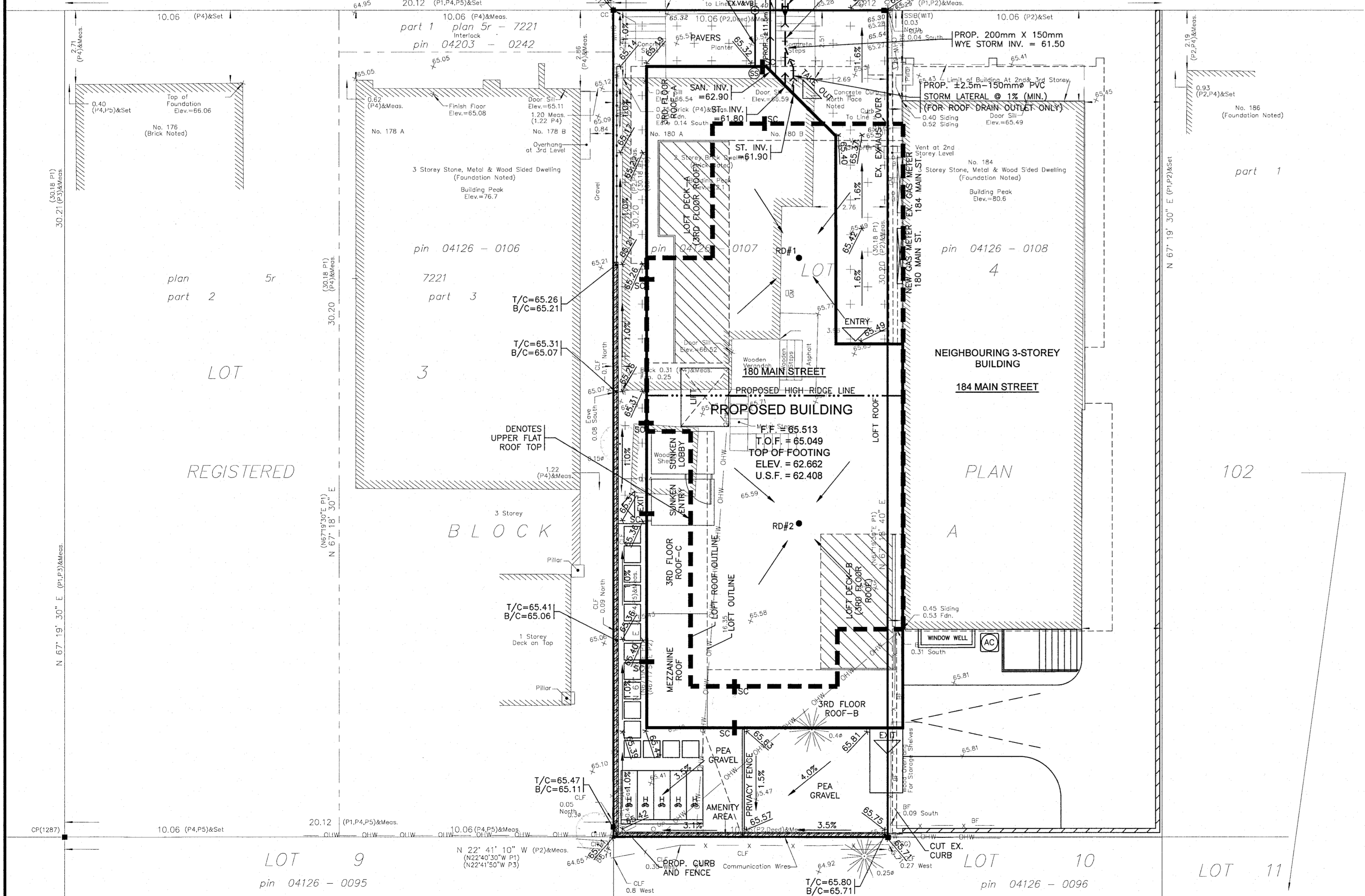


- LEGEND**
- PROPOSED ELEVATION
 - EXISTING ELEVATION
 - F.F. PROPOSED TOP OF GROUND FLOOR ELEVATION
 - T.O.F. PROPOSED TOP OF CONCRETE FOUNDATION ELEVATION
 - U.S.F. PROPOSED UNDERSIDE OF CONCRETE FOOTING ELEVATION
 - D/W PROPOSED DRIVEWAY
 - S EXISTING SANITARY SEWER
 - ST EXISTING STORM SEWER
 - W EXISTING WATERMAIN
 - PROPOSED 150mm PVC SANITARY LATERAL SERVICE @ 1% (MIN.) SLOPE
 - PROPOSED 150mm AND 200mm PVC STORM LATERAL SERVICE @ 1% (MIN.) SLOPE
 - PROPOSED 50mm WATER SERVICE (COPPER TYPE "K")
 - EXISTING SANITARY MANHOLE
 - EXISTING STORM MANHOLE
 - EXISTING CATCH BASIN
 - EXISTING WATER VALVE
 - EXISTING FIRE HYDRANT
 - EXISTING UTILITY POLE
 - EXISTING OVERHEAD WIRES
 - EXISTING VALVE AND VALVE BOX (V&VB)
 - PROPOSED GENERAL DIRECTION OF LOT GRADING AND SURFACE FLOW
 - PROPOSED CONCRETE CURB LOCATION
 - T/C PROPOSED TOP OF CURB
 - B/C PROPOSED BOTTOM OF CURB
 - PROPOSED SANITARY HOLDING TANK LOCATION C/W DUPLEX SEWAGE PUMPS
 - RD#1 PROPOSED ROAD DRAIN NUMBER AND LOCATION
 - SC PROPOSED ROOF SCUPPER LOCATION
 - PROPOSED HIGH RIDGE LINE

- NOTES**
1. EXISTING SERVICES AND UTILITIES SHOWN ON THIS DRAWING WERE TAKEN FROM THE BEST AVAILABLE RECORDS BUT ARE NOT COMPLETE. CONTRACTOR IS REQUESTED TO CHECK IN THE FIELD FOR LOCATION AND ELEVATION OF PIPES, UNDERGROUND STRUCTURES, ETC. AND CHECK WITH AUTHORITIES AND UTILITIES TO HIS SATISFACTION BEFORE DIGGING.
 2. CONTRACTOR IS ADVISED TO COLLECT INFORMATION ON SOIL CONDITIONS AS DEEMED NECESSARY. REFER ALSO TO THE SITE GEOTECHNICAL INVESTIGATION REPORT PREPARED BY THE OWNER'S GEOTECHNICAL CONSULTANTS PATERSON GROUP.
 3. EXISTING BUILDING AND STRUCTURE LOCATION, TOPOGRAPHICAL INFORMATION ON THIS DRAWING, GEODETIC SITE BENCHMARK, SEWER INVERT, SEWER LOCATION AND MANHOLE LOCATIONS, ETC. SHOWN ON THIS PLAN WERE PROVIDED BY ANNIS O'SULLIVAN VOLLEBEKK LTD. (JOB No. 22984-22 COMPLETED JULY 6, 2022) AND RECEIVED ON AUGUST 31, 2022. SANITARY AND STORM SEWER INVERT INFORMATION ALONG MAIN STREET CAN BE REFERENCED FROM THE CITY'S PLAN AND PROFILE DRAWING ENTITLED MAIN STREET RECONSTRUCTION - ECHO DRIVE TO GEORGE McILRATH BRIDGE STA. 10+720 TO STA. 10+860. DWG. No. 033 REV. No. 2 DATED JULY 27, 2018 PREPARED BY THE CITY OF OTTAWA. THE CONTRACTOR SHALL FIELD SURVEY AND VERIFY THIS INFORMATION TO HIS OR HER SATISFACTION PRIOR TO CONSTRUCTION. T.L. MAK ENGINEERING CONSULTANTS LTD. DOES NOT TAKE ANY RESPONSIBILITY FOR THE SURVEY INFORMATION SHOWN HERE. THE CONTRACTOR IS ADVISED TO OBTAIN AND REVIEW TO HIS SATISFACTION THIS SURVEY/TOPOGRAPHICAL PLAN PRIOR TO CONSTRUCTION.
 4. SITE LAYOUT AND BUILDING ELEVATION DETAILS FOR SERVICING, GRADING AND SWM DESIGN WERE PROVIDED BY THE OWNER'S ARCHITECT ROSALINE J. HILL ARCHITECT INC. AS DETAILED ON THEIR SITE PLAN RECEIVED ON SEPTEMBER 27, 2022 AND UPDATED ON OCTOBER 14, 2022.
 5. ALL GRADES SHOWN ARE GEODETIC AND METRIC (SEE ANNIS O'SULLIVAN VOLLEBEKK LTD'S TOPOGRAPHICAL PLAN).
 6. PIPE SIZES SHOWN ON THIS PLAN ARE METRIC.
 7. 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.
 8. ALL GRADING SHALL BE DONE TO THE SATISFACTION OF THE CITY OF OTTAWA.
 9. CONNECTION OF THE 50mm WATER SERVICE TO THE EXISTING 400mm WATERMAIN ON MAIN STREET 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.
 10. 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.
 11. BEDDING AND HAUNCHING MATERIAL FOR SEWER INSTALLATIONS TO BE GRANULAR "A" INSTALLED AND COMPACTED AS PER CITY STANDARD DETAIL DWG. No. 56 AND 57.
 12. STORM AND SANITARY LATERALS (150mm and 200mm) SHALL BE PVC DR-28 OR EQUIVALENT. SEWER CONNECTION DETAILS PER CITY DETAIL S11.1 FOR FLEXIBLE PIPES AND S11 FOR RIGID PIPES.
 13. ALL WATER SERVICES/MAINS SHALL HAVE 2.4m COVER (MIN.). THE 50mm WATER SERVICE SHALL BE COPPER TYPE "K" WATER SERVICE AND TRENCH DETAILS AS PER CITY OF OTTAWA W17. TRENCH BLOCK DETAILS AS PER CITY DETAIL W25.3 DATED MAY 2001. FITTINGS SHALL CONFORM TO APPROVED AWWA AND/OR CSA STANDARDS. CATHODIC PROTECTION FOR NEW WATERMAIN AND SERVICE AS PER CITY DETAIL W40 REV. DATE MARCH 2005.
 14. IF WATER SERVICE IS LESS THAN 1.0m FROM SEWER, MANHOLE OR CATCHBASIN, CONTRACTOR IS REQUESTED TO INSULATE BETWEEN THEM WITH 5/M RIGID INSULATION (SEE CITY DETAIL DRAWING No. W23).
 15. STORM MANAGEMENT NOTES
 - REFER TO PROPOSED ROOFTOP STORMWATER MANAGEMENT PLAN (DWG. No. 822-100 SWM-1) FOR ROOFTOP 2 YEAR AND 100 YEAR HWL.
 - SEE STORM DRAINAGE REPORT No. R-822-100 DATED OCTOBER 2022 ALSO FOR DETAILS.
 - CONTROLLED ROOF DRAINS PROPOSED - FLOW RATE FOR EACH DRAIN SHALL BE 0.32 L/s OR 5.0 U.S. GAL/MIN.
 16. ALL PROPOSED BUILDING SANITARY, STORM AND WATER SERVICES SHALL TERMINATE ±1.0m OUTSIDE THE FOUNDATION WALL AND CONNECTION TO PLUMBING BY OTHERS.
 17. 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.
 18. 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.
 19. 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 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.
 20. 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.
 21. 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 OPSD STANDARDS, AND ONTARIO BUILDING/PLUMBING CODES. THE LATEST REVISED REVISIONS 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.
 22. 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.
 23. IF EXISTING GRADES ALONG ANY EXISTING ADJUTING PROPERTY LIMITS EXCEED THE PROPOSED GRADES ON THIS PROPERTY BY A HEIGHT DIFFERENTIAL THAT EXCEEDS TERRACING OF 3H TO 1V, THEN INSTALL A RETAINING WALL AS PER OWNER'S REQUIREMENTS.
 24. 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 ENGINEERING 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.
 25. CONCRETE BARRIER CURB AND DEPRESSION 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.
 26. CONCRETE SIDEWALK, DEPRESSION CURB, AND DEPRESSION CONCRETE SIDEWALK DETAILS AS PER CITY OF OTTAWA STANDARDS (DWG. No. SC1 AND SC1.4 REV. DATE MARCH 2007, SC4 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.



27. THE EXISTING CONCRETE CURB AND SIDEWALK ON MAIN STREET IF DAMAGED BY THE CONTRACTOR DURING CONSTRUCTION SHALL BE REINSTATED BY THE CONTRACTOR TO THE SATISFACTION OF THE CITY OF OTTAWA AND IN ACCORDANCE WITH THE LATEST REVISED CITY ENGINEERING STANDARDS.
28. THE CONTRACTOR, UPON COMPLETION OF THE NEW DRIVEWAY, SHALL RESTORE THE EXISTING MAIN STREET ROADWAY/BOULEVARD DISTURBED BY CONSTRUCTION WORKS ON THIS PROPERTY. ADDITIONALLY, THE ROADWAY GRADING SHALL BE RESTORED AND REGRADED TO DRAIN POSITIVELY TO EXISTING STORMWATER OUTLET AS REQUIRED BY THE CITY INSPECTOR.
29. 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.
30. INSULATE THE PROPOSED HOUSE SERVICE LATERALS ON PRIVATE PROPERTY FROM PROPERTY LINE TO THE HOUSE AND WITHIN THE ROAD RIGHT OF WAY WITH RIGID STYROFOAM INSULATION (50mm THICK MINIMUM) AND ANY OTHER LOCATION WHERE GROUND COVER IS LESS THAN 2.4m FOR WATER, STORM, AND SANITARY SERVICES. INSULATION THICKNESS AND WIDTH REQUIREMENTS SHALL BE AS PER CITY'S ENGINEERING STANDARDS AND PER REQUIREMENTS OF THE CITY OF OTTAWA AND OWNER'S SOILS ENGINEER.
31. EXISTING SANITARY LATERAL SHALL BE ABANDONED. THE SEWER LATERAL SHALL BE CAPPED AND/OR PLUGGED AT THE FRONT PROPERTY LINE. ALL WATER AND SEWER LATERAL WORKS SHALL BE CARRIED OUT TO THE CITY'S SATISFACTION.
32. ANY TREES AND UTILITY PLANT PROVIDED BY THE OWNER'S ARCHITECT SHALL MAINTAIN A 2.0m (MIN.) CLEARANCE TO THE PROPOSED WATER SERVICE AND BUILDING LATERAL TRENCH.
33. a) THE CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES TO PROVIDE FOR PROTECTION OF THE RECEIVING STORM SEWER DURING CONSTRUCTION ACTIVITIES. THESE PRACTICES ARE REQUIRED TO ENSURE NO SEDIMENT AND/OR ASSOCIATED POLLUTANTS ARE RELEASED TO THE RECEIVING WATERCOURSE. THESE PRACTICES INCLUDE INSTALLATION OF SEDIMENT BARRIERS ON ALL CATCH BASIN AND MAINTENANCE HOLES AND A SILT FENCE BARRIER (AS PER OPSD 219.110 AND ASSOCIATED SPECIFICATIONS) ALONG THE PROPERTY LIMITS OF THE PROPOSED DEVELOPMENT AND ALL OTHER AREAS THAT SHEET DRAIN OFF SITE. MAINTENANCE HOLE SEDIMENT BARRIERS TO BE AMOCO 4555 NONWOVEN GEOTEXTILE OR APPROVED EQUIVALENT.
- b) THE CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES TO PROVIDE FOR PROTECTION OF THE AREA DRAINAGE SYSTEM AND THE RECEIVING WATERCOURSE. DURING CONSTRUCTION ACTIVITIES, THE CONTRACTOR ACKNOWLEDGES THAT FAILURE TO IMPLEMENT APPROPRIATE EROSION AND SEDIMENT CONTROL MEASURES MAY BE SUBJECT TO PENALTIES IMPOSED BY ANY APPLICABLE REGULATORY AGENCY.
34. THE RETAINING WALL TO BE CONSTRUCTED AND MATERIAL TYPE SHALL BE SPECIFIED BY THE OWNER'S HOUSE DESIGNER AND/OR STRUCTURAL ENGINEER. ANY RETAINING WALLS BUILT ON THIS LOT EXCEEDING 1.0m IN HEIGHT FROM PROPOSED FINISHED GROUND ELEVATIONS WILL BE REQUIRED TO BE PREPARED AND CERTIFIED BY THE OWNER'S STRUCTURAL ENGINEER AND APPROVED BY THE CITY OF OTTAWA BEFORE CONSTRUCTION.
35. a) GIVEN THE ARCHITECTURAL REQUIREMENTS FOR THE PROPOSED BUILDING, THE UNDERSIDE OF CONCRETE FOOTING IS BELOW THE PROPOSED SANITARY LATERAL INVERT WHICH OUTLET TO THE MAIN STREET SANITARY SEWER. THE OWNER'S ARCHITECT IS AWARE OF THIS CONSTRAINT. THE DEVELOPER AND HIS ARCHITECTS WILL MAKE INTERNAL SEWAGE PUMPING PROVISIONS TO PUMP SANITARY SEWAGE FLOW FROM BASEMENT AREA OF THE BUILDING UP TO THE SANITARY LATERAL FOR THIS MIXED USE BUILDING. SEE LATEST REVISED ARCHITECTURAL PLANS FOR OUTLET LOCATION, DISCHARGE PIPE HEIGHT DETAILS, SEWAGE PIT/TANK SIZE, AND PUMPING SYSTEM FOR THIS BUILDING. IT IS RECOMMENDED THAT THE SANITARY TANK BE OVERSIZED. A DUPLEX PUMPING SYSTEM SHALL BE IN THE SANITARY TANK.
- b) THE ARCHITECT AND OWNER'S/DEVELOPER'S MECHANICAL ENGINEER SHALL ENSURE THAT SANITARY SEWAGE FLOW FROM FLOOR LEVELS ABOVE THE BASEMENT AREA LEVEL OF THIS BUILDING BE DIRECTED AND OUTLETED TO THE PROPOSED GRAVITY FLOW SANITARY LATERAL PIPE AND NOT INTO THE SEWAGE TANK FOR PUMPING.
- c) THE PROPOSED SANITARY TANK AND PUMPING SYSTEM ARE FOR DRAINAGE OF BASEMENT AREA ONLY AND ITS FLOOR DRAINS AS PER ARCHITECT'S DRAWINGS IN ACCORDANCE WITH THE LATEST REVISED ONTARIO BUILDING CODE.
- d) SANITARY TANK LOCATION AS PER ARCHITECT'S BASEMENT FLOOR PLAN.
36. THE OWNER'S ARCHITECTS SHALL INFORM THE OWNERS THAT AN ONGOING YEAR ROUND MAINTENANCE PROGRAM IS REQUIRED FOR THIS BUILDING TO ENSURE THAT THE SEWAGE TANK SHALL BE ANNUALLY INSPECTED AND CLEANED IF NECESSARY. ALL PUMPS USED IN THIS BUILDING ARE TO BE DETERMINED BY THE OWNER'S MECHANICAL ENGINEER AND/OR PLUMBER BASED ON THEIR SPECIFIC USAGE UNDER THE PRESENT PLUMBING CODE AND CITY REQUIREMENTS.
37. THE ARCHITECTS SHALL INFORM THE OWNERS TO HAVE AVAILABLE AT ALL TIMES A BACKUP GENERATOR ON STANDBY IN THE BUILDING IN THE EVENT OF A POWER BLACKOUT OR OTHER EMERGENCIES.
38. THE CITY OF OTTAWA RECOMMENDS THAT A PRESSURIZED DRAIN PIPE TYPE MATERIAL BE USED FOR THE ROOF DRAIN LEADER PIPE IN THE BUILDING IN THE EVENT OF SURCHARGE IN THE SYSTEM.
39. NO EXCESS DRAINAGE, DURING AND AFTER CONSTRUCTION, WILL BE DIRECTED TOWARDS THE NEIGHBORS' PROPERTIES.
40. ALL TREES ON THE RIGHT-OF-WAY ARE TO BE MAINTAINED BEFORE AND AFTER CONSTRUCTION AND ALL TREES WITHIN THE PROPERTY SHALL BE PROTECTED AS PER THE MUNICIPAL TREES AND NATURAL AREAS PROTECTION BY-LAWS AND THE "URBAN TREES CONSERVATION BY-LAW" AS AMENDED FROM TIME TO TIME.
41. THERE WILL BE NO ALTERATION TO THE EXISTING GRADE AND DRAINAGE PATTERN ON THE PROPERTY LIMITS.

NO.	REVISION	DATE	BY
1	ISSUED FOR SITE PLAN APPLICATION	10/14/22	TLM

SCALE
0 1 2 3 5m
1:100 HORIZONTAL

DESIGN T.L.M.
CHECKED T.L.M.
DRAWN BY P.M.
CHECKED T.L.M.
APPROVED T.L.M.

PROJECT
180 MAIN STREET
PART OF LOT 4 IN BLOCK A
REGISTERED PLAN 102
CITY OF OTTAWA

DRAWING TITLE
PROPOSED SITE GRADING
AND SERVICING PLAN

PROJECT No. 822-100
DATE AUGUST 2022
DRAWING No. G-1

T.L. MAK ENGINEERING CONSULTANTS LTD.
CONSULTING ENGINEERS

PROJECT No. 822-100
DATE AUGUST 2022
DRAWING No. G-1