

MUNICIPALITY OF MISSISSIPPI MILLS



PROPOSED DEVELOPMENT MENZIE'S ENCLAVE ROADS, SEWER AND WATERMAIN

PARK LOT 2, BLOCK C, HENDERSON SECTION, AND
LOTS 1 TO 25 INCLUSIVE, PARK BLOCK C, McLEAN SECTION, AND
ALFRED STREET, AND
ALEXANDRA STREET
REGISTERED PLAN 6262
FORMER TOWN OF ALMONTE
MUNICIPALITY OF MISSISSIPPI MILLS
COUNTY OF LANARK

ADDRESS: ADELAIDE ST, ALMONTE
MISSISSIPPI MILLS, ONTARIO

09-T-23005 (COUNTY FILE NUMBER)

APPLICANT:

ASH SHARMA
13165647 CANADA INC.
514-817-8265

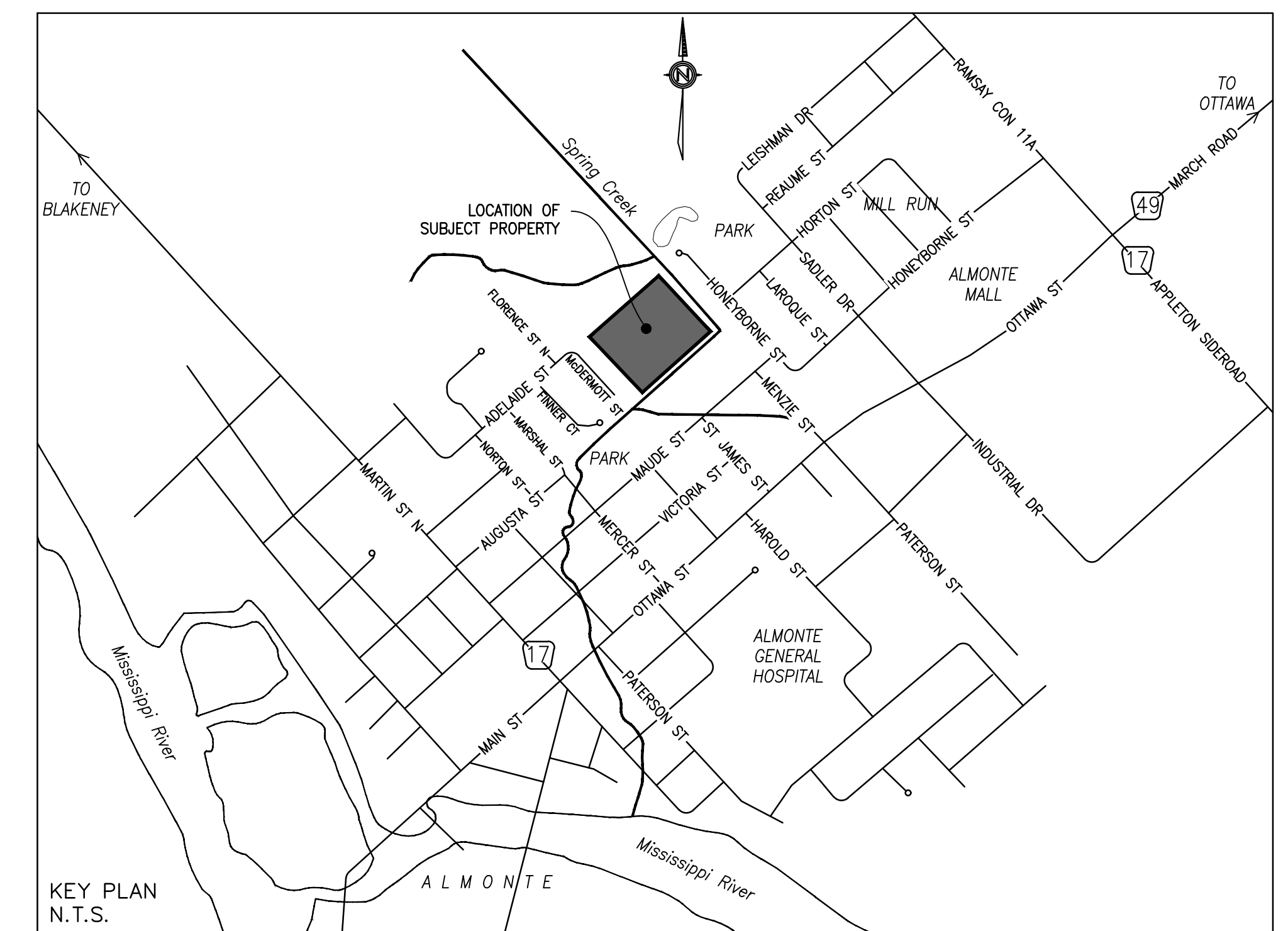
CONSULTANT:

AE ADVANCE
ENGINEERING
Civil - Municipal - Structural
613-986-170

PROJECT No. 123

JULY 2025

SHEET LIST TABLE				
SHEET #	INDEX	SHEET TITLE	REV. #	REV. DATE
1	CS	COVER SHEET	0	07/08/25
2	S-1	SPECIFICATIONS	1	07/08/25
3	GSP1	GENERAL SERVICES PLAN	1	07/08/25
4	PP1	PLAN AND PROFILE 1	1	07/08/25
5	PP2	PLAN AND PROFILE 2	1	07/08/25
6	PP3	PLAN AND PROFILE 3	1	07/08/25
7	GR-1	GRADING AND DRAINAGE PLAN	0	07/08/25
8	PND	POND PLAN	1	07/08/25
9	ESC	EROSION AND SEDIMENT CONTROL PLAN	1	07/08/25
10	LSC1	LANDSCAPE PLAN	0	PENDING
11	LSC2	LANDSCAPE PLAN - DETAILS	0	PENDING
12	D-1	SERVICING AND GRADING DETAILS 1	0	PENDING
13	D-2	SERVICING AND GRADING DETAILS 2	0	PENDING
14	D-3	SERVICING AND GRADING DETAILS 3	0	PENDING
15	D-4	SERVICING AND GRADING DETAILS 4	0	PENDING
16	D-5	SERVICING AND GRADING DETAILS 5	0	PENDING
17	D-6	SERVICING AND GRADING DETAILS 6	0	PENDING
18	CUP1	COMPOSITE UTILITY PLAN	0	PENDING
19	CUP-2	COMPOSITE UTILITY PLAN DETAILS	0	PENDING
20	EW-1	EARTHWORK PLAN	0	PENDING
21	PH-1	PHOTOMETRIC PLAN	0	PENDING



GENERAL NOTES AND SPECIFICATIONS:

1. ALL WORKS AND MATERIALS SHALL CONFORM TO THE LATEST REVISIONS OF THE STANDARDS AND SPECIFICATIONS OF THE MUNICIPALITY OF MISSISSIPPI MILLS, AND ONTARIO PROVINCIAL STANDARD DRAWINGS (OPSD) AND SPECIFICATIONS (OPSS), AS AMENDED. PRODUCTS AND MATERIAL TO BE USED FOR WATERMAIN AND SANITARY AND STORM SEWERS SHALL BE APPROVED BY THE MUNICIPALITY OF MISSISSIPPI MILLS.
2. ALL WORKS TO BE IN ACCORDANCE WITH MUNICIPALITY OF MISSISSIPPI MILLS BY-LAWS.
3. ALL SANITARY AND STORM WORKS SHALL COMPLY WITH THE MUNICIPALITY CLU-ECA REQUIREMENTS AND THE MECP DESIGN CRITERIA FOR SANITARY SEWERS, STORM SEWERS OR AS REVISED, AND THE MECP DESIGN GUIDELINES FOR SEWAGE WORKS, 2008, AS AMENDED FROM TIME TO TIME.
4. 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 CONSTRUCTOR AS DEFINED IN THE ACT.
5. ALL CONSTRUCTION SIGNAGE MUST CONFORM TO THE M.T.O. MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (LATEST AMENDMENT).
6. THE CONTRACTOR SHALL CONFIRM THE LOCATION OF ALL EXISTING UTILITIES WITHIN THE SITE AND ADJACENT WORK AREAS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING UTILITIES TO THE SATISFACTION OF THE AUTHORITY HAVING JURISDICTION. 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.
7. ANY CONFLICTS WITH EXISTING SERVICES AND/OR UTILITIES SHALL BE REPORTED TO THE ENGINEER FOR REVIEW & ADVICE PRIOR TO COMMENCEMENT OF CONSTRUCTION.
8. RELOCATION OF EXISTING SERVICES AND/OR UTILITIES SHALL BE AS SHOWN ON THE DRAWINGS OR AS DIRECTED BY THE ENGINEER AT THE EXPENSE OF THE DEVELOPER.
9. THE SUPPORT OF ALL UTILITIES SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION.
10. 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.
11. ALL DIMENSIONS AND ELEVATIONS SHALL BE CHECKED AND VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. ANY DISCREPANCIES SHALL BE REPORTED IMMEDIATELY TO THE ENGINEER.
12. ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE SPECIFIED. PIPE SIZES ARE IN MILLIMETRE. PIPE/CULVERT SECTION SIZES REFER TO INSIDE DIMENSIONS.
13. THERE WILL BE NO SUBSTITUTION OF MATERIALS UNLESS PRIOR WRITTEN APPROVAL BY MUNICIPALITY STAFF HAS BEEN OBTAINED.
14. ALL BOREHOLES SHOWN ON THE DRAWINGS ARE FOR INFORMATION ONLY. REFER TO GEOTECHNICAL INVESTIGATION REPORT BY PATERSON GROUP, REPORT No. P06247-1, DATED JULY 19, 2022, FOR ADDITIONAL DETAILS REGARDING MATERIAL AND CONSTRUCTION SPECIFICATIONS. IN CASE OF DISCREPANCIES BETWEEN THESE SPECIFICATIONS AND THE GEOTECHNICAL RECOMMENDATIONS, FOLLOW THE GEOTECHNICAL.
15. SHOULD DEEPLY BURIED ARCHAEOLOGICAL REMAINS BE FOUND ON THE PROPERTY DURING CONSTRUCTION ACTIVITIES, THE HERITAGE OPERATIONS UNIT OF THE ONTARIO MINISTRY OF CULTURE MUST BE NOTIFIED IMMEDIATELY.
16. CLEARING AND GRUBBING SHALL BE COMPLETED BY THE CONTRACTOR. REVIEW WITH THE MUNICIPALITY OF MISSISSIPPI MILLS THE PRIOR TO ANY TREE CUTTING.
17. VEGETATION REMOVAL WHERE REQUIRED SHOULD TAKE PLACE OUTSIDE OF THE SPRING AND SUMMER ACTIVE SEASON (TYPICALLY APRIL 1 TO SEPTEMBER 30).
18. SHOULD ANY SPECIES AT RISK BE DISCOVERED THROUGHOUT THE CONSTRUCTION PERIOD, THE LOCAL MECP DISTRICT SHOULD BE CONTACTED IMMEDIATELY.
19. DURING CONSTRUCTION, SHOULD THE GROUNDWATER VOLUME OF PUMPING EXCEED 50,000 LITRES PER DAY, A PERMIT TO Dewater SHOULD BE OBTAINED. SUITABLE FILTRATION WILL BE REQUIRED BEFORE DISCHARGING GROUNDWATER INTO SEWERS.
20. PERMIT WILL NEED TO BE OBTAINED FROM THE MUNICIPALITY FOR ROAD CUTS.
21. NO BLASTING IS PERMITTED WITHOUT MUNICIPALITY APPROVAL.
22. ALL WATER CUSTOMERS SUPPLIED BY A WATERMAIN TO BE SHUT DOWN SHALL BE NOTIFIED BY THE CONTRACTOR AT LEAST 48 HOURS IN ADVANCE OF THE SHUT DOWN OR AS DIRECTED THE MUNICIPALITY OF MISSISSIPPI MILLS STAFF.
23. EXCESS SOILS MANAGEMENT SHALL COMPLY WITH O. REG. 406/19 ONSITE AND EXCESS SOIL MANAGEMENT. CONTRACTOR SHALL FILE A NOTICE AT RPRA "EXCESS SOIL REGISTRY" PRIOR TO EXCAVATION.
24. SHOP DRAWINGS: CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR REVIEW FOR ALL STRUCTURES SHOWING EXACT DETAILS.
25. CONTRACTOR SHALL PERFORM LEAKAGE TESTING, IN THE PRESENCE OF THE ENGINEER, FOR SANITARY AND STORM SEWERS IN ACCORDANCE WITH OPSS 410 AND OPSS 407. CONTRACTOR SHALL PERFORM VIDEO INSPECTION OF ALL SEWERS. A COPY OF THE VIDEO AND INSPECTION REPORT SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW.
26. CLAY SEALS TO BE INSTALLED AS PER OPSS 1205 AND OPSD 802.095 AS INDICATED ON THE GENERAL PLAN OF SERVICES PLAN. CLAY LAYERS TO BE COMPACTED TO A MINIMUM OF 95% SPMDD.
27. ALL SEWERS CONSTRUCTED WITH GRADES 0.50% OR LESS, SHALL BE INSTALLED WITH PIPE LASER AND CHECKED WITH LEVEL INSTRUMENT PRIOR TO BACKFILLING.
28. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADDITIONAL BEDDING OR ADDITIONAL STRENGTH PIPE IF THE MAXIMUM TRENCH WIDTH, AS SPECIFIED BY OPSD, IS EXCEEDED.
29. ALL PVC PIPES AND RUBBER GASKETED JOINTS SHALL CONFORM TO THE REQUIREMENTS OF OPSS 1841 AND OPSD 806.040 & 806.060 WITH REGARD TO MAXIMUM FILL/COVER.

WATER SUPPLY:

1. WATERMAIN SHALL BE PVC MINIMUM DR 18 WITH GASKETED JOINTS EQUAL TO AWWA C-900, C-905 & C-907 CLASS 150, OR APPROVED EQUAL.
2. SPATIAL SEPARATION: A MINIMUM HORIZONTAL SEPARATION OF 2.5 m MUST BE MAINTAINED BETWEEN WATERMAIN AND SANITARY OR STORM SEWERS. WATER SERVICES SHALL COMPLY WITH OBC 7.3.5.7.. IN A COMMON TRENCH, THE WATER SERVICE SHALL BE PLACED ON A SHELF AT ONE SIDE OF THE TRENCH WITH A MINIMUM VERTICAL CLEARANCE OF 0.5 m ABOVE THE SANITARY PIPE.
3. WATERMAIN TRENCH AND BEDDING SHALL BE IN ACCORDANCE WITH OPSD 802.010, UNLESS OTHERWISE SPECIFIED. BEDDING AND COVER MATERIAL SHALL BE AS SPECIFIED BY PROJECT GEOTECHNICAL ENGINEER.
4. MINIMUM DEPTH OF COVER FOR MAIN AND SERVICE CONNECTION FROM TOP OF PIPE TO FINISHED GRADE IS 2.4 m. WHEN LESS COVER, PROVIDE INSULATION AGAINST FROST AS PER OPSD 1109.03. INSULATION SHALL BE 275 kPa (40 psi). WATERMAIN SHALL BE AT LEAST 1.1 m BELOW BOTTOM OF ROAD SIDE DITCH.
5. THE DEPTH OF WATER SERVICES AT PROPERTY LINE SHOULD BE A MINIMUM OF 2.2 m AND A MAXIMUM OF 2.6 m. THE DISTANCE BETWEEN THE GROUND ELEVATION AND THE TOP OF THE ROD SHOULD BE BETWEEN 0.5 m AND 1.0 m.
6. SERVICE CONNECTION SHALL BE 25 mm DIA. TYPE K SOFT COPPER. INSTALL AS PER OPSD 1104.010. 50 mm DIAMETER SHALL BE USED FOR PARK SERVICES AND PUMPING STATION.
7. WATER SERVICES SHALL BE MARKED WITH A "50 mm x 100 mm", EXTENDING FROM THE INVERT TO 1.0 m ABOVE GRADE. PAINTED BLUE. STAND POSTS/SHUT-OFFS SHALL BE INSTALLED AT THE PROPERTY LINE.
8. CATHODIC PROTECTION IS REQUIRED ON ALL PVC WATERMAIN AND METALLIC FITTINGS, RESTRAINTERS AND HYDRANTS AS PER OPSD 1109.011.
9. ALL SACRIFICIAL ANODES SHALL CONFORM TO A.S.T.M. B-418 TYPE II AND SHALL BE MADE OF HIGH GRADE ELECTROLYTIC ZINC, 99.99%.
10. ALL WELD CONNECTIONS TO BE COATED WITH "IC MASTIC" OR APPROVED EQUIVALENT.
11. FOR ALL ANODES CONNECTED TO NEW PIPE, FITTINGS OR TO EXISTING METALLIC WATERMAINS, A CADWELDER AND CA-15 OR EQUIVALENT CARTRIDGE SHALL BE USED. ANODE INSTALLATION SHALL BE PERFORMED IN ACCORDANCE WITH THE MANUFACTURERS INSTRUCTIONS.
12. CONTRACTOR TO SUPPLY HYDRANT EXTENSION TO ADJUST THE LENGTH OF HYDRANT BARREL.
13. FIRE HYDRANTS TO BE IN ACCORDANCE WITH AWWA A502 LATEST EDITION. ACCEPTED MODELS: CLOW CANADA M-67/M93 BRIGADIER, MCavity M67B OR CONCORD D67-M WITH PUMPER NOZZLE OUTLETS OR EQUIVALENT. HYDRANTS TO BE PAINTED YELLOW WITH A RED CAP. MUNICIPALITY TO BE CONTACTED DURING CONSTRUCTION TO CONFIRM IF DRAIN HOLES ARE TO BE PLUGGED OR REMAIN OPEN.
14. FIRE HYDRANTS SHALL BE INSTALLED AS PER OPSD 1105.10 AND AT LEAST 1.5 m FROM EDGE OF DRIVEWAYS.
15. TAPPING FOR SERVICE CONNECTION SHALL BE DONE WITH FULL OPERATING PRESSURE IN THE MAIN. CONNECTION TO MAIN AT ANGLE OF 15 DEGREE TO 45 DEGREE FROM HORIZONTAL C/W WITH SADDLE.
16. PROVIDE CURB-STOP AND BOX AT PROPERTY LINE ON THE STREET SIDE. CURB-STOP SHALL NOT BE IN DRIVEWAY OR FUTURE SIDEWALK.
17. PVC WATERMAIN SHALL BE INSTALLED WITH A 10 GAUGE STRANDED COPPER TWO OR RWJ TRACER WIRE IN ACCORDANCE WITH CITY OF OTTAWA STD. W36.
18. THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY CAPS, PLUGS AND BLOW-OFFS AND NOZZLES REQUIRED FOR TESTING AND DISINFECTION OF THE WATERMAIN.
19. INSULATION FOR WATERMAIN CROSSING OVER AND BELOW SEWER SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STD. W25.2 AND W25, RESPECTIVELY, WHERE WATERMAIN COVER IS LESS THAN 2.4 m.
20. WHERE THE SEPARATION BETWEEN SERVICES AND MANHOLES IS LESS THAN 1.2 m, WATER SERVICES ARE TO BE INSULATED AS PER CITY OF OTTAWA STD. W25.
21. THE MINIMUM VERTICAL CLEARANCE BETWEEN WATERMAIN AND SEWER / UTILITY IS 0.25 m FOR CROSSING OVER THE SEWER, AS PER CITY STD W25.2. FOR CROSSING UNDER SEWER, THE MINIMUM VERTICAL CLEARANCE IS 0.50 m AS PER CITY STD. W25. FOR CROSSING UNDER SEWER, ADEQUATE STRUCTURAL SUPPORT FOR THE SEWERS IS REQUIRED TO PREVENT EXCESSIVE DEFLECTION OF JOINTS AND SETTLING. THE LENGTH OF WATER PIPE SHALL BE CENTRED AT THE POINT OF CROSSING SO THAT THE JOINTS WILL BE EQUIDISTANT AND AS FAR AS POSSIBLE FROM THE SEWER.
22. VALVE IN BOXES SHALL BE INSTALLED AS PER CITY OF OTTAWA STD. W24.
23. ALL PLUGS, CAPS, TEES AND BENDS SHALL BE MECHANICALLY RESTRAINED AS PER MANUFACTURERS SPECIFICATIONS. RESTRAINTS SHALL MEET UNI-B-13-92.
24. VALVES SHALL BE RESILIENT-SEATED AS OPER AWWA C509 AND SHALL OPEN COUNTER-CLOCKWISE. VALVES SHALL BE SUPPLIED BY MUELLER, CANADA VALVE, MCavity CLOW OR APPROVED EQUIVALENT.
25. VALVE BOXES SHALL BE A 130 mm DIAMETER SLIDE VALVE BOX COMPLETE WITH CASE IRON CAP AS SUPPLIED BY BIBBY-SITE-CROIX OR APPROVED EQUIVALENT.
26. PIPE BARREL BENDING DEFLECTION SHALL NOT BE ALLOWED. PIPE JOINT DEFLECTIONS ARE DISCOURAGED. HOWEVER, IF ABSOLUTELY NECESSARY, THE MAXIMUM ALLOWABLE PIPE JOINT DEFLECTION SHALL BE 50% OF THE MANUFACTURER'S SPECIFICATIONS.
27. TRACER WIRE IS TO BE INSTALLED ON ALL NEW PVC WATERMAIN PIPE FOR LOCATING PURPOSES. A SOLID 10 GAUGE T.W.U. COPPER WIRE IS TO BE INSTALLED ALONG THE PIPE, STRAPPED TO THE PIPE AT 6 METRE INTERVALS. JOINTS IN THE WIRE BETWEEN VALVES ARE NOT PERMITTED.
28. THE INSPECTOR MAY TEST THE TRACING WIRE FOR CONDUCTIVITY. IF THE TRACING WIRE IS NOT CONTINUOUS FROM VALVE TO VALVE, THE CONTRACTOR SHALL, AT HIS OWN EXPENSE, REPLACE OR REPAIR THE WIRE.
29. OPERATION OF EXISTING WATERMAINS SHALL BE BY THE MUNICIPALITY STAFF ONLY.
30. WATERMAIN IN FILL AREA OR IN PREVIOUSLY DISTURBED GROUND TO BE INSTALLED WITH RESTRAINED JOINTS AS PER CITY OF OTTAWA STD. W25.5 AND W25.6.

31. THRUST BLOCKING OF WATERMAIN TO BE INSTALLED AS PER CITY OF OTTAWA STD. W25.3 AND W25.4.
32. FOR STUBS DESIGNED FOR FUTURE WATERMAIN CONNECTION, THE END OF THE PIPE SHOULD BE CAPPED TO MAKE IT WATERTIGHT AND THRUST RESTRAINT ADDED ACCORDING TO CITY STANDARD.
33. ALL WATER SERVICES CROSSING SEWERS ARE TO BE INSTALLED AS PER CITY OF OTTAWA STD. W38.
34. VALVE CHAMBER COVER TO BE SET FLUSH WITH BASE COURSE ASPHALT AND ADJUSTED TO FINAL GRADE PRIOR TO INSTALLING TOP LIFT OF ASPHALT.

SANITARY SEWERS:

1. SANITARY SEWER PIPE SHALL BE PVC MINIMUM SDR 35, IPEX "RING-TITE" OR EQUIVALENT, AS PER CSA STANDARD B182.2 (LATEST AMENDMENT), WITH A MINIMUM PIPE STIFFNESS OF 320 kPa.
2. SANITARY FORCEMAIN SHALL BE PVC MINIMUM DR 26.
3. SANITARY SEWER TRENCH AND BEDDING SHALL BE AS PER OPSD 802.010 UNLESS OTHERWISE NOTED.
4. MINIMUM COVER FOR SEWER MAIN BELOW ROAD CENTRELINE IS 2.5 m. WHEN LESS COVER, PROVIDE INSULATION FROST PROTECTION AS PER OTTAWA DETAIL W22 OR ONTARIO STANDARDS OPSS 1603 AND OPSD 1109.030. INSULATION SHALL BE 275 kPa (40 psi).
5. ALL SANITARY LATERALS ARE TO BE PVC SDR 28 CONFORM TO CSA B182.2, W/ RUBBER GASKET JOINT, IPEX "RING-TITE" (OR EQUIVALENT), ANY COLOUR EXCEPT WHITE AND MARKED WITH A 50 mm x 100 mm WOODEN MARKER, EXTENDING FROM THE INVERT TO 1.0 m ABOVE GRADE. PAINTED RED. SINGLE CONNECTIONS SHALL BE 135 mm DIAMETER.
6. SERVICE CONNECTION SHALL BE LAID AT 1-2 % SLOPE AND 2.15 m MIN. AND 2.75 m MAX. DEEP BELOW FINISHED GRADE AT PROPERTY LINE.
7. SERVICE CONNECTION SHALL BE TERMINATED AT 1.5 - 3.0 m INSIDE THE LOT.
8. SANITARY MANHOLES TO BE AS PER OPSD 701.010. BENCHING IN MANHOLES AS PER OPSD 701.021. GRANULAR BACKFILL AROUND MANHOLES SHALL BE COMPACTED BY MECHANICAL MEANS TO A MINIMUM OF 95% SPD.
9. SANITARY MANHOLE FRAME AND COVERS SHALL BE AS PER OPSD 401.010 TYPE A.
10. MANHOLE COVER TO BE SET FLUSH WITH BASE COURSE ASPHALT AND ADJUSTED TO FINAL GRADE PRIOR TO INSTALLING TOP LIFT OF ASPHALT.
11. FOR SANITARY MANHOLES, DEPENDING ON THE ELEVATION OF THE GROUNDWATER TABLE, AND BASED ON THE RECOMMENDATION OF THE PROJECT GEOTECHNICAL CONSULTANT, CRETEX SEALS, OR A SIMILAR PRODUCT, SHALL BE INSTALLED IN THE FIRST PRE-CAST MANHOLE SECTION TO JUST BELOW THE MANHOLE FRAME TO PREVENT INFILTRATION.

STORM SEWER:

1. MAINTENANCE HOLES, CATCH BASINS, PIPES, CHAMBERS TO BE AS PER OPSD. MATERIAL USED SHALL BE APPROVED BY THE MUNICIPALITY.
2. POLYVINYL CHLORIDE (PVC) PIPE SHALL BE SDR 35 AND MEET THE CANADIAN STANDARD ASSOCIATION REQUIREMENT C.S.A. B182.2 AS NOTED WITHIN OPSS 1841. THE BASIC MATERIAL USED IN MANUFACTURING THIS PIPE SHALL HAVE A CELL CLASSIFICATION OF 12454-B OR 12454-C OR ASTM STANDARD D-3034 AND OPSS 18. PVC PIPE MAXIMUM ALLOWABLE DEFLECTION OF MAIN SEWER IS 5%.
3. ALL STORM LATERALS SHALL BE PVC SDR 28 TO CSA B182.2, WHITE IN COLOUR AND MARKED WITH A 50 x 100 mm WOODEN MARKER EXTENDING FROM THE INVERT TO 1.0 m ABOVE GRADE. PAINTED GREEN. HOUSE CONNECTIONS SHALL BE 2.0 m MIN. BELOW FINISHED GRADE AT PROPERTY LINE WHERE POSSIBLE. SINGLE CONNECTIONS SHALL BE 100 mm DIAMETER.
4. STORM SEWERS WITH DIAMETERS LARGER THAN 375mm SHALL BE HDPE, N-12, OR REINFORCED CONCRETE IN ACCORDANCE WITH CSA A257.2 (LATEST AMENDMENT), MINIMUM CLASS 65-D.
5. STORM MANHOLES TO BE AS PER OPSS 1351 AND OPSD 701.010-701.081 (INCLUSIVELY). ADJUSTMENT UNITS: PRECAST CONCRETE TO OPSD 704.010, PARGED OR SEALED PER OPSS 407. MAXIMUM 3 ADJUSTMENTS UNITS PER STRUCTURE.
6. PRECAST CONCRETE CATCH BASINS SHALL CONFORM TO OPSD 705.010 IN ROAD AND OPSD 705.030 IN GRASSSED AREA.
7. CATCH BASIN FRAME AND GRATE AS PER OPSD DETAILS 400.010 AND 610.010 IN ROAD AND 403.010 IN GRASSSED AREA.
8. THE COMPACTION OF ALL BEDDING AND COVER MATERIAL SHALL BE 95% STANDARD PROCTOR OR BETTER. MAXIMUM COVER SHALL BE IN ACCORDANCE WITH OPSD 806.040 AND 806.060. SPECIAL CARE MUST BE GIVEN TO CONTOURING THE BEDDING MATERIAL TO CONFORM WITH THE PIPE BOTTOM AND PROJECTING BELLS, ALONG WITH PROPER COMPACTION OF THE HAUNCHES IN ORDER TO PROVIDE EVEN SUPPORT THROUGHOUT THE PIPE.
9. ALL STORM SEWER MANHOLES SHALL BE CONSTRUCTED WITH A 300 mm SUMP. CATCHBASINS AND CATCHBASIN MANHOLES SHALL BE CONSTRUCTED WITH A 600 mm SUMP UNLESS OTHERWISE NOTED.
10. DOUBLE CATCHBASINS SHALL BE IN ACCORDANCE WITH OPSD 705.020.
11. SINGLE AND DOUBLE CATCHBASIN LEADS SHALL BE 200 AND 250 mm DIAMETER (MIN.), RESPECTIVELY, AT 1.0% SLOPE (MIN.) UNLESS OTHERWISE NOTED.
12. CONTRACTOR SHALL ENSURE THAT CATCHBASINS ARE INSTALLED AT THE LOW POINT OF SAG CURB WORKS.
13. PROVIDE SUB-DRAINS OF 150 mm HDPE PERFORATED BELOW CURBS AS PER OPSS 405, 140 AND 18. SUBDRAINS TO HAVE POSITIVE OUTLET TO STORM SEWERS.
14. THE MINIMUM DIAMETER FOR REAR LOT PERFORATED PIPE IS 250 mm, REFER TO OTTAWA STD. S29 FOR DETAIL, UNLESS OTHERWISE NOTED.
15. FOR TWO OR MORE REAR LOT CATCH BASINS CONNECTED IN SERIES, THE LEAD FROM THE LAST REAR LOT CB TO THE STORM SEWER SHALL BE SOLID PIPE.
16. RLCD LEAD DRAINAGE EASEMENTS SHOULD BE 2.4 m WIDE AND CLEAR OF ANY ROOF OVERHANGS AND FOOTINGS.
17. PROVIDE MOUNTABLE CONCRETE CURB AS PER OPSD 600.100.
18. STORM PIPES TO BE CONNECTED OBVERT TO OBVERT WHEN DOWNSTREAM PIPE IS HIGHER THAN UPSTREAM PIPE. A MINIMUM DROP OF 75 mm IS TO

- BE MAINTAINED.
19. ALL SEWERS ARE TO HAVE AN UNDISTURBED BASE.
20. STORM SERVICE CONNECTIONS SHALL BE EXTENDED A MINIMUM OF 2.0 m BEYOND THE PROPERTY LINE AND CAPPED TO ALLOW FOR FUTURE CONNECTION.

ROADWORK SPECIFICATIONS:

1. ALL TOPSOIL AND ORGANIC MATERIAL SHALL BE STRIPPED WITHIN THE ROAD ALLOWANCE PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
2. PAVEMENT DESIGN TYPE AS PER GEOTECHNICAL REPORT:
- LOCAL ROADS (STREET A, STREET B, STREET C)

- 40 mm ASPHALT HL3 (TOP COURSE)
- 40 mm ASPHALT HL8 (BASE COURSE)
- 150 mm GRANULAR 'A' COMPACTED TO 100%
- 375 mm GRANULAR 'B' TYPE II COMPACTED TO 100% SPD
- 605 mm TOTAL THICKNESS

PAVED WALKWAY

- 50 mm ASPHALT HL3
- 150 mm GRANULAR 'A' COMPACTED TO 100%
- 250 mm GRANULAR 'B' TYPE II COMPACTED TO 100% SPD
- 450 mm TOTAL THICKNESS

PAVEMENT FOR INDIVIDUAL DRIVEWAY

- 25 mm OF HL3 ASPHALT
- 50 mm OF HL8 ASPHALT
- 150 mm COMPACTED DEPTH OF GRANULAR 'A'

3. PAVEMENT REINSTATEMENT FOR SERVICE AND UTILITY CUTS SHALL BE IN ACCORDANCE WITH OPSD 509.010, OPSS 310.
4. ALL GRANULAR 'A' AND GRANULAR 'B' MATERIALS QC TESTING SHALL BE UNDERTAKEN BY THE CONTRACTOR AS PER RELEVANT OPSS SPECIFICATIONS AND THE RESULTS OF THE QA TESTING WILL DETERMINE THE ACCEPTANCE OR REJECTION OF PLACED MATERIALS.
5. GRANULAR 'A' AND GRANULAR 'B' TYPE II TO MEET OR EXCEED OPSS 1010 AND SHALL BE QUARRIED BEDROCK OR RECYCLED MATERIAL.
6. GRANULAR 'A' SHALL BE PLACED TO A MINIMUM THICKNESS OF 300 mm AROUND ALL STRUCTURES WITHIN PAVEMENT AREA.
7. ANY AREAS WITHIN THE R-O-W- WHICH REQUIRE FILL IN EXCESS OF 300 m ARE SUBJECT TO COMPACTION TESTS AND SUCH TESTS MUST SHOW A MIN. COMPACTION OF 95% S.P.D. AT ALL DEPTHS.
8. ALL GRANULAR FOR ROADS SHALL BE COMPACTED TO A MINIMUM OF 98% STANDARD PROCTOR DENSITY AND TO THE SATISFACTION OF THE GEOTECHNICAL ENGINEER.
9. SUB-EXCAVATE SOFT AREAS AND FILL WITH GRANULAR 'B' COMPACTED IN MAXIMUM 300 mm LIFTS.
10. THE BEDDING AND COVER FOR ALL SERVICES SHOULD BE 150 mm OF GRANULAR 'A' COMPACTED AT 95% STANDARD PROCTOR DENSITY.
11. ALL OF THE EXISTING SOIL CAN BE REUSED IN THE TRENCHES, PROVIDED THE SOIL IS MOIST, WHERE THE TRENCHES WILL BE WITHIN THE ROADWAYS, THE TRENCH BACKFILL MUST BE RAMPED DOWN IN 300 mm LIFTS TO 95% STANDARD PROCTOR DENSITY.
12. WHERE THERE ARE TRENCHES WITHIN THE ROADWAYS, THE TRENCH SURFACE MUST BE RECOMPACTED TO 95% STANDARD PROCTOR DENSITY BEFORE PLACING ANY GRANULARS.
13. ALL HOT LAID ASPHALTIC CONCRETE SHALL MEET OR EXCEED OPSS 1150.
14. THE ASPHALT TO BE PLACED AND COMPACTED IN 2 LIFTS TO 96% MARSHALL DENSITY. THIS IS TO ALLOW HAVING A PAVED STREET BEFORE CONSTRUCTION OF THE HOUSES, FOLLOWED BY A SECOND COURSE NEAR THE END OF CONSTRUCTION.
15. ASPHALT WEAR COURSE SHALL NOT BE PLACED UNTIL THE VIDEO INSPECTION OF SEWERS &c NECESSARY REPAIRS HAVE BEEN CARRIED OUT TO THE SATISFACTION OF THE ENGINEER.
16. A GEOTECHNICAL ENGINEER IS TO INSPECT ALL PAVEMENT STRUCTURES.

DRIVEWAYS:

1. RESIDENTIAL DRIVEWAY APRONS SHALL BUTT UP TO CONCRETE CURB.
2. DRIVEWAY ENTRANCES SHALL BE AS PER OPSD 351.010.
3. COMPACTION OF SUB-GRADE SHALL BE INSPECTED BY A GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT OF GRANULAR BASE.

UTILITIES:

1. REFER TO COMPOSITE UTILITY PLAN FOR MORE DETAILS AND NOTES.
2. TRANSFORMERS AND PEDESTALS SHALL BE LOCATED BETWEEN HOUSES AND TOWNHOUSE BUILDING BLOCKS TO AVOID ENCUMBERING AND PREVENTING THE PLANTING OF TREES.
3. ALL PEDESTALS TO BE INSTALLED IN LINE WITH HYDRO TRANSFORMERS OR ON SIDE OF TRENCH AWAY FROM ROAD.
4. THE BASE OF A HYDRO TRANSFORMER MUST BE LOCATED A MINIMUM OF 2.0 m FROM THE EDGE OF A DRIVEWAY.
5. REQUIREMENTS FOR PROTECTIVE BOLLARDS AT TRANSFORMERS SHALL BE DETERMINED BY HYDRO ONE ON A CASE BY CASE BASIS.
6. SERVICE LATERALS MUST BE LOCATED A MINIMUM OF 3.0 m FROM THE BASE OF A HYDRO TRANSFORMER.
7. HYDRO TRANSFORMER AND SIDEWALKS ARE TO BE LOCATED ON OPPOSITE SITE OF THE R-O-W- WHERE POSSIBLE.
8. STREET LIGHTS AND SIDEWALKS ARE TO BE LOCATED ON OPPOSITE SIDES OF THE R-O-W- WHERE POSSIBLE.
9. AT CATCH BASIN AND HYDRANT LOCATIONS, THE GAS MAIN SHALL HAVE A MINIMUM 0.5 m CLEARANCE FROM STRUCTURES.
10. JOINT USE TRENCH TO HAVE A MINIMUM COVER AS PER GOVERNING AUTHORITY.

11. PRIMARY HYDRO DUCTS & COMMUNICATION DUCTS (ENCASED) TYPICALLY REQUIRED ON ONE SIDE OF R-O-W- ONLY. PROVIDE 1.0 m COVER ON ALL CONCRETE ENCASED DUCTS.
12. STREET LIGHT CABLE SHALL BE PLACED IN JOINT USE TRENCH. STREET LIGHT CABLE SHALL BE AT SAME OFFSET AS STREET LIGHTS WHEN JOINT USE TRENCH NOT CONSTRUCTED.
13. TRAFFIC DUCT ALTERNATIVE PLACEMENT LOCATIONS ARE:
1-JOINT USE TRENCH LOCATION, OR
2-SAME OFFSET AS STREETLIGHT POLES IN A SEPARATE TRENCH.
14. FOUR PARTY TRENCH OPTION REQUIRES THE AGREEMENT OF ALL UTILITIES.
15. THE DEVELOPER SHALL SUPPLY AND INSTALL DUCTS FOR UTILITY CROSSINGS AT INTERSECTIONS AS REQUIRED.
16. PRESCRIBED ORDER OF INSTALLATION: SEWERS AND WATERMAINS; HYDRANTS; WATER, STORM AND SANITARY SERVICE LATERALS; UTILITY STRUCTURES; GRANULAR BASE AND SUBBASE; WATERMAIN COMMISSIONING; SEWER TESTING AND VIDEO INSPECTION; ASPHALT FIRST LIFT; JOINT USE UTILITY TRENCH; GAS MAINS; UTILITY LOT SERVICES; STREET LIGHTING AND TREES. ASPHALT SURFACE COURSE AFTER 50% OF THE HOUSES HAVE BEEN CONSTRUCTED.
17. PRESCRIBED ORDER OF INSTALLATION MAY VARY DEPENDING UPON CIRCUMSTANCES AS APPROVED BY AN AUTHORIZED REPRESENTATIVE.

GRADING SPECIFICATIONS:

1. ALL GRADING TO CONFORM TO THE MUNICIPALITY OF MISSISSIPPI MILLS STANDARDS AND SPECIFICATIONS.
2. EXISTING ELEVATIONS WITH ABUTTING PROPERTIES SHALL BE MATCHED.
3. NO EXCESS DRAINAGE TO BE DIRECTED TOWARDS ADJACENT PROPERTIES.
4. A FLAT AREA HAVING A WIDTH OF 0.6 m SHALL BE PROVIDED AT THE BOUNDARY LIMITS OF ADJACENT DEVELOPED PROPERTIES IN ORDER THAT THE EXISTING BOUNDARY ELEVATIONS WILL BE MAINTAINED.
5. GRADING WITHING LOTS GRADING SHALL BE 2% TO 7%.
6. ALL SWALES SHALL BE 0.15-0.30 m DEEP WITH 3: 1 SIDE SLOPES UNLESS OTHERWISE INDICATED. THE MINIMUM LONGITUDINAL SLOPE IS 1% AND 1.5% WITH INSTALLATION OF SUBDRAIN OR WITHOUT, RESPECTIVELY.
7. ALL EXTERNAL SITE AREAS DISTURBED BY THE ACTIVITIES OF THE CONTRACTOR SHALL BE RESTORED TO EXISTING CONDITION OR BETTER AND TO THE SATISFACTION OF THE TOWN. GRASSSED AREAS SHALL BE RESTORED BY PLACING 150mm TOPSOIL AND ACTIVELY GROWING No.1 NURSERY SOD.
8. TOPSOIL IN FILL AREAS TO BE STRIPPED. ALL FILL MATERIAL SHALL BE APPROVED FOR SUITABILITY BY THE GEOTECHNICAL ENGINEER PRIOR TO ANY FILLING OR REUSE OF EXCAVATED MATERIAL. APPROVED FILL MATERIAL SHALL BE COMPACTED TO THE SATISFACTION OF THE GEOTECHNICAL ENGINEER.
9. PAVEMENT GRADES (MINIMUM 0.50%, MAXIMUM 5%).
10. SLOPES IN LANDSCAPE AREAS AND ON BERMS SHALL NOT EXCEED 3 HORIZONTAL TO 1 VERTICAL WITH MAXIMUM VERTICAL ELEVATION NOT IN EXCESS OF THE APPLICABLE MUNICIPALITY STANDARDS.
11. GRADING WITHIN 2 m OF THE BUILDING SHALL BE MAINTAINED AT 2% SLOPE OR HIGHER.
12. ALL ROOF DOWNSPOUTS SHALL DISCHARGE TO THE GROUND ONTO SPLASH PADS.
13. ALL FILL (NOT ON MUNICIPAL ROADWAY) SHALL BE PLACED AND COMPACTED TO 95% STD. PROCTOR DENSITY M MAXIMUM 0.20m LIFTS TO SUB-GRADE. FILL SHALL BE COMPACTED TO 95% SPD AS DIRECTED BY THE CONSULTANT.
14. UNLESS OTHERWISE SHOWN ON THE GRADING AND/OR EROSION SEDIMENT CONTROL PLAN, PROPOSED STOCKPILING OF TOPSOIL DURING CONSTRUCTION WILL BE REQUIRED THE DEVELOPER'S ENGINEER TO PROVIDE THE LOCATION AND HEIGHT OF STOCKPILED TOPSOIL. TOPSOIL MUST BE STABLE AND SEEDED TO ESTABLISHED A TEMPORARY VEGETATIVE COVER AND TO PREVENT EROSION.
15. ALL TOPSOIL STOCKPILE LOCATIONS ARE SUBJECT TO MUNICIPALITY APPROVAL.

RETAINING WALLS:

1. RETAINING WALL TO BE AS SPECIFIED ON THE GRADING PLAN.
2. ALL RETAINING WALLS SHALL BE ARMOUR STONE UNLESS NOTED OTHERWISE.
3. ALL TYPICAL RETAINING WALLS GREATER THAN 1.0 m HEIGHT ARE TO BE DESIGNED, APPROVED AND STAMPED BY A STRUCTURAL ENGINEER.
4. FENCES OR RAILINGS ARE REQUIRED FOR WALLS HIGHER THAN 0.6 m.

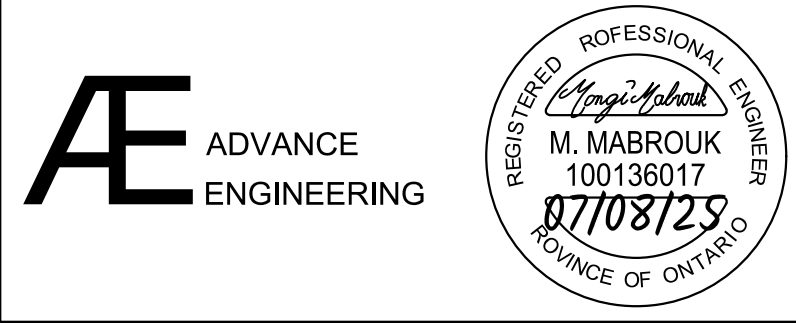
MISCELLANEOUS:

1. ALL STORM AND SANITARY SERVICES TO BE EQUIPPED WITH APPROVED BACKWATER VALVES.
2. WATER AND SANITARY SERVICE CONNECTIONS SHALL NOT BE UNDER A DRIVEWAY.
3. 1.5 m CLEARANCE TO BE MAINTAINED AROUND WATER SERVICE POST.
4. EXACT ELEVATIONS FOR CONNECTIONS SHALL BE VERIFIED BY CONTRACTOR AND APPROVED BY MUNICIPAL AUTHORITY. COORDINATE WITH MUNICIAPLTY WATER WORKS FOR ALL SERVICE CONNECTION.
5. PRIOR TO ANY FILLING OR REUSE OF EXCAVATED MATERIAL, APPROVED FILL MATERIAL SHALL BE COMPACTED TO THE SATISFACTION OF THE GEOTECHNICAL ENGINEER.
6. TRAFFIC SIGNS SHALL BE APPROVED BY THE MUNICIPALITY.
7. REFER TO LANDSCAPE PLAN AND EROSION AND SEDIMENT CONTROL PLAN FOR MORE RELATED SPECIFICATIONS.

1	NEW LAYOUT & MUNICIPALITY COMMENTS	07/08/25
0	INITIAL ISSUE	07/05/24
No.	REVISION / ISSUE	DATE MM/DD/YY

PREPARED BY:

Phone: 613-986-9170
Email: eng.services.ca@gmail.com



PROJECT NAME AND ADDRESS:

MENZIE ENCLAVE
SUBDIVISION

ADELAIDE ST, ALMONTE, MISSISSIPPI
MILLS, ON

APPLICANT:
ASH SHARMA (514-817-8265)
13165647 CANADA INC.
27 QUEEN ST E #407
TORONTO ON

TITLE:

SPECIFICATIONS

SCALE:	N/A	DRAWING No.: S-1
DRAFTED BY:		
PROJECT No.:	123	SHEET No.: 2 OF 21
DATE:	07/08/25	