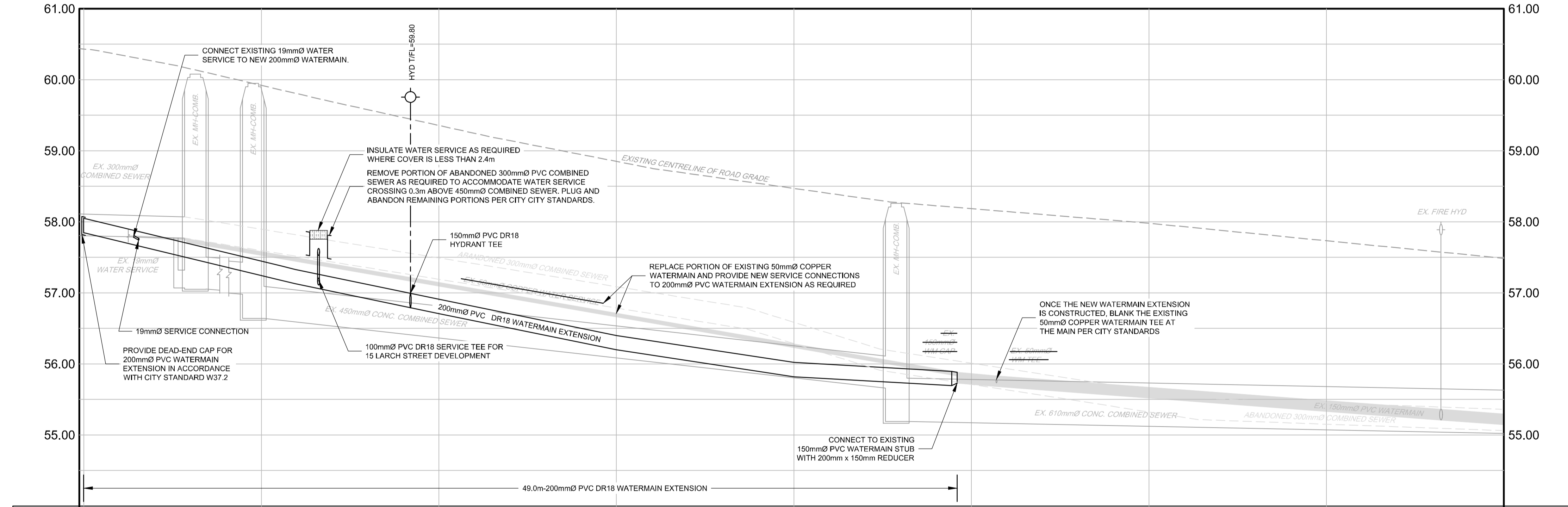
**GENERAL NOTES:**

- COORDINATE AND SCHEDULE ALL WORK WITH OTHER TRADES AND CONTRACTORS.
- DETERMINE THE EXACT LOCATION, SIZE, MATERIAL AND ELEVATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCING CONSTRUCTION. PROTECT AND ASSUME RESPONSIBILITY FOR ALL EXISTING UTILITIES WHETHER OR NOT SHOWN ON THIS DRAWING.
- OBTAIN ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF OTTAWA BEFORE COMMENCING CONSTRUCTION.
- BEFORE COMMENCING CONSTRUCTION OBTAIN AND PROVIDE PROOF OF COMPREHENSIVE, ALL RISK AND OPERATIONAL LIABILITY INSURANCE FOR \$5,000,000.00, INSURANCE POLICY TO NAME OWNERS, ENGINEERS AND ARCHITECTS AS CO-INSURED.
- RESTORE ALL DISTURBED AREAS ON-SITE AND OFF-SITE, INCLUDING TRENCHES AND SURFACES ON PUBLIC ROAD ALLOWANCES TO EXISTING CONDITIONS OR BETTER TO THE SATISFACTION OF MUNICIPAL AUTHORITIES.
- REMOVE FROM SITE ALL EXCESS EXCAVATED MATERIAL, ORGANIC MATERIAL AND DEBRIS UNLESS OTHERWISE INSTRUCTED BY ENGINEER. EXCAVATE AND REMOVE FROM SITE ANY CONTAMINATED MATERIAL. ALL CONTAMINATED MATERIAL SHALL BE DISPOSED OF AT A LICENSED LANDFILL FACILITY.
- ALL ELEVATIONS ARE GEODETIC.
- REFER TO GEOTECHNICAL INVESTIGATION REPORT (NUMBER PG607-1, REV. 1), DATED FEBRUARY 11, 2022, PREPARED BY PATERSON GROUP INC., FOR SUBSURFACE CONDITIONS, CONSTRUCTION RECOMMENDATIONS AND GEOTECHNICAL INSPECTION REQUIREMENTS. THE GEOTECHNICAL CONSULTANT IS TO REVIEW ON-SITE CONDITIONS AFTER EXCAVATION PRIOR TO PLACEMENT OF THE GRANULAR MATERIAL.
- REFER TO MECHANICAL PLAN FOR ROOF DRAIN INFORMATION.
- REFER TO ARCHITECT'S AND LANDSCAPE ARCHITECT'S DRAWINGS FOR BUILDING AND HARD SURFACED AREAS AND DIMENSIONS.
- REFER TO THE 'DEVELOPMENT SERVICING STUDY AND STORMWATER MANAGEMENT REPORT' (R-2022-001) PREPARED BY NOVATECH.
- SAW CUT AND KEYGRIND ASPHALT AT ALL ROAD CUTS AND ASPHALT TIE-IN POINTS AS PER CITY OF OTTAWA STANDARDS (R10).

**WATERMAIN NOTES:**

- SUPPLY AND CONSTRUCT ALL WATERMAIN AND APPURTENANCES IN ACCORDANCE WITH THE CITY OF OTTAWA STANDARDS AND SPECIFICATIONS - ALL CURRENT VERSIONS AND 'AS AMENDED'.
- SPECIFICATIONS:
 

ITEM	SPEC. No.	REFERENCE
WATERMAIN TRENCHING	W17	CITY OF OTTAWA
HYDRANT INSTALLATION	W19	CITY OF OTTAWA
THERMAL INSULATION IN SHALLOW TRENCHES	W22	CITY OF OTTAWA
THERMAL INSULATION BY OPEN STRUCTURES	W23	CITY OF OTTAWA
WATERMAIN CROSSING BELOW SEWERS	W25	CITY OF OTTAWA
WATERMAIN MATERIAL	PVC DR 18 (100mm AND LARGER)	
- EXCAVATION, INSTALLATION, BACKFILL AND RESTORATION OF ALL WATERMANS BY THE CONTRACTOR. CONNECTIONS AND SHUT-OFFS AT THE MAIN AND CHLORINATION OF THE WATER SYSTEM SHALL BE PERFORMED BY CITY OFFICIALS. EXCAVATION, INSTALLATION OF SERVICE, BACKFILL AND RESTORATION BY THE CONTRACTOR.
- WATERMAIN SHALL BE MINIMUM 2.4m DEPTH BELOW GRADE UNLESS OTHERWISE INDICATED.
- PROVIDE MINIMUM 0.5m CLEARANCE BETWEEN OUTSIDE OF PIPES AT ALL CROSSINGS, UNLESS OTHERWISE INDICATED.



EXISTING GROUND ELEVATION	TOP OF WATERMAIN ELEVATION	COMBINED SEWER INVERTS	DESCRIPTION	CHAINAGE	EXISTING GROUND ELEVATION	TOP OF WATERMAIN ELEVATION	COMBINED SEWER INVERTS	DESCRIPTION	CHAINAGE
60.42	57.86	56.80	EX. 19mmØ SERVICE	1+000	59.47	56.02	56.80	EX. 300mmØ COMBINED SEWER	1+030
59.42	57.78	56.64	EX. 300mmØ COMBINED SEWER	1+010	58.47	55.88	56.64	EX. 450mmØ CONC. COMBINED SEWER @ 2.3%	1+040
58.42	57.71	56.64	EX. 19mmØ SERVICE CONNECTION	1+015	57.88	55.88	56.64	EX. 450mmØ CONC. COMBINED SEWER @ 2.6%	1+050
57.42	57.33	56.64	EX. 19mmØ SERVICE CONNECTION	1+020	57.88	55.88	56.64	EX. 450mmØ CONC. COMBINED SEWER @ 2.6%	1+060
56.42	57.33	56.64	EX. 19mmØ SERVICE CONNECTION	1+025	57.88	55.88	56.64	EX. 450mmØ CONC. COMBINED SEWER @ 2.6%	1+070
55.42	57.33	56.64	EX. 19mmØ SERVICE CONNECTION	1+030	57.88	55.88	56.64	EX. 450mmØ CONC. COMBINED SEWER @ 2.6%	1+080
54.42	57.33	56.64	EX. 19mmØ SERVICE CONNECTION	1+035	57.88	55.88	56.64	EX. 450mmØ CONC. COMBINED SEWER @ 2.6%	1+090
53.42	57.33	56.64	EX. 19mmØ SERVICE CONNECTION	1+040	57.88	55.88	56.64	EX. 450mmØ CONC. COMBINED SEWER @ 2.6%	1+100
52.42	57.33	56.64	EX. 19mmØ SERVICE CONNECTION	1+045	57.88	55.88	56.64	EX. 450mmØ CONC. COMBINED SEWER @ 2.6%	1+110
51.42	57.33	56.64	EX. 19mmØ SERVICE CONNECTION	1+050	57.88	55.88	56.64	EX. 450mmØ CONC. COMBINED SEWER @ 2.6%	1+120
50.42	57.33	56.64	EX. 19mmØ SERVICE CONNECTION	1+055	57.88	55.88	56.64	EX. 450mmØ CONC. COMBINED SEWER @ 2.6%	1+130
49.42	57.33	56.64	EX. 19mmØ SERVICE CONNECTION	1+060	57.88	55.88	56.64	EX. 450mmØ CONC. COMBINED SEWER @ 2.6%	1+140
48.42	57.33	56.64	EX. 19mmØ SERVICE CONNECTION	1+065	57.88	55.88	56.64	EX. 450mmØ CONC. COMBINED SEWER @ 2.6%	1+150
47.42	57.33	56.64	EX. 19mmØ SERVICE CONNECTION	1+070	57.88	55.88	56.64	EX. 450mmØ CONC. COMBINED SEWER @ 2.6%	1+160
46.42	57.33	56.64	EX. 19mmØ SERVICE CONNECTION	1+075	57.88	55.88	56.64	EX. 450mmØ CONC. COMBINED SEWER @ 2.6%	1+170
45.42	57.33	56.64	EX. 19mmØ SERVICE CONNECTION	1+080	57.88	55.88	56.64	EX. 450mmØ CONC. COMBINED SEWER @ 2.6%	1+180
44.42	57.33	56.64	EX. 19mmØ SERVICE CONNECTION	1+085	57.88	55.88	56.64	EX. 450mmØ CONC. COMBINED SEWER @ 2.6%	1+190
43.42	57.33	56.64	EX. 19mmØ SERVICE CONNECTION	1+090	57.88	55.88	56.64	EX. 450mmØ CONC. COMBINED SEWER @ 2.6%	1+200

NOTE: THE POSITION OF ALL POLE LINES, CONDUITS, WATERMANS, SEWERS AND OTHER UNDERGROUND AND OVERGROUND UTILITIES AND STRUCTURES IS NOT NECESSARILY SHOWN ON THE CONTRACT DRAWINGS, AND WHERE SHOWN, THE ACCURACY OF THE POSITION OF SUCH UTILITIES AND STRUCTURES IS NOT GUARANTEED. BEFORE STARTING WORK, DETERMINE THE EXACT LOCATION OF ALL SUCH UTILITIES AND STRUCTURES AND ASSUME ALL LIABILITY FOR DAMAGE TO THEM.

**OWNER INFORMATION**  
 15-19 LARCH ST. INC.  
 359 KENT STREET, SUITE 503,  
 OTTAWA, ONTARIO, K2P 0R6  
 ROBERTO CAMPAGNA  
 PHONE: (613) 851-7823  
 roberto@rocamhomes.ca

**SCALE**

1:150

0 2 4 6

1:75

0 1 2 3

**DESIGN**

CHECKED	SM
DRAWN	MS
CHECKED	DWM / SM
APPROVED	SM
	MS

**FOR REVIEW ONLY**

**Professional Engineer**  
 M. SAVIC  
 100102851  
 10/27/23  
 PROVINCE OF ONTARIO

**NOVATECH**  
 Engineers, Planners & Landscape Architects  
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 Ottawa, Ontario, Canada K2M 1P6  
 Telephone: (613) 254-9643  
 Facsimile: (613) 254-5867  
 Website: www.novatech-eng.com

**LOCATION**  
 CITY OF OTTAWA  
 15 LARCH STREET

**DRAWING NAME**  
 WATERMAIN EXTENSION  
 PLAN AND PROFILE  
 (1+000 TO 1+080 @ LARCH STREET)

PROJECT No.	120251
REV	REV # 5
DRAWING No.	120251-PR1

PLAN #18698

D07-12-22-0027