

| DESCRIPTION | EXISTING | PROPOSED |
|--|----------|----------|
| SITE FEATURES | | |
| PROPERTY LINE | | |
| TOP OF SLOPE | | |
| TERRACING (3:1 TYPICAL) | | |
| ☞ DITCH/SWALE AND DIRECTION OF FLOW | | |
| EDGE OF SHOULDER | | |
| EDGE OF PAVEMENT | | |
| ☞ ROAD/ALIGNMENT | | |
| CHAINLINK FENCE | | |
| POST AND RAIL FENCE | | |
| SIDEWALK (TYPE AS NOTED ON DRAWINGS) | | |
| BARRIER CURB (SC1.1) | | |
| MOUNTABLE CURB (SC1.3) | | |
| DEPRESSED CURB | | |
| TACTILE WALKING SURFACE INDICATOR "TWSI" (SC7.3) | | |
| GUARDRAIL | | |
| JERSEY BARRIERS | | |
| BUILDING ENTRY/EXIT WITH RISERS | | |
| BUILDING ENTRY/EXIT BARRIER FREE | | |
| BUILDING ENTRY/EXIT OVERHEAD DOOR | | |
| POST | | |
| SIGN | | |
| BOLLARD | | |
| VEGETATION | | |
| UTILITY AND STRUCTURES | | |
| HYDRO (OVERHEAD) | | |
| HYDRO | | |
| POWER | | |
| ELECTRICAL | | |
| BELL (OVERHEAD) | | |
| BELL | | |
| CABLE (OVERHEAD) | | |
| CABLE TV | | |
| FIBRE OPTIC | | |
| STREETLIGHT | | |
| GASMAIN | | |
| JOINT USE TRENCH - BELL/CABLE TV | | |
| JOINT USE TRENCH - HYDRO/CABLE TV | | |
| JOINT USE TRENCH - HYDRO/BELL/CABLE TV | | |
| JOINT USE TRENCH - HYDRO/BELL/CABLE TV/GAS | | |
| JOINT USE TRENCH - BELL/CABLE TV/GAS | | |
| DUCT CROSSING WITH NUMBER AND TYPE OF DUCTS | | |
| STREETLIGHT (C/W GROUND ROD WHERE REQUIRED) | | |
| STREETLIGHT DISCONNECT | | |
| HYDRO TRANSFORMER | | |
| HYDRO SWITCHING KIOSK | | |
| HYDRO MANHOLE | | |
| HYDRO METER | | |
| UTILITY POLE AND GUY WIRE | | |
| CABLE PEDESTAL | | |
| BELL PEDESTAL | | |
| BELL MANHOLE | | |
| BELL GROUND LEVEL BOX | | |
| ENDWALL | | |
| COMMUNITY MAILBOX | | |
| GAS VALVE | | |
| GAS METER | | |
| TRAFFIC MANHOLE | | |
| TRAFFIC HAND HOLE | | |
| TRAFFIC JOINT USE POLE | | |
| TRAFFIC MAST ARM | | |
| TRAFFIC CONDUIT | | |
| GEOTECHNICAL | | |
| BOREHOLE | | |
| TEST PIT | | |
| COREHOLE | | |
| PIEZOMETER | | |
| MONITORING WELL | | |

| DESCRIPTION | EXISTING | PROPOSED |
|--|----------|----------|
| SERVICES AND STRUCTURES | | |
| SANITARY SEWER | | |
| COMBINATION SEWER | | |
| STORM SEWER | | |
| STORM SEWER w/INSULATION | | |
| STORM SUBDRAIN | | |
| STORM CULVERT | | |
| SANITARY MANHOLE | | |
| COMBINATION MANHOLE | | |
| STORM MANHOLE | | |
| CATCHBASIN MANHOLE | | |
| CATCHBASIN | | |
| CATCHBASIN C/W 100MM# SUBDRAIN STUBS (3.0M LENGTH) | | |
| DOUBLE CATCHBASIN | | |
| CATCHBASIN ELBOW (S30) | | |
| CATCHBASIN TEE (S31) | | |
| CURB INLET CATCHBASIN | | |
| DITCH INLET CATCHBASIN | | |
| WATERMAIN | | |
| IRRIGATION | | |
| VALVE AND VALVE BOX | | |
| VALVE AND VALVE CHAMBER | | |
| FIRE HYDRANT | | |
| SIAMESE CONNECTION | | |
| WATER METER | | |
| REMOTE WATER METER | | |
| 45° BEND | | |
| 22.5° BEND | | |
| 11.25° BEND | | |
| TEE | | |
| REDUCER | | |
| CROSS | | |
| CURB STOP | | |
| WATER WELL | | |
| GRADING | | |
| GROUND ELEVATION | | |
| SWALE ELEVATION | | |
| TOP OF GRATE ELEVATION | | |
| TOP OF WALL ELEVATION | | |
| BOTTOM OF WALL ELEVATION | | |
| FINISHED FLOOR ELEVATION | | |
| TOP OF FOUNDATION ELEVATION | | |
| BASEMENT FLOOR ELEVATION | | |
| PARKING LEVEL ELEVATION | | |
| UNDERSIDE OF FOOTING ELEVATION | | |
| ORIGINAL GROUND ELEVATION | | |
| TOP OF ROCK ELEVATION | | |
| CONTOUR LINES | | |
| SLOPE AND DIRECTION OF FLOW | | |
| OVERLAND FLOW ROUTE ONSITE | | |
| OVERLAND FLOW ROUTE EXTERNAL | | |
| SURROUNDING HOUSE GRADE | | |
| EXISTING CIVIC ADDRESS | | |
| STORMWATER MANAGEMENT | | |
| STORM DRAINAGE AREA BOUNDARY | | |
| STORM DRAINAGE AREA NUMBER | | |
| STORM DRAINAGE AREA IN HECTARES | | |
| RUN-OFF COEFFICIENT | | |
| SPILL ELEVATION | | |
| 5 YEAR PONDING AREA | | |
| 100 YEAR PONDING AREA | | |

| DESCRIPTION | EXISTING | PROPOSED |
|---|----------|----------|
| MISCELLANEOUS | | |
| REMOVED | | |
| RELOCATED | | |
| ADJUSTED | | |
| LIGHT DUTY PAVEMENT | | |
| REFER TO NOTES FOR COMPOSITION | | |
| HEAVY DUTY PAVEMENT | | |
| REFER TO NOTES FOR COMPOSITION | | |
| LIGHT DUTY PAVEMENT - DRIVEWAYS | | |
| REFER TO NOTES FOR COMPOSITION | | |
| RIP-RAP AS PER OPSD 810.010 | | |
| CONCRETE SIDEWALK | | |
| SERVICING TRENCHES | | |
| 2-19mm WATER SERVICE (TYPE K COPPER) | | |
| 2-135mm SANITARY SERVICE (PVC SDR28) | | |
| 1-100mm STORM SERVICE (PVC SDR28) | | |
| PAVEMENT STRUCTURES | | |
| HEAVY DUTY PAVEMENT STRUCTURE (DRIVE Lanes/FIRE ROUTES) | | |
| 40mm SUPERPAVE 12.5mm OR HL3 | | |
| 50mm SUPERPAVE 19.0mm OR HL8 | | |
| 150mm GRANULAR 'A' | | |
| 450mm GRANULAR 'B' TYPE II - ON OVERBURDEN | | |
| LIGHT DUTY PAVEMENT STRUCTURE (DRIVEWAYS) | | |
| 50mm HL3 | | |
| 150mm GRANULAR 'A' | | |
| 300mm GRANULAR 'B' TYPE II | | |

GENERAL NOTES:

- ALL WORKS AND MATERIALS SHALL CONFORM TO THE LATEST REVISIONS OF THE STANDARDS AND SPECIFICATIONS OF THE CITY OF OTTAWA, ONTARIO PROVINCIAL STANDARD DRAWINGS (OPSD) AND SPECIFICATIONS (OPSS), WHERE APPLICABLE.
- THE LOCATION OF UTILITIES IS APPROXIMATE ONLY, AND THE EXACT LOCATION SHOULD BE DETERMINED BY CONSULTING THE MUNICIPAL AUTHORITIES AND UTILITY COMPANIES CONCERNED. THE CONTRACTOR IS RESPONSIBLE TO PROVIDE THE LOCATION AND STATUS OF UTILITIES AND SHALL BE RESPONSIBLE FOR ADEQUATE PROTECTION OF PLANT AND EQUIPMENT FROM DAMAGE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OR REPLACEMENT OF ANY SERVICES OR UTILITIES DISTURBED DURING CONSTRUCTION, TO THE SATISFACTION OF THE AUTHORITY HAVING JURISDICTION.
- THE CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF EXISTING SERVICES PRIOR TO ANY CONSTRUCTION. THE CONTRACTOR SHALL CONFIRM LOCATIONS AND ELEVATIONS OF EXISTING SERVICES AND STRUCTURES TO BE CONNECTED TO AND EXISTING SERVICES THAT MAY BE DAMAGED OR CAUSE CONFLICTS PRIOR TO CONSTRUCTION OF ANY NEW SEWER, WATER AND/OR STORM WATER WORKS. ALL DIMENSIONS SHALL BE CHECKED AND VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. ANY DISCREPANCIES, INTERPRETATIONS, CHANGES AND ADDITIONS TO THESE DRAWINGS MUST BE BROUGHT TO THE ATTENTION OF THE ENGINEER, WHEN NOTED AND BEFORE PROCEEDING WITH CONSTRUCTION WORKS. DO NOT CONTINUE CONSTRUCTION IN AREAS WHERE DISCREPANCIES APPEAR UNTIL SUCH DISCREPANCIES HAVE BEEN RESOLVED.
- ALL ELEVATIONS ARE GEODETIC AND UTILIZE METRIC UNITS. ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE SPECIFIED. ALL DRAWINGS SHOULD NOT BE SCALED BY THE CONTRACTOR. ANY MISSING OR QUESTIONABLE DIMENSIONS ARE TO BE CONFIRMED WITH THE ENGINEER IN WRITING.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED AND BEAR COST OF THE SAME.
- ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE "OCCUPATIONAL HEALTH AND SAFETY ACT AND REGULATIONS FOR CONSTRUCTION PROJECTS". THE GENERAL CONTRACTOR SHALL BE DEEMED TO BE THE CONTRACTOR AS DEFINED IN THE ACT.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EXCAVATION, BACKFILL AND REINSTATEMENT OF ALL AREAS DISTURBED DURING CONSTRUCTION TO THE SATISFACTION OF THE ENGINEER, THE CITY OF OTTAWA AND THE AUTHORITY HAVING JURISDICTION.
- ANY AREAS BEYOND THE LIMIT OF THE SITE DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO ORIGINAL CONDITION OR BETTER TO THE SATISFACTION OF THE AUTHORITY HAVING JURISDICTION AT THE CONTRACTOR'S EXPENSE.
- THE CONTRACTOR SHALL COMPLY WITH THE CITY OF OTTAWA REQUIREMENTS FOR TRAFFIC CONTROL WHEN WORKING ON CITY STREETS. ALL CONSTRUCTION SIGNAGE MUST CONFORM TO THE M.T.O. MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (LATEST AMENDMENT).
- THERE WILL BE NO SUBSTITUTION OF MATERIALS UNLESS WRITTEN APPROVAL BY THE ENGINEER HAS BEEN OBTAINED.
- EXCESS EXCAVATED MATERIAL SHALL BE REMOVED FROM THE SITE.
- THE SITE LAYOUT IS THE RESPONSIBILITY OF THE CONTRACTOR. AS-BUILT SITE SERVICING & GRADING DRAWINGS SHALL BE MAINTAINED ON SITE BY THE CONTRACTOR.
- THE CONTRACTOR WILL BE RESPONSIBLE FOR ADDITIONAL BEDDING OR ADDITIONAL STRENGTH PIPE IF THE MAXIMUM TRENCH WIDTH, AS SPECIFIED BY OPSD, IS EXCEEDED.
- ALL NECESSARY CLEARING AND GRUBBING SHALL BE COMPLETED BY THE CONTRACTOR. REVIEW WITH ENGINEER AND THE CITY OF OTTAWA PRIOR TO ANY TREE CUTTING.
- ALL EDGES OF DISTURBED PAVEMENT SHALL BE SAW CUT TO FORM A NEAT AND STRAIGHT LINE PRIOR TO PLACING NEW PAVEMENT.
- ALL BOREHOLES SHOWN ON THE DRAWINGS ARE FOR INFORMATION ONLY. FOR GEOTECHNICAL INFORMATION REFER TO GEOTECHNICAL INVESTIGATION REPORT PREPARED BY EXP. SERVICES INC. DATED MARCH 2020.
- THE CONTRACTOR SHALL APPRAISE HIS/HERSELF OF ALL SURFACE AND SUBSURFACE CONDITIONS TO BE ENCOUNTERED AND SHALL CARRY OUT THEIR OWN TEST PITS AS REQUIRED TO MAKE THEIR OWN INDEPENDENT ASSESSMENT OF GROUND CONDITIONS. THE CONTRACTOR SHALL NOT MAKE ANY CLAIM FOR ANY EXTRA COST DUE TO ANY SUCH GROUND CONDITIONS VARYING FROM THOSE ANTICIPATED BY THE CONTRACTOR.
- DO NOT CONSTRUCT USING DRAWINGS THAT ARE NOT MARKED "ISSUED FOR CONSTRUCTION".
- FOR TOPOGRAPHICAL INFORMATION REFER TO PLAN PREPARED BY ANNIS, O'SULLIVAN, VOLLEBEKK LIMITED, DATED DECEMBER 24, 2019.
- CIVIL DRAWINGS TO BE READ IN CONJUNCTION WITH ARCHITECTURAL, LANDSCAPE AND LEGAL DRAWINGS.
- ALL NECESSARY CLEARING AND GRUBBING SHALL BE COMPLETED BY THE CONTRACTOR. REVIEW WITH CONTRACT ADMINISTRATOR AND THE CITY OF OTTAWA PRIOR TO ANY TREE CUTTING.

SANITARY SEWER NOTES

- ALL SANITARY SEWER MATERIALS AND INSTALLATION SHALL CONFORM TO THE LATEST REVISIONS OF THE STANDARDS AND SPECIFICATIONS OF THE CITY OF OTTAWA, ONTARIO PROVINCIAL STANDARD DRAWINGS (OPSD) AND SPECIFICATIONS (OPSS).
- ALL SANITARY SEWERS SHALL BE PVC SDR 35, IPEX "RING-TITE" (OR EQUIVALENT), AS PER CSA STANDARD B182.2 OR LATEST AMENDMENT, UNLESS OTHERWISE NOTED.
- SANITARY SEWER TRENCH AND BEDDING SHALL BE AS PER CITY OF OTTAWA STD. S6 AND S7, CLASS 'B' BEDDING UNLESS OTHERWISE NOTED.
- ALL SANITARY LATERALS ARE TO BE PVC SDR 28, IPEX "RING-TITE" (OR EQUIVALENT), ANY COLOR EXCEPT WHITE AND MARKED WITH A 50MM X 100MM WOODEN MARKER, EXTENDING FROM THE INVERT TO 1.0 M ABOVE GRADE PAINTED RED.
- SEWER BEDDING AS PER CITY STANDARD S6 & S7, GRANULAR 'A' BEDDING TO BE INCREASED TO 300MM WHERE SEWERS ARE BELOW THE GROUNDWATER TABLE.
- SANITARY SEWER MANHOLES SHALL BE BENCHES AS PER OPSD 701.021. SANITARY MANHOLE FRAME AND COVERS SHALL BE AS PER CITY OF OTTAWA STD. S24 AND S25. SAFETY PLATFORMS SHALL BE AS PER OPSD 404.02. DROP STRUCTURES SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA SPECIFICATIONS AND OPSD 1003.01.
- THE CONTRACTOR SHALL CONDUCT INFILTRATION/EXFILTRATION (AS PER CURRENT OPSS) TESTING ON ALL NEWLY INSTALLED SANITARY SEWERS. THE TEST SHALL BE PERFORMED IMMEDIATELY AFTER SEWER INSTALLATION AND VIEWED BY THE ENGINEER.
- THE CONTRACTOR SHALL CONDUCT CCTV INSPECTION OF ALL NEWLY INSTALLED SANITARY SEWERS AND EXISTING SEWERS CONNECTED TO THE TEST SHALL BE PERFORMED IMMEDIATELY AFTER SEWERS INSTALLED.
- ALL SERVICE CONNECTIONS TO BE CONSTRUCTED AS PER CITY STANDARD S11 & S11.1.
- THE CONTRACTOR SHALL CONSTRUCT FLEXIBLE SANITARY SEWERS IN ACCORDANCE WITH OPSD 802.010 AND 802.013. DURING CONSTRUCTION, THE CONTRACTOR SHALL PROTECT THE PIPES FROM HEAVY CONSTRUCTION EQUIPMENT. BEDDING AND BACKFILL SHALL BE COMPACTED TO A MINIMUM OF 95% SPMD.
- ALL SANITARY BUILDING DRAINS TO BE EQUIPPED WITH SANITARY BACKWATER VALVES INSTALLED PER CITY OF OTTAWA STANDARD DRAWING S14.1.
- WITHIN THE FROST ZONE, THE BACKFILL IN THE SERVICE TRENCHES SHOULD MATCH THE SOIL ON SIDES TO MINIMIZE DIFFERENTIAL FROST HEAVING IN THE SUBGRADE.
- MINIMUM SOIL COVER TO BE 2.1m TO PROTECT SEWERS FROM FROST DAMAGE. IN AREAS WHERE ADEQUATE FROST COVER CANNOT BE ACHIEVED, EQUIVALENT THERMAL INSULATION TO BE INSTALLED AS PER OPSD 514.010
- ALL STORM SERVICES TO BE EQUIPPED WITH APPROVED BACKWATER VALVES.
- STORM MANHOLE FRAME AND COVERS SHALL BE AS PER CITY OF OTTAWA STD. S24, S24.1 AND S25.
- SAFETY PLATFORMS SHALL BE IN ACCORDANCE WITH OPSD 404.02.

STORM SEWER NOTES

- ALL STORM SEWER MATERIALS AND INSTALLATION SHALL CONFORM TO THE LATEST REVISIONS OF THE STANDARDS AND SPECIFICATIONS OF THE CITY OF OTTAWA, ONTARIO PROVINCIAL STANDARD DRAWINGS (OPSD) AND SPECIFICATIONS (OPSS).
- ALL REINFORCED CONCRETE STORM SEWER PIPE SHALL BE IN ACCORDANCE WITH CSA A257.2 (LATEST AMENDMENT). ALL NON-REINFORCED CONCRETE STORM SEWER PIPE SHALL BE IN ACCORDANCE WITH CSA A257.1 (LATEST AMENDMENT). PIPE SHALL BE JOINTED WITH STD. RUBBER GASKETS AS PER CSA A257.3 (LATEST AMENDMENT).
- ALL PVC STORM SEWERS ARE TO BE SDR 35 APPROVED PER C.S.A. B182.2 OR LATEST AMENDMENT, UNLESS OTHERWISE SPECIFIED.
- THE CONTRACTOR SHALL CONSTRUCT FLEXIBLE STORM SEWERS IN ACCORDANCE WITH OPSD 802.010 AND 802.013. RIGID STORM PIPE SHALL BE CONSTRUCTED IN ACCORDANCE WITH OPSD 802.030. DURING CONSTRUCTION THE CONTRACTOR SHALL PROTECT THE PIPES FROM HEAVY CONSTRUCTION EQUIPMENT. BEDDING AND BACKFILL SHALL BE COMPACTED TO A MINIMUM OF 95% SPMD.
- SEWER BEDDING AS PER CITY STANDARD S6 & S7.
- ALL STORM LATERALS SHALL BE PVC SDR 28, WHITE IN COLOR AND MARKED WITH A 50mm X 100mm WOODEN MARKER EXTENDING FROM THE INVERT TO 1.0m ABOVE GRADE PAINTED GREEN.
- ALL SERVICE CONNECTIONS TO BE CONSTRUCTED AS PER CITY STANDARD S11 & S11.1.
- WITHIN THE FROST ZONE, THE BACKFILL IN THE SERVICE TRENCHES SHOULD MATCH THE SOIL ON SIDES TO MINIMIZE DIFFERENTIAL FROST HEAVING IN THE SUBGRADE.
- MINIMUM SOIL COVER TO BE 2.1m TO PROTECT SEWERS FROM FROST DAMAGE. IN AREAS WHERE ADEQUATE FROST COVER CANNOT BE ACHIEVED, EQUIVALENT THERMAL INSULATION TO BE INSTALLED AS PER OPSD 514.010
- ALL STORM SERVICES TO BE EQUIPPED WITH APPROVED BACKWATER VALVES.
- STORM MANHOLE FRAME AND COVERS SHALL BE AS PER CITY OF OTTAWA STD. S24, S24.1 AND S25.
- SAFETY PLATFORMS SHALL BE IN ACCORDANCE WITH OPSD 404.02.

CAUTION
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.

| REV | REVISION DESCRIPTION | DATE | BY | APPD |
|-----|-------------------------------|----------|-----|------|
| 2 | REVISED AS PER CITY COMMENTS | 30/09/20 | SAB | BMT |
| 1 | ISSUED FOR SITE PLAN APPROVAL | 20/04/06 | MZG | BMT |

| SCALE | DESIGNED BY | REVIEWED BY |
|-------|-------------|-------------|
| | | |

CLIENT
10886378 CANADA INC
190 LISGAR STREET
OTTAWA, ON.

BASE PLAN
M.Z.G.

DESIGN
M.Z.G.

CHECKED
B.M.T.

CAD
M.Z.G.

PROJECT MANAGER
B.M.T.

APPROVED
B.M.T.

PROJECT No.
OTT-00254810-A0

**1869 MAPLE GROVE
1869 MAPLE GROVE ROAD
OTTAWA, ONTARIO.**

DATE
MARCH 2020

DRAWING No.
C001

NOTES AND LEGEND

File Name: I:\projects\10886378\10886378_00254810-A0 - 1869 maple grove.dwg - 10886378 - canada inc\01\electrical\dwg\10886378_10886378.dwg
 User: bmt
 Date: 2020/03/04 09:47:32 AM
 Plotter: AutoCAD
 Plot Style: 10886378.ctb