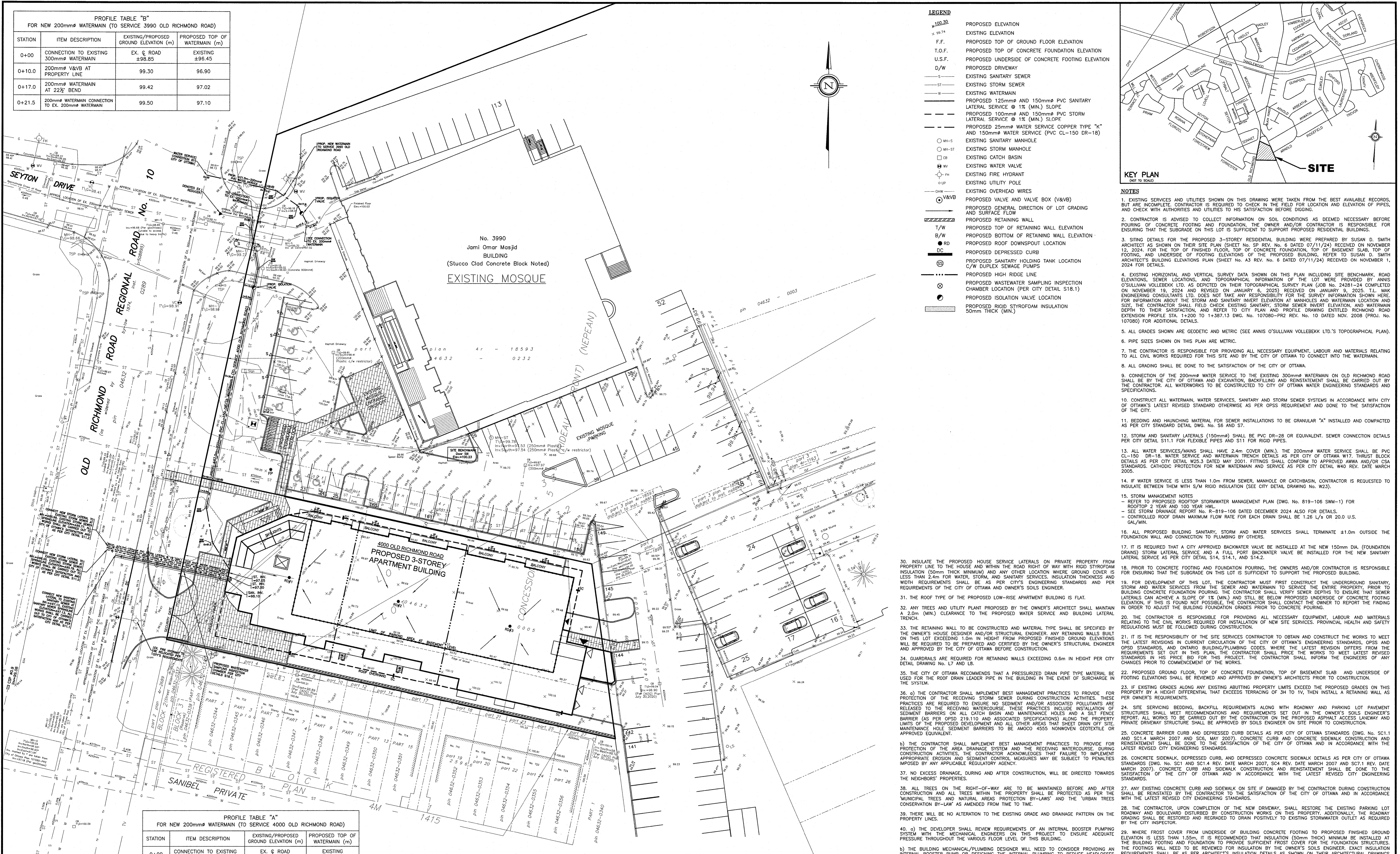
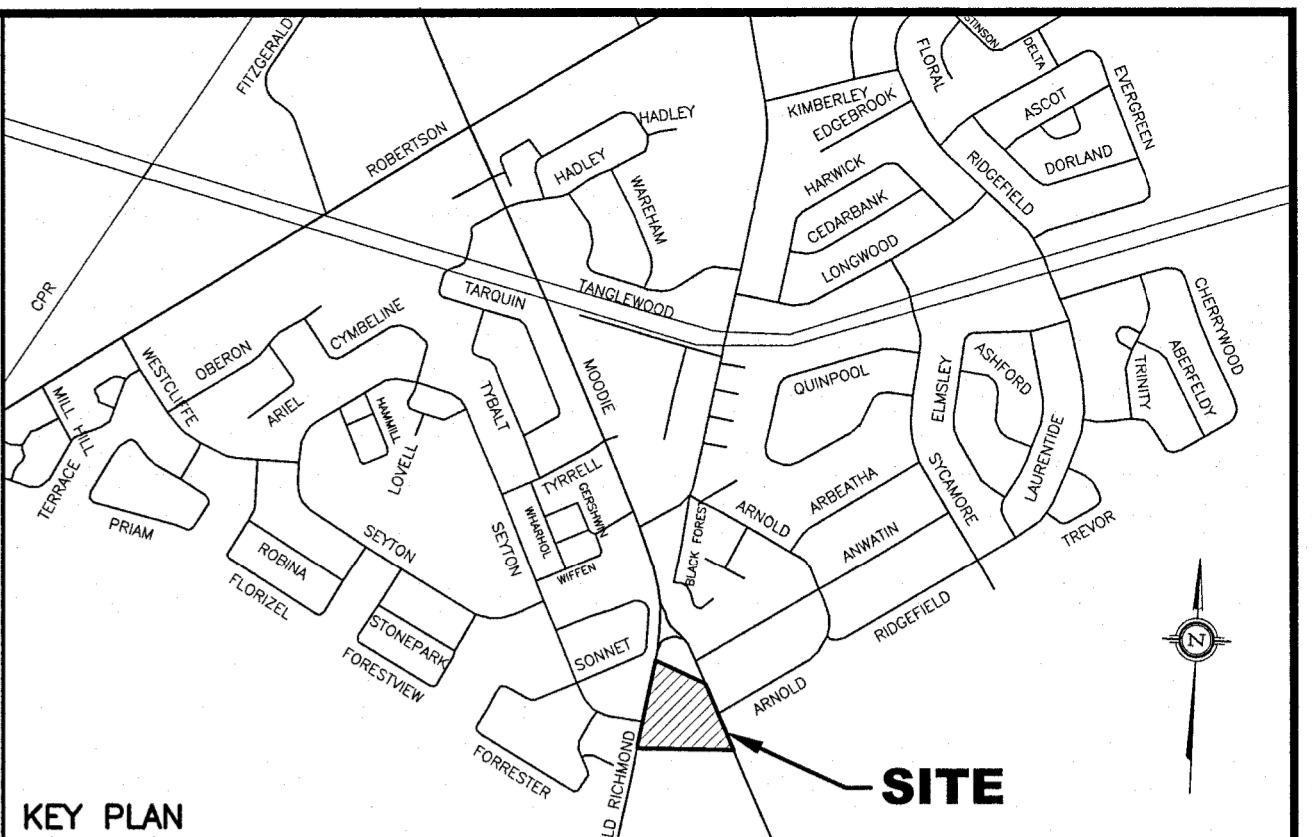


PROFILE TABLE "B" FOR NEW 200mm WATERMAIN (TO SERVICE 3900 OLD RICHMOND ROAD)			
STATION	ITEM DESCRIPTION	EXISTING/PROPOSED GROUND ELEVATION (m)	PROPOSED TOP OF WATERMAIN (m)
0+00	CONNECTION TO EXISTING 300mm WATERMAIN	EX. ± 98.85	EXISTING ± 96.45
0+10.0	200mm V&VB AT PROPERTY LINE	99.30	96.90
0+17.0	200mm WATERMAIN AT 22 1/2' BEND	99.42	97.02
0+21.5	200mm WATERMAIN CONNECTION TO EX. 200mm WATERMAIN	99.50	97.10

PROFILE TABLE "A" FOR NEW 200mm WATERMAIN (TO SERVICE 4000 OLD RICHMOND ROAD)			
STATION	ITEM DESCRIPTION	EXISTING/PROPOSED GROUND ELEVATION (m)	PROPOSED TOP OF WATERMAIN (m)
0+00	CONNECTION TO EXISTING 200mm WATERMAIN	EX. ± 99.11	EXISTING ± 96.71
0+13.0	200mm WATERMAIN AT ISOLATION VALVE	99.35	96.95
0+30.0	200mm WATERMAIN	99.68	97.28
0+49.5	200mm V&VB	99.97	97.57
0+61.5	200mm WATERMAIN AT 22 1/2' BEND	99.90	97.50
0+67.5	200mm WATERMAIN AT BUILDING LINE	100.24	97.84

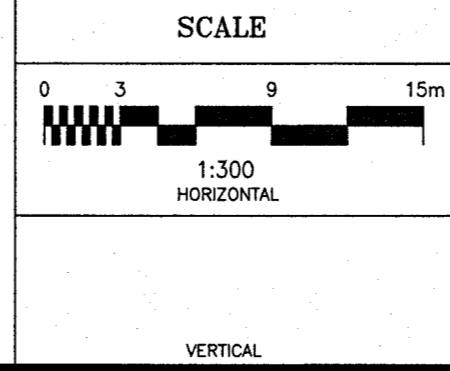
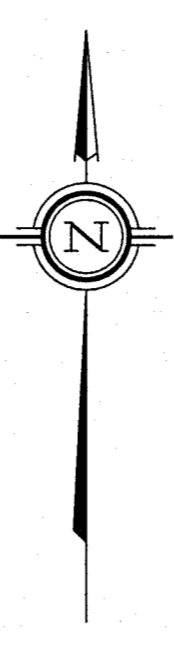


- LEGEND**
- PROPOSED ELEVATION
 - EXISTING ELEVATION
 - F.F. PROPOSED TOP OF GROUND FLOOR ELEVATION
 - T.O.F. PROPOSED TOP OF CONCRETE FOUNDATION ELEVATION
 - U.S.F. PROPOSED UNDERSIDE OF CONCRETE FOOTING ELEVATION
 - D/W PROPOSED DRIVEWAY
 - EXISTING SANITARY SEWER
 - EXISTING STORM SEWER
 - EXISTING WATERMAIN
 - PROPOSED 125mm AND 150mm PVC SANITARY LATERAL SERVICE @ 1% (MIN.) SLOPE
 - PROPOSED 100mm AND 150mm PVC STORM LATERAL SERVICE @ 1% (MIN.) SLOPE
 - PROPOSED 25mm WATER SERVICE COPPER TYPE "K" AND 150mm WATER SERVICE (PVC CL-150 DR-18)
 - EXISTING SANITARY MANHOLE
 - EXISTING STORM MANHOLE
 - EXISTING CATCH BASIN
 - EXISTING WATER VALVE
 - EXISTING FIRE HYDRANT
 - EXISTING UTILITY POLE
 - EXISTING OVERHEAD WIRES
 - PROPOSED VALVE AND VALVE BOX (V&VB)
 - PROPOSED GENERAL DIRECTION OF LOT GRADING AND SURFACE FLOW
 - PROPOSED RETAINING WALL
 - PROPOSED TOP OF RETAINING WALL ELEVATION
 - PROPOSED BOTTOM OF RETAINING WALL ELEVATION
 - PROPOSED ROOF DOWNSPOUT LOCATION
 - PROPOSED DEPRESSED CURB
 - PROPOSED SANITARY HOLDING TANK LOCATION C/W DUPLEX SEWAGE PUMPS
 - PROPOSED HIGH RIDGE LINE
 - PROPOSED WASTEWATER SAMPLING INSPECTION CHAMBER LOCATION (PER CITY DETAIL S18.1)
 - PROPOSED ISOLATION VALVE LOCATION
 - PROPOSED RIGID STYROFOAM INSULATION 50mm THICK (MIN.)

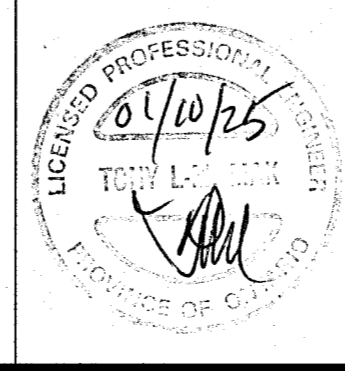


NOTES

- EXISTING SERVICES AND UTILITIES SHOWN ON THIS DRAWING WERE TAKEN FROM THE BEST AVAILABLE RECORDS, BUT ARE INCOMPLETE. CONTRACTOR IS REQUIRED TO CHECK IN THE FIELD FOR LOCATION AND ELEVATION OF PIPES, AND CHECK WITH AUTHORITIES AND UTILITIES TO HIS SATISFACTION BEFORE DIGGING.
- CONTRACTOR IS ADVISED TO COLLECT INFORMATION ON SOIL CONDITIONS AS DEEMED NECESSARY BEFORE POURING OF CONCRETE FOOTING AND FOUNDATION. THE OWNER AND/OR CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT THE SUBGRADE ON THIS LOT IS SUFFICIENT TO SUPPORT PROPOSED RESIDENTIAL BUILDINGS.
- SITING DETAILS FOR THE PROPOSED 3-STORY RESIDENTIAL BUILDING WERE PREPARED BY SUSAN D. SMITH ARCHITECT AS SHOWN ON THEIR SITE PLAN SHEET No. SP REV. No. 6 DATED 07/11/24 RECEIVED ON NOVEMBER 12, 2024. FOR THE TOP OF FINISHED FLOOR, TOP OF CONCRETE FOUNDATION, TOP OF BASEMENT SLAB, TOP OF FOOTING, AND UNDERSIDE OF FOOTING ELEVATIONS OF THE PROPOSED BUILDING, REFER TO SUSAN D. SMITH ARCHITECT'S BUILDING ELEVATIONS PLAN (SHEET No. AS REV. No. 6 DATED 07/11/24) RECEIVED ON NOVEMBER 1, 2024 FOR DETAILS.
- EXISTING HORIZONTAL AND VERTICAL SURVEY DATA SHOWN ON THIS PLAN INCLUDING SITE BENCHMARK, ROAD ELEVATIONS, SEWER LOCATIONS, AND TOPOGRAPHICAL INFORMATION OF THE LOT WERE PROVIDED BY ANNIS O'SULLIVAN VOLLEBECK LTD. AS DEPICTED ON THEIR TOPOGRAPHICAL SURVEY PLAN (JOB No. 24281-24 COMPLETED ON NOVEMBER 19, 2024 AND REVISED ON JANUARY 6, 2025) RECEIVED ON JANUARY 9, 2025. T.L. MAK ENGINEERING CONSULTANTS LTD. DOES NOT TAKE ANY RESPONSIBILITY FOR THE SURVEY INFORMATION SHOWN HERE. FOR INFORMATION ABOUT THE STORM AND SANITARY INVERT ELEVATION AT MANHOLES AND WATERMAIN LOCATION AND SIZE, THE CONTRACTOR SHALL FIELD CHECK EXISTING SANITARY, STORM SEWER INVERT ELEVATION AND WATERMAIN DEPTH TO THEIR SATISFACTION, AND REFER TO CITY PLAN AND PROFILE DRAWING ENTITLED RICHMOND ROAD EXTENSION PROFILE STA. 1+200 TO 1+387.13 DWG. No. 107080-PR2 REV. No. 10 DATED NOV. 2008 (PROJ. No. 107080) FOR ADDITIONAL DETAILS.
- ALL GRADES SHOWN ARE GEODETIC AND METRIC (SEE ANNIS O'SULLIVAN VOLLEBECK LTD.'S TOPOGRAPHICAL PLAN).
- PIPE SIZES SHOWN ON THIS PLAN ARE METRIC.
- THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL NECESSARY EQUIPMENT, LABOUR AND MATERIALS RELATING TO ALL CIVIL WORKS REQUIRED FOR THIS SITE AND BY THE CITY OF OTTAWA TO CONNECT INTO THE WATERMAIN.
- ALL GRADING SHALL BE DONE TO THE SATISFACTION OF THE CITY OF OTTAWA.
- CONNECTION OF THE 200mm WATER SERVICE TO THE EXISTING 300mm WATERMAIN ON OLD RICHMOND ROAD SHALL BE BY THE CITY OF OTTAWA AND EXCAVATION, BACKFILLING AND REINSTATEMENT SHALL BE CARRIED OUT BY THE CONTRACTOR. ALL WATERWORKS TO BE CONSTRUCTED TO CITY OF OTTAWA WATER ENGINEERING STANDARDS AND SPECIFICATIONS.
- CONSTRUCT ALL WATERMAIN, WATER SERVICES, SANITARY AND STORM SEWER SYSTEMS IN ACCORDANCE WITH CITY OF OTTAWA'S LATEST REVISED STANDARD OTHERWISE AS PER OPSS REQUIREMENT AND DONE TO THE SATISFACTION OF THE CITY.
- BEDDING AND HAUNCHING MATERIAL FOR SEWER INSTALLATIONS TO BE GRANULAR "A" INSTALLED AND COMPACTED AS PER CITY STANDARD DETAIL DWG. No. S6 AND S7.
- STORM AND SANITARY LATERALS (150mm) SHALL BE PVC DR-28 OR EQUIVALENT. SEWER CONNECTION DETAILS PER CITY DETAIL S11.1 FOR FLEXIBLE PIPES AND S11 FOR RIGID PIPES.
- ALL WATER SERVICES/MAINS SHALL HAVE 2.4m COVER (MIN.). THE 200mm WATER SERVICE SHALL BE PVC CL-150 DR-18. WATER SERVICE AND WATERMAIN TRENCH DETAILS AS PER CITY OF OTTAWA W17 THURST BLOC DETAILS AS PER CITY DETAIL W25.5 DATED 02/11/2010. ALL FITTINGS SHALL CONFORM TO APPROVED ANWA AND/OR CSA STANDARDS. CATHODIC PROTECTION FOR NEW WATERMAIN AND SERVICE AS PER CITY DETAIL W40 REV. DATE MARCH 2005.
- IF WATER SERVICE IS LESS THAN 1.0m FROM SEWER, MANHOLE OR CATCHBASIN, CONTRACTOR IS REQUESTED TO INSULATE BETWEEN THEM WITH S/M RIGID INSULATION (SEE CITY DETAIL DRAWING No. W23).
- STORM MANAGEMENT NOTES
 - REFER TO PROPOSED ROOFTOP STORMWATER MANAGEMENT PLAN (DWG. No. 819-106 SWM-1) FOR ROOFTOP 2 YEAR AND 100 YEAR HW
 - SEE STORM DRAINAGE REPORT No. R-819-106 DATED DECEMBER 2024 ALSO FOR DETAILS.
 - CONTROLLED ROOF DRAIN MAXIMUM FLOW RATE FOR EACH DRAIN SHALL BE 1.26 L/s OR 20.0 U.S. GAL/MIN.
- ALL PROPOSED BUILDING SANITARY, STORM AND WATER SERVICES SHALL TERMINATE $\pm 1.0m$ OUTSIDE THE FOUNDATION WALL AND CONNECTION TO PLUMBING BY OTHERS.
- IT IS REQUIRED THAT A CITY APPROVED BACKWATER VALVE BE INSTALLED AT THE NEW 150mm DIA. (FOUNDATION DRAINS) STORM LATERAL SERVICE AND A FULL PORT BACKWATER VALVE BE INSTALLED FOR THE NEW SANITARY LATERAL SERVICE AS PER CITY DETAIL S14, S14.1, AND S14.2.
- PRIOR TO CONCRETE FOOTING AND FOUNDATION POURING, THE OWNERS AND/OR CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT THE SUBGRADE ON THIS LOT IS SUFFICIENT TO SUPPORT THE PROPOSED BUILDING.
- FOR DEVELOPMENT OF THIS LOT, THE CONTRACTOR MUST FIRST CONSTRUCT THE UNDERGROUND SANITARY, STORM AND WATER SERVICES FROM THE SEWER AND WATERMAIN TO SERVICE THE ENTIRE PROPERTY. PRIOR TO BUILDING CONCRETE FOUNDATION POURING, THE CONTRACTOR SHALL VERIFY SEWER DEPTHS TO ENSURE THAT SEWER LATERALS CAN ACHIEVE A SLOPE OF 1% (MIN.) AND STILL BE BELOW PROPOSED UNDERSIDE OF CONCRETE FOOTING ELEVATION. IF THIS IS FOUND NOT POSSIBLE, THE CONTRACTOR SHALL CONTACT THE OWNER TO REPORT THE FINDING IN ORDER TO ADJUST THE BUILDING FOUNDATION GRADES PRIOR TO CONCRETE POURING.
- THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL NECESSARY EQUIPMENT, LABOUR AND MATERIALS RELATING TO THE CIVIL WORKS REQUIRED FOR INSTALLATION OF NEW SITE SERVICES. PROVINCIAL HEALTH AND SAFETY REGULATIONS MUST BE FOLLOWED DURING CONSTRUCTION.
- IT IS THE RESPONSIBILITY OF THE SITE SERVICES CONTRACTOR TO OBTAIN AND CONSTRUCT THE WORKS TO MEET THE LATEST REVISIONS IN CURRENT CIRCULATION OF THE CITY OF OTTAWA'S ENGINEERING STANDARDS, OPSS AND OREG STANDARDS, AND ONTARIO BUILDING/PLUMBING CODES. WHERE THE LATEST REVISION DIFFERS FROM THE REQUIREMENTS SET OUT IN THIS PLAN, THE CONTRACTOR SHALL PRICE THE WORKS TO MEET LATEST REVISED STANDARDS IN HIS PRICE BID FOR THIS PROJECT. THE CONTRACTOR SHALL INFORM THE ENGINEERS OF ANY CHANGES PRIOR TO COMMENCEMENT OF THE WORKS.
- PROPOSED GROUND FLOOR, TOP OF CONCRETE FOUNDATION, TOP OF BASEMENT SLAB AND UNDERSIDE OF FOOTING ELEVATIONS SHALL BE REVIEWED AND APPROVED BY OWNER'S ARCHITECTS PRIOR TO CONSTRUCTION.
- IF EXISTING GRADES ALONG AN EXISTING ADJUTING PROPERTY LIMITS EXCEED THE PROPOSED GRADES ON THIS PROPERTY BY A HEIGHT DIFFERENTIAL THAT EXCEEDS TERRAINING OF 3H TO 1V, THEN INSTALL A RETAINING WALL AS PER OWNER'S REQUIREMENTS.
- SITE SERVICING BEDDING, BACKFILL REQUIREMENTS ALONG WITH ROADWAY AND PARKING LOT PAVEMENT STRUCTURES SHALL MEET RECOMMENDATIONS AND REQUIREMENTS SET OUT IN THE OWNER'S SOILS ENGINEER'S REPORT. ALL WORKS TO BE CARRIED OUT BY THE CONTRACTOR ON THE PROPOSED ASPHALT ACCESS LANEWAY AND PRIVATE DRIVEWAY STRUCTURE SHALL BE APPROVED BY SOILS ENGINEER ON SITE PRIOR TO CONSTRUCTION.
- CONCRETE BARRIER CURB AND DEPRESSED CURB DETAILS AS PER CITY OF OTTAWA STANDARDS (DWG. No. SC1.1 AND SC1.4 MARCH 2007 AND SC6, MAY 2007). CONCRETE CURB AND CONCRETE SIDEWALK CONSTRUCTION AND REINSTATEMENT SHALL BE DONE TO THE SATISFACTION OF THE CITY OF OTTAWA AND IN ACCORDANCE WITH THE LATEST REVISED CITY ENGINEERING STANDARDS.
- CONCRETE SIDEWALK, DEPRESSED CURB, AND DEPRESSED CONCRETE SIDEWALK DETAILS AS PER CITY OF OTTAWA STANDARDS (DWG. No. SC1.1 AND SC1.4 REV. DATE MARCH 2007 AND SC7.1 REV. DATE MARCH 2007). CONCRETE CURB AND SIDEWALK CONSTRUCTION AND REINSTATEMENT SHALL BE DONE TO THE SATISFACTION OF THE CITY OF OTTAWA AND IN ACCORDANCE WITH THE LATEST REVISED CITY ENGINEERING STANDARDS.
- ANY EXISTING CONCRETE CURB AND SIDEWALK ON SITE IF DAMAGED BY THE CONTRACTOR DURING CONSTRUCTION SHALL BE REINSTATEMENT BY THE CONTRACTOR TO THE SATISFACTION OF THE CITY OF OTTAWA AND IN ACCORDANCE WITH THE LATEST REVISED CITY ENGINEERING STANDARDS.
- THE CONTRACTOR, UPON COMPLETION OF THE NEW DRIVEWAY, SHALL RESTORE THE EXISTING PARKING LOT ROADWAY AND BOULEVARD DISTURBED BY CONSTRUCTION WORKS ON THIS PROPERTY. ADDITIONALLY, THE ROADWAY GRADING SHALL BE RESTORED AND REGRADED TO DRAIN POSITIVELY TO EXISTING STORMWATER COLLECT AS REQUIRED BY THE CITY INSPECTOR.
- WHERE FROST COVER FROM UNDERSIDE OF BUILDING CONCRETE FOOTING TO PROPOSED FINISHED GROUND ELEVATION IS LESS THAN 1.5m, IT IS RECOMMENDED THAT INSULATION (50mm THICK) MINIMUM BE INSTALLED AT THE BUILDING FOOTING AND FOUNDATION TO PROVIDE SUFFICIENT FROST COVER FOR THE FOUNDATION STRUCTURES. THE FOOTINGS WILL NEED TO BE REVIEWED FOR INSULATION BY THE OWNER'S SOILS ENGINEER. EXACT INSULATION REQUIREMENTS SHALL BE AS PER ARCHITECT'S INSULATION DETAILS AS SHOWN ON THEIR ARCHITECTURAL DRAWINGS AND CONFIRMED BY THE OWNER'S SITE SOILS ENGINEER.



No.	REVISION	DATE	BY
2	REVISIONS AS PER REVISED TOPOGRAPHICAL SURVEY PLAN PROVIDED ON JANUARY 9, 2025	01/10/25	TLM
1	REVISIONS AS PER ARCHITECT'S REVISED SITE PLAN OF NOV. 12, 2024 AND CITY'S REVIEW COMMENTS OF MAY 20, 2022	12/31/24	TLM



DESIGN	T.L.M.	PROJECT	4000 OLD RICHMOND ROAD PART OF LOTS 32 AND 33 CONCESSION 5 (RIDEAU FRONT) GEOGRAPHIC TOWNSHIP OF NEPEAN CITY OF OTTAWA
CHECKED	T.L.M.	DRAWN BY	P.M.
CHECKED	T.L.M.	PROJECT TITLE	PROPOSED SERVICING LAYOUT PLAN
APPROVED	T.L.M.	PROJECT No.	819-106
		DATE	JULY 2021
		DRAWING No.	S-1

T.L. MAK ENGINEERING CONSULTANTS LTD.
CONSULTING ENGINEERS

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