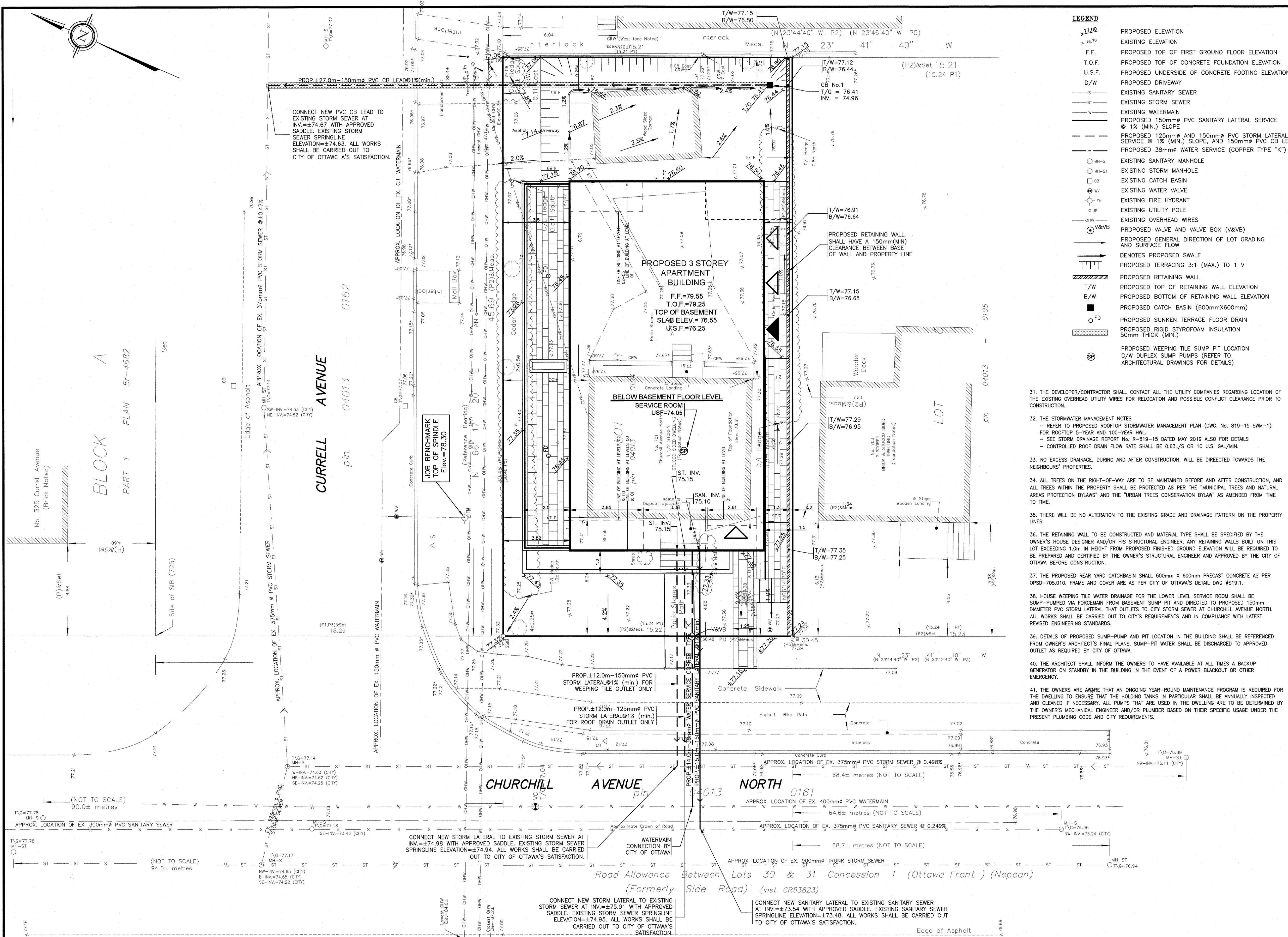




NOTES

- 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.
- SITING DETAILS FOR THE PROPOSED BUILDING WERE TAKEN FROM THE SITE PLAN (DWG. No. SP-01 DATED MARCH 15, 2019) PREPARED BY PROJECT 1 STUDIO, THE GROUND FLOOR, TOP OF FOUNDATION, LOWER LEVEL SLAB, TOP OF CONCRETE FOOTING, AND UNDERSIDE OF CONCRETE FOOTING ELEVATIONS ARE REFERENCED FROM THE OWNER'S ARCHITECTURAL ELEVATION PLANS.
- EXISTING HORIZONTAL AND VERTICAL SURVEY DATA SHOWN ON THIS PLAN INCLUDING SITE BENCHMARK, ROAD ELEVATIONS, SEWER INVERT ELEVATIONS, AND THE TOPOGRAPHICAL INFORMATION OF THE LOT WERE PROVIDED BY ANNIS O'SULLIVAN VOLLEBEK LTD. AS DEPICTED ON THEIR TOPOGRAPHICAL SURVEY PLAN (JOB #1685-18 COMPLETED ON NOVEMBER 13, 2018). T.L. MAK ENGINEERING CONSULTANTS LTD. DOES NOT TAKE ANY RESPONSIBILITY FOR THE SURVEY INFORMATION SHOWN HERE. FOR INFORMATION REGARDING THE EXISTING CHURCHILL AVENUE WATERMAIN, STORM, AND SANITARY SEWER, THE CONTRACTOR SHALL REFER TO THE CITY OF OTTAWA "AS-BUILT" PLAN AND PROFILE ENTITLED "CHURCHILL AVENUE PLAN AND PROFILE STA. 11+500 TO 11+650" DWG. #036 SHEET 36 OF 111, REV #6 CONTRACT NO. ISD3-5003.
- ALL GRADING SHALL BE DONE TO THE SATISFACTION OF THE CITY OF OTTAWA. ALL GRADES SHOWN ARE METRIC. EXISTING AND PROPOSED GRADES SHOWN ON THIS DRAWING ARE BASED ON A BENCHMARK PROVIDED BY ANNIS O'SULLIVAN VOLLEBEK LTD. AS SHOWN ON THEIR TOPOGRAPHICAL SURVEY PLAN.
- PROPOSED SURFACE GRADE SHALL BE 7% MAXIMUM. WHERE THE GROUND DROPS OFF STEEPLY, TERRACE THE GROUND AT 3% MAXIMUM TO 1% AS NECESSARY TO MEET CITY OF OTTAWA'S GRADING REQUIREMENTS.
- THE PROPOSED 38mm DIAMETER WATER SERVICE SHALL BE COPPER TYPE "K".
- ALL WATERWORKS SHALL BE CONSTRUCTED TO CITY OF OTTAWA'S LATEST REVISED STANDARDS ON APPROVAL BY THE CITY.
- CONSTRUCT ALL SANITARY AND STORM PIPES IN ACCORDANCE WITH CITY OF OTTAWA'S LATEST REVISED STANDARD OTHERWISE AS PER OPSS AND OPSD SPECIFICATIONS.
- ALL WORKS CONSTRUCTED BY THE CONTRACTOR SHALL MEET CITY OF OTTAWA'S CURRENT ENGINEERING STANDARDS AND AS PER CITY'S REQUIREMENTS. ALL WATERMAIN SERVICE AND FITTINGS SHALL CONFORM TO APPROVED AWWA AND/OR CSA STANDARDS. WATER SERVICE AND WATERMAIN TRENCH DETAILS AS PER CITY W17 DETAIL.
- THE CONTRACTOR SHALL CONSTRUCT AND ENSURE THAT THE 38mm DIAMETER WATER SERVICE ON THIS LOT SHALL HAVE A MINIMUM OF 2.4m OF GROUND COVER. THE WATER SERVICE PIPE MATERIAL SHALL BE COPPER TYPE "K" AND CONSTRUCTED IN ACCORDANCE WITH THE LATEST CITY OF OTTAWA STANDARDS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS TO COMPLETE THE WORKS.
- EXISTING LOCATION OF CHURCHILL AVENUE WATERMAIN, STORM, AND SANITARY SEWER SHOWN ON THIS PLAN ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY IN THE FIELD TO CONFIRM ITS EXACT LOCATION PRIOR TO EXCAVATION. (SEE NOTE #26 ALSO).
- WATER SERVICE CONNECTION ON CHURCHILL AVENUE SHALL BE DONE BY THE CITY. ALL CONNECTIONS AND OTHER RELATED WORKS TO WATERMAIN, STORM, AND SANITARY SEWER, THE CONTRACTOR SHALL BE MADE BY THE CITY AND EXCAVATION, BACKFILLING, AND REINSTATEMENTS BY CONTRACTOR. ALL WATERWORKS SHALL BE CARRIED OUT TO THE CITY'S SATISFACTION.
- IF WATER SERVICE IS LESS THAN 2.4m FROM SEWER, MANHOLE, OR CATCH BASIN, CONTRACTOR IS REQUESTED TO INSULATE BETWEEN THEM WITH S/M PIGD INSULATION (AS PER CITY DETAIL W22 AND W23).
- PIPE SIZES SHOWN ON THIS PLAN ARE METRIC.
- PROPOSED SANITARY AND STORM SERVICE LATERALS PLUS CATCH BASIN LEAD (125mm DIAMETER AND 150mm DIAMETER) SHALL BE PVC-C-208 OR EQUIVALENT AND CONNECTION TO THE EXISTING SEWERS SHALL BE AS PER CITY OF OTTAWA'S LATEST REVISED ENGINEERING STANDARDS.
- SANITARY AND STORM SEWER SERVICE BENDS AND RISERS USED MUST BE CONSTRUCTED TO THE CITY'S SATISFACTION.
- PIPE MATERIAL AND INSTALLATION METHODS FOR THE TRENCHING AND OUTLET PIPING AT THE SLOPED AREAS WILL BE SUBJECT TO THE SOILS ENGINEER'S REVIEW AND APPROVAL PRIOR TO CONSTRUCTION DUE TO GEOTECHNICAL CONSIDERATIONS OF THIS SITE. CONSTRUCT CLAY DYKES AT LOCATIONS SPECIFIED IN THIS DRAWING AND INSTALL AS PER OWNER'S GEOTECHNICAL ENGINEER'S REPORT RECOMMENDATIONS.
- BEDDING FOR SEWERS AND WATERMAIN INSTALLATION SHALL BE TYPE "B" COMPACTED TO 95% DRY PROCTOR DENSITY. FOR THE SEWER LATERALS USE 300mm THICK APPROVED GRANULAR COVER MATERIAL COMPACT TO 95% DRY PROCTOR DENSITY. TRENCH BACKFILL WITH NATIVE MATERIAL AND COMPACT TO 95% DRY PROCTOR DENSITY MINIMUM. NO FROZEN MATERIALS ARE TO BE USED AS BACKFILL IN THE SERVING TRENCHES.
- INSULATE THE BUILDING SERVICE LATERALS AND WATER SERVICE WITHIN THE ROAD RIGHT OF WAY WHERE GROUND COVER IS LESS THAN 2.4m. FOR WATER SERVICE AND SEWER LATERALS OF LESS THAN 2.4m FOR SERVICE LATERALS AND WATER SERVICE FROM ANY EXISTING CATCH BASINS AND/OR MANHOLES.
- WATER SERVICE, STORM SEWER LATERALS, AND SANITARY SEWER LATERAL ARE THE RESPONSIBILITY OF THE OWNER'S PLUMBER FROM 1m OUTSIDE THE FOUNDATION WALL INTO THE PROPOSED BUILDING UNDER THE LATEST REVISION OF THE ONTARIO PLUMBING CODE.
- WHERE FROST COVER UNDER SIDE OF BUILDING CONCRETE FOOTING TO PROPOSED FINISHED GROUND ELEVATION IS LESS THAN 1.6m, IT IS RECOMMENDED THAT INSULATION (50mm THICK) MINIMUM BE INSTALLED AT FOOTING AND FOUNDATION OF THE BUILDING TO PROVIDE SUFFICIENT FROST COVER FOR FOUNDATION STRUCTURES. INSULATION REQUIREMENTS SHALL BE REVIEWED AND RECOMMENDED BY OWNER'S SOILS ENGINEER. EXACT INSULATION REQUIREMENTS SHALL BE CONFIRMED BY ARCHITECT AND OWNER'S SITE SOILS ENGINEER TO CONTRACTOR BEFORE INSTALLATION.
- IT IS RECOMMENDED THAT A CITY APPROVED BACKWATER VALVE BE INSTALLED AT THE NEW 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.
- THE OWNER'S ARCHITECTS AND PLUMBER SHALL CHECK THE CURRENT ONTARIO PLUMBING CODE FOR REQUIREMENTS FOR A BACKWATER VALVE IN THE BUILDING AND AS PER THE MECHANICAL ENGINEER'S DRAWINGS AT THE SANITARY AND STORM SEWER SERVICE LINES.
- DETAILS OF THE EXISTING SEWERS AND WATERMAIN SHOWN ON CHURCHILL AVENUE FROM THE CITY MAY NOT BE CURRENT. THE CONTRACTOR SHALL REFER TO THE CITY'S SEWER AND WATERMAIN DRAWINGS FOR DETAILS BEFORE DIGGING. THE CONTRACTOR IS ADVISED TO EXCAVATE AND INVESTIGATE THE SEWER ELEVATIONS IN FRONT OF THIS PROPERTY FIRST TO ENSURE THAT 1% (MINIMUM) PIPE SLOPE OF THE SANITARY AND STORM LATERALS CAN BE ACHIEVED USING THE PROPOSED UNDERSIDE OF CONCRETE FOOTING ELEVATION. IF 1% (MINIMUM) SLOPE IS NOT POSSIBLE FROM THE BUILDING TO THE SEWER, THEN THE CONTRACTOR SHOULD INFORM THE OWNER'S PROJECT MANAGER AND THE CITY ACCORDINGLY FOR FURTHER DIRECTION.
- FOR DEVELOPMENT OF THIS SITE, THE CONTRACTOR MUST FIRST CONSTRUCT THE UNDERGROUND SANITARY, STORM, AND WATER SERVICES FROM THE SEWER AND WATERMAIN TO THE PROPERTY. PRIOR TO BUILDING CONCRETE FOUNDATION POURING, THE CONTRACTOR SHALL VERIFY SEWER DEPTHS TO ENSURE THAT THE SEWER LATERALS CAN ACHIEVE A SLOPE OF 1% (MINIMUM) AND STILL BE BELOW PROPOSED UNDERSIDE OF CONCRETE FOOTING ELEVATION. IF THIS IS FOUND NOT POSSIBLE, THE CONTRACTOR SHALL CONTACT THE OWNER AND HIS OR HER PROJECT MANAGER TO REPORT THE FINDING IN ORDER TO ADJUST BUILDING FOUNDATION GRADES PRIOR TO CONCRETE POURING.
- ALL EXISTING BUILDING SEWER LATERALS PRESENTLY SERVING THIS PROPERTY SHALL BE ABANDONED AND TO BE CAPPED AT THE PROPERTY LINE TO THE SATISFACTION OF THE CITY SEWER OPERATIONS DEPARTMENT'S STANDARDS AND REQUIREMENTS AND AS PER CITY DETAIL S11.
- ALL EXISTING BUILDING WATER SERVICES PRESENTLY SERVING THIS PROPERTY SHALL BE ABANDONED AND TO BE BLANKED AT THE WATERMAIN TO THE SATISFACTION OF THE CITY WATER OPERATIONS DEPARTMENT'S STANDARDS AND REQUIREMENTS.
- CONCRETE CURB AND SIDEWALK DETAILS AS PER CITY OF OTTAWA STANDARDS (DWG. No. SC1.1, SC1.4 DATED MARCH 2007 AND SC2 DATED MARCH 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. THE SECTIONS OF EXISTING DEPRESSED CONCRETE CURB AND SIDEWALK FOR THE OLD DRIVEWAYS SHALL BE REMOVED AND REPLACED BY RAISED CURB AND SIDEWALK.

NO. REVISION DATE BY				LICENCED PROFESSIONAL ENGINEER 66/20/19 TONY L.M. MAK NOTICE OF PRACTICE		SCALE 0 1 2 3 5m 1:100 HORIZONTAL VERTICAL		DESIGN T.L.M. CHECKED T.L.M. DRAWN BY G.U. CHECKED T.L.M. APPROVED T.L.M.	PROJECT 701 CHURCHILL AVE. NORTH LOT B REGISTERED PLAN 282 CITY OF OTTAWA DRAWING TITLE PROPOSED GRADING & SERVICING PLAN	PROJECT No. 819-15 DATE MARCH 2019 DRAWING No. G-1
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