MACDONALD ROSE INC. SUBDIVISION

358 REYNOLDS STREET

TOWN OF OAKVILLE



SPRUCE STREET MACDONALD MACDONALD SITE SIXTEEN MILE CREEK LAWSON ST. KEY PLAN



CONSULTANT FILE: 1816
TOWN FILE: 24T-XXXXX

Sheet <u>Title</u>

E1 EROSION AND SEDIMENT CONTROL PLAN

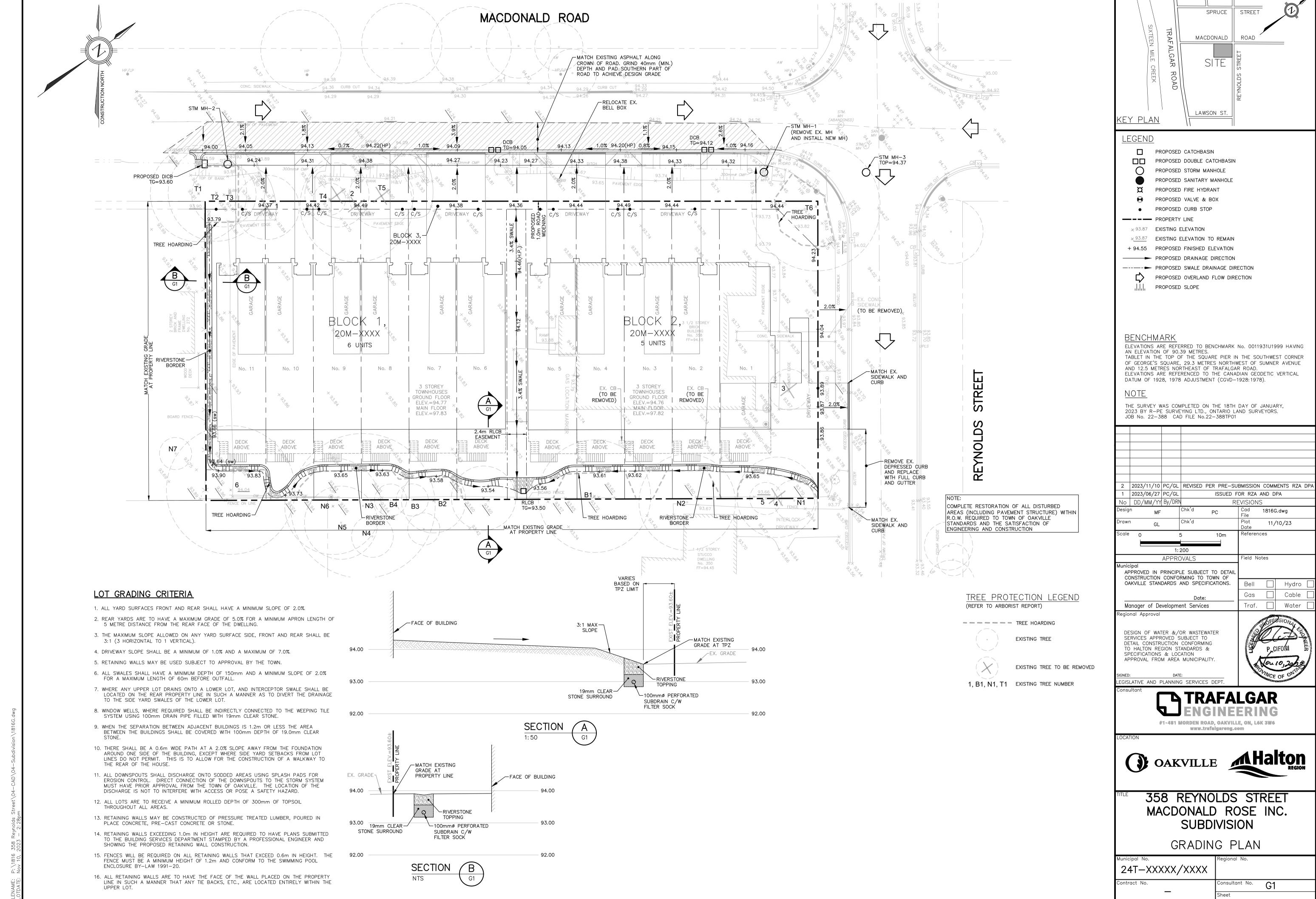
S1 GENERAL SERVICING PLAN S2 STORM DRAINAGE AREA PLAN S3 SANITARY DRAINAGE AREA PLAN

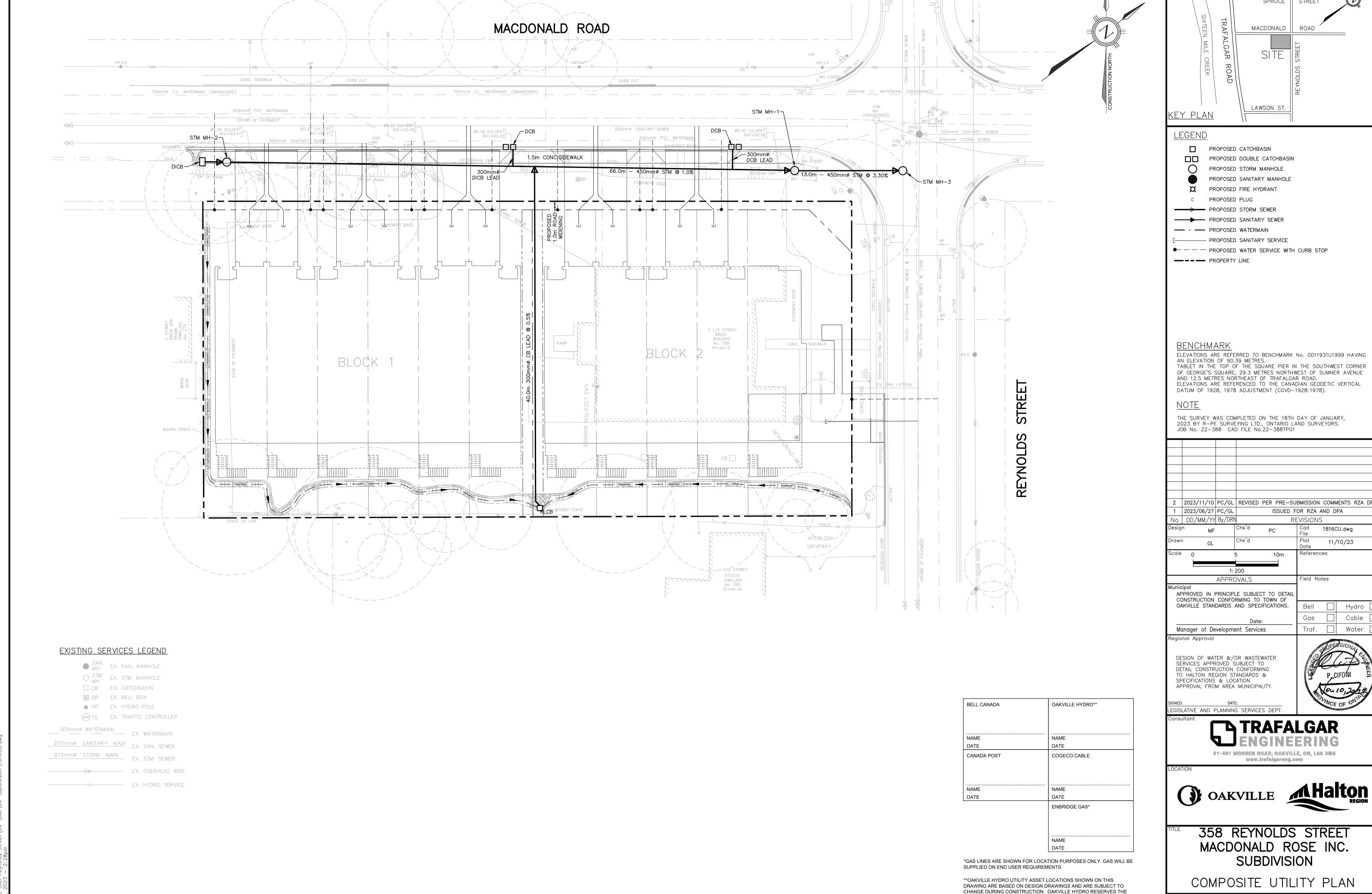
CU1 COMPOSITE UTILITY PLAN

G1 GRADING PLAN

P1 PLAN PROFILE (STA 0+000 TO 0+120)

N1 STANDARD NOTES





SPRUCE | STREET ROAD

● - - - PROPOSED WATER SERVICE WITH CURB STOP

OF GEORGE'S SQUARE, 29.3 METRES NORTHWEST OF SUMNER AVENUE AND 12.5 METRES NORTHEAST OF TRAFALGAR ROAD. ELEVATIONS ARE REFERENCED TO THE CANADIAN GEODETIC VERTICAL

2 | 2023/11/10 | PC/GL | REVISED PER PRE-SUBMISSION COMMENTS RZA DPA ISSUED FOR RZA AND DPA REVISIONS

1816CU.dwg 11/10/23 References

> Hydro Cable Traf. Water



RIGHT TO APPROVE OR DENY TREES IN THE VICINITY OF TRANSFORMERS OR ANY OTHER ASSETS. NO UTILITY PEDESTAL,

MAILBOX, TREE AND/OR OTHER ASSETS ALLOWED TO BE INSTALLED ON



358 REYNOLDS STREET MACDONALD ROSE INC.

COMPOSITE UTILITY PLAN

24T-XXXXX/XXXX Consultant No. CU1 2 ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL BE INSPECTED, REPAIRED/MAINTAINED WEEKLY AND FOLLOWING ALL SIGNIFICANT RAINFALLS.

3. THE MEASURES AS PROPOSED MAY BE MODIFIED AT THE DISCRETION OF THE ENGINEER TO SUIT THE PROPOSED CONSTRUCTION PROGRAMS.
THE GENERAL INTENT OF THE PROPOSED EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES.

4. DECOMMISSIONING OF ALL EROSION CONTROL MEASURES SHALL OCCUR ONLY ONCE VEGETATIVE COVER IS ESTABLISHED.

5. DESIGNATED ENTRANCE FOR ALL CONSTRUCTION TRAFFIC TO BE INSTALLED WITH MUD CONTROL DEVICE AS PER MUD MAT DETAIL. MUD CONTROL DEVICES TO BE INSTALLED PRIOR TO START OF CONSTRUCTION AND ARE TO BE MAINTAINED IN GOOD WORKING ORDER UNTIL GRADING WORKS ARE COMPLETED. MUD MAT MAY BE DELETED WITH THE APPROVAL OF THE TOWN OF OAKVILLE.

6. ANY DISTURBED AREA NOT SCHEDULED FOR FURTHER CONSTRUCTION WITHIN 30 DAYS SHALL BE PROVIDED WITH A TEMPORARY SEED.

7. INSTALL CATCHBASIN SEDIMENT CONTROL ON EXISTING CATCHBASINS PRIOR TO START OF CONSTRUCTION.

8. INSTALL CATCHBASIN SEDIMENT CONTROL ON NEW CATCHBASINS AT TIME OF INSTALLATION.

9. ALL EROSION AND SEDIMENT CONTROLS ARE TO BE INSTALLED ACCORDING TO THE APPROVED PLANS PRIOR TO COMMENCEMENT OF ANY EARTH MOVING WORK ON THE SITE AND SHALL REMAIN IN PLACE UNTIL ALL DISTURBED AREAS ARE STABILIZED WITH THE INTENDED

10. EROSION AND SEDIMENT CONTROLS SHALL BE INSPECTED BY THE BUILDER/DEVELOPER:

- WEEKLY
- BEFORE AND AFTER ANY PREDICTED RAINFALL EVENT
- FOLLOWING AN UNPREDICTED RAINFALL EVENT
- DAILY, DURING EXTENDED DURATION RAINFALL EVENTS
- AFTER SIGNIFICANT SNOW MELT EVENTS
- 11. DEWATER EXISTING PONDS ONSITE AS REQUIRED WITH DEWATERING BAG ON WOOD PALLETS AND PUMP. DEWATERING BAG TO BE PLACED A MINIMUM OF 30M AWAY FROM PROPERTY LINE.

12. EROSION AND SEDIMENT CONTROLS SHALL BE MAINTAINED IN PROPER WORKING ORDER AT ALL TIMES. DAMAGED OR CLOGGED DEVICES SHALL BE REPAIRED WITHIN 48 HOURS.

13. WHERE A SITE REQUIRES DEWATERING AND WHERE THE EXPELLED WATER CAN BE FREELY RELEASED TO A SUITABLE RECEIVER, THE EXPELLED WATER SHALL BE TREATED TO CAPTURE SUSPENDED PARTICLES GREATER THAN 40 MICRON IN SIZE. THE CAPTURED SEDIMENT SHALL BE DISPOSED OF PROPERLY PER MOECC GUIDELINES. THE CLEAN EXPELLED WATER SHALL FREELY RELEASE TO A SUITABLE RECEIVER THAT DOES NOT CREATE DOWNSTREAM ISSUES INCLUDING BUT NOT LIMITED TO EROSION, FLOODING -NUISANCE OR OTHERWISE, INTERFERENCE ISSUES, ETC.

14. EXISTING STORM SEWER AND DRAINAGE DITCHES ADJACENT TO THE WORKS SHALL BE PROTECTED AT ALL TIMES FROM THE ENTRY OF SEDIMENT/SILT THAT MAY MIGRATE FROM THE SITE. FOR STORM SEWERS: ALL INLETS (REAR LOT CATCHBASINS, ROAD CATCHBASINS, PIPE INLETS, ETC.) MUST BE SECURED/FITTED WITH SILTATION CONTROL MEASURES. FOR DRAINAGE DITCHES: THE INSTALLATION OF ROCK CHECK DAMS, SILTATION FENCE. SEDIMENT CONTAINMENT DEVICES MUST BE INSTALLED TO TRAP AND CONTAIN SEDIMENT. THESE SILTATION CONTROL DEVICES SHALL BE INSPECTED AND MAINTAINED PER ITEMS B AND C ABOVE.

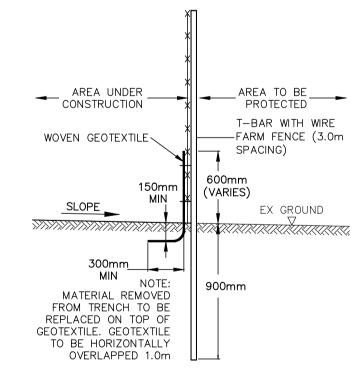
15. IN THE EVENT OF A SPILL (RELEASE OF DELETERIOUS MATERIAL) ON OR EMANATING FROM THE SITE, THE OWNER OR OWNERS AGENT SHALL IMMEDIATELY NOTIFY THE MOECC AND FOLLOW ANY PRESCRIBED CLEAN UP PROCEDURE. THE OWNER OF OWNERS AGENT WILL ADDITIONALLY IMMEDIATELY NOTIFY THE TOWN.

CONSTRUCTION STAGING SEQUENCE

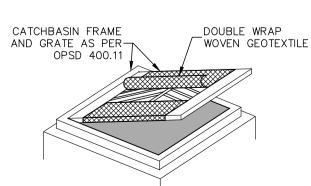
1. INSTALL SILT FENCE, CONSTRUCTION ACCESS, AND TREE PROTECTION FENCING 2. STRIP TOPSOIL

3. PROCEED WITH SITE WORKS

4. REMOVE SILT FENCE ONCE SITE IS STABALIZED.



SEDIMENT CONTROL FENCE

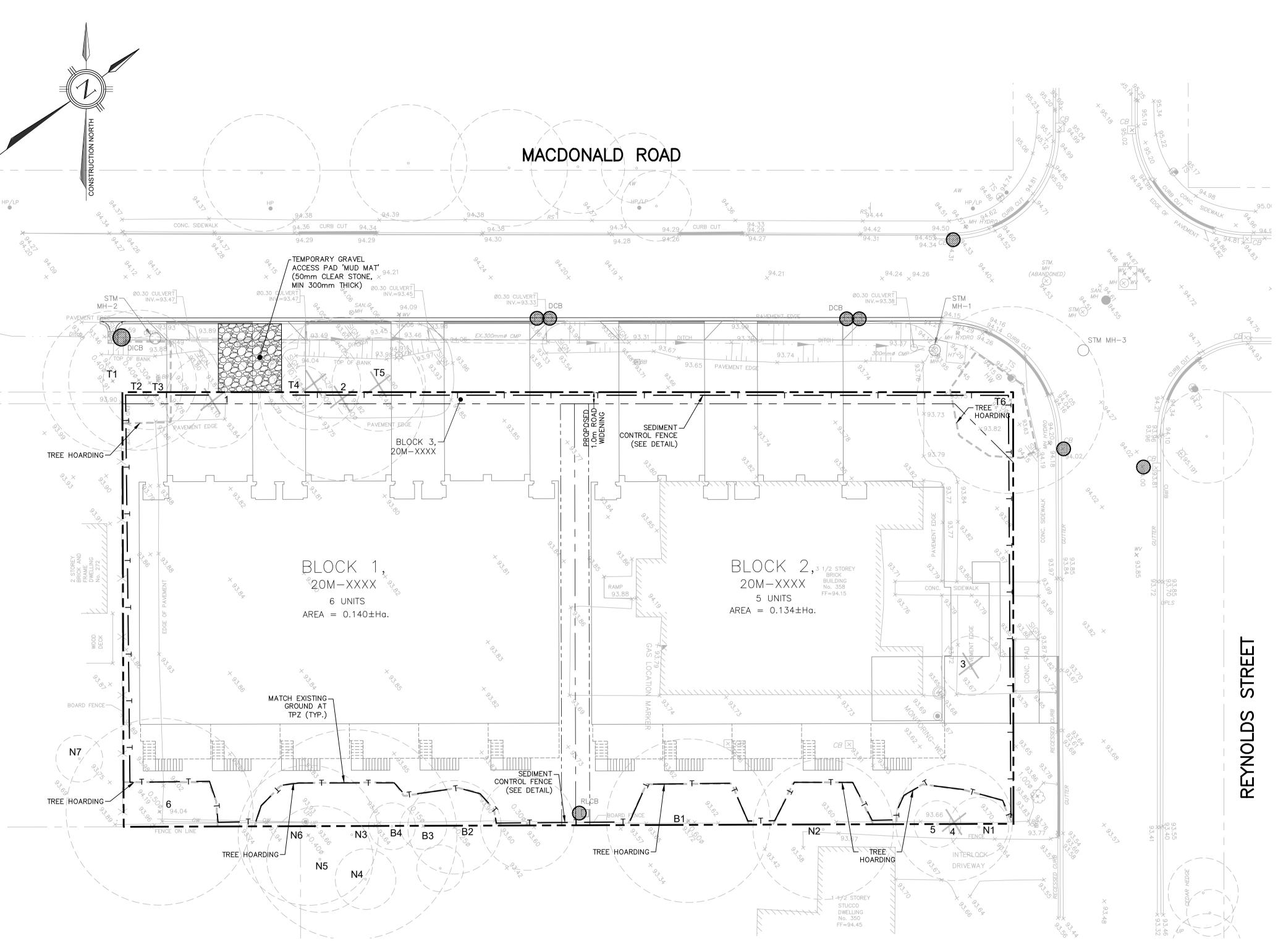


1. TO BE USED UNDER APPROPRIATE DRAINAGE CIRCUMSTANCES, BETWEEN APRIL AND DECEMBER

2. WOVEN GEOTEXTILE TO HAVE EQUIVALENT OPENING SIZE OF 0.15mm AND A MAXIMUM EQUIVALENT OPENING

3. WOVEN GEOTEXTILE TO BE REPLACED PERIODICALLY WHEN ACCUMULATED SEDIMENTS INTERFERES WITH

CATCHBASIN SEDIMENT CONTROL IN PAVED AREAS

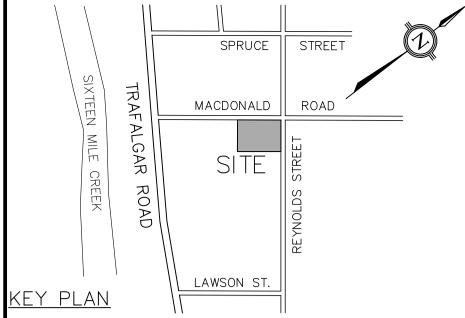


TREE PROTECTION LEGEND (REFER TO ARBORIST REPORT) TREE HOARDING

EXISTING TREE

EXISTING TREE TO BE REMOVED

1, B1, N1, T1 EXISTING TREE NUMBER



LEGEND

PROPOSED CATCHBASIN

PROPOSED DOUBLE CATCHBASIN PROPOSED STORM MANHOLE

PROPOSED SANITARY MANHOLE

PROPOSED FIRE HYDRANT

PROPOSED VALVE & BOX

PROPOSED CURB STOP

--- PROPERTY LINE

+ 94.55 **EXISTING ELEVATION**

+ 94.55 EXISTING ELEVATION TO REMAIN

→ PROPOSED DRAINAGE DIRECTION

------ PROPOSED SWALE DRAINAGE DIRECTION

PROPOSED OVERLAND FLOW DIRECTION

SEDIMENT CONTROL

CB IN PAVED AREAS SEDIMENT CONTROL

PROPOSED SLOPE

CB IN LANDSCAPED AREA T SEDIMENT CONTROL FENCE

BENCHMARK

ELEVATIONS ARE REFERRED TO BENCHMARK No. 0011931U1999 HAVING AN ELEVATION OF 90.39 METRES. TABLET IN THE TOP OF THE SQUARE PIER IN THE SOUTHWEST CORNER OF GEORGE'S SQUARE, 29.3 METRES NORTHWEST OF SUMNER AVENUE AND 12.5 METRES NORTHEAST OF TRAFALGAR ROAD. ELEVATIONS ARE REFERENCED TO THE CANADIAN GEODETIC VERTICAL

THE SURVEY WAS COMPLETED ON THE 18TH DAY OF JANUARY, 2023 BY R-PE SURVEYING LTD., ONTARIO LAND SURVEYORS. JOB No. 22-388 CAD FILE No.22-388TP01

DATUM OF 1928, 1978 ADJUSTMENT (CGVD-1928:1978).

2023/11/10 PC/GL REVISED PER PRE-SUBMISSION COMMENTS RZA DPA ISSUED FOR RZA AND DPA

2023/06/27 PC/GL No | DD/MM/YY|By/DRN 1816E.dwg 11/10/23 References

1:200 APPROVALS APPROVED IN PRINCIPLE SUBJECT TO DETAIL CONSTRUCTION CONFORMING TO TOWN OF

OAKVILLE STANDARDS AND SPECIFICATIONS.

Cable Traf. Water Manager of Development Services egional Approval

EGISLATIVE AND PLANNING SERVICES DEPT.







Field Notes

Hydro

358 REYNOLDS STREET MACDONALD ROSE INC. **SUBDIVISION**

EROSION AND SEDIMENT CONTROL PLAN

24T-XXXXX/XXXX

E1

GENERAL NOTES

- 1. ALL ROADS, STORM SEWERS AND OTHER MISCELLANEOUS ITEMS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE TOWN OF OAKVILLE REQUIREMENTS. SANITARY SEWERS AND WATERMAINS SHALL BE IN ACCORDANCE WITH THE REGION OF HALTON REQUIREMENTS. IN ABSENCE OF LOCAL STANDARDS, ONTARIO PROVINCIAL STANDARDS AND SPECIFICATIONS SHALL BE USED. AS MODIFIED BY THE LOCAL MUNICIPALITY. ALL MATERIALS SHALL MEET OR EXCEED ONTARIO PROVINCIAL STANDARDS AND TOWN STANDARD SPECIFICATIONS.
- 2. ONTARIO PROVINCIAL STANDARD DRAWINGS (O.P.S.D.) ARE TO BE USED WHEN INDICATED (EXAMPLE: O.P.S.D. 600.04) TOWN OF OAKVILLE STANDARDS ARE USED FOR ROADS. STORM SEWERS AND MISCELLANEOUS WHEN INDICATED (EXAMPLE: 6-1). THE REGION OF HALTON STANDARDS ARE USED ON WATERMAINS AND SANITARY SEWERS AS INDICATED (EXAMPLE: RH 400.01).
- 3. ALL INFORMATION SHOWN ON THE ENGINEERING DRAWINGS REGARDING THE SIZE AND LOCATION OF EXISTING UTILITIES AND/OR SERVICES HAS NOT BEEN VERIFIED IN THE FIELD. BEFORE STARTING WORK, THE CONTRACTOR IS RESPONSIBLE FOR VERIFICATION AND LOCATION OF SAID UTILITIES, PROTECTING AND MAINTAINING UTILITIES DURING CONSTRUCTION, AND SHALL ASSUME ALL LIABILITY FOR DAMAGE TO
- 4. THE CONTRACTOR SHALL REPORT ALL DISCREPANCIES TO THE ENGINEER.
- 5. HOARDING OR SNOW FENCE SHALL BE ERECTED PRIOR TO ANY GRADING OR CONSTRUCTION AND SHALL REMAIN IN PLACE AND IN GOOD REPAIR THROUGHOUT THE CONSTRUCTION AND GRADING PHASE AND REMOVED ONLY AS DIRECTED BY THE ENGINEER.
- 6. PRIOR TO THE PLACEMENT OF ANY FILL MATERIAL ALL TOPSOIL IS TO BE REMOVED AND SUBGRADE IS TO BE CERTIFIED BY THE SOILS
- 7. THE CONTRACTOR SHALL NOT DAMAGE TREES OUTSIDE AREAS INDICATED TO BE CLEARED AND GRUBBED.
- 8. TRAFFIC DETOURS AND SIGNAGE TO BE APPROVED BY OAKVILLE TRAFFIC DEPARTMENT. MAINTAIN ONE LANE OPEN TO TRAFFIC AT
- 9. TOWN OF OAKVILLE AND REGION OF HALTON STANDARD DRAWINGS. O.P.S.S. AND O.P.S.D. WITH REGIONAL AMENDMENTS FOR SANITARY SEWERS AND WATERMAINS SHALL CONSTITUTE PART OF THE ENGINEERING DESIGN AND CONSTRUCTION CONTRACT.
- 10. ALL WATERMAIN AND WASTEWATER MAIN APPURTENANCES, MATERIALS AND COMPONENTS SHALL COMPLY WITH THE REGION'S APPROVED MANUFACTURER'S PRODUCT LIST FOR WATER SYSTEMS AND WASTEWATER SYSTEMS. ALTERNATIVE MATERIALS MAY BE ACCEPTABLE, PROVIDED APPROVAL HAS FIRST BEEN OBTAINED FROM THE CITY/TOWN ENGINEER AND/OR THE REGIONAL COMMISSIONER OF PUBLIC WORKS.
- 11. NO BLASTING IS PERMITTED.
- 12. MANHOLE AND VALVE CHAMBER COVERS ARE TO BE SET FLUSH WITH BASE COURSE ASPHALT AND ADJUSTED TO FINAL GRADE PRIOR TO INSTALLING TOP LIFT OF ASPHALT.
- 13. ALL TRENCHES WITHIN EXISTING RIGHT-OF-WAY ARE TO BE BACKFILLED IN ACCORDANCE WITH TOWN OF OAKVILLE REQUIREMENTS.
- 14. ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO COMMENCING ANY EARTHMOVING OPERATIONS.
- 15. ALL OVERLY MOIST, SOFT OR OTHERWISE UNSUITABLE SOIL MUST BE REMOVED DOWN TO FIRM NATIVE SUBSOIL. THE BASE SHOULD BE PROOF-ROLLED AND COMPACTED TO A FIRM STABLE STATE WHICH IS TO BE APPROVED BY THE GEOTECHNICAL ENGINEER BEFORE THE START OF FILL PLACEMENT.
- 16. FILL PLACEMENT MUST BE CARRIED OUT IN A CONTROLLED SYSTEMATIC PROGRESSION WHICH ALLOWS FOR HARMONIOUS AND UNIFORM COVERAGE BY THE COMPACTION EQUIPMENT.
- 17. THE MAXIMUM ALLOWABLE LIFT THICKNESS IS 150mm. THE REQUIRED COMPACTION IS MINIMUM 98% STANDARD PROCTOR MAX. DRY DENSITY.

<u>WATERMAINS</u>

- WATERMAINS 150MM TO 300MM DIAMETER TO BE P.V.C. CL235 (DR-18) AS PER AWWA C900 (CSA B137.3) WITH GASKETED JOINTS.
- 2. WATER SERVICE CONNECTIONS TO BE AS PER O.P.S.D. 1104.01. AS AMENDED BY REGION OF HALTON PIPE FOR ALL SERVICE CONNECTIONS UP 7. FOR COMMON TRENCH DETAILS REFER TO REGION STD. RH 302.01. TO 50MM DIA. SHALL BE TYPE "K" SOFT COPPER TUBING MEETING AWWA C800 (LATEST EDITION).
- 3. A MIN. HORIZONTAL SEPARATION OF 2.5M MUST BE MAINTAINED BETWEEN 9. BENCHING IN MANHOLES IS TO EXTEND UP TO THE SPRINGLINE OF WATERMAINS AND SANITARY OR STORM SEWERS, INCLUDING SERVICE
- 4. A MIN. VERTICAL SEPARATION OF 0.15M BETWEEN WATERMAINS AND SEWERS MUST BE MAINTAINED IF WATERMAIN CROSSES ABOVE SEWER OR 0.50M IF WATERMAIN CROSSES BELOW SEWER.
- 5. WATERMAIN BEDDING AND COVER TO BE SUITABLE GRANULAR 'A' BEDDING MATERIAL AS PER O.P.S.D. 802.010 AND O.P.S.S. 401.
- 6. ALL HYDRANTS AS PER O.P.S.D. 1105.01 TO HAVE STEAMER CONNECTIONS.
- HYDRANTS TO BE SUPPLIED WITH: a) TWO (2) 63.5MM (21/2") WITH CSA STANDARD THREAD, 63.5MM I.D., 79.4
- O.D., 5 THREADS PER 25MM, 31.75MM SQUARE OPERATING NUT; AND b) ONE (1) 100MM (4") STORZ PUMPER CONNECTION AS PER CAN/ULC #S-520, 31.75MM SQUARE OPERATING NUT, AND STORZ CAP PAINTED
- c) SECONDARY VALVE AND ANCHOR TEE.
- 7. HYDRANTS SHALL BE INSTALLED SUCH THAT THE ROD STEM LENGTH SHALL NOT EXCEED 1.7M MEASURED FROM THE BREAK-OFF FLANGE. IF HYDRANT BARREL LENGTH EXCEEDS 1.7M THEN A HYDRANT THAT CAN BE RAISED FROM THE BOTTOM WITHOUT INCREASING ROD LENGTH IS TO BE USED.
- 8. ALL METALLIC WATERMAINS, FITTINGS, AND APPURTENANCES SHALL BE INSTALLED WITH A MINIMUM OF ONE ANODE PER LENGTH PER PIPE AND ONE ANODE PER ELECTRONICALLY ISOLATED APPURTENANCE AND INSTALLED IN ACCORDANCE WITH OPSS 442 AND OPSD 1109.010 AND 1109.011. ANODE INSTALLATION IS NOT REQUIRED WITHIN VALVE CHAMBERS, DRAIN CHAMBERS, AIR RELEASE CHAMBERS OR SWAB PORTS.
- 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% PURE, AS PER HALTON LINEAR DESIGN MANUAL, WATER SERVICE CONNECTIONS - 2.10.5.C.ii
- 10. ALL WELD CONNECTIONS TO BE COATED WITH "TC 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 MANUFACTURER'S INSTRUCTIONS.
- 12. WHERE NEW PIPE IS METALLIC OR OTHERWISE TO BE CONNECTED TO EXISTING DUCTILE IRON OR CAST IRON PIPE A 14.5KG MAGNESIUM ANODE IS TO BE CONNECTED TO THE FIRST LENGTH OF EXISTING PIPE, AS PER OPSS 442 AND OPSD 1109.010 AND 1109.011
- 13. ALL VALVES TO OPEN LEFT (COUNTER-CLOCKWISE), BE OF THE APPROVED TYPE WITH NON-RISING STEM AND SHALL HAVE 50MM SQUARE STANDARD AWWA OPERATING NUT.
- 14. ALL PLUGS, CAPS, TEES, BENDS, AND OTHER APPURTENANCES SHALL BE MECHANICALLY RESTRAINED AS PER MANUFACTURER'S SPECIFICATIONS. MECHANICAL THRUST RESTRAINT DEVICES SHALL HAVE THIRD PARTY TESTING, APPROVALS FROM THE UNDERWRITERS LABORATORY (UL) AND FACTORY MUTUAL (FM), AND BE INCLUDED IN HALTON REGION'S APPROVED MANUFACTURER'S PRODUCT LIST FOR WATER SYSTEMS.

WATERMAINS Cont'd

- 15. WHERE WATERMAIN IS PLACED IN FILL OR IN PREVIOUSLY DISTURBED GROUND, ALL JOINTS TO BE MECHANICALLY RESTRAINED.
- 16. MINIMUM DEPTH OF COVER OVER WATERMAIN SHALL BE 1.70M MEASURED FROM THE TOP OF THE PIPE TO THE FINISHED GRADE.
- 17. THE DEPTH OF WATER SERVICES AT PROPERTY LINE SHOULD BE A MINIMUM OF 1.7M AND A MAXIMUM OF 2.0M. THE DISTANCE BETWEEN THE GROUND ELEVATION AND THE TOP OF THE ROD SHOULD BE BETWEEN 0.5M AND 1.0M.
- 18. WATER SERVICES CROSSING THE STORM SEWER TO HAVE MIN. 1.70M OF COVER. WHERE THIS CANNOT BE ACHIEVED, WATER SERVICE IS TO CROSS UNDER SEWER.
- 19. GATE VALVES CONFORMING TO A.W.W.A. C509 OR C515 ARE REQUIRED ON WATERMAINS 300MM AND UNDER. LINE GATE VALVES SHALL HAVE SCREW TYPE VALVE BOXES
- 20. ALL WATERMAIN FITTINGS SHALL HAVE MECHANICAL JOINTS. VALVES IN CHAMBERS TO BE FLANGED.
- 21. PIPE BARREL BENDING/DEFLECTION SHALL NOT BE ALLOWED. PIPE JOINT DEFLECTIONS ARE DISCOURAGED (UTILIZE STANDARD BENDS TO ACHIEVE DESIRED VERTICAL AND HORIZONTAL PIPE ALIGNMENT). HOWEVER, IF ABSOLUTELY NECESSARY THE MAXIMUM ALLOWABLE PIPE JOINT DEFLECTION SHALL BE 50% OF THE MANUFACTURER'S SPECIFICATIONS.
- 22. TRACER WIRE IS TO BE INSTALLED ON ALL NEW INSTALLATIONS OF PVC WATERMAIN PIPE FOR LOCATING PURPOSES. A SOLID 10 GAUGE T.W.U. COPPER WIRE IS TO BE INSTALLED ALONG THE TOP OF THE PIPE, STRAPPED TO THE PIPE AT 6M INTERVALS.
- 23. THE INSPECTOR MAY TEST THE TRACING WIRE FOR CONDUCTIVITY. THE TRACER WIRE SHALL BE INSTALLED BETWEEN EACH VALVE AND/OR THE END OF THE NEW WATERMAIN TO ENSURE A CONTINUOUS SIGNAL FOR LOCATING THE MAIN. JOINTS IN THE TRACER WIRE BETWEEN VALVES IS DISCOURAGED, BUT WHEN NECESSARY, MUST BE WATER- PROOFED (REFER TO O.P.S.D. 1109.025) AND DONE IN SUCH A WAY TO ENSURE ELECTRICAL CONDUCTIVITY. AT EACH VALVE. A LOOP OF WIRE IS TO BE BROUGHT UP OUTSIDE THE VALVE BOX AS PER HALTON STANDARD DRAWING RH 406.010. TRACER WIRE FOR HORIZONTAL DIRECTIONAL DRILLING AND PIPE BURSTING INSTALLATION SHALL BE IN ACCORDANCE WITH HALTON REGION'S AMENDMENTS TO O.P.S.S. IF THE TRACING WIRE IS NOT CONTINUOUS FROM VALVE TO VALVE, THE CONTRACTOR SHALL, AT HIS OWN EXPENSE, REPLACE OR REPAIR THE WIRE.
- 24. 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 AS PER REGION OF HALTON SPECIFICATIONS. NOTIFICATION SHALL TAKE PLACE UNDER THE ENGINEER'S DIRECTION.
- 25. OPERATING OF EXISTING WATERMAINS SHALL BE BY REGION OF HALTON STAFF ONLY.

STORM SEWERS

- 1. ALL STORM SEWERS 450mm DIA. OR SMALLER SHALL BE RIBBED PVC PIPE IN ACCORDANCE WITH CSA B182.4. SDR35 WITH LOCK IN RUBBER SEAL RING BEDDING SHALL BE O.P.S.D. 802.010. BEDDING MATERIAL SHALL BE CRUSHED STONE BASE (HL-6) GRAVEL AGGREGATE) AND A GRANULAR "C" COVER MATERIAL.
- 2. ALL STORM SEWERS LARGER THAN 450mm DIAMETER SHALL BE REINFORCED CONCRETE PIPE (CLASS AS SHOWN) IN ACCORDANCE WITH CSA A257.2. BEDDING SHALL BE O.P.S.D. 802.030. BEDDING MATERIAL SHALL BE CRUSHED STONE BASE (HL-6 GRAVEL AGGREGATE) AND A GRANULAR "C" COVER MATERIAL.
- 3. CONTRACTOR IS RESPONSIBLE FOR SUPPLYING ADDITIONAL BEDDING AND/OR STRONGER PIPE IF ACTUAL TRENCH WIDTHS EXCEED DESIGN
- 4. MANHOLE SIZES AS SHOWN.
- 5. SURROUND ALL MANHOLES WITH A MINIMUM OF 1.0m COMPACTED GRANULAR "C"BACKFILL. ALL CATCHBASINS TO HAVE COMPLETE, COMPACTED GRANULAR "C" BACKFILL SURROUND.
- 6. CATCHBASIN (CB) PER O.P.S.D. 705.010 C/W 250mm DIA. LEAD. DOUBLE CATCHBASINS (DCB) PER O.P.S.D. 705.020 C/W 300mm DIA. LEAD. CATCHBASINS TO BE FITTED WITH INLET CONTROL DEVICE AS SHOWN. REAR LOT CATCHBASINS TO BE SUMPLESS PER TOWN STD 3-1 C/W BEEHIVE GRATE PER TOWN STD 5-2.
- 8. DROP STRUCTURES TO BE TOWN OF OAKVILLE STD. 2-2.
- 10. DITCH INLETS TO BE AS PER O.P.S.D. 705.030 3:1 GRATE.
- 11. CATCHBASIN FRAME AND GRATES FOR ROADS TO BE AS PER O.P.S.D.
- 12. SERVICE CONNECTION AT THE STREET LINE IS TO BE HIGHER THAN THE SANITARY CONNECTION AT THAT POINT.
- 13. ALL ENDS OF SERVICE CONNECTIONS SHALL BE MARKED WITH 100x50 LUMBER MARKERS PLACED FROM THE INVERT OF THE SERVICE TO
- 1.0m ABOVE GROUND LEVEL AND PAINTED WHITE. 14. SAFETY GRATINGS SHALL BE PROVIDED IN ALL MANHOLES WHEN THE
- DEPTH OF THE MANHOLE EXCEEDS 5.0m. 15. STORM SERVICE LATERALS TO BE 150mmø DIA FOR SINGLE FAMILY DWELLINGS. LATERALS TO BE MINIMUM 2.00% GRADE. PVC PIPES TO BE WHITE IN COLOUR AND DR28. SHALL BE USED.

SANITARY SEWERS

- 1. SANITARY MANHOLES AS PER O.P.S.D. 701.010 WITH FRAMES AND COVERS AS PER O.P.S.D. 401.010 TYPE "A" (AS AMENDED RESPECTIVELY BY THE REGION OF HALTON) UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- 2. BENCHING IN MANHOLES TO BE AS PER O.P.S.D. 701.021 AS AMENDED BY THE REGION OF HALTON. BENCHING IN SANITARY MANHOLES TO BE TO THE OBVERT OF THE PIPE.
- 3. SANITARY SEWER PIPE SHALL BE PVC SDR35 (GREEN IN COLOUR) CONFORMING TO CSA B182.2 UNLESS OTHERWISE NOTED.
- 4. SANITARY SERVICE CONNECTIONS TO BE 125mm DIA. FOR SINGLE FAMILY DWELLINGS AND ROWED TOWNHOUSES. COMMERCIAL, INDUSTRIAL, AND INSTITUTIONAL LATERALS SHALL BE A MINIMUM OF 150mm DIAMETER. SANITARY SERVICE CONNECTIONS TO BE MINIMUM 2% GRADE AND SHALL BE NON-WHITE IN COLOUR. FOR PVC LATERAL CONNECTIONS, PIPE SHALL BE GREEN IN COLOUR AND DR28 SHALL
- 5. SERVICES TO BE MIN. 2.15M AND MAX. 2.75M DEEP AT PROPERTY LINE. RISERS SHALL BE USED WHERE NOTED AS PER O.P.S.D.
- 6. GRANULAR "A" BEDDING AND COVER ON ALL SEWERS AND CONNECTIONS TO BE AS PER O.P.S.D. 802.010 UNLESS NOTED OTHERWISE, WITH GRANULAR "B" BACKFILL.
- 7. GRANULAR BACKFILL AROUND MANHOLES SHALL BE COMPACTED BY MECHANICAL MEANS TO A MINIMUM OF 95% S.P.D.

ROADS

- 1. ALL ROAD BASE AND SUB-BASE MATERIALS SHALL BE CRUSHER RUN LIMESTONE MEETING OPSS TYPE II SPECIFICATIONS.
- 2. ANY AREAS WITHIN R.O.W. WHICH REQUIRE FILL IN EXCESS OF 0.30m ARE SUBJECT TO COMPACTION TESTS AND SUCH TESTS MUST SHOW A MIN. COMPACTION OF 98% S.P.M.D.D. AT ALL DEPTHS. ALL EARTHWORKS MUST COMPLY WITH GEOTECHNICAL INVESTIGATION PREPARED BY SOIL-MAT ENGINEERS AND CONSULTANTS LTD. DATED JULY 13, 2012 (PROJ.: SM 124590-G).
- 3. GRANULAR BASE SHALL BE COMPACTED TO A MIN. OF 100% SPMDD IN LIFTS OF 150mm OR LESS.
- 4. ASPHALT MATERIALS SHALL BE ROLLED AND COMPACTED TO A MIN. OF 97% MARSHALL BULK DENSITY.
- 5. PRIOR TO PLACEMENT OF GRANULAR COURSES, THE SUBGRADE SHALL BE PROOF-ROLLED AND ALL LOOSE, SOFT OR UNSTABLE AREAS REMOVED AS DIRECTED BY THE ENGINEER.
- 6. ALL CURB AND GUTTERS SHALL BE PER OPSD 600.040 UNLESS OTHERWISE NOTED.
- 7. PERFORATED SUBDRAINS C/W FILTER SOCK PER TOWN STD. 7-60, SHALL BE INSTALLED UNDER ALL CURBS.
- 8. SIDEWALK TO BE OPSD 310.010.
- 9. AN EXTRA 150mm THICKNESS GRANULAR 'B' SHALL BE ADDED AT ARTERIAL AND INDUSTRIAL ROAD INTERSECTIONS. THIS EXTRA DEPTH SHALL BE EXTENDED FOR A MINIMUM OF 15.0m FROM THE PROPERTY LINE OF THE INTERSECTING STREET.
- 10. TOP COURSE ASPHALTIC CONCRETE SHALL BE PLACED ONLY AFTER ADJACENT BUILDINGS (HOMES, INDUSTRIAL, COMMERCIAL, ETC.) HAVE BEEN CONSTRUCTED AND ONLY WITH THE CONSENT OF THE DIRECTOR OF ENGINEERING AND CONSTRUCTION.
- 11. SIDEWALK RAMPS AT INTERSECTIONS AND MID-BLOCK CROSSINGS SHALL CONFORM TO OPSD 310.030 WITH THE REQUIREMENT THAT THE RAMP GRADIENT SHALL NOT EXCEED 5%.
- 12. PAVEMENT STRUCTURE (TO BE CONFIRMED BY GEOTECHNICAL CONSULTANT):

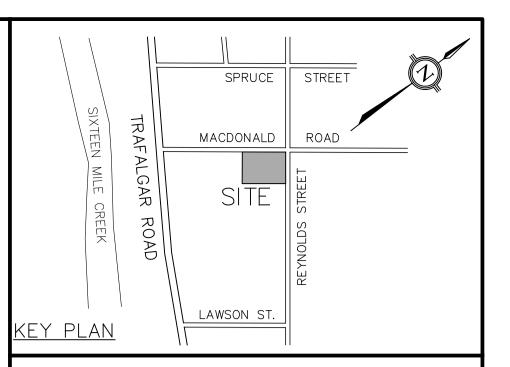
50mm HL8 150mm GRANULAR 'A'

350mm GRANULAR 'B'

CONTROLS, PER MTO BOOK 7.

CONSTRUCTION

- 1. CONTRACTOR IS RESPONSIBLE FOR ALL TEMPORARY TRAFFIC
- 2. CONTRACTOR IS RESPONSIBLE FOR ALL CONSTRUCTION LAYOUT, WITH CONTROL BARS PROVIDED BY THE OWNER. PROTECTION OF CONTROL BARS IS THE RESPONSIBILITY OF THE CONTRACTOR.
- 3. CONTRACTOR IS RESPONSIBLE TO VERIFY THE SIZE AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION, INCLUDING VAC TRUCK AND RESTORATION AS REQUIRED.
- 4. CONTRACTOR SHALL PROVIDE THIRD-PARTY DIGITAL AS-BUILTS IN CAD TO INCLUDE ALL NEW SITE SERVICING INCLUDING TOPS AND INVERTS, AND FINISHED GRADES, INCLUDING PAVED AREAS, SWALES, CURBS, SIDEWALKS AND AND RETAINING WALLS, TO THE SATISFACTION
- 5. CONTRACTOR SHALL FLUSH AND VIDEO ALL EXISTING SEWERS PRIOR TO AND AFTER CONNECTION, AND NEW AND DISTURBED SEWERS UPON INSTALLATION AND LATER UPON COMPLETION OF TOP WORKS AND LANDSCAPING, PER OPSS 409. VIDEOS TO BE PROVIDED TO THE ENGINEER FOR REVIEW AND APPROVAL.

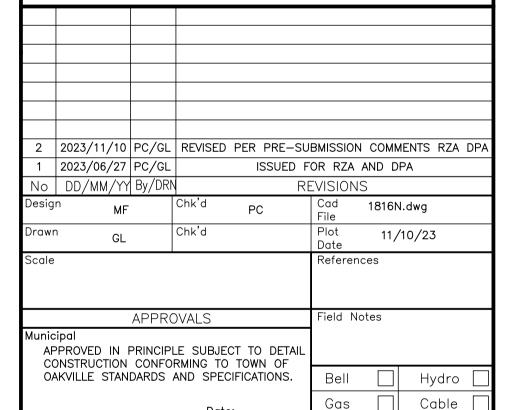


LEGEND

BENCHMARK

ELEVATIONS ARE REFERRED TO BENCHMARK No. 0011931U1999 HAVING AN ELEVATION OF 90.39 METRES. TABLET IN THE TOP OF THE SQUARE PIER IN THE SOUTHWEST CORNER OF GEORGE'S SQUARE, 29.3 METRES NORTHWEST OF SUMNER AVENUE AND 12.5 METRES NORTHEAST OF TRAFALGAR ROAD. ELEVATIONS ARE REFERENCED TO THE CANADIAN GEODETIC VERTICAL DATUM OF 1928, 1978 ADJUSTMENT (CGVD-1928:1978).

THE SURVEY WAS COMPLETED ON THE 18TH DAY OF JANUARY, 2023 BY R-PE SURVEYING LTD., ONTARIO LAND SURVEYORS. JOB No. 22-388 CAD FILE No.22-388TP01



DESIGN OF WATER &/OR WASTEWATER SERVICES APPROVED SUBJECT TO DETAIL CONSTRUCTION CONFORMING TO HALTON REGION STANDARDS & SPECIFICATIONS & LOCATION APPROVAL FROM AREA MUNICIPALITY.

Manager of Development Services

Regional Approval

OCATION

LEGISLATIVE AND PLANNING SERVICES DEPT.



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STANDARD NOTES

MACDONALD ROSE INC.

SUBDIVISION

Municipal No.	Regional No.	
24T-XXXXX/XXXX		
Contract No.	Consultant No.	N1
_	Sheet	

