

GENERAL NOTES:

- 1. ALL DIMENSIONS AND ELEVATIONS ARE IN METERS, PIPE SIZE IN MILLIMETERS, UNLESS OTHERWISE SPECIFIED. 2. STANDARD DRAWINGS AND SPECIFICATIONS OF THE TOWN OF MILTON, THE REGIONAL MUNICIPALITY OF HALTON, THE MINISTRY OF TRANSPORTATION AND THE ONTARIO PROVINCIAL STANDARD DRAWINGS AND SERVICE LATERALS NOTES:
- SPECIFICATIONS ARE PART OF THE PLANS OF THE SUBDIVISION. 3. SOIL AND GEOTECHNICAL INFORMATION FROM GEOTECHNICAL INVESTIGATION REPORT T16647-T DATED JULY 29, 2016 AND SUPPLEMENTARY GEOTECHNICAL INVESTIGATION REPORT T22885 DATED JUNE 17, 2022. ALL SERVICES BUILT IN FILL TO BE CERTIFIED BY THE GEOTECHNICAL ENGINEER. ALL BOREHOLES SHOWN ON THE DRAWING ARE FOR INFORMATION ONLY. REFER TO GEOTECHNICAL INVESTIGATION REPORTS FOR
- 4. ALL SILT CONTROL AND EROSION PROTECTION MEASURES ARE TO BE IN PLACE PRIOR TO THE COMMENCEMENT OF CONSTRUCTION AND SHALL REMAIN IN PLACE AND BE MAINTAINED BY THE CONTRACTOR UNTIL CONSTRUCTION IS COMPLETE AND THE GRASS HAS ESTABLISHED GROWTH, SUBJECT TO APPROVAL BY THE TOWN.
- THEY SEE FIT, WITH THE UNDERSTANDING THAT THE OWNER AND TOWN DISCLAIM ALL RESPONSIBILITY FOR ITS ACCURACY AND/OR SUFFICIENCY. THE CONTRACTOR SHALL CONFIRM THE SIZE, LOCATION AND ELEVATION IN THE FIELD PRIOR TO CONSTRUCTION OF ANY EXISTING SERVICES AND/OR UTILITIES AND IS RESPONSIBLE FOR THE PROTECTION OF THESE SERVICES/UTILITIES TO THE SATISFACTION OF THE AUTHORITY
- HAVING JURISDICTION 6. ALL DIMENSIONS AND ELEVATIONS SHALL BE CHECKED AND VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO CONSTRUCTION AND THEY SHALL REPORT ANY DISCREPANCIES IMMEDIATELY TO THE ENGINEER.
- (DETAILS ARE NOT TO BE SCALED FROM DRAWINGS). 7. ALL AREAS DISTURBED BY THE CONTRACTOR DURING THE CONSTRUCTION WORKS SHOWN HEREON SHALL BE RESTORED TO ORIGINAL CONDITION OR BETTER. ALL GRASS AND VEGETATION COVERED AREAS SHALL BE RESTORED BY PLACING 400MM OF HORTICULTURAL GRADE TOPSOIL AS PER SECTION 1.1.8.2 OF THE TOWN'S ENGINEERING AND PARKS STANDARDS MANUAL (EPSM) AND NO. 1 NURSERY SOD OR ADEQUATE SEED
- AND MULCH TO ESTABLISH A GRASS COVER TO THE SATISFACTION OF THE TOWN OF MILTON, THE REGIONAL MUNICIPALITY OF HALTON OR CONSERVATION HALTON. 8. ALL NATIVE TRENCH BACKFILL MATERIAL TO BE COMPACTED TO 95% STANDARD PROCTOR DENSITY (SPD). THE UPPER 600MM OF THE TRENCH ON T 98% SPD AND UNTRAVELLED PORTIONS TO 95% SPD. NATIVE MATERIAL WILL BE SUBJECT TO THE APPROVAL OF THE SITE WHICH ARE DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO THE SATISFACTION OF THE AUTHORITIES HAVING JURISDICTION,
- GRANULAR MATERIAL WILL BE REQUIRED 9. GRANULAR MATERIAL USED FOR BACKFILL, SHALL BE PLACE IN LAYERS 150MM IN DEPTH MAXIMUM AND COMPACTED TO 100% STANDARD PROCTOR MAXIMUM DRY DENSITY.
- 10. ALTERNATIVE MATERIAL MAY BE ACCEPTABLE, PROVIDED APPROVAL HAS BEING FIRST OBTAINED FROM THE TOWN OF MILTON COMMISSIONER OF DEVELOPMENT SERVICES. 11. NO STOCKPILING OR STORAGE OF MATERIALS IS PERMITTED ON TOWN PARK BLOCKS. INSTALL TEMPORARY FENCING ALONG PARK PERIMETER AND MAINTAIN IN A STATE OF GOOD REPAIR UNTIL ACCEPTANCE BY THE
- 12. ALL FENCING SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE TOWN OF MILTON ENGINEERING AND PARK STANDARDS.
- 13. ALL CONSTRUCTION AND TRENCHING WORK TO BE DONE IN ACCORDANCE WITH THE "CONSTRUCTION SAFETY ACT" AND THE "THE OCCUPATIONAL HEALTH AND SAFETY ACT". THE CONTRACTOR SHALL BE DEEMED TO BE THE CONSTRUCTOR AS DEFINED IN THE ACT.
- 14. ALL CONSTRUCTION SIGNAGE MUST CONFORM TO THE M.T.O., "ONTARIO TRAFFIC MANUAL, BOOK 7". 15. THE OWNER IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM THE DEVELOPMENT SERVICES DEPARTMENT, TOWN OF MILTON, FOR THE PURPOSE OF VEHICULAR ACCESS TO THE PROPERTY (ENTRANCE
- PERMIT) AND SERVICING EXCAVATIONS WITHIN THE MUNICIPAL ROAD ALLOWANCE (ROAD OCCUPANCY PERMIT). 16. THE TOWN OF MILTON, REGION OF HALTON, AND CONSERVATION HALTON ARE TO BE NOTIFIED 48 HOURS PRIOR TO THE START OF CONSTRUCTION IN ORDER TO ARRANGE FOR INSPECTION.
- 17. TOWN OF MILTON BY-LAWS APPLY TO ALL CONSTRUCTION WORKS: BY-LAW 035-2020 (OBSTRUCTING, ENCUMBERING, OR FOULING (MUD TRACKING), BY-LAW 133-2012 (NOISE), AND BY-LAW 094-2022 (SITE AI TERATION
- 18. ALL WORKS AND MATERIALS SHALL CONFORM TO THE LATEST REVISIONS OF THE STANDARDS AND SPECIFICATIONS OF THE TOWN OF MILTON, THE REGION OF HALTON AND ONTARIO PROVINCIAL STANDARD DRAWINGS (OPSD) AND SPECIFICATIONS (OPSS), AS AMENDED BY THE TOWN OF MILTON AND THE REGION OF HALTON.
- 19. EXISTING WELLS AND PRIVATE SEWAGE DISPOSAL SYSTEMS SHALL BE DECOMMISSIONED BY THE CONTRACTOR IN ACCORDANCE WITH M.O.E. REQUIREMENTS. 20. THERE WILL BE NO SUBSTITUTION OF MATERIALS UNLESS PRIOR WRITTEN APPROVAL BY THE MUNICIPAL COMMISSIONER OF DEVELOPMENT SERVICES HAS BEEN OBTAINED
- 21. THE CONSTRUCTION OF THE SITE SHALL BE CARRIED OUT UNDER THE FULL-TIME INSPECTION AND TESTING OF GEOTECHNICAL ENGINEER IN ORDER TO ENSURE THAT THE RECOMMENDATIONS ARE CORRECTLY IMPLEMENTED AND ALSO TO PROVIDE ANY ADDITIONAL RECOMMENDATIONS THAT MAY BE REQUIRED.
- 22. REFERENCE TO STANDARD DRAWINGS SHALL MEAN THE STANDARD DRAWINGS OF THE CORPORATION OF THE TOWN OF MILTON AND THE REGIONAL MUNICIPALITY OF HALTON UNLESS OTHERWISE NOTED. THESE SHALL BE THE REVISION IN EFFECT AS OF THE DATE OF THEIR APPROVAL OF THE CONSTRUCTION DRAWINGS.
- 23. THE NOTES ON THIS SHEET APPLY TO ALL WORKS UNDER THIS SITE PLAN UNLESS OTHERWISE NOTED ON THE DETAIL DRAWINGS.
- 24. PERVIOUS AREAS THROUGHOUT THE SITE TO USE 400mm OF TOPSOIL, PER THE SPECIFICATIONS IN THE SITE WIDE WATER BALANCE REPORT PREPARED BY TERRAPROBE DATED APRIL 12, 2023. 25. COMPLY WITH THE CODE AND MOE GUIDELINES FOR THE INSTALLATION, MATERIALS, CONNECTIONS AND TESTING. TESTING OF THE SANITARY SEWERS SHALL BE IN ACCORDANCE WITH OPSS 410. STANDARD AND WATER AS PER OBC IN COORDINATION WITH REGION INSPECTOR.

ROADWORK NOTES:

- 1. ROADS SHALL BE CONSTRUCTED IN ACCORDANCE WITH TOWN OF MILTON SPECIFICATIONS FOLLOWING MATERIALS AND DEPTHS INDICATED IN THE TOWN'S ENGINEERING AND PARKS STANDARDS MANUAL.
- 2. ALL TOPSOIL AND ORGANIC MATERIAL WITHIN ROAD ALLOWANCE SHALL BE STRIPPED PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. 3. NATIVE SUB-GRADE SHALL HAVE A CROSSFALL OF 3% AND THE MATERIAL SHALL BE APPROVED BY THE GEOTECHNICAL CONSULTANT.
- . ADDITIONAL SUBGRADE PREPARATION SHALL BE REQUIRED AS RECOMMENDED IN THE GEOTECHNICAL INVESTIGATION AND WHEN INSTRUCTED BY THE GEOTECHNICAL INSPECTOR.
- 5. PRIOR TO PLACEMENT OF GRANULAR MATERIAL FOR ROAD CONSTRUCTION, THE SUB-GRADE MATERIAL MUST BE PROOF ROLLED IN THE PRESENCE OF THE TOWN AND THE GEOTECHNICAL CONSULTANT. THE SUITABILITY AND COMPACTION OF THE SUB-GRADE MATERIAL SHALL BE CONFIRMED BY THE GEOTECHNICAL CONSULTANT PRIOR TO INSTALLATION OF ANY GRANULAR MATERIALS.
- 6. ALL GRANULAR MATERIAL SHALL BE COMPACTED TO 100% STANDARD PROCTOR DENSITY. ALL NATIVE FILL WITHIN THE ROAD ALLOWANCE TO BE COMPACTED TO 98% STANDARD PROCTOR DENSITY. THE SUITABILITY AND COMPACTION OF ALL FILL MATERIALS SHALL BE CONFIRMED BY THE GEOTECHNICAL CONSULTANT PRIOR TO INSTALLATION OF ANY ROAD BASE MATERIALS.
- 7. MANHOLES AND CATCHBASINS TO BE SET FLUSH WITH BASE COURSE ASPHALT AND ADJUSTED TO GRADE PRIOR TO INSTALLING TOP OF ASPHALT. 8. RECYCLED ASPHALT PRODUCT (RAP) IS NOT PERMITTED IN SURFACE COURSE (HL-1 OR HL-3), OR IN BINDER COURSE (HL-8) DESIGN MIXES. NO OTHER RECYCLED ADDITIVES ALLOWED.
- 9. ASPHALT MIX DESIGNS MUST BE PROVIDED TO THE TOWN, FOR APPROVAL, NO LESS THAN TWO WEEKS PRIOR TO SCHEDULE PAVING.
- 10. THE FIRST ASPHALT SAMPLE MUST BE TAKEN FROM THE FIRST LOAD DELIVERED TO THE SITE ON THE FIRST DAY OF PAVEMENT. TEST RESULTS FOR THIS SAMPLE TO BE READY WITHIN 24 HOURS. 11. TOP COURSE LAID A MIN OF 1 YEAR AFTER BASE (BINDER) COURSE, AFTER ALL SERVICES INSTALLED. TACK COAT REQUIRED PRIOR TO TOP.
- 12. THE MATERIAL SPECIFICATION FOR PERFORMANCE GRADED ASPHALT CEMENT SHALL BE PER OPSS.MUNI 1101. THE USE OF ASPHALT CEMENT THAT HAS BEEN MODIFIED WITH VACUUM TOWER ASPHALT EXTENDERS (VTAE) SHALL NOT BE USED IN SURFACE AND BINDER COURSE HOT MIX ASPHALT; VIRGIN ASPHALT CEMENT (AC) IS TO BE USED. THE CONTRACTOR, AS PART OF THEIR ASPHALT MIX DESIGN SUBMISSION, WILL
- BE REQUIRED TO SUBMIT A FORMAL LETTER FROM THE AC SUPPLIER THAT CERTIFIES THE AC PROVIDED FOR THE PROJECT HAS NOT BEEN MODIFIED WITH VTAE'S. 13. A SHUTTLE BUGGY ASPHALT MATERIAL TRANSFER VEHICLE (AMTV) IS REQUIRED FOR ALL PAVING OPERATIONS, INCLUDING OPERATIONS USING ONLY ONE PAVER. 14. PAVING IN ECHELON IS MANDATORY FOR THE PLACEMENT OF BINDER AND SURFACE COURSE ASPHALT. THE PAVERS SHALL BE OPERATED AT THE SAME TIME AND MAINTAIN A DISTANCE OF NOT MORE THAN 50
- M FROM EACH OTHER SO THAT A HOT JOINT IS OBTAINED BETWEEN THE LANES OF MIXTURES BEING PLACED. THE CONTRACTOR SHALL SUPPLY SUFFICIENT PERSONNEL TO ADEQUATELY CONTROL BOTH SPREADING 15. WHERE THE ENTIRE WIDTH OF THE PROPOSED PAVEMENT PLATFORM CANNOT BE PAVED IN ECHELON WITH TWO PAVERS, ONE LONGITUDINAL CONSTRUCTION JOINT IS PERMITTED. EACH HALF OF THE ROAD SHALL
- BE PAVED IN ECHELON RESULTING IN ONLY ONE LONGITUDINAL JOINT IN THE BINDER AND SURFACE COURSES LOCATED AT THE CENTERLINE OF THE ROAD. THE JOINT SHALL BE LOCATED TO ENSURE IT DOES NOT ALIGN WITH THE WHEEL PATH OF TRAFFIC.
- 16. ANY PAVING ACTIVITIES NOT CONSISTENT WITH THIS APPROACH MUST BE APPROVED AT THE DISCRETION OF TOWN STAFF. 17. IN-DEPTH PRESERVATIVE ASPHALT SEALANT, RECLAMITE REJUVENATING AGENT, IS REQUIRED IN THE CONSTRUCTION OF ALL TOWN ROADS. THE IN-DEPTH PRESERVATIVE SEALING SHALL BE APPLIED AFTER ALL THE 16. NO WATERMAIN OR APPURTENANCE SHALL BE PLACED ON PREVIOUSLY EXCAVATED SOIL UNLESS PROPER ENGINEERED SUPPORT IS IN PLACE TO THE SATISFACTION OF THE
- ASPHALT TESTING HAVE BEEN COMPLETED AND ACCEPTED. REFER TO APPENDIX D-4 FOR SPECIFICATIONS. 18. PAINTED PAVEMENT MARKINGS MUST BE INSTALLED ON BASE COURSE PRIOR TO BUILDING PERMIT ISSUANCE AND RE—APPLIED ANNUALLY, AS DIRECTED BY THE TOWN. 19. FULL LENGTH 100MM DIAMETER PERFORATED, FILTER CLOTH WRAPPED, PLASTIC CORRUGATED SUB-DRAINS TO BE INSTALLED PER TOWN OF MILTON STANDARD DRAWING E-24. SUB-DRAINS ARE TO BE CONTINUOUS
- ALONG BOTH SIDES OF ALL ROADS WITH CURB AND GUTTER.
- TELECOMMUNICATION CABLE, GAS LINE AND CABLE T.V. SHALL BE PLACED UNDERGROUND IN LOCATION SHOWN ON THE ROAD SECTIONS LISTED IN THE STANDARD DRAWINGS 21. PAVEMENT DESIGN TYPE
- MINOR LOCAL ROADS
- 40mm HL-3 HIGH STABILITY 50mm HL-8
- 150mm OF 19mm LIMESTONE 300 GRANULAR "B", TYPE II

DRIVEWAYS, CURB & GUTTER NOTES:

- 1. DRIVEWAY ENTRANCES SHALL BE PAVED BETWEEN BACK OF CURB AND PROPERTY LINE AND CONSTRUCTED WITH A MINIMUM OF 200MM GRANULAR "A", PAVED WITH A MINIMUM 75MM HL—3A IN TWO LIFTS AND PAVED PRIOR TO PLACEMENT OF TOP ASPHALT.
- MAXIMUM DRIVEWAY SLOPE NOT TO EXCEED 6%. AND 5% APRON, MINIMUM DRIVEWAY SLOPE IS NOT LESS THAN 2% 3. CONCRETE CURB AND GUTTER SHALL BE TWO-STAGE AS PER OPSD 600.070 AND SEMI-MOUNTABLE CURB AS PER 600.060. ALL CURBS TO UTILIZE 32 MPA CONCRETE (CSA A23.1). AS PER SECTION 1.1.6.1.B,
- "TWO-STAGE THREE-KEY CURB" IS PREFERRED 4. CURBS SHALL BE DEPRESSED AT ALL INTERSECTIONS, PEDESTRIAN CROSSINGS, WALKWAYS, AND PARK/OPEN SPACE ENTRANCES IN ACCORDANCE WITH OPSD 310.030 TO ACCOMMODATE WHEELCHAIR ACCESS
- RAMPS. CURB CUTS ARE NOT PERMITTED. WHERE THE CURB DEPRESSION FOR SIDEWALK AT INTERSECTION RADIUS IS NOT A CONTINUOUS APRON; AND THE BARRIER SECTION OF CURB BETWEEN CURB
- DEPRESSIONS IS LESS THAN 1.0M. IT SHALL ALSO BE DEPRESSED 5. WHERE CURB RAMPS OR DEPRESSED CURBS ARE PROVIDED AT PEDESTRIAN CROSSINGS THEY MUST HAVE TACTILE WALKING SURFACE INDICATORS AS PER OPSD 310.033 MODIFIED BY THE TOWN OF MILTON.
- 6. ALL TACTILE SURFACES ARE TO HAVE RAISED TACTILE PROFILES, BE LOCATED AT THE BOTTOM PORTION OF THE DEPRESSED CURB THAT IS FLUSH WITH THE ROADWAY, BE SET BACK BETWEEN 150 MM AND 200 MM FROM THE CURB EDGE, BE A MINIMUM OF 610 MM IN DEPTH, LINE-UP PARALLEL TO THE CURB RADIUS AND COVER THE LENGTH OF THE CURB DEPRESSION. THE TACTILE SURFACES MUST BE CAST IRON, POWDER COATED DARK GREY, AND REMOVABLE. THE TACTILE SURFACES SHALL BE OF UNIFORM QUALITY AND FREE FROM SURFACE DEFECTS. MANUFACTURERS INCLUDE NEENAH FOUNDRY COMPANY, ADVANTAGE CAST IRON, TUFTILE, OR ANOTHER MANUFACTURER APPROVED BY THE TOWN OF MILTON. THE TACTILE SURFACES MUST BE INSTALLED IN FRESH CONCRETE FLUSH WITH THE ADJACENT SIDEWALK RESULTING IN A SNUG FIT BETWEEN TILES TO LIMIT WATER INFILTRATION AROUND THE PERIMETER OF THE SYSTEM AND BETWEEN TILES AND THE INSTALLATION PROCEDURES SHALL BE ACCORDING TO THE MANUFACTURER'S

SPECIFICATIONS. STORM SEWER NOTES:

- 1. ALL SEWERS TO BE INSTALLED BY LASER AND CHECKED PRIOR TO BACKFILLING.
- 2. THE UPSTREAM LEG OF ALL STORM SEWERS SHALL HAVE A MINIMUM SLOPE OF 1% UNLESS FUTURE DEVELOPMENT(S) TO THE UPSTREAM SIDE CANNOT ACCOMMODATE THE MINIMUM GRADE. 3. ALL STORM SEWER TO HAVE RUBBER GASKETS JOINTS. ALL CONCRETE SEWER PIPES SHALL MEET CSA SPECIFICATIONS A257.1 (LATEST AMENDMENT) UNLESS OTHERWISE NOTED. CONCRETE PIPE USED WITHIN THE TRACKING OF MUD ONTO THE ADJACENT ROADS IN ACCORDANCE WITH THE TOWN OF PUBLIC RIGHT OF WAY TO BE REINFORCED CONCRETE.
- 4. ALL PVC PIPES SHALL MEET CSA REQUIREMENTS AS NOTED ON OPSS 1841. 5. FOR MAIN SEWER PIPE OF ALL SIZES, PREFABRICATED TEES FROM THE PLANT SHALL BE UTILIZED UNLESS OTHERWISE APPROVED BY THE TOWN.
- 6. JOINT BURIAL/COMMON TRENCHING WITH WASTEWATER SEWERS WILL ONLY BE CONSIDERED ON A 16-METRE RIGHT-OF-WAY AND WHEN SUPPORTED BY A SOILS REPORT PREPARED BY A QUALIFIED GEOTECHNICAL
- CONSULTANT. 7. COMMON TRENCH SEWERS TO BE INSTALLED AS PER THE REGIONAL MUNICIPALITY OF HALTON STANDARD DRAWING S7 AND THE TOWN OF MILTON STANDARD DRAWING E-16.
- 8. SEPARATE TRENCH SPACING TO BE 3.0M MINIMUM FROM CENTRE TO CENTRE. BEDDING SHALL BE CLASS "B" UNLESS OTHERWISE NOTED. 4. APPROVED BACKFILL MATERIAL SHALL BE PLACED IN ACCORDANCE WITH OPSS 514, 515, AND 516. COMPACTION SOIL DENSITY TESTING SHALL BE CARRIED OUT TO ENSURE ADEQUATE COMPACTION AND STABILITY
- OF FILL AND TEST RESULTS SHALL BE SUBMITTED TO THE TOWN OF MILTON.
- 5. WHERE TRENCH WIDTH IS OVER-EXCAVATED, CONTRACTOR TO INCREASE STRUCTURAL CAPACITY OF SEWER BEDDING AT THEIR OWN EXPENSE, AS DIRECTED BY THE CONSULTANT IN ACCORDANCE WITH THE REQUIREMENTS OF THE GEOTECHNICAL CONSULTANT. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR EXTRA TEMPORARY AND/OR PERMANENT REPAIRS MADE NECESSARY BY THE WIDENED TRENCH. BEDDING
- MATERIAL TO BE APPROVED BY THE TOWN AND GEOTECHNICAL ENGINEER. 6. APPROVED NATIVE MATERIAL OR GRANULAR BACKFILL AS SPECIFIED BY THE GEOTECHNICAL CONSULTANT TO BE INSTALLED ON ALL PIPES AS PER OPSD 802.010, 802.030, 802.031, AND 802.032 AS MODIFIED BY
- THE TOWN OF MILTON ENGINEERING AND PARKS STANDARDS SO THAT EMBEDMENT BEDDING AND COVER MATERIAL IS GRANULAR "A" OR OTHER MATERIAL APPROVED BY THE TOWN. 7. ALL NATIVE TRENCH BACKFILL MATERIAL TO BE COMPACTED TO 95% STANDARD PROCTOR DENSITY (SPD). THE UPPER 600MM OF THE TRENCH ON THE TRAVELED PORTION OF THE ROAD TO BE COMPACTED TO
- 98% SPD AND UNTRAVELED PORTIONS TO 95% SPD. NATIVE MATERIAL WILL BE SUBJECT TO THE APPROVAL OF THE TOWN. SHOULD THE MATERIAL BE FOUND TO BE UNACCEPTABLE, THEN APPROVED IMPORTED GRANULAR MATERIAL WILL BE REQUIRED.
- 8. GRANULAR BACKFILL TO BE COMPACTED TO 98% SPD. 9. THE LOCATIONS OF ANTI-SEEPAGE COLLARS SHOULD BE DETERMINED BY THE PROJECT GEOTECHNICAL CONSULTANT DURING SEWER CONSTRUCTION ON THE SITE. ANTI-SEEPAGE COLLARS SHOULD BE INSTALLED
- AT LOCATIONS WHERE THE SHALE AND/OR GROUNDWATER ARE ENCOUNTERED WITHIN INVERT DEPTHS OF THE SEWERS, IN ORDER TO PREVENT EROSION OF THE GRANULAR BEDDING PLACED IN THE SEWER
- 10. STORM SEWER PIPES LARGER THAN 450MM ARE TO BE BENCHED THROUGHOUT TO THE CROWN OF PIPES ON A VERTICAL PROJECTION FROM SPRING LINE. STORM SEWER PIPES 450MM AND SMALLER ARE TO BE
- 11. FOR UNDERGROUND SERVICES WHERE WEATHERED SHALE MAY BE ENCOUNTERED, THE PROJECT GEOTECHNICAL ENGINEER SHOULD BE CONSULTED FOR CONSTRUCTION REQUIREMENTS. 12. UNLESS OTHERWISE SPECIFIED, ALL PVC STORM MAINLINE SEWERS ARE TO BE SDR-35 AND ALL CONCRETE STORM MAINLINE SEWERS ARE TO BE 65-D.

STORM MANHOLE NOTES:

- 1. MANHOLE FRAME AND COVER TO BE OPSD 401.010 TYPE "A" STAMPED WITH THE WORD "STORM". SAFETY PLATFORM PER OPSD 404.020 TO BE INSTALLED IN MANHOLES WHERE DEPTH EXCEEDS 5.0M. MANHOLE
- BENCHING AS PER OPSD 701.021, UNLESS OTHERWISE SPECIFIED. MANHOLES STEPS AS PER OPSD 405.010/405.020. . GRANULAR BACKFILL AROUND MANHOLES AND MANHOLES CATCHBASINS TO BE PLACED A MINIMUM OF 600MM AROUND THE MANHOLE UP TO SUB-GRADE ELEVATION.
- 3. THE FIRST JOINT OUT OF A MANHOLE TO BE CONCRETE ENCASED, IF CONCRETE PIPE IS USED; OR HAVE A FLEXIBLE JOINT, IF PVC PIPE IS USED; IN CONFORMANCE WITH OPSD 708.020 4. TOP OF MANHOLE COVER TO BE SET FLUSH WITH BASE COURSE ASPHALT GRADE AND THEN ADJUSTED TO FINAL GRADE WITH MODULOC RINGS WHEN TOP LIFT OF ASPHALT IS PLACE. 5. THE DIRECTION OF FLOW IN ANY MAINTENANCE HOLE WILL NOT BE PERMITTED AT ACUTE INTERIOR ANGLES.
- 6. DROP STRUCTURES SHALL CONFORM TO OPSD 1003.020 7. ALL MAINTENANCE HOLE CHAMBERS OPENINGS MUST BE LOCATED ON THE UPSTREAM SIDE OF THE MAINTENANCE HOLE.
- 8. THE BENCHING IN ALL MAINTENANCE HOLES MUST NOT BE LESS THAN 225MM IN WIDTH AT ANY POINT IN THE MAINTENANCE HOLE. 9. SEE DRAWING 16 FOR OPSD SPECIFICATIONS OF STM MANHOLES

SUMP PUMP NOTES:

- 1. SUMP PUMPS SHALL BE PROVIDED IN ACCORDANCE WITH SECTION 1.1.27.1, STD DWG. E-25, TO THE SATISFACTION OF THE TOWN OF MILTON, UNLESS OTHERWISE SPECIFIED. 2. SUMP PUMPS SHALL OUTLET TO GRADE LOCATED 3.0M FROM ANY DOWNSPOUT IN THE REAR YARD AND DISCHARGE ONTO CONCRETE SPLASH PAD.
- . BACK TO FRONT DRAINING LOTS FRONTING BY SIDEWALKS, REAR LANE TOWNHOUSES, AND OTHER LOCATIONS SUCH AS CORNER LOTS WITH SIDEWALK SHALL HAVE SUMP PUMP CONNECTED TO STORM SERVICE LATERALS, EQUIPPED WITH BACKFLOW PREVENTERS.

WIITHIN THE BUILDING ENVELOPE, AS SHOWN ON THE PLAN.

- STORM SERVICE LATERALS TO BE MINIMUM 150MM IN DIAMETER, PVC SDR28 @ MINIMUM 2% SLOPE, RUBBER GASKET TYPE JOINTS, AND SHALL CONFORM TO CSA B-182.1-M-1977
- 2. LOCATION OF STORM SERVICE LATERALS TO BE MARKED WITH A 50MM X 100MM WOOD MARKER PLACED FROM THE INVERT OF THE STORM SERVICE TO 1.0M ABOVE GROUND LEVEL TO BE PLACED AT THE ENDS OF EACH RESIDENTIAL CONNECTION (STREET LINE). TOP 0.5M OF THE MARKER TO BE PAINTED WHITE.
- 3. MINIMUM DEPTHS OF THE STORM SERVICE LATERAL TO BE 1.2M AT STREET LINE MEASURED FROM THE LATERAL OBVERT TO FINISH GROUND SURFACE ELEVATION. . ALL CONNECTION TO NEW STORM SEWER SHALL BE MADE WITH APPROVED PRE-MANUFACTURED TEES.
- 5. INFORMATION REGARDING ANY EXISTING SERVICES AND/OR UTILITIES SHOWN IN THIS SET OF PLANS IS FURNISHED AS THE END WITH AN APPROVED. MECHANICAL PLUG.
 - 6. REAR TO FRONT DRAINING LOTS FRONTED BY SIDEWALK, REAR LANE TOWNHOUSES, AND CORNER LOT WITH SIDEWALKS DRAINING SHALL HAVE SUMP PUMPS CONNECTED TO THE STORM SERVICE LATERALS, EQUIPPED WITH BACKFLOW PREVENTERS. ALL OTHER UNITS SHALL BE EQUIPPED WITH SUMP PUMPS DISCHARGING TO SURFACE AS PER TOWN OF MILTON

GRADING NOTES:

- I. DRIVEWAYS SHALL BE GRADED AT MINIMUM OF 2% AND MAXIMUM OF 6% SLOPE FROM THE GARAGE TO BACK OF SIDEWALK
- ALL DOWNSPOUTS SHALL DISCHARGE ONTO APPROVED SODDED AREAS USING SPLASH PADS FOR EROSION CONTROL. ALL YARD SURFACES FRONT AND REAR SHALL HAVE A MINIMUM SLOPE OF 2.0%.
- AT THE CONTRACTORS EXPENSE
- 6. PRIOR TO THE COMMENCEMENT OF SITE GRADING WORKS, ALL SILT CONTROL AND EROSION PROTECTION MEASURES ARE TO BE IN PLACE PRIOR TO THE COMMENCEMENT OF CONSTRUCTION AND SHALL REMAIN IN PLACE AND BE MAINTAINED BY THE CONTRACTOR UNTIL CONSTRUCTION IS COMPLETE AND THE GRASS HAS ESTABLISHED GROWTH, SUBJECT TO APPROVAL BY THE TOWN.
- 7. BUILDINGS DENOTED AS REQUIRING ENGINEERED FILL (E.F.) ARE ESTIMATED AND FOR REFERENCE ONLY. FINAL E.F. REQUIREMENTS ARE TO BE DETERMINED ONSITE BY THE PROJECT GEOTECHNICAL CONSULTANT. E.F. SHOWN ON THE PLANS INDICATE THAT FILL IS REQUIRED, BELOW AND UP TO 0.5m ABOVE THE ASSUMED UNDER SIDE OF FOOTING

CATCHBASIN NOTES:

BY THE REGION OF HALTON.

- I. SINGLE ROAD CATCHBASINS AS PER OPSD 705.010 AND DOUBLE CATCHBASINS AS PER 705.020. FRAME AND GRATE TO BE FLUSH TYPE OPSD 400.010. THE FIRST JOINT OUT OF A ROAD CATCHBASIN TO BE CONCRETE ENCASED, IF CONCRETE PIPE IS USED; OR HAVE A FLEXIBLE JOINT, IF PVC PIPE IS USED; IN CONFORMANCE WITH OPSD 708.020. ALL
- CATCHBASINS TO HAVE COMPLETE GRANULAR BACKFILL 2. REAR YARD CATCHBASINS AS PER OPSD 705.010, FRAME AND GRATE TO BE FLUSH TYPE OPSD 400.020. THE FIRST JOINT OUT OF A REAR YARD CATCHBASIN TO BE CONCRETE ENCASED, IF CONCRETE PIPE IS USED; OR FULLY CONCRETE ENCASED FROM CATCHBASIN TO PROPERTY LINE, IF PVC PIPE IS USED. REAR YARD CATCHBASINS TO BE SUMPLESS. PIPE BEDDING TO BE HL6 STONE, MINIMUM 150MM UNDER PIPE TO SPRINGLINE, BACKFILLED WITH 600MM OF HIGH PERFORMANCE STONE.
- 3. DITCH INLET CATCHBASINS AS PER OPSD 705.030, FRAME AND GRATE TO BE FLUSH TYPE OPSD 403.010. 4. ALL CATCHBASINS TO BE BACKFILLED WITH 600MM OF HIGH PERFORMANCE STONE.
- 5. CATCHBASIN CONNECTION TO MAIN LINE SEWER IN ACCORDANCE WITH OPSD 708.030 6. ALL SINGLE CATCHBASIN LEADS TO BE 250MM IN DIAMETER @ 1.00% MINIMUM SLOPE. ALL DOUBLE CATCHBASIN LEADS TO BE 300MM IN DIAMETER @ 1.00% MINIMUM SLOPE. ALL LEADS TO BE MAXIMUM 25M IN LENGTH.
- . FOR REAR LOT/YARD CATCHBASINS, THE MINIMUM CATCHBASIN LEAD CONNECTION DIAMETER WILL BE 250MM AND THE MINIMUM GRADE WILL BE 0.5%. 8. FILTER FABRIC TO BE PLACED ON ALL STREETS AND REAR YARD CATCHBASINS. SILT TRAPS ARE TO BE CLEANED REGULARLY AND INSPECTED AFTER EACH RAINFALL BY THE CONTRACTOR AND NOT TO BE REMOVED UNTIL SUCH TIME AS THE CURBS ARE CONSTRUCTED AND BOULEVARD ARE SODDED OR BACKYARDS ARE GRADED AND SODDED. SEDIMENTS TO BE REMOVED AND FILTER CLOTHS REPLACED AS NECESSARY.
- **WATER NOTES:** 1. ALL WATERMAIN INSTALLATION SHALL CONFORM TO THE LATEST REVISIONS OF THE ONTARIO PROVINCIAL STANDARD DRAWINGS (OPSD) AND SPECIFICATIONS (OPSS) AS AMENDED
- WATERMAIN MATERIAL AND FITTINGS ARE TO BE PVC PRESSURE CLASS 235 SDR-18 AS PER AWWA C900, C905, & C907 3. A SOLID 10 GAUGE TWU COPPER WIRE SHALL BE INSTALLED ALONG THE TOP OF THE NON-METALLIC PIPE, STRAPPED TO THE PIPE AT 6 m INTERVALS. THE TRACER WIRE SHALL BE
- INSTALLED BETWEEN EACH VALVE AND/OR THE END OF THE NEW WATERMAIN. JOINTS IN THE TRACER WIRE BETWEEN VALVES ARE NOT PERMITTED. AT EACH VALVE, A LOOP OF WIRE IS TO BE BROUGHT UP OUTSIDE THE VALVE BOX TO THE TOP OF THE BOX AS PER HALTON STANDARD DRAWING RH 406.010. 4. ALL WATER SERVICES ARE TO BE 25mm DIA. TYPE K SOFT COPPER FOR RESIDENTIAL DWELLINGS AND 25mm DIA. TYPE K SOFT COPPER FOR INDUSTRIAL AND COMMERCIAL PREMISES AS PER OPSD 1104.010 AND 1104.020 UNLESS OTHERWISE SPECIFIED. WATER SERVICES SHALL BE MARKED WITH A "2x4", EXTENDING FROM THE INVERT TO 1.0 m ABOVE GRADE PAINTED BLUE. ALL WATER SERVICES SHALL BE PROVIDED WITH A MAIN STOP, CURB
- 5. THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY CAPS, PLUGS AND BLOW—OFFS REQUIRED FOR TESTING THE WATERMAIN. 6. MAXIMUM ALLOWABLE PIPE JOINT DEFLECTION OF THE WATERMAIN SHALL BE 50% OF THE MANUFACTURER'S SPECIFICATIONS. PIPE BARREL DEFLECTION IS STRICTLY PROHIBITED.
- CORROSION PROTECTION IS REQUIRED FOR ALL METALLIC PIPE, VALVES, FITTINGS, SERVICES AND HYDRANTS. CATHODIC PROTECTION (ZINC ANODE) AS PER REGIONAL DESIGN STANDARDS AND SPECIFICATIONS. 8. VALVE CHAMBER FRAMES AND COVERS TO BE AS PER REGION OF HALTON STANDARD DRAWING RH 405.010. ALL VALVES ARE TO BE C1 EPOXY COATED . WATERMAIN BEDDING SHALL BE IN ACCORDANCE WITH OPSD 802.010 OR 802.014 UNLESS OTHERWISE SPECIFIED. BEDDING AND COVER MATERIAL SHALL BE SPECIFIED BY
- PROJECT GEOTECHNICAL ENGINEER TO THE SATISFACTION OF THE REGION OF HALTON. AS A MINIMUM REQUIREMENT< WATERMAIN SHALL BE LAID ON 150mm of GRANULAR "A" BEDDING AND CONFORM TO OPSS MUNI 401. 10. APPROVED BACKFILL MATERIAL SHALL BE PLACED IN ACCORDANCE WITH OPSS 401, 515, AND 516. BACKFILL SHALL BE 100% SPMDD BENEATH ROADS, SIDEWALKS, CURBS and 95% SPMDD ELSWHERE AND CONFORM TO OPSS MUNI 401 GRANULAR "B" TYPE 1 OR II OR APPROVED SELECT NATIVE. LOOSE MATERIAL SHALL BE COMPACTED TO 95% SPMDD BEFORE SUBSEQUENT LAYER ARE PLACED. COMPACTION SOIL DENSITY TESTING SHALL BE
- ADEQUATE COMPACTION AND STABILITY OF FILL AND TEST RESULTS SHALL BE SUBMITTED TO THE TOWN AND REGION OF HALTON. 11. WATERMAIN AND WATER SERVICES INSTALLED WITHIN 2.5 m FROM A CATCHBASIN OR MANHOLE SHALL BE INSULATED TO THE SATISFACTION OF THE REGION OF HALTON. 12. WATERMAINS AND WATER SERVICES SHALL BE INSTALLED WITH A MINIMUM DEPTH OF COVER OF 1.7 METERS.

STOP AND SERVICE BOX AT THE PROPERTY LINE. VALVE BOX STEM EXTENSION RODS ARE TO BE USED ON WATER SERVICES UP TO AND INCLUDING 32 mm.

- 13. WATERMAINS SHALL BE LAID WITH AT LEAST 2.5m HORIZONTAL SEPARATION FROM ANY SEWERS OR SEWER MANHOLES. UNDER UNUSUAL CONDITIONS, WHERE CONGESTION WITH OTHER UTILITIES WILL PREVENT A CLEAR HORIZONTAL SEPARATION OF 2.5m, A WATERMAIN MAY BE LAID CLOSER TO A SEWER, PROVIDED THAT THE VERTICAL SEPARATION OF THE SEWER IS AT LEAST 0.5m BELOW THE WATERMAIN. ALL DISTANCES SHALL BE MEASURED FROM THE NEAREST EDGES OR OUTSIDE SURFACES, WHERE NEITHER HORIZONTAL OR VERTICAL CLEARANCE CAN BE PHYSICALLY ACHIEVED, WHERE APPLICABLE, THE SEWER MAIN SHALL BE CONSTRUCTED WITH
- JOINTS THAT ARE EQUIVALENT TO WATERMAIN STANDARDS OF CONSTRUCTION. 14. MINIMUM SEPARATION/CLEARANCE SHALL BE 150mm WHERE WATERMAINS CROSS OVER MAINLINE SEWERS AND LATERALS AND 500mm WHERE THE WATERMAIN CROSSES UNDER. (THE DISTANCE SHALL BE MEASURED FROM THE NEAREST EDGES OR OUTSIDE SURFACES). IF THE MINIMUM COVER OF THE WATERMAIN OR WATER SERVICE CONNECTION CANNOT BE OBTAINED AS A RESULT OF THE WATERMAIN OR WATER SERVICE CONNECTION
- CROSSING ABOVE THE SEWER, THE WATERMAIN OR WATER SERVICE CONNECTION SHALL BE CONSTRUCTED UNDER THE SEWER OR INSULATED FOR ITS ENTIRE LENGTH USING PRE-INSULATED PIPE UNTIL THE MINIMUM DEPTH (1.7m) IS OBTAINED. WHEN CROSSING OVER A STORM SEWER THE STORM SEWER MUST ALSO BE INSULATED WITH MINIMUM 100mm EXTRUDED FOAM (HI 100) INSULATION, REFER TO HALTON REGION STANDARD DRAWING RE 408.010 & 408.011
- 15. ALL SERVICES TAPPING TO EXISTING MAINS ARE TO BE DONE BY REGIONAL FORCES. CONNECTIONS ARE NOT TO BE MADE TO THE EXISTING MAIN UNTIL THE NEW MAIN IS COMPLETED, TESTED, SWABBED AND DISINFECTED.
- REGION AND THE PROJECT GEOTECHNICAL ENGINEER. 17. REGIONAL MUNICIPALITY OF HALTON APPROVED MECHANICAL RESTRAINT JOINTS ARE TO BE USED ON ALL BENDS, ALL PIPES AND FITTINGS IN FILL SECTIONS, ALL VALVE
- CHAMBERS, AND ALL PLUGS, CAPS, HYDRANTS, TEES, BRANCH CONNECTIONS, LINE VALVES AND HORIZONTAL BENDS WHERE DISTURBED SOIL IS ENCOUNTERED. 18. MINIMUM COVER OVER HYDRANT LATERAL SHALL BE 1.7m. IF A HYDRANT MAIN VALVE SEAT EXCEEDS 1.7m, A SUITABLE HYDRANT BOTTOM EXTENSION MUST BE USED AND PLACED BETWEEN BOOT AND HYDRANT BARREL REFER TO HAI TON REGION STANDARD DRAWING RH 407.010
- 19. IF HYDRANT BARREL DEPTH EXCEEDS 1.7m, A HYDRANT THAT CAN BE RAISED FROM THE BOTTOM WITHOUT INCREASING ROD LENGTH IS TO BE USED. STORZ PUMPER CONNECTIONS
- I) TWO (2) 63.5 mm (2 1/2") WITH CSA STANDARD THREAD, 63.5 mm I.D., 79.4 mm O.D., 5 THREADS PER 25 mm, 31.75 mm SQUARE OPERATING NUT; AND 2) ONE (1) 100 mm (4") STORZ PUMPER CONNECTION AS PER CAN/ULC #S-520, 31.75 mm SQUARE OPERATING NUT, AND STORZ CAP PAINTED GLOSS BLACK
- 20. HYDRANTS SHALL BE MANUFACTURED IN ACCORDANCE WITH AWWA C502 AND SHALL HAVE STEAMER PORTS AS PER REGION STANDARD SPECIFICATIONS. ALL HYDRANTS SHALL BE INSTALLED AS PER OPSD 1105.010, AS AMENDED BY THE REGION OF HALTON STANDARD DRAWING RH 407.010. 21. FIRE HYDRANTS SHALL BE INSTALLED WITH FLANGE SET BETWEEN 0 mm AND 50 mm ABOVE FINISHED GRADE. ALL HYDRANTS LATERALS SHALL HAVE A 150 mm SECONDARY
- 22. MINIMUM SEPARATION DISTANCE FROM THE EDGE OF DRIVEWAY TO THE FACE OF THE FIRE HYDRANT SHALL BE 1.0m. 23. VALVE CHAMBER SHALL BE PRECAST CONCRETE CHAMBER AS PER REGION STD. RH.402.010, RH.402.020 OR RH.402.040. THREE VALVES ARE REQUIRED AT A TEE INTERSECTION AND FOUR VALVES ARE REQUIRED AT A
- CROSS INTERSECTION UNLESS OTHERWISE NOTED. 24. LINE VALVES SHALL BE THE SAME SIZE AS WATERMAIN COMPLETED WITH VALVE BOX AND EXTENSION. 25. RESILIENT SEAT GATE VALVES CONFORMING TO AWWA C509 OR C515 (LATEST REVISION) MAY BE USED FOR WATERMAINS 400mm DIA. AND SMALLER. RESILIENT SEAT GATE VALVES CONFORMING TO AWWA C515 (LATEST REVISION) MAY BE USED FOR WATERMAINS 400mm DIA. AND SMALLER. RESILIENT SEAT GATE VALVES CONFORMING TO AWWA C515 (LATEST REVISION) MAY BE USED FOR WATERMAINS 400mm DIA. AND SMALLER. RESILIENT SEAT GATE VALVES CONFORMING TO AWWA C515 (LATEST REVISION) MAY BE USED FOR WATERMAINS 400mm DIA. AND SMALLER. RESILIENT SEAT GATE VALVES CONFORMING TO AWWA C515 (LATEST REVISION) MAY BE USED FOR WATERMAINS 400mm DIA. AND SMALLER. RESILIENT SEAT GATE VALVES CONFORMING TO AWWA C515 (LATEST REVISION) MAY BE USED FOR WATERMAINS 400mm DIA. AND SMALLER. RESILIENT SEAT GATE VALVES CONFORMING TO AWWA C515 (LATEST REVISION) MAY BE USED FOR WATERMAINS 400mm DIA. AND SMALLER. RESILIENT SEAT GATE VALVES CONFORMING TO AWWA C515 (LATEST REVISION) MAY BE USED FOR WATERMAINS 400mm DIA. AND SMALLER.
- REVISION) SHALL BE USED FOR WATERMAINS LARGER THAN 400mm 26. CATCH BASIN LEADS TO BE INSTALLED WITH MINIMUM 0.15m CLEARANCE WHERE CROSSING UNDER WATERMAIN.
- 27. ALL WATERMAINS WILL BE SUBJECT TO PRESSURE TESTING AND FIRE FLOW TESTING AS DIRECTED BY HALTON REGION. 28. AN INSPECTOR FROM THE REGION OF HALTON MUST BE PRESENT ON SITE DURING ANY LIVE-TAP WATER SERVICE CONNECTIONS.

EROSION AND SEDIMENT CONTROL NOTES:

- 1. EROSION AND SEDIMENT CONTROLS ARE REQUIRED IN ACCORDANCE WITH THE TOWN OF MILTON BY-LAW 33-2004, AS AMENDED. GRADING IS PROHIBITED UNTIL THE ABOVE BY-LAW IS SATISFIED.
- REFER TO SILTATION CONTROL DRAWINGS FOR REQUIREMENTS. 3. PRIOR TO TOPSOIL STRIPPING, EARTHWORKS, OR UNDERGROUND CONSTRUCTION, EROSION AND SEDIMENT CONTROLS SHALL BE IMPLEMENTED TO THE SATISFACTION OF THE
- AUTHORITY HAVING JURISDICTION. 4. SEDIMENT CONTROL PONDS TO BE CONSTRUCTED UNDER THE SUPERVISION OF THE PROJECT GEOTECHNICAL ENGINEER. ALL BERM MATERIAL TO BE APPROVED BY PROJECT
- GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT. THE CONTRACTOR SHALL MAINTAIN ALL WORKS UNTIL SERVICING CONSTRUCTION IS COMPLETED TO THE SATISFACTION OF THE ENGINEER AND THE TOWN OF MILTON. 5. SEDIMENT CONTROL FENCE SHALL BE CLEANED AND MAINTAINED IN GOOD REPAIR BY CONTRACTOR.
- 6. SEDIMENT CONTROL FENCE TO REMAIN IN PLACE UNTIL THE WORKING AREA HAS BEEN STABILIZED AND VEGETATED. 7. ACCUMULATED SEDIMENT TO BE REMOVED OFF SITE PRIOR TO THE REMOVAL OF SEDIMENT CONTROL FENCE.
- MILTON BY-LAW 035-2020. MUD MAT TO BE A MINIMUM OF 30m LONG, 5m WIDE AND SHALL CONSIST OF 0.45m OF 50mm CLEAR STONE FOR FIRST 15m WITH REMAINING 15m CONSISTING OF 0.30m OF 150mm RIP RAP.
- 9. IN ACCORDANCE WITH THE TOWN OF MILTON BY-LAW 035-2020, THE CONTRACTOR SHALL CLEAN THE ADJACENT ROADS ON A REGULAR BASIS TO THE SATISFACTION OF THE AUTHORITY HAVING JURISDICTION AND/OR IMMEDIATELY UPON NOTIFICATION BY THE AUTHORITY HAVING JURISDICTION. 10. FILTER FABRIC TO BE PLACED IN ALL STREET AND REAR LOT CATCHBASINS. THESE SILT TRAPS ARE THE BE CLEANED REGULARLY AND INSPECTED AFTER EACH RAINFALL BY THE
- CONTRACTOR AND NOT TO BE REMOVED UNTIL SUCH TIME AS THE CURBS ARE CONSTRUCTED AND BOULEVARDS ARE SODDED OR BACKYARDS ARE GRADED AND SODDED. SEDIMENT TO BE REMOVED AND FILTER CLOTH REPLACED AS NECESSARY.
- 11. SEDIMENT CONTROL PONDS TO BE CLEANED WHEN THEY BECOME HALF FULL OF SEDIMENT. 12. ALL DISTURBED GROUND OR TOPSOIL STOCKPILE LEFT INACTIVE FOR MORE THAN 30 DAYS SHALL BE STABILIZED BY SEEDING, SODDING, MULCHING OR COVERING, OR OTHER
- EQUIVALENT CONTROL MEASURE, UNLESS OTHERWISE AUTHORIZED BY THE TOWN OF MILTON. 13. ALL EROSION AND SEDIMENT CONTROL DEVICES ARE TO BE INSPECTED BY THE CONSULTING ENGINEER ONCE PER WEEK AND AFTER EACH RAINFALL OF 1 cm OR GREATER TO
- ENSURE THAT THEY ARE IN PROPER WORKING CONDITION.

SANITARY NOTES: 1. ALL SANITARY SEWER INSTALLATION SHALL CONFORM TO THE LATEST REVISIONS OF THE ONTARIO PROVINCIAL STANDARD DRAWINGS (OPSD) AND SPECIFICATIONS (OPSS) AS

- AMENDED BY THE REGION OF HALTON. 2. UNLESS OTHERWISE SPECIFIED, ALL SANITARY MAINLINE SEWERS ARE TO BE PVC DR 35 APPROVED AS PER CSA 182.2, OPSS 1841 OR LATEST AMENDMENT.
- 3. FOR SANITARY LATERALS, A 2.0% MINIMUM GRADE IS TO BE PROVIDED. THE COVER AT THE PROPERTY LINE SHALL BE 2.95m. WHERE THIS IS NOT ACHIEVABLE, THE SANITARY LATERAL SHALL BE INSTALLED AT THE MINIMUM 2.0% GRADE FROM THE SEWER TO THE PROPERTY LINE. IN NO CASE SHOULD THE COVER BE LESS THAN 2.15m AT THE PROPERTY LINE.
- 4. ALL SANITARY LATERALS ARE TO BE PVC DR28, GREEN IN COLOUR, AND MARKED WITH A "2x4", EXTENDING FROM THE INVERT TO 1.0 m ABOVE GRADE PAINTED GREEN. SINGLE CONNECTIONS FOR RESIDENTIAL UNITS SHALL BE 125 mm DIA. ALL RESIDENTIAL SANITARY CONNECTIONS SHOULD BE EXTENDED 1.5m INTO LOTS/BLOCKS HORIZONTALLY.
- 5. SANITARY MANHOLE FRAME AND COVERS TO BE AS PER OPSD 401.010 TYPE "A" WITH "SAN" CAST IN. 6. ALL SANITARY MANHOLES ARE TO BE WATER TIGHT. WATERPROOFING SHALL BE INSTALLED AROUND ALL EXTERIOR SECTION JOINTS, AND THE WATERPROOF MEMBRANE SHALL EXTEND COMPLETELY AROUND ALL
- JOINTS WITH A MINIMUM 300 MM WIDE STRIP CENTERED ON THE JOINT.
- 7. DROP STRUCTURES SHALL BE PROVIDED WHERE THE DIFFERENCE IN ELEVATION IS GREATER THAN 1.2m IN ACCORDANCE WITH OPSD 1003.020. 8. SANITARY SEWER MANHOLES SHALL BE BENCHED TO THE PIPE OBVERT, OTHERWISE IN ACCORDANCE WITH OPSD 701.021. 9. BEDDING MATERIAL FOR PVC SANITARY PIPE SHOULD BE IN ACCORDANCE WITH OPSD-802.010, TYPE 1 OR 2 SOILS, GRANULAR "A' OR EQUIVALENT; FOR CONCRETE SANITARY PIPE, OPSD-802.030, CLASS "B",
- ARE PRESENT, THE PIPE JOINTS SHOULD BE LEAK-PROOF, OR WRAPPED WITH AN APPROPRIATE WATERPROOF MEMBRANE 10. THE SANITARY SEWER CLASSES HAVE BEEN DESIGNED BASED ON BEDDING CONDITIONS SPECIFIED. ADDITIONAL BEDDING, A DIFFERENT TYPE OF BEDDING OR A HIGHER PIPE STRENGTH MAY BE REQUIRED (AT THE CONTRACTORS OWN EXPENSE) WHERE THE SPECIFIED TRENCH WIDTH IS EXCEEDED. ADDITIONALLY THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE AND BE RESPONSIBLE

GRANULAR "A" OR EQUIVALENT, WITH GRANULAR "A" COVER. FOR BEDDING MATERIAL IN SHALE EXCAVATION, REFER TO GEOTECHNICAL REPORT FOR RECOMMENDATIONS. WHERE WATER—BEARING SILTS AND SANDS

FOR EXTRA TEMPORARY AND/OR PERMANENT REPAIRS MADE NECESSARY BY THE WIDENED TRENCH. 11. APPROVED BACKFILL MATERIAL SHALL BE PLACED IN ACCORDANCE WITH OPSS 514, 515, AND 516. COMPACTION SOIL DENSITY TESTING SHALL BE CARRIED OUT TO ENSURE ADEQUATE COMPACTION AND STABILITY OF FILL AND TEST RESULTS SHALL BE SUBMITTED TO TOWN OF MILTON AND THE REGION OF HALTON.

RE: PROPOSED U/G SERVICES

12. CONNECTION RISERS ARE REQUIRED WHERE THE SEWER MAIN IS 4.5m DEEP.

- PROPOSED UNDERGROUND SERVICES WITHIN EXISTING ROW TO BE CONSTRUCTED AS PER THE FOLLOWING:
- . CONTRACTOR TO VERIFY THE PRECISE LOCATIONS AND INVERT ELEVATIONS OF Ex. UNDERGROUND SERVICES AND Ex. UTILITIES PRIOR TO STARTING CONSTRUCTION
- 2. ANY DISTURBED AREAS, INCLUDING CURB AND BOULEVARD, TO BE RESTORED TO THE ORIGINAL CONDITION OR BETTER 3. ALL REMOVED ASPHALT PAVEMENT TO BE DEPOSITED OFF SITE, IF APPLICABLE
- 4. ALL WORKS INCLUDING REMOVAL AND RESTORATION TO THE SATISFACTION OF TOWN OF MILTON
- 5. PROPOSED UNDERGROUND SERVICES TO BE CONSTRUCTED IN A VERTICAL TRENCH AND BACKFILLED WITH UNSHRINKABLE FILL UNTIL 1.2m BELOW THE TOP OF ASPHALT. THE REMAINING 1.2m TO BE BACKFILLED WITH 19mm CRUSHER RUN LIMESTONE.

	List of D)rawings
Sheet Number	Sheet Title	Sheet Description
1	GENERAL NOTES	
2	SITE SERVICING PLAN	
3	GRADING PLAN	
4	SANITARY DRAINAGE PLAN	
5	SANITARY DESIGN SHEETS	
6	STORM DRAINAGE PLAN	
7	STORM DESIGN SHEETS	
8	LANE 'A'	STA. 0+000.000 TO STA. 0+130.000
9	LANE 'A'	STA. 0+130.000 TO STA. 0+236.958
10	LANE 'B'	STA. 0+000.000 TO STA. 0+78.214
11	LANE 'C'	STA. 0+000.000 TO STA. 0+102.541
12	LANE 'D'	STA. 0+000.000 TO STA. 0+90.000
13	LANE 'D'	STA. 0+90.000 TO STA. 0+207.080
14	WALKWAY	STA. 0+000.000 TO STA. 0+72.319
15	STANDARD ROADWAY SECTIONS & CROSS SECTIONS	
16	DETAILS AND TABLES	
17	EROSION CONTROL PLAN	
18	EROSION CONTROL PLAN DETAILS	

TOPOGRAPHIC INFORMATION

REFERENCE No. 22-049, CAD FILE No.22049tp05, SURVEY RECEIVED FEBRUARY 16, 2023.

EGAL INFORMATION ITE PLAN PROVIDED BY KNYMH INC., PROJECT NUMBER 21407,

OR GARITO BARBUTO TOR PH 2 BLOCK 458, RECEIVED SEPTEMBER 11, 2024. BENCHMARK (MINISTRY OF TRANSPORTATION) **No. 00819828155** ELEVATION = 185.351m

2.	24-10-07	C.J.M.	2nd SUBMISSION		
1.	24-04-05	C.J.M.	1st SUBMISSION		
No.	DATE	BY	DESCRIPTION		APPROVED
SCAL	-E:			REFERENCES	
	NTS				
\vdash		۸		FIELD MOTEC	

SCALE:		KELEKEN	UES		
NTS					
APPROVALS		FIELD NO	TES		
MUNICIPAL APPROVAL		BELL		HYDRO	
		GAS		CABLE	
DEVELOPMENT SERVICES	DATE	TRAFFIC		WATER	

REGIONAL APPROVAI DESIGN OF SANITARY, WATER SERVICES AND REGIONAL ROAD WORKS APPROVED SUBJECT TO DETAIL CONSTRUCTION CONFORMING TO HALTON REGION STANDARDS & SPECIFICATIONS & LOCATIONAL APPROVAL FROM AREA MUNICIPALITY

LEGISLATIVE AND PLANNING SERVICES

MILTON

24-10-07 600 Alden Road, Suite 606 Markham, Ontario, L3R 0E7

(Manz

C. J. MANZC

100511578

Tel. (905) 475-3080

Fax. (905) 475-3081

www.DSEL.ca

TOWN OF MILTON

XXXXXXX

FILE No:

XXXXXXX

© DSEL

FILE No:



DEVELOPMENT SERVICES The Regional EGION OF HALT

Municipality of Halton

MATTAMY

(BROWNRIDGE)

LIMITED EVELOPMENT MANAGER

nattamy-or

PROJECT NO.

TOR SUBNODE

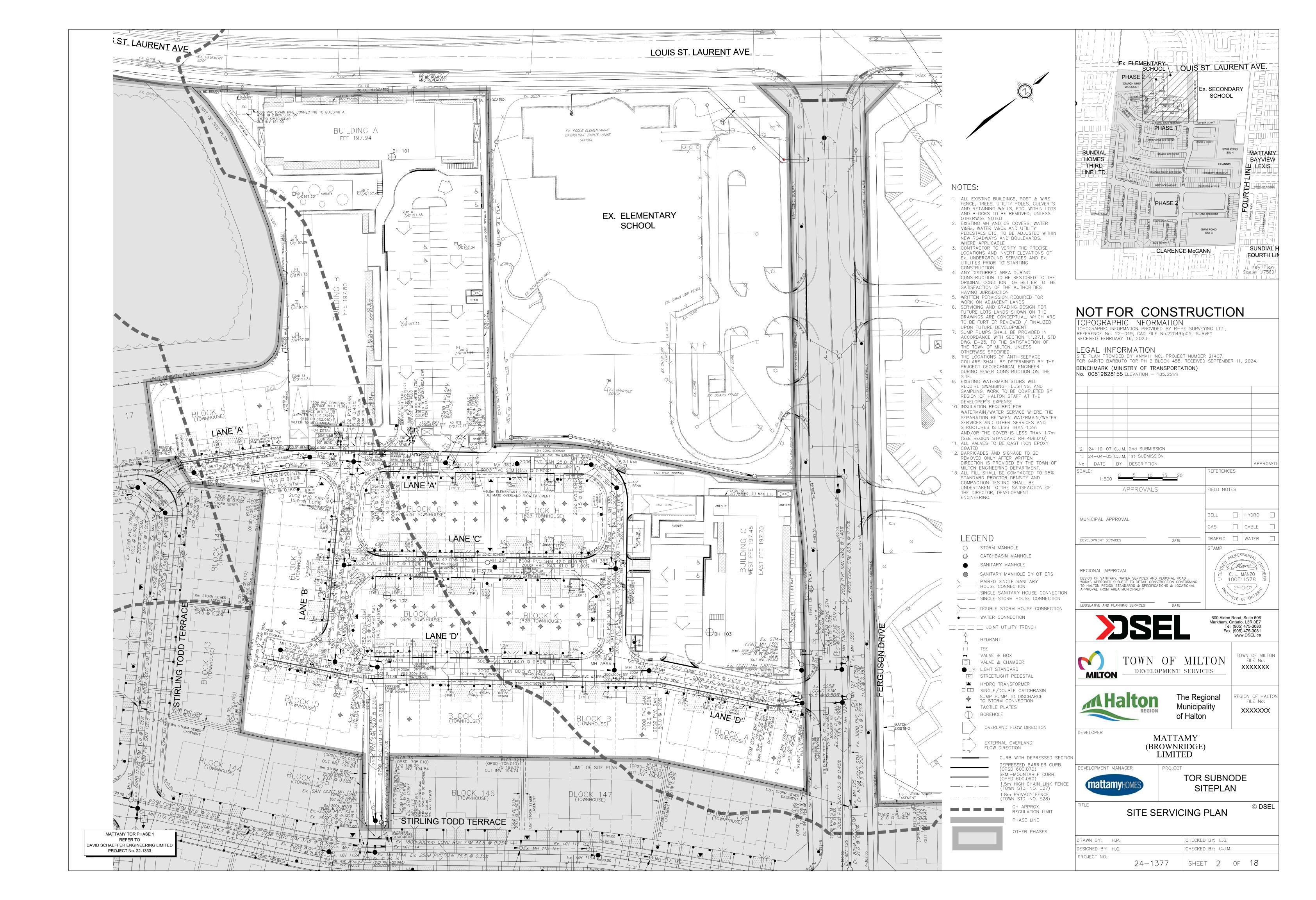
SITEPLAN

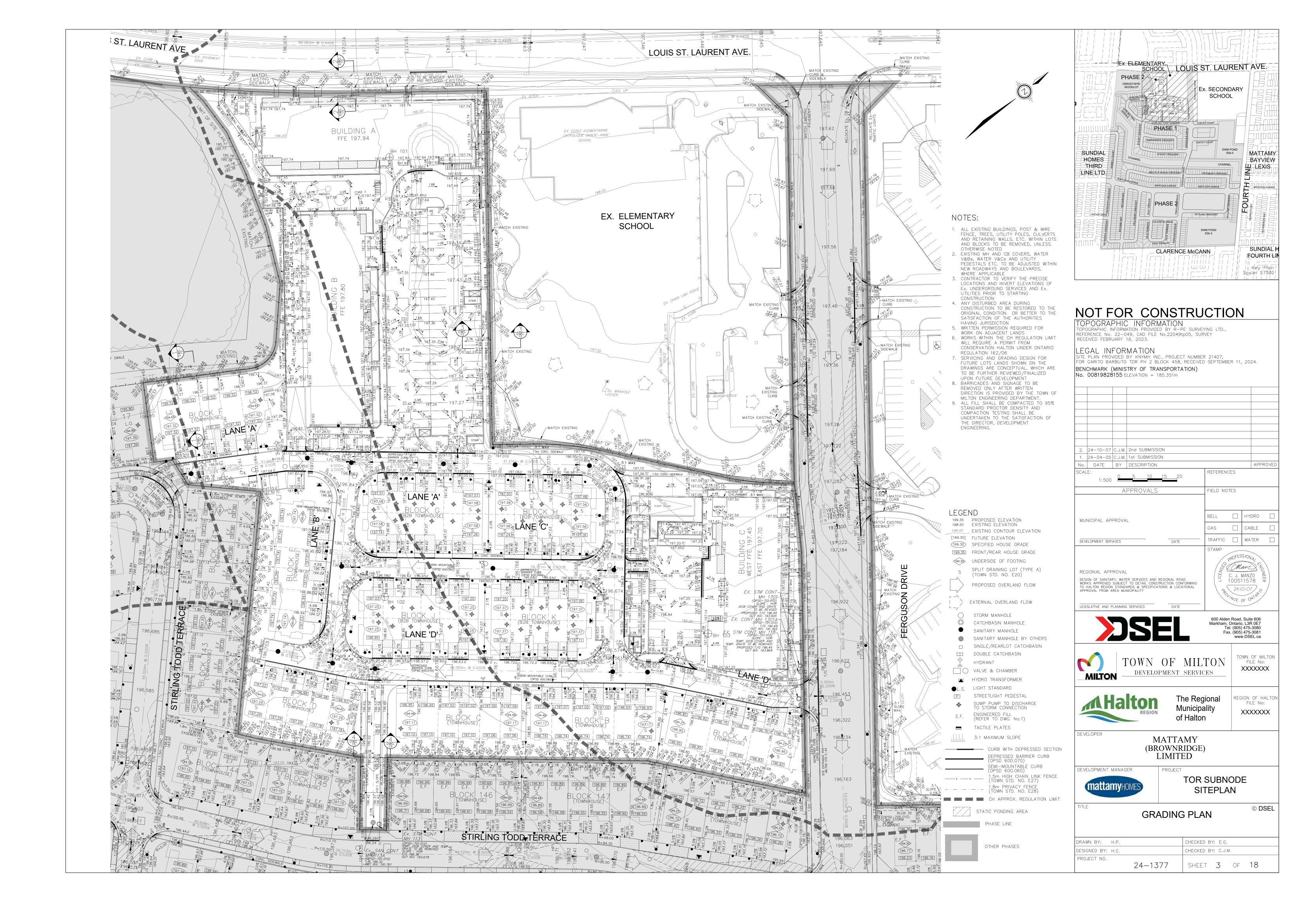
SHEET 1 OF 18

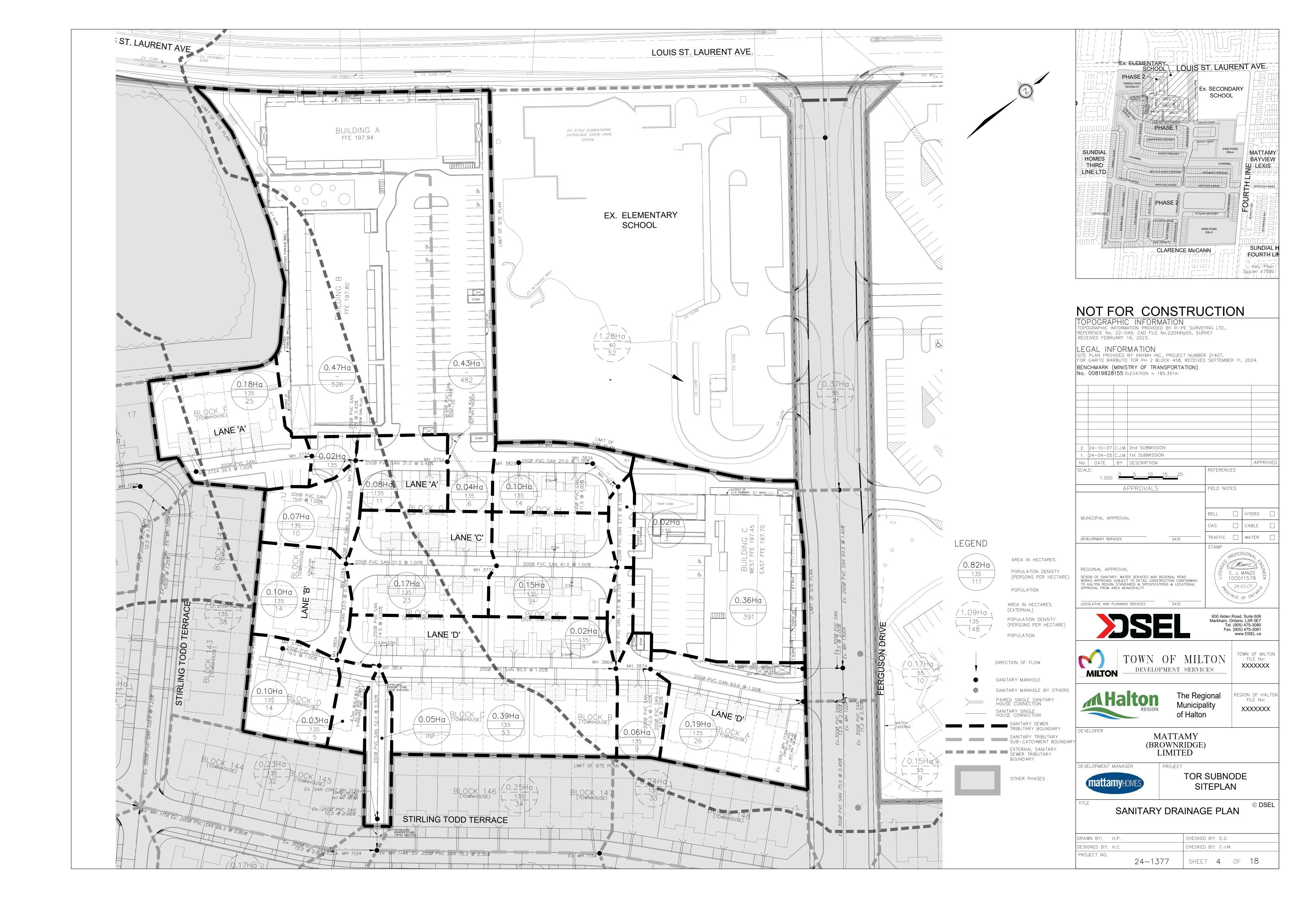
GENERAL NOTES

24-1377

DRAWN BY: H.P. CHECKED BY: E.G. DESIGNED BY: H.C CHECKED BY: C.J.M.







THE REGIONAL MUNICIPALITY OF HALTON DAVID SCHAEFFER ENGINEERING LTD. SHEET No.: 1 OF 1 600 ALDEN ROAD, SUITE 606 TOR PH2 - SUBNODE LOCATION: Single Family: 55 pph MARKHAM, ONTARIO SANITARY SEWER DESIGN L3R 0E7 PROJECT No.: 24-1377 TEL: (905) 475-3080 DATE: Commercial: 25 Mar 2024 FAX: (905) 475-3081 DESIGNED BY: H.C. CHECKED BY: School 40 pph n (PVC): 0.013 C.J.M. Infil.Flow (INF): 0.28 L/s/ha Note: To be conservative, industrial Kay is considered to be 1 n (Conc 0.013

Note: To be conservativ	e, industrial Kav is conside	red to be 1							n (Conc	c 0.013		Infil.	.Flow (INF)	0.28	L/s/ha							
	MANU	101 5		TRIBUTARY AREA HECTA	ARE	POPULATIO	N TRIBUTARY	AVG.	AVG.	Τ	Τ	Τ	MAX			SEWER			PIP		Ι	
STREET	MANH	OLE	LENGTH	INCREMENT		IN CREMEN.	7	L/s			XAM DI	INF.		CIZE	CLODE	Q	VEI	_ (m/s)	PIP	E		REMARKS
	FROM	ТО	(m)	SINSLEF. SEMI, TOVNHOUSE COMMERCIAL S	TOTAL IN FILT	SINGLEF. SEMI, TOWNHOUSE	COMMERCIAL SCHOOL	INC.	TOTAL	. FACTO	R L/s	L/s		SIZE	SLOPE	L/s	FULL	ACT.	TYPE	CLASS	Q/Qf	
1																				T		
LANE 'B'																						
	PLUG	376A	7.50	0.47	0.47	526	526	1.67	1.67	3.96	6.63	0.13	6.76	250	0.40	37.61	0.77	0.58	PVC	SDR-35	0.18	
Contribution From LA	ANE 'A', Pipe 373A - 376	A			0.20		28															
Contribution From LA	ANE 'A', Pipe 375A - 376				0.55		499															
	376A	378A	35.00	0.07	1.29	10		0.03	3.38	3.78	12.79	0.36	13.15	250	0.35	35.18	0.72	0.66	PVC	SDR-35	0.37	
Contribution From LA	NE 'C', Pipe 377A - 378				0.17		23															
	378A	380A	33.00	0.10	1.56	14		0.04	3.50	3.77	13.20	0.44	13.64	250	0.30	32.57	0.66	0.63	PVC	SDR-35	0.42	
To LANE 'D', Pipe 38	30A - 381A				1.56		1100			1			_									
								-		<u> </u>	-	-	-									
WALKWAY							 			1	-											
Contribution From LA	NE 'D', Pipe 380A - 381				1.69		1119		 		1.0.00		1001				-		- D) (O	100000		
	381A	Ex. CTRL 113A	52.00		0.05 1.74								13.84		0.30	32.57	0.66	0.64	PVC	SDR-35		
T- 07101 M/O TODO	Ex. CTRL 113A	Ex. 114A	10.50		1.74			0.00	3.56	3./5	13.36	0.49	13.84	250	2.00	84.10	1.71	1.25	PVC	SDR-35	U.16	
1021KLING 10DD	TERRACE (PHASE 1),	ripe Ex. 114A - Ex.	. 115A T		1.74		1119			1							1					
LANE 'C'	1		-					-		+	+			-			+ +			+		
	377A	378A	51.00	0.17	0.17	23	23	0.07	0.07	4.00	0.20	0.05	0.34	200	1.00	32.80	1.04	0.33	PVC	SDR-35	0.01	
To LANE 'B', Pipe 37		310A	31.00	0.17	0.17		23	0.07	0.07	4.00	0.29	0.05	0.34	200	1.00	32.00	1.04	0.33	7 10	120K-33	0.01	
TO LAINE B, Pipe 31	T				0.17		23			1												
	377A	385A	41.00	0.15	0.15	21	21	0.07	0.07	4 00	n 27	0.04	0.31	200	1.00	32.80	1.04	0.32	PVC	SDR-35	0.01	
To LANE 'A', Pipe 38			71.00	0.10	0.15		21	0.07	0.07	7.00	0.27	0.04	0.01	200	1.00	02.00	1.04	0.02		1001(00	0.01	
1 0 2 4 12 7 1, 1 1, po 00	1				3.13															+		
LANE 'A'																				+		
	372A	373A	39.50	0.18	0.18	25	25	0.08	0.08	4.00	0.32	0.05	0.37	200	1.00	32.80	1.04	0.33	PVC	SDR-35	0.01	
	373A	376A	15.00	0.02	0.20	3	28						0.41		1.00	32.80	+	0.35	PVC	SDR-35	+	
To LANE 'B', Pipe 37					0.20		28															
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				0.04	0.04	6	6															
	PLUG	375A	9.00	0.43	0.47	482	488	1.53	1.55	3.98	6.18	0.13	6.31	250	0.40	37.61	0.77	0.57	PVC	SDR-35	0.17	
	375A	376A	31.00	0.08	0.55	11	499	0.04	1.59	3.97	6.31	0.15	6.46	250	0.40	37.61	0.77	0.57	PVC	SDR-35	0.17	
To LANE 'B', Pipe 37	6A - 378A				0.55		499															
	382A	383A	25.00	0.10	0.10	14	14	0.04	0.04	4.00	0.18	0.03	0.21	200	1.00	32.80	1.04	0.29	PVC	SDR-35		
	383A	384A	11.50		0.10		14						0.21	200	1.00	32.80	1.04	0.29	PVC	SDR-35		
	384A	385A	27.50	0.02	0.12	3	17	0.01	0.05	4.00	0.22	0.03	0.25	200	1.00	32.80	1.04	0.30	PVC	SDR-35	0.01	
Contribution From LA	NE 'C', Pipe 377A - 385				0.15		21															
	385A	386A	34.50	0.02	0.29	3		0.01	0.13	4.00	0.52	0.08	0.60	200	2.75	54.39	1.73	0.55	PVC	SDR-35	0.01	
To LANE 'D', Pipe 38	86A - 387A				0.29		41			1	1	-										
L AND ID:	1									1	1			ļ								
LANE 'D'		2024	10.00					1001	1001	1.00	10.15	1000	0.01	000	4.00	00.00	1.01	0.00	D) (0	1000 00	1 2 2 1	
Canduila dia 5 5 5 5 6	379A 290	380A	19.00	0.10	0.10	14		0.04	0.04	4.00	0.18	0.03	0.21	200	1.00	32.80	1.04	0.29	PVC	SDR-35	0.01	
Contribution From LA	NE 'B', Pipe 378A - 380.		14 50	0.03	1.56		1100	0.00	2 50	2 77	12.42	2 0 47	12.00	250	0.20	20.57	0.66	0.64	D) //C	EDD 35	0.42	
To WALKWAY, Pipe	380A	381A	14.50	0.03	1.69 1.69	5	1119	0.02	3.56	3.11	13.43) U.4 <i>/</i>	13.90	∠5∪	0.30	32.57	0.66	0.64	PVC	SDR-35	0.43	
TO VVALAVVAT, PIPE	JOIA - 113A				1.09		1119			1	+	+		1			+ +			+	-	
	381A		80.50	0.39	0.39	53	53	0 17	0 17	4 00	0.67	0 11	0.78	200	1.00	32 80	1.04	0.43	PVC	SDR-35	0.03	
Contribution From LA	NE 'A', Pipe 385A - 386		00.00	0.59	0.39		1 33	0.17	0.17	7.00	0.07	0.11	0.70	200	1.00	32.00	1.04	0.40	1 00	10017-33	0.02	
CONTRIBUTION FOR	386A	387A	12.00	0.06	0.29	9	103	0.03	0.33	4 00	1 31	0 21	1 52	200	1 50	40.17	1 28	0.60	P\/C	SDR-35	0.04	
	387A	Ex. CTRL 119A			0.93	26	129	0.00	0.33	4 00	1 64	0.21	1.02	200 200	1.20	35.93			PVC	SDR-35		
	Ex. CTRL 119A	Ex. 122A	13.50	()	0.93		129	0.00	0.41	4 00	1 64	0.26	1.90	300	2.00	136.76			PVC	SDR-35		
To FERGUSON DRI	VE (PHASE 1), Pipe Ex.		1.5.55		0.93		129	1 3.55	1	1	+	1 3.20	1			1.55.75	55	5.57		132.133	1 3.3	
			†				1.25			1				1			† †			+		
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NOT FOR CONSTRUCTION

TOPOGRAPHIC INFORMATION
TOPOGRAPHIC INFORMATION PROVIDED BY R-PE SURVEYING LTD.,
REFERENCE No. 22-049, CAD FILE No.22049tp05, SURVEY
RECEIVED FEBRUARY 16, 2023.

LEGAL INFORMATION

SITE PLAN PROVIDED BY KNYMH INC., PROJECT NUMBER 21407, FOR GARITO BARBUTO TOR PH 2 BLOCK 458, RECEIVED SEPTEMBER 11, 2024.

BENCHMARK (MINISTRY OF TRANSPORTATION) No. 00819828155 ELEVATION = 185.351m

2.	24-10-07	C.J.M.	2nd SUBMISSION 1st SUBMISSION	
1.	24-04-05	C.J.M.	1st SUBMISSION	
				10000015

2.	24-10-07	C.J.M.	2nd SUBMISSION		
1.	24-04-05	C.J.M.	1st SUBMISSION		
No.	DATE	BY	DESCRIPTION		APPRO
SCAL	E:			REFERENCES	
	NTS				
		Al	PPROVALS	FIELD NOTES	

MUNICIPAL APPROVAL	BELL	HYDRO	
	GAS	CABLE	
DEVELOPMENT SERVICES DATE	TRAFFIC	WATER	

REGIONAL APPROVAL

DESIGN OF SANITARY, WATER SERVICES AND REGIONAL ROAD WORKS APPROVED SUBJECT TO DETAIL CONSTRUCTION CONFORMING TO HALTON REGION STANDARDS & SPECIFICATIONS & LOCATIONAL APPROVAL FROM AREA MUNICIPALITY

24-10-07 LEGISLATIVE AND PLANNING SERVICES DATE



600 Alden Road, Suite 606 Markham, Ontario, L3R 0E7 Tel. (905) 475-3080 Fax. (905) 475-3081 www.DSEL.ca

TOWN OF MILTON

Mem

C. J. MANZO 100511578



TOWN OF MILTON FILE No: XXXXXX



The Regional Municipality of Halton

REGION OF HALTO FILE No: XXXXXXX

DEVELOPER

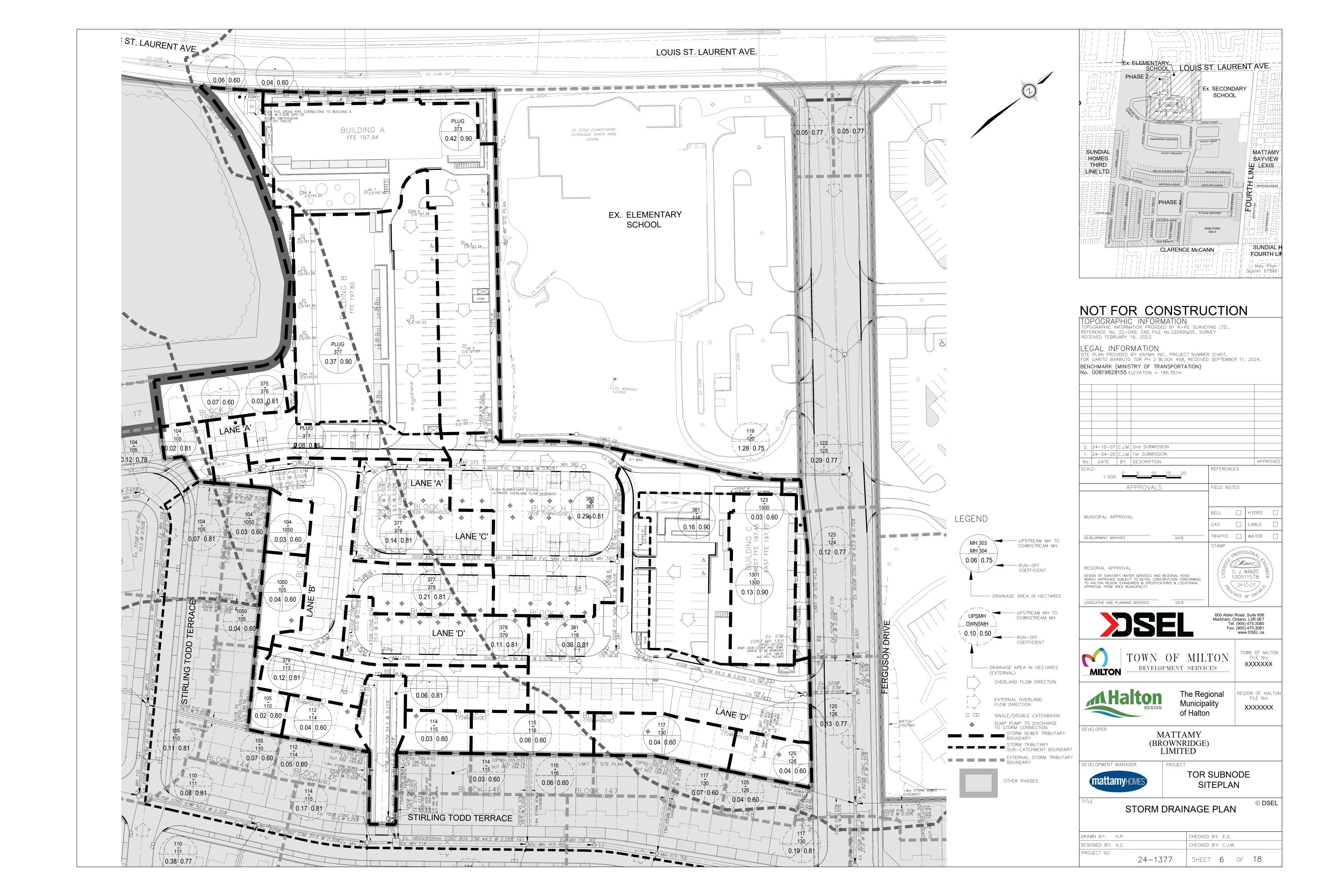
MATTAMY (BROWNRIDGE) LIMITED

DEVELOPMENT MANAGER

TOR SUBNODE **(mattamy**HOME SITEPLAN

© DSEL SANITARY DESIGN SHEETS

CHECKED BY: E.G. DRAWN BY: H.P. CHECKED BY: C.J.M. DESIGNED BY: H.C. PROJECT NO. 24-1377 SHEET 5 OF 18



LO	CATION		CO	NTRIBU	TING A	REA	FLO	WC					S	EWER I	DESIGN					
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
STREET	FROM MANHOLE	TO MANHOLE	AREA "A" (ha)	STORM COEFFICIENT	SECTION AxC	ACCUMULATED AxC	5 YR RATIONAL INTENSITY "!" (mm/hr)	FLOW Q (Us)	LENGTH (m)	SLOPE (%)	DIAMETER (mm)	FULL FLOW CAPACITY (L/s)	FULL FLOW VELOCITY (m/s)	TIME OF FLOW IN PIPE (min)	TIME OF CONCENTRATION (min)	FALL IN PIPE SECTION (m)	MANHOLE INLET INVERT (m)	MANHOLE LOSSES (m)	MANHOLE OUTLET INVERT (m)	PIPE % CAPACITY
LANE 'B'																				
LANE D			0.08	0.81	0.06	0.06									10.00					+
			0.37	0.90	0.33	0.40									10.00					
	PLUG	377	0.07	0.50	0.00	0.40	105.37	116	12.0	0.50	450	202	1.27	0.16	10.16					58%
Contribution From LANE 'A'					1	0.38	155.57	1	1	1	100	1	,	1	11.05					1 20,0
Contribution From LANE 'A'	•					0.02						1			10.41					
	•		0.14	0.81	0.11	0.91									10.00					
	377	383			0.00	0.91	100.05	254	29.0	0.35	600	363	1.28	0.38	11.42					70%
Contribution From LANE 'C'	, Pipe 384 - 383					0.00									10.69					
	383	378	0.21	0.81	0.17	1.08	98.28	296	32.5	0.35	600	363	1.28	0.42	11.84					81%
To LANE 'D', Pipe 378 - 379)					1.08									11.84					
WALKWAY																				+
Contribution From LANE 'D'	. Pipe 378 - 379					1.21									12.06					
Contribution From LANE 'D'	· •					0.00									10.93					
	•		0.12	0.81	0.10	1.31									10.00					
	379	Ex. CTRL 113			0.00	1.31	95.46	347	54.5	0.25	675	420	1.17	0.77	12.83					83%
			0.06	0.81	0.05	1.36									10.00					
	Ex. CTRL 113	Ex. 114			0.00	1.36	92.25	348	9.0	0.25	825	848	1.59	0.09	12.93					41%
To STIRLING TODD TERR	ACE (PHASE 1),	, Pipe Ex. 114 - E	x. 115 TE	E		1.36									12.93					
LANE 'C'												1			10.00					_
LAIL O	384	385			0.00	0.00	105.37	0	42.0	0.50	300	81	1.14	0.61	10.61					0%
To LANE 'A', Pipe 385 - 381					0.00	0.00	100.07		12.0	0.00	"	 ••		0.01	10.61					1 7,0
, , ,																				
															10.00					
	384	383			0.00	0.00	105.37	0	47.0	0.50	300	81	1.14	0.69	10.69					0%
To LANE 'B', Pipe 383 - 378	}					0.00									10.69					
NOTES:						PROJEC	<u> </u> ::T·	TOR PH	<u> </u> 2-SUBNC	DF										
	Initial time of cor	ncentration = 10 r	min.					24-1377		<i>,</i> ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	DESIGNED	n pV:	H.C.			TC	OWN O	FMILT	ON	
		050				PROJEC	JI INU.	2 4 -13//												
I = Intensity (mm/hr) A = Area (hectares)		$\frac{959}{(td + 5.7)}$	0.802	-		CONSU	_TANT		CHAEFF		CHECKED DATE:	D BY:	C.J.M. 09 Sep 2	2024		ST	ORM SE	WER DESI	GN	
n = 0.013 (conc.) for sewers	s =>525mm							ENGINE	ERING LT	D.						SHEET		1 OF		3

LOCA	TION		CC	NTRIBU	TING A	REA	FLC	DW .					S	EWER D	DESIGN					
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
STREET	FROM	TO MANHOLE	AREA "A" (ha)	STORM COEFFICIENT "C"	SECTION AxC	ACCUMULATE D AxC	5 YR RATIONAL INTENSITY "!" (mm/hr)	FLOW Q (L/s)	LENGTH (m)	SLOPE (%)	DIAMETER (mm)	FULL FLOW CAPACITY (L/s)	FULL FLOW VELOCITY (m/s)	TIME OF FLOW IN PIPE (min)	TIME OF CONCENTRAT ION (min)	FALL IN PIPE SECTION (m)	MANHOLE INLET INVERT (m)	MANHOLE LOSSES (m)	MANHOLE OUTLET INVERT (m)	PIPE %
_ANE 'A'																				<u> </u>
LANE A			0.03	0.81	0.02	0.02						1			10.00					
	375	376	0.00	0.01	0.00	0.02	105.37	7	10.5	0.50	300	81	1.14	0.15	10.15					9%
	376	377			0.00	0.02	104.55	7	24.0	0.90	300	108	1.53	0.26	10.41					7%
To LANE 'B', Pipe 377 - 383						0.02									10.41					
			0.28	0.81	0.23	0.23									10.00					
	380	385			0.00	0.23	105.37	66	24.0	0.50	300	81	1.14	0.35	10.35					829
Contribution From LANE 'C', Pi	<u> </u>					0.00									10.61					<u> </u>
	385	381			0.00	0.23	102.18	64	31.0	0.50	300	81	1.14	0.45	11.06					809
To LANE 'D', Pipe 381 - 118						0.23						1			11.06 10.00					<u> </u>
	200	373			0.00	0.00	105.37		40.5	0.50	200	04	111	0.62	10.62					-00
-	382	3/3	0.42	0.90	0.00	0.00	105.37	0	42.5	0.50	300	81	1.14	0.62	10.62					0%
	PLUG	373	0.42	0.30	0.00	0.38	105.37	111	11.0	0.50	450	202	1.27	0.14	10.00					559
	373	374			0.00	0.38	102.15	107	23.5	0.50	450	202	1.27	0.31	10.93					539
	374	377			0.00	0.38	100.62	106	9.0	0.50	450	202	1.27	0.12	11.05					529
To LANE 'B', Pipe 377 - 383						0.38									11.05					
															40.00					
LANE 'D'	386	270			0.00	0.00	405.07	0	64.0	0.50	200	04	111	0.00	10.00					00/
<u> </u> To WALKWAY, Pipe 379 - 113		379			0.00	0.00	105.37	0	64.0	0.50	300	81	1.14	0.93	10.93 10.93					0%
TO WALKWAT, FIRE 379 - 113	1					0.00									10.93					
	pe 385 - 381					0.23						1			11.06					
	p		0.36	0.81	0.29	0.52									10.00					
			0.16	0.90	0.14	0.66									10.00					
	381	Ex. CTRL 118			0.00	0.66	99.97	184	66.0	0.60	450	221	1.39	0.79	11.86					839
	ial time of co	ncentration = 10 n	nin.	<u> </u>		PROJEC		TOR PH	L 2-SUBNC		 DESIGNET) BY:	H.C.			то	WN OF	MILT	ON	
C = Runon co-ellicient I = Intensity (mm/hr) A = Area (hectares) n = (conc.) for sewers =>525r		959 (td + 5.7)	0.802	-		CONSUL	_TANT	DAVID S	CHAEFFI ERING LT	ER	CHECKED DATE:		C.J.M. 09 Sep 2	2024		STO	ORM SEW	IER DESI	GN	

(1)			,	NTRIBU	IIING A	KEA	FLO	J V V					3	EWER [JESIGN					
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
STREET	FROM	TO MANHOLE	AREA "A" (ha)	STORM COEFFICIENT	SECTION	ACCUMULATE D AxC	5 YR RATIONAL INTENSITY "I" (mm/hr)	FLOW Q (L/s)	LENGTH (m)	SLOPE (%)	DIAMETER (mm)	FULL FLOW CAPACITY (L/s)	FULL FLOW VELOCITY (m/s)	TIME OF FLOW IN PIPE (min)	TIME OF CONCENTRAT ION (min)	FALL IN PIPE SECTION (m)	MANHOLE INLET INVERT (m)	MANHOLE LOSSES (m)	MANHOLE OUTLET INVERT (m)	PIPE %
	Ex. CTRL 118	Ex. 124			0.00	0.66	96.33	177	16.5	0.50	525	304	1.40	0.20	12.05			-		58%
o FERGUSON DRIVE (PI					0.00	0.66	90.33	177	16.5	0.50	525	304	1.40	0.20	12.05					56%
O PERGUSON DRIVE (PI	1A3E 1), Pipe Ex.	124 - EX. 123				0.00									12.03					
Contribution From LANE 'B	' Pipe 383 - 378					1.08									11.84					
JOHN DATE D	, , , , , , , , , , , , , , , , , , , ,		0.16	0.81	0.13	1.21									10.00					
	378	379			0.00	1.21	96.39	325	15.0	0.25	675	420	1.17	0.21	12.06					779
o WALKWAY, Pipe 379 -	113					1.21									12.06					
																				—
																				-
																				
																				-
																				-
																				<u> </u>
								<u> </u>	<u> </u>											
IOTES:						PROJEC	T:	TOR PH	2-SUBNC	DE										
) = 2.78ACI L/s	Initial time of con	icentration = 10 r	min.													TO	WN OF	FMILT	ON	
= Runoff Co-efficient						PROJEC	T NO:	24-1377			DESIGNE	D BY:	H.C.							
= Intensity (mm/hr)		959									CHECKE		C.J.M.							
= Interisity (mm/m) \ = Area (hectares)	15 = -		0.802	_		CONSUL	TANT	DAVID S			DATE:	יום כ.	09 Sep 2	2024		QT/	ODM SEV	VER DESI	GN	
		(tu + 3.1)				LCONSOL					DAIC.		us sep z	.024		310	OKIVI SEV	VEK DESI	GIV	
= (conc.) for sewers =>5	o∠omm mc≥c							ENGINE	EKING LI	U.						SHEET	_	B OF		3

NOT FOR CONSTRUCTION

TOPOGRAPHIC INFORMATION
TOPOGRAPHIC INFORMATION PROVIDED BY R-PE SURVEYING LTD.,
REFERENCE No. 22-049, CAD FILE No.22049tp05, SURVEY
RECEIVED FEBRUARY 16, 2023.

LEGAL INFORMATION
SITE PLAN PROVIDED BY KNYMH INC., PROJECT NUMBER 21407,
FOR GARITO BARBUTO TOR PH 2 BLOCK 458, RECEIVED SEPTEMBER 11, 2024.

BENCHMARK (MINISTRY OF TRANSPORTATION)
No. 00819828155 ELEVATION = 185.351m

	000,0020		22 WHON 100.00 III		
2.	24-10-07	C.J.M.	2nd SUBMISSION		
1.	24-04-05	C.J.M.	1st SUBMISSION		
No.	DATE	BY	DESCRIPTION		APPROVED
SCAL	E:			REFERENCES	

NTS

APPROVALS FIELD NOTES

☐ HYDRO ☐ MUNICIPAL APPROVAL GAS CABLE

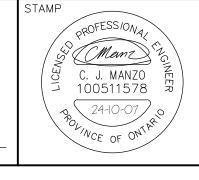
DATE

REGIONAL APPROVAL

DEVELOPMENT SERVICES

DESIGN OF SANITARY, WATER SERVICES AND REGIONAL ROAD WORKS APPROVED SUBJECT TO DETAIL CONSTRUCTION CONFORMING TO HALTON REGION STANDARDS & SPECIFICATIONS & LOCATIONAL APPROVAL FROM AREA MUNICIPALITY

LEGISLATIVE AND PLANNING SERVICES DATE



TRAFFIC | WATER |



600 Alden Road, Suite 606 Markham, Ontario, L3R 0E7 Tel. (905) 475-3080 Fax. (905) 475-3081 www.DSEL.ca



TOWN OF MILTON DEVELOPMENT SERVICES

TOWN OF MILTON FILE No: XXXXXX



The Regional Municipality of Halton

REGION OF HALTON FILE No: XXXXXX

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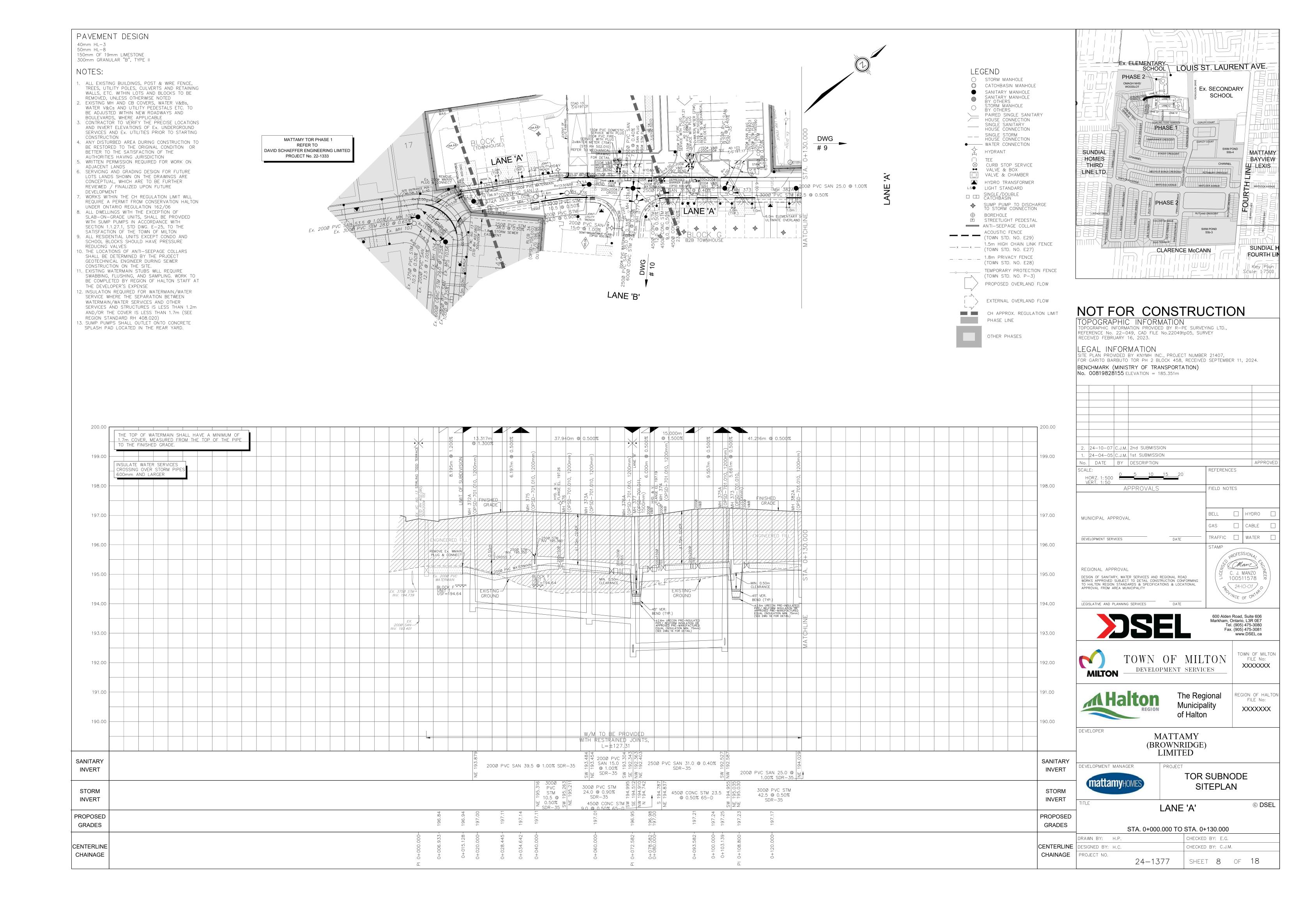
DEVELOPER

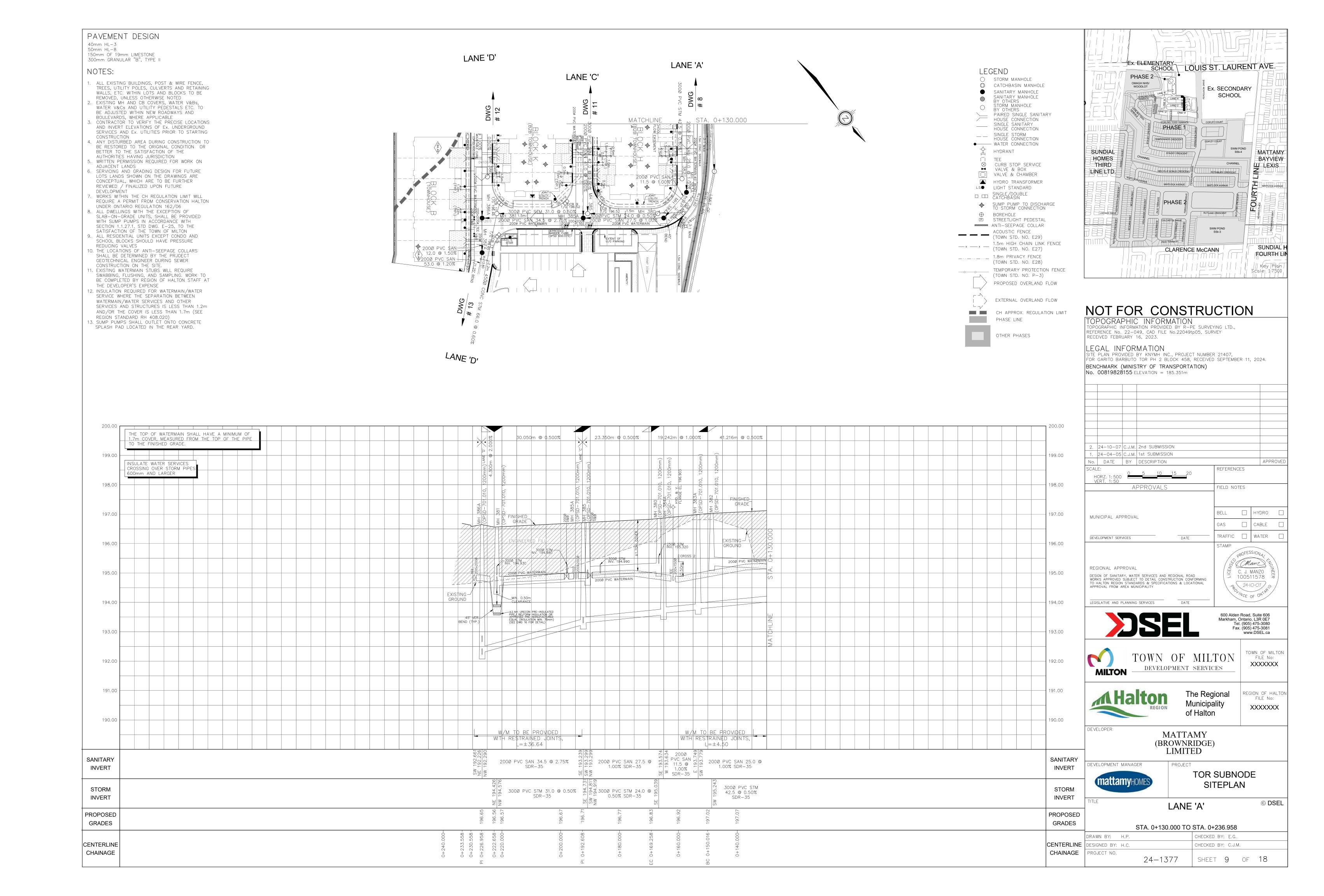
MATTAMY (BROWNRIDGE) LIMITED

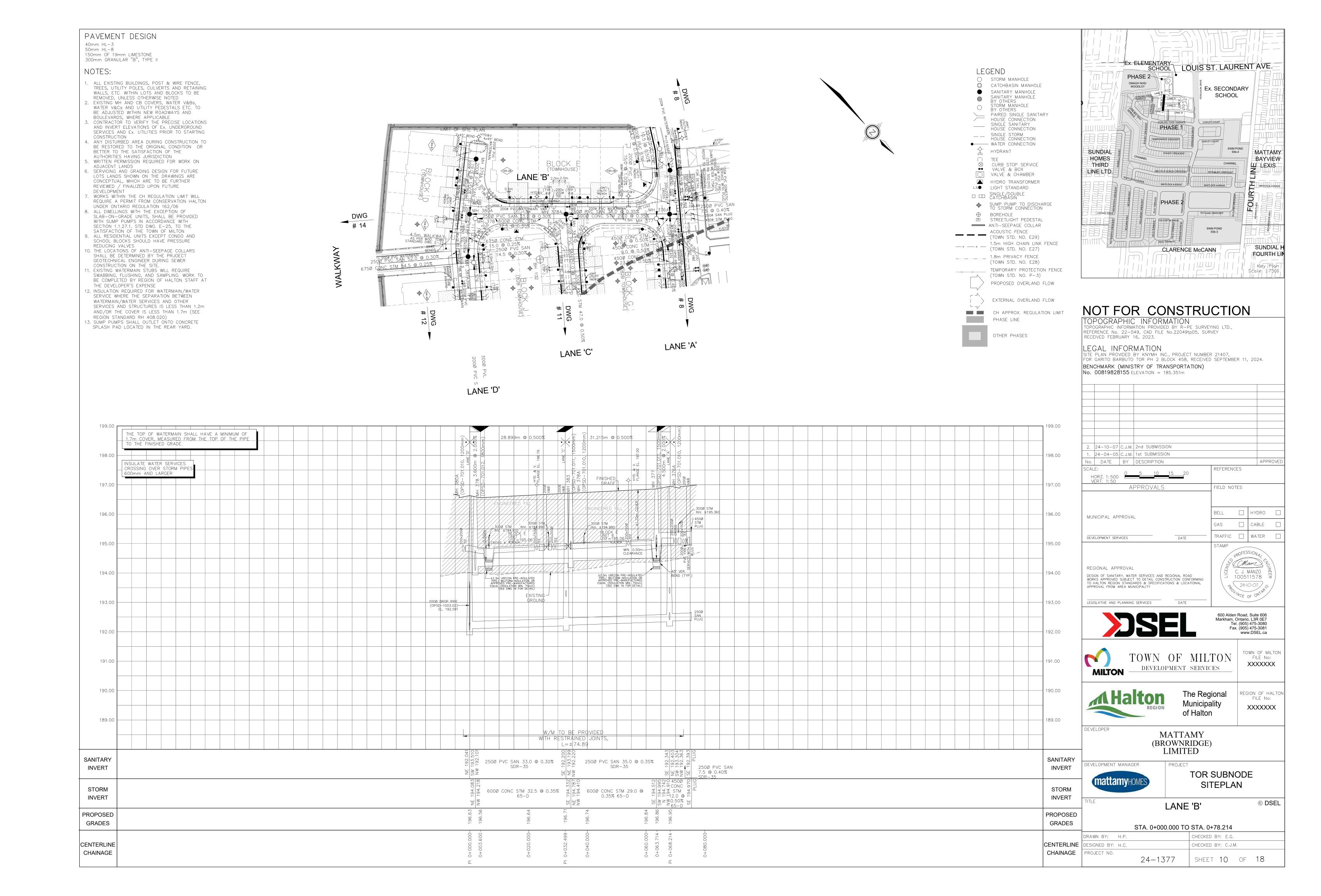
DEVELOPMENT MANAGER mattamyHOMES TOR SUBNODE SITEPLAN

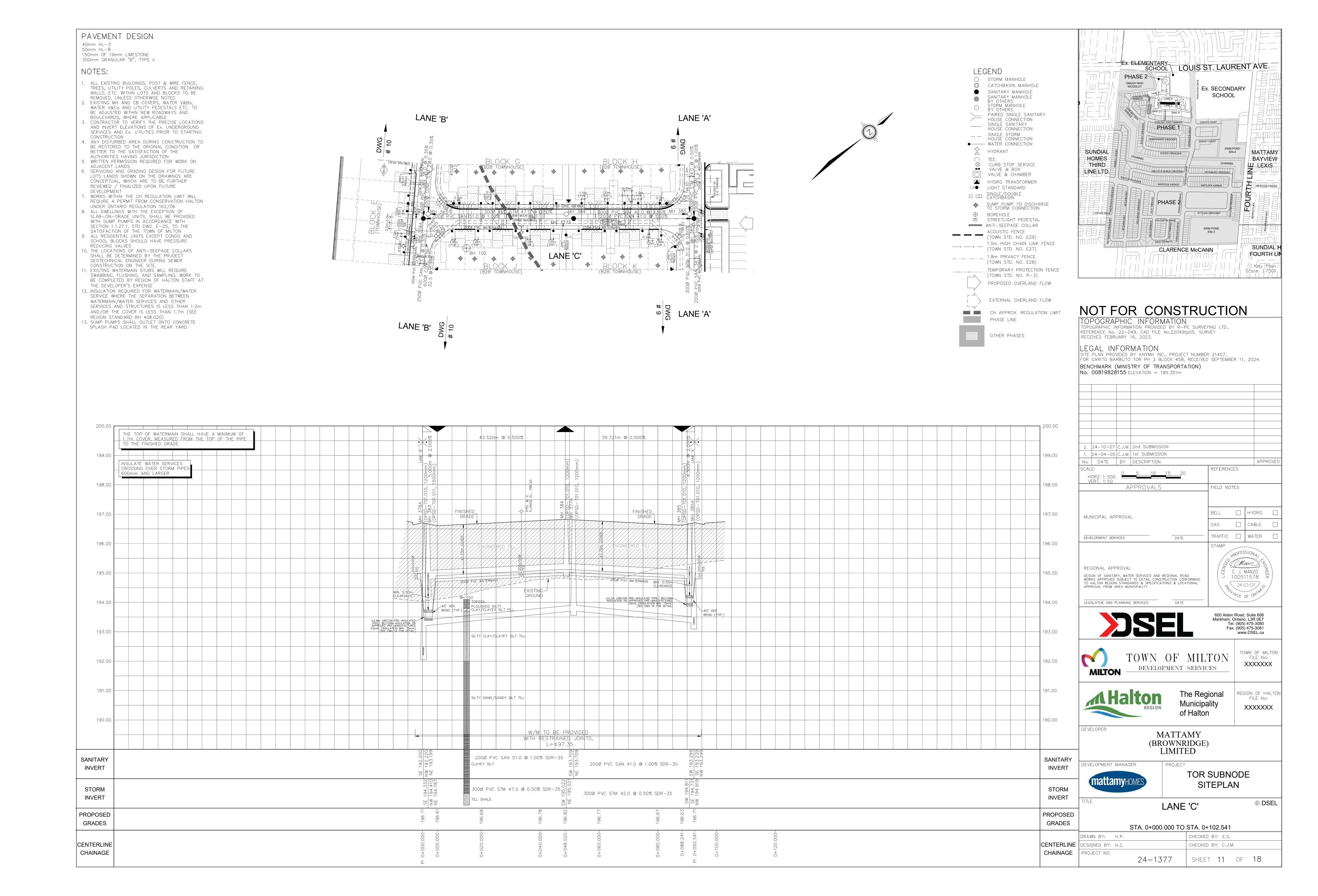
STORM DESIGN SHEETS

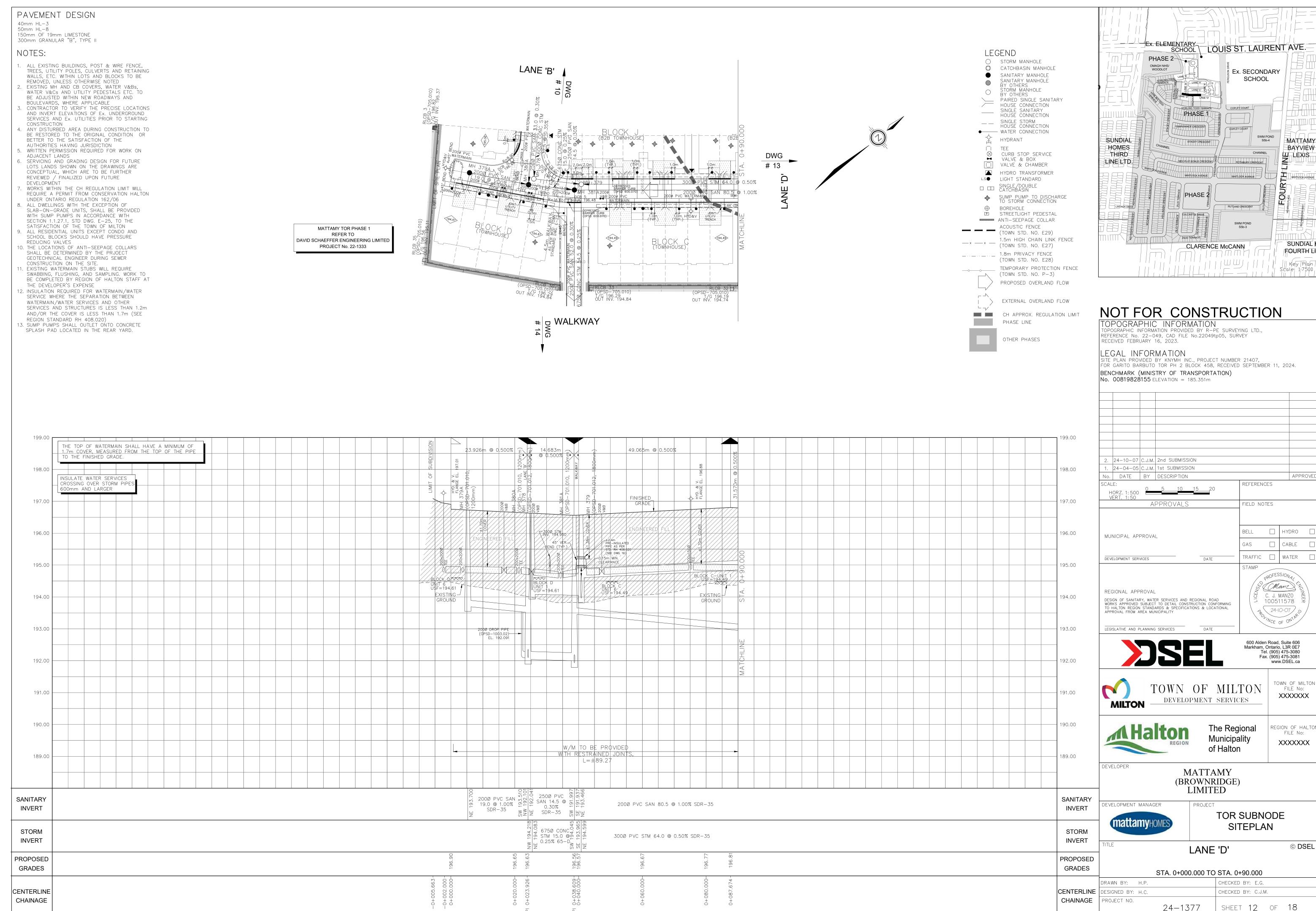
DRAWN BY: H.P. CHECKED BY: E.G. DESIGNED BY: H.C. CHECKED BY: C.J.M. PROJECT NO. 24-1377 SHEET 7 OF 18

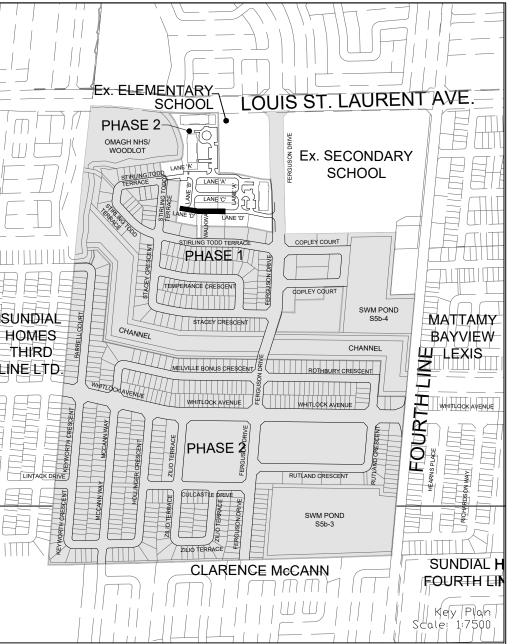






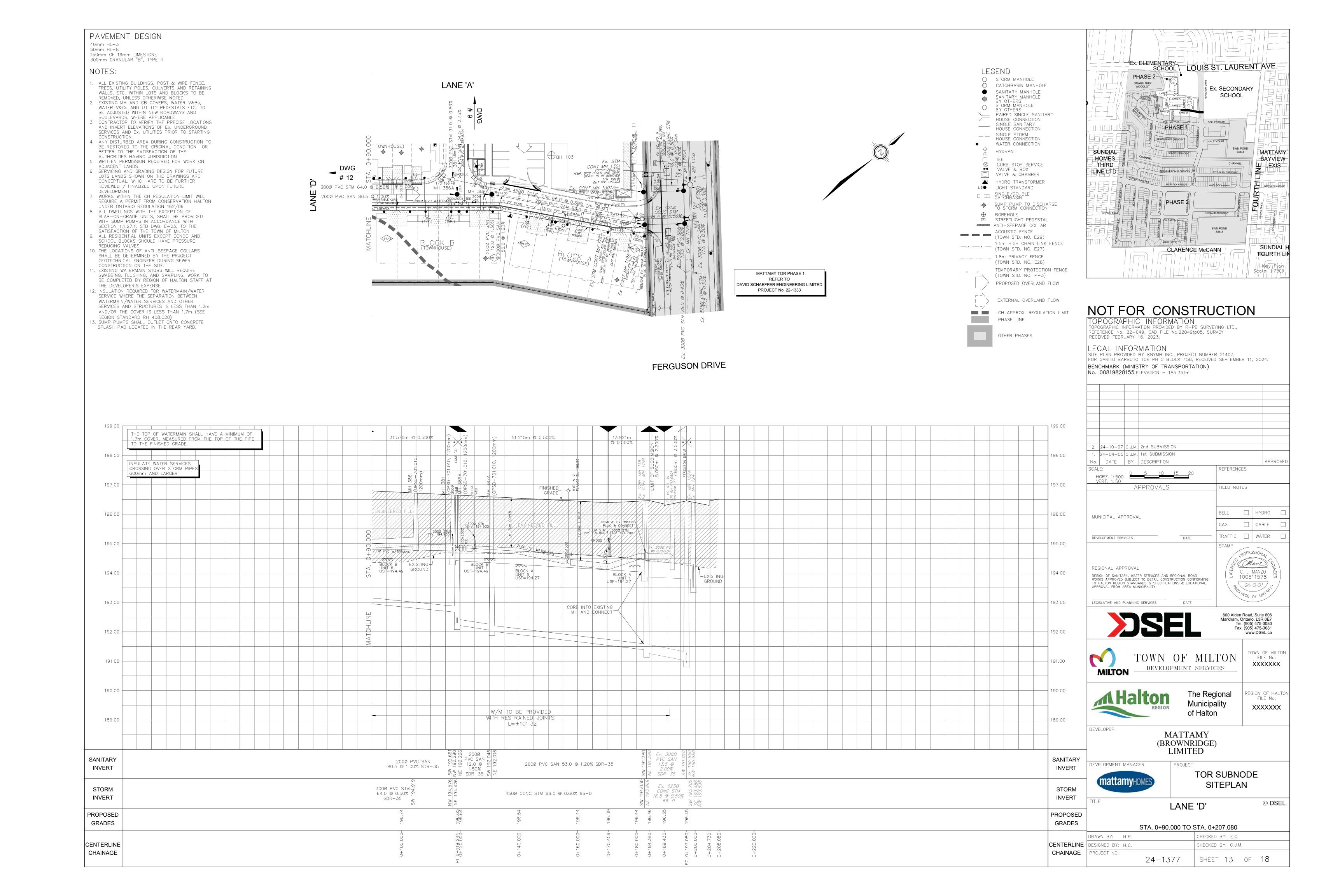


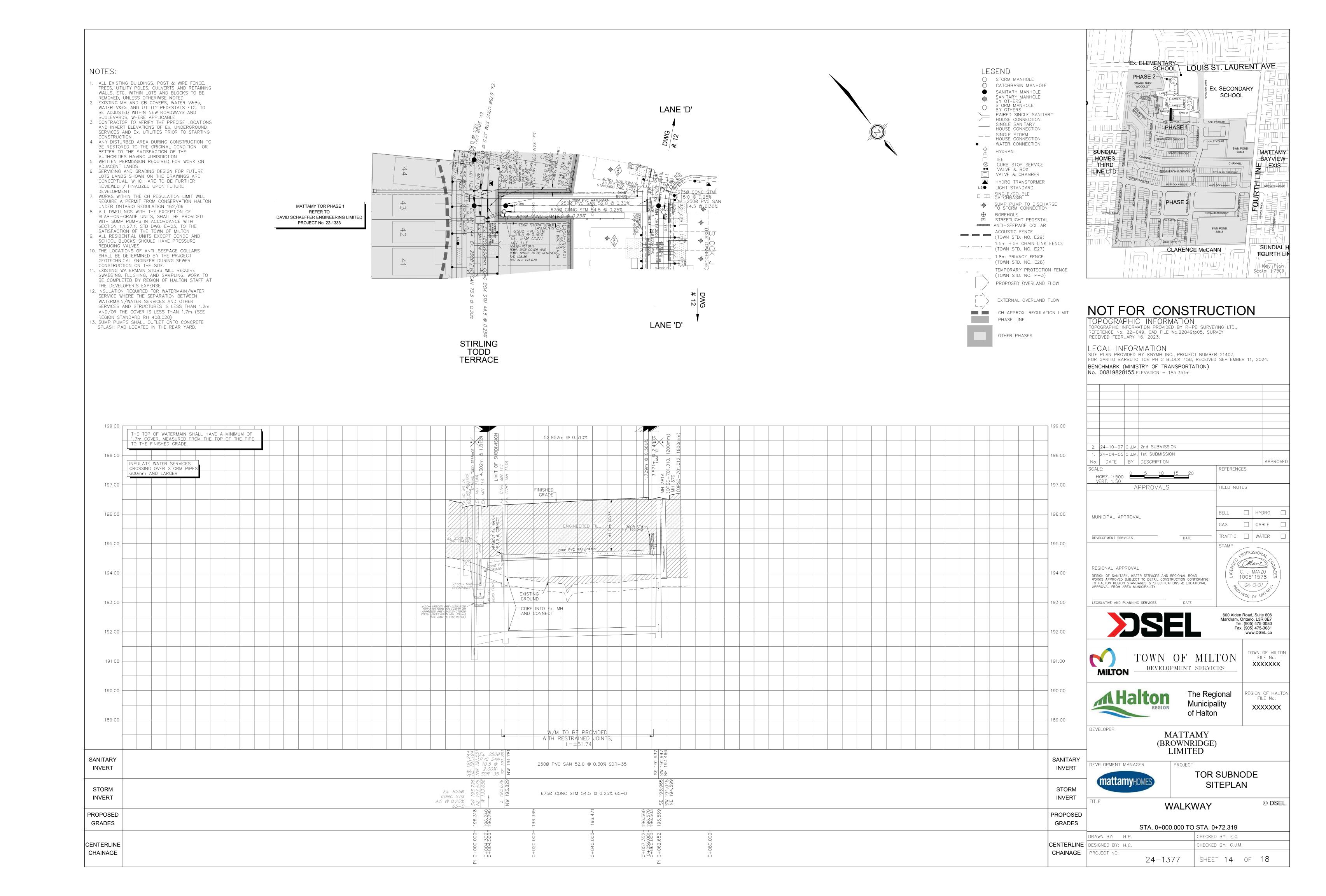


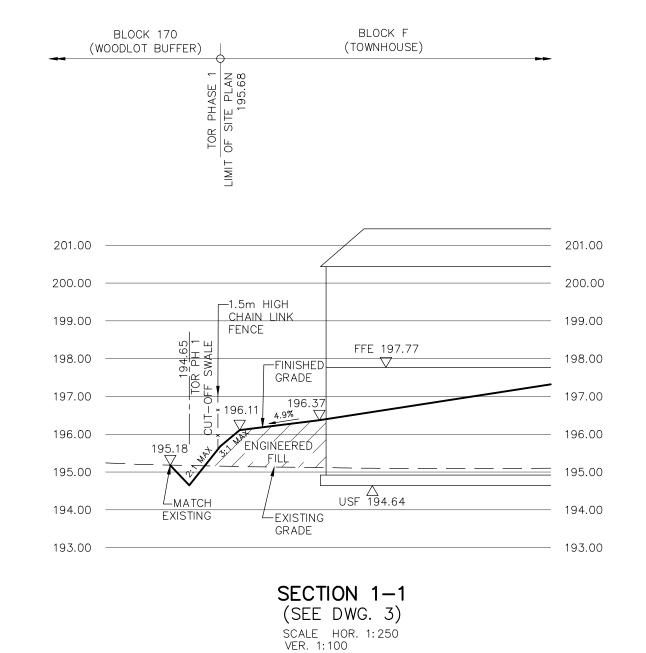


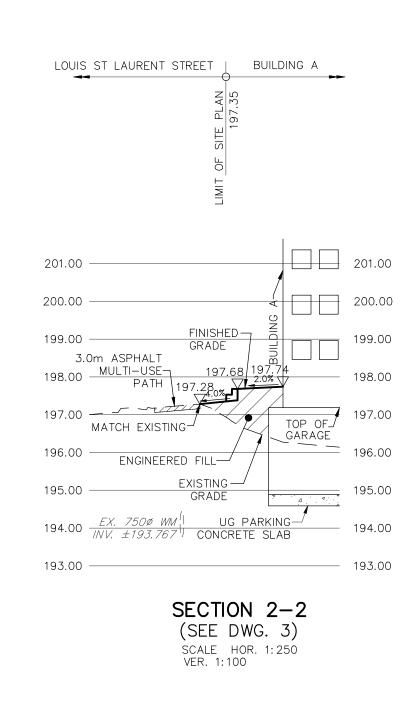
2	24-10-07	C.J.M.	2nd SUBMISSION				
			1st SUBMISSION				
No.	DATE	BY	DESCRIPTION			APPF	20 V
	ORZ. 1:500 ERT. 1:50		5 10 15 20	REFEREN			
		Α	PPROVALS	FIELD NO	OTES		
MUI	NICIPAL API	PROVA	ıl	BELL		HYDRO	[
14101	VIOII / LE / LI	1,0 ,,		GAS		CABLE	[
DEV	ELOPMENT SER	VICES	DATE	TRAFFIC		WATER	
				STAMP		SSIONAL PARTIES	
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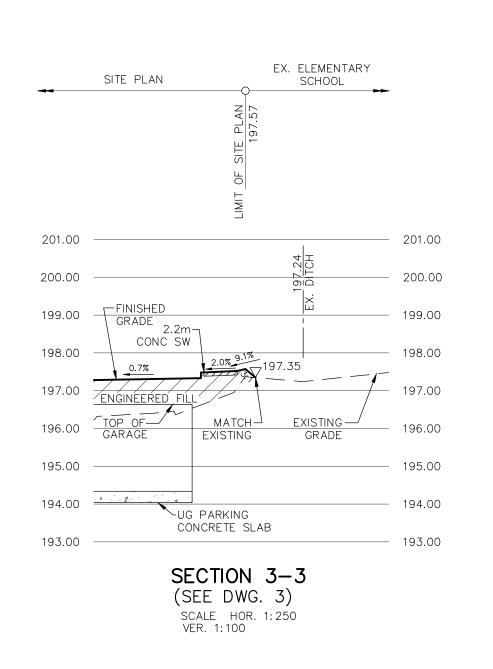
24-1377 SHEET 12 OF 18

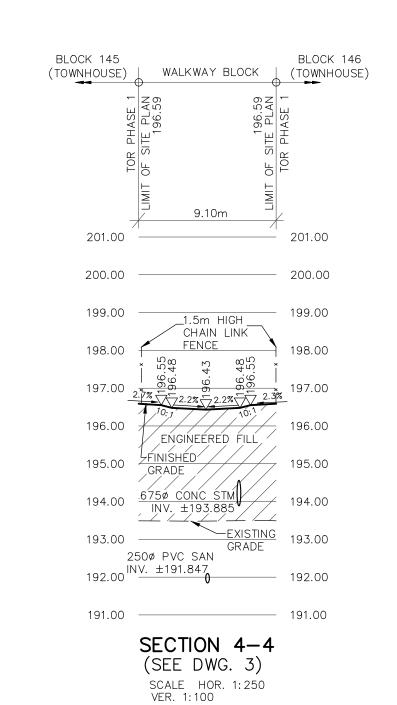


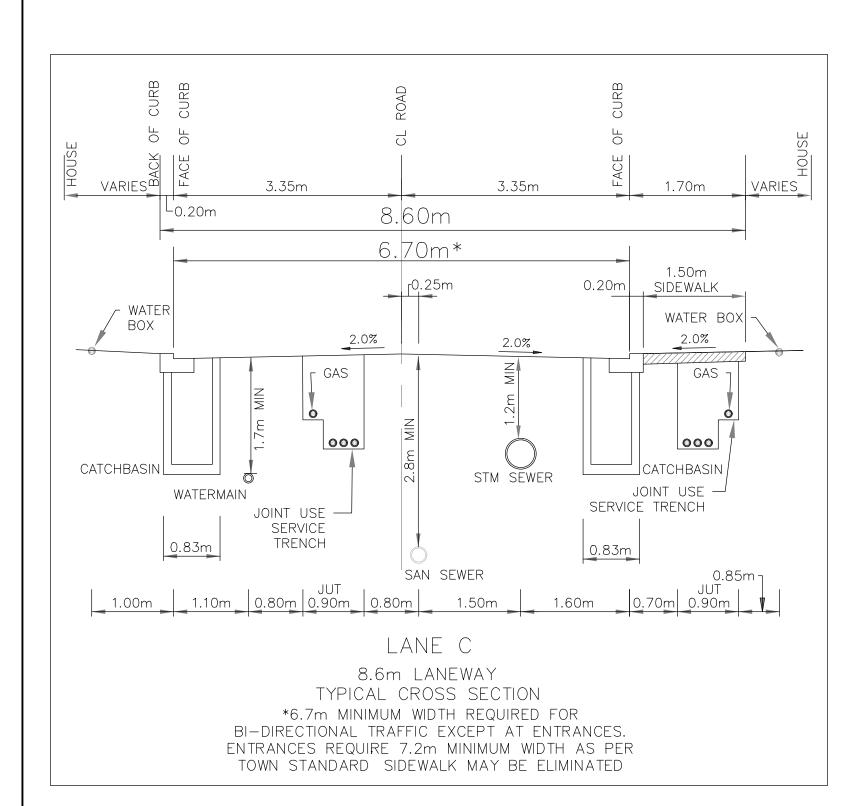


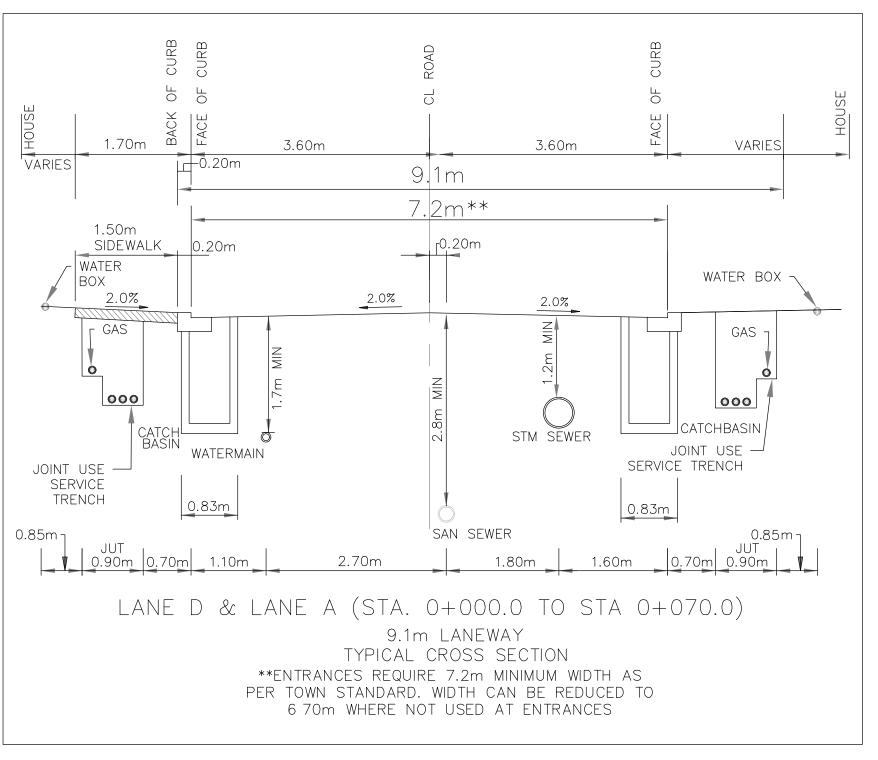


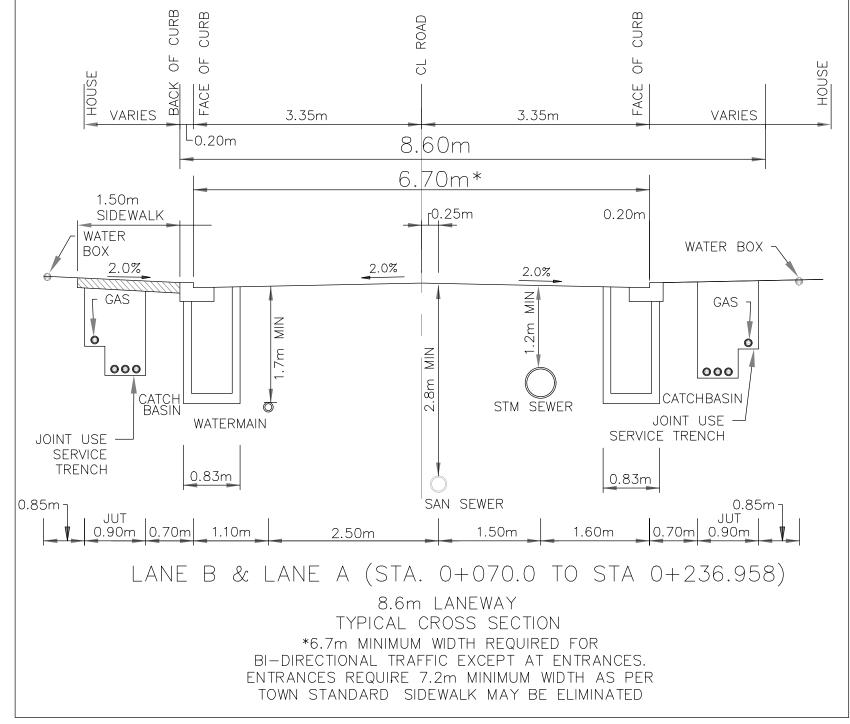












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TOPOGRAPHIC INFORMATION

TOPOGRAPHIC INFORMATION PROVIDED BY R-PE SURVEYING LTD., REFERENCE No. 22-049, CAD FILE No.22049tp05, SURVEY RECEIVED FEBRUARY 16, 2023.

LEGAL INFORMATION

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BENCHMARK (MINISTRY OF TRANSPORTATION) **No. 00819828155** ELEVATION = 185.351m

			_		
2.	24-10-07	C.J.M.	2nd SUBMISSION		
1.	24-04-05	C.J.M.	1st SUBMISSION		
No.	DATE	BY	DESCRIPTION		APPROVED
SCAL	E:			REFERENCES	

NTS	
APPROVALS	FIELD NOTES
]

BELL HYDRO MUNICIPAL APPROVAL GAS CABLE TRAFFIC | WATER DEVELOPMENT SERVICES

REGIONAL APPROVAL DESIGN OF SANITARY, WATER SERVICES AND REGIONAL ROAD WORKS APPROVED SUBJECT TO DETAIL CONSTRUCTION CONFORMING TO HALTON REGION STANDARDS & SPECIFICATIONS & LOCATIONAL APPROVAL FROM AREA MUNICIPALITY

LEGISLATIVE AND PLANNING SERVICES



TOWN OF MILTON DEVELOPMENT SERVICES **MILTON**

The Regional EGION OF HALTO Municipality XXXXXXX of Halton

" (Memz

C. J. MANZO 100511578

24-10-07

TOWN OF MILTON

FILE No:

XXXXXXX

FILE No:

DEVELOPER MATTAMY (BROWNRIDGE) LIMITED

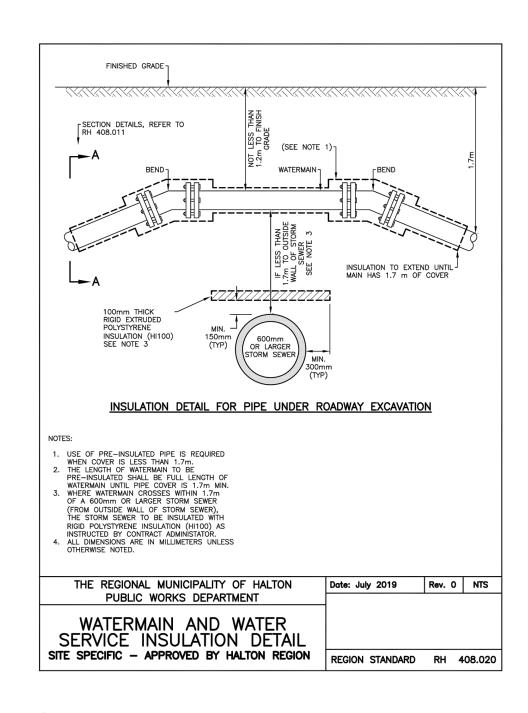
DEVELOPMENT MANAGER

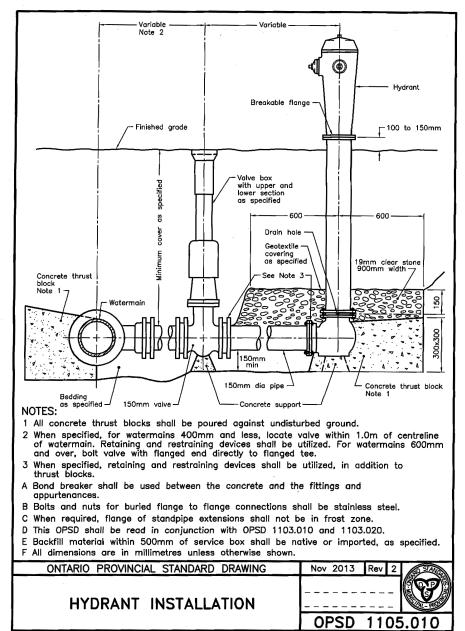
mattamyHOME

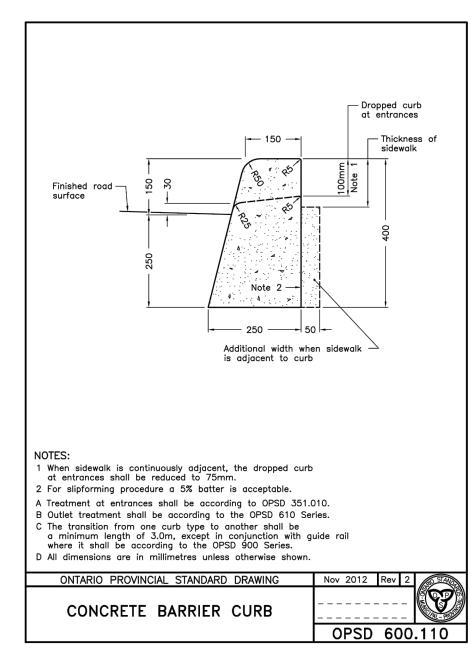
TOR SUBNODE SITEPLAN

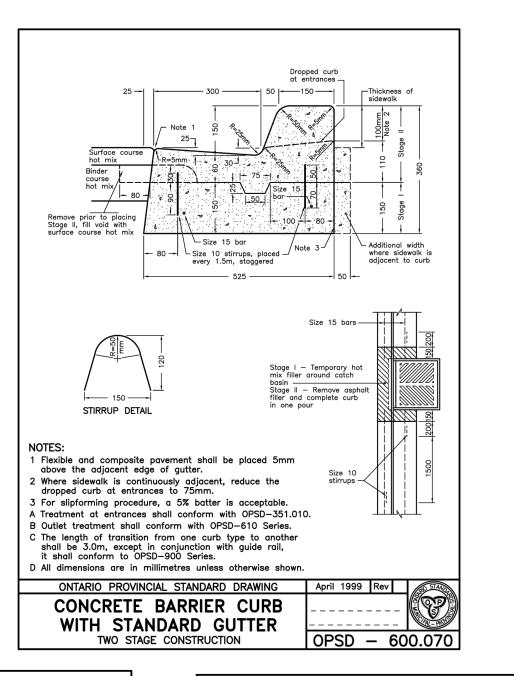
STANDARD ROADWAY SECTIONS & DSEL **CROSS SECTIONS**

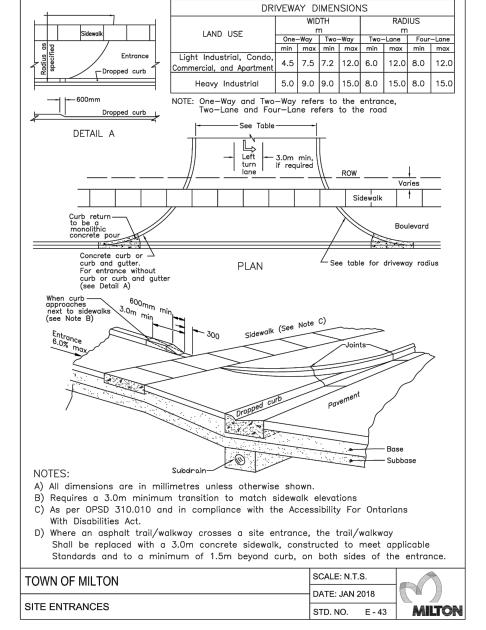
DRAWN BY: H.P. CHECKED BY: E.G. DESIGNED BY: H.C. CHECKED BY: C.J.M. PROJECT NO. SHEET **15** OF **18** 24-1377

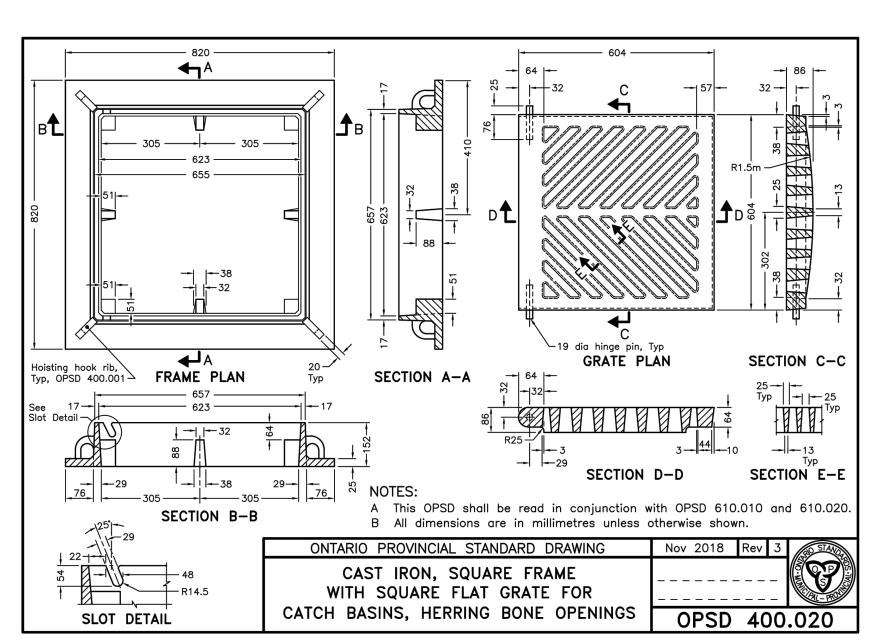


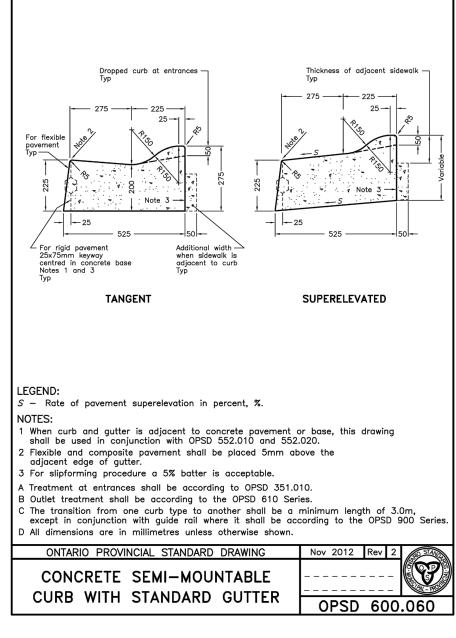


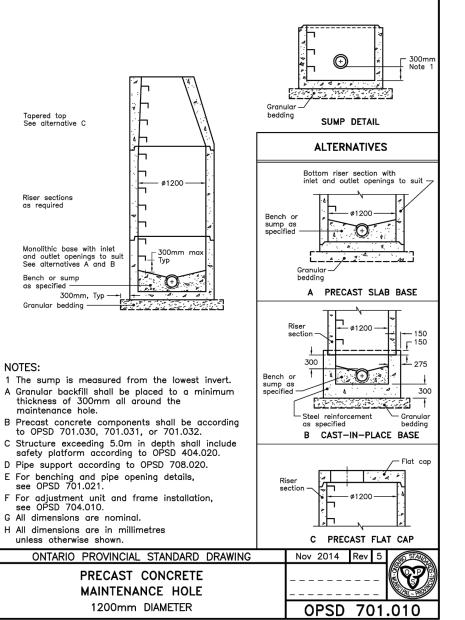


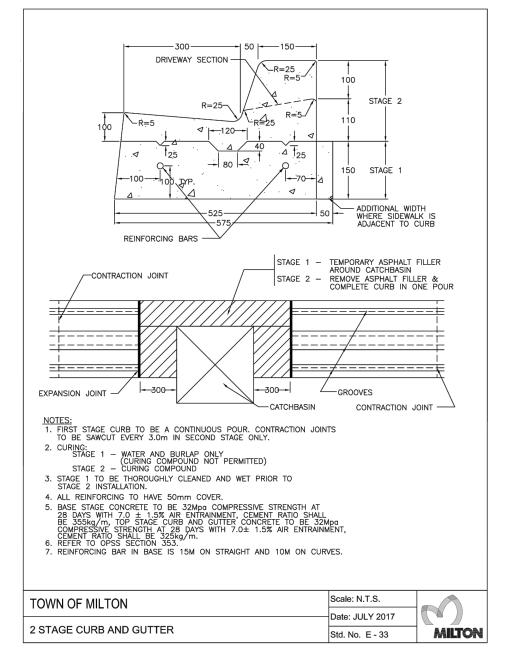












CATCHBASIN AND LEAD DATA FRAME INVERT CB LEAD I LEAD INV @								
CB No.	FRAME ELEV	INVERT ELEV	LENGTH	SIZE (mm)	SLOPE (%)	LEAD INV @ MAIN/MH		
DCB 1	196.32	194.82	2	300	1	194.80		
DCB 2	196.32	194.82	4.5	300	1	194.78		
DCB 3	196.48	194.98	7.5	300	1	194.91		
DCB 4	196.46	194.96	1.5	300	1	194.95		
DCB 5	196.48	194.98	4	300	1	194.94		
DCB 6	196.52	195.02	4	300	1	194.98		
DCB 7	196.52	195.02	3.5	300	1	194.99		
DCB 8	196.52	195.02	3	300	1	194.99		
DCB 9	196.52	195.02	4	300	1	194.98		
DCB 12	196.46	194.96	3.5	300	1	194.93		
DCB 13	196.45	194.95	2	300	1	194.93		
DCB 14	196.89	195.39	3.5	300	1	195.36		
CB 1	196.85	195.40	8.5	250	1	195.32		
CB 15	196.97	195.52	17	250	1	195.35		
CB 16	196.97	195.52	16	250	1	195.36		

NOT FOR CONSTRUCTION

TOPOGRAPHIC INFORMATION

POGRAPHIC INFORMATION PROVIDED BY R-PE SURVEYING LTD., REFERENCE No. 22-049, CAD FILE No.22049tp05, SURVEY RECEIVED FEBRUARY 16, 2023.

LEGAL INFORMATION

SITE PLAN PROVIDED BY KNYMH INC., PROJECT NUMBER 21407, FOR GARITO BARBUTO TOR PH 2 BLOCK 458, RECEIVED SEPTEMBER 11, 2024.

BENCHMARK (MINISTRY OF TRANSPORTATION)

2.	24-10-07	C.J.M.	2nd SUBMISSION	
1.	24-04-05	C.J.M.	1st SUBMISSION	
No.	DATE	BY	DESCRIPTION	APPROV

ALE: NTS	REFERE	NCES				
APPROVALS	FIELD N	FIELD NOTES				
MUNICIPAL APPROVAL	BELL		HYDRO			
	GAS		CABLE			

DATE

REGIONAL APPROVAL DESIGN OF SANITARY, WATER SERVICES AND REGIONAL ROAD WORKS APPROVED SUBJECT TO DETAIL CONSTRUCTION CONFORMING TO HALTON REGION STANDARDS & SPECIFICATIONS & LOCATIONAL APPROVAL FROM AREA MUNICIPALITY

EGISLATIVE AND PLANNING SERVICES

600 Alden Road, Suite 606 Markham, Ontario, L3R 0E7 Tel. (905) 475-3080 Fax. (905) 475-3081



DEVELOPMENT SERVICES

TOWN OF MILTON DEVELOPMENT SERVICES

FILE No: XXXXXXX

RAFFIC | WATER

Menz

C. J. MANZO

100511578

24-10-07

www.DSEL.ca

TOWN OF MILTON

EGION OF HALTO

FILE No:

XXXXXXX

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The Regional Municipality of Halton

MATTAMY (BROWNRIDGE) LIMITED

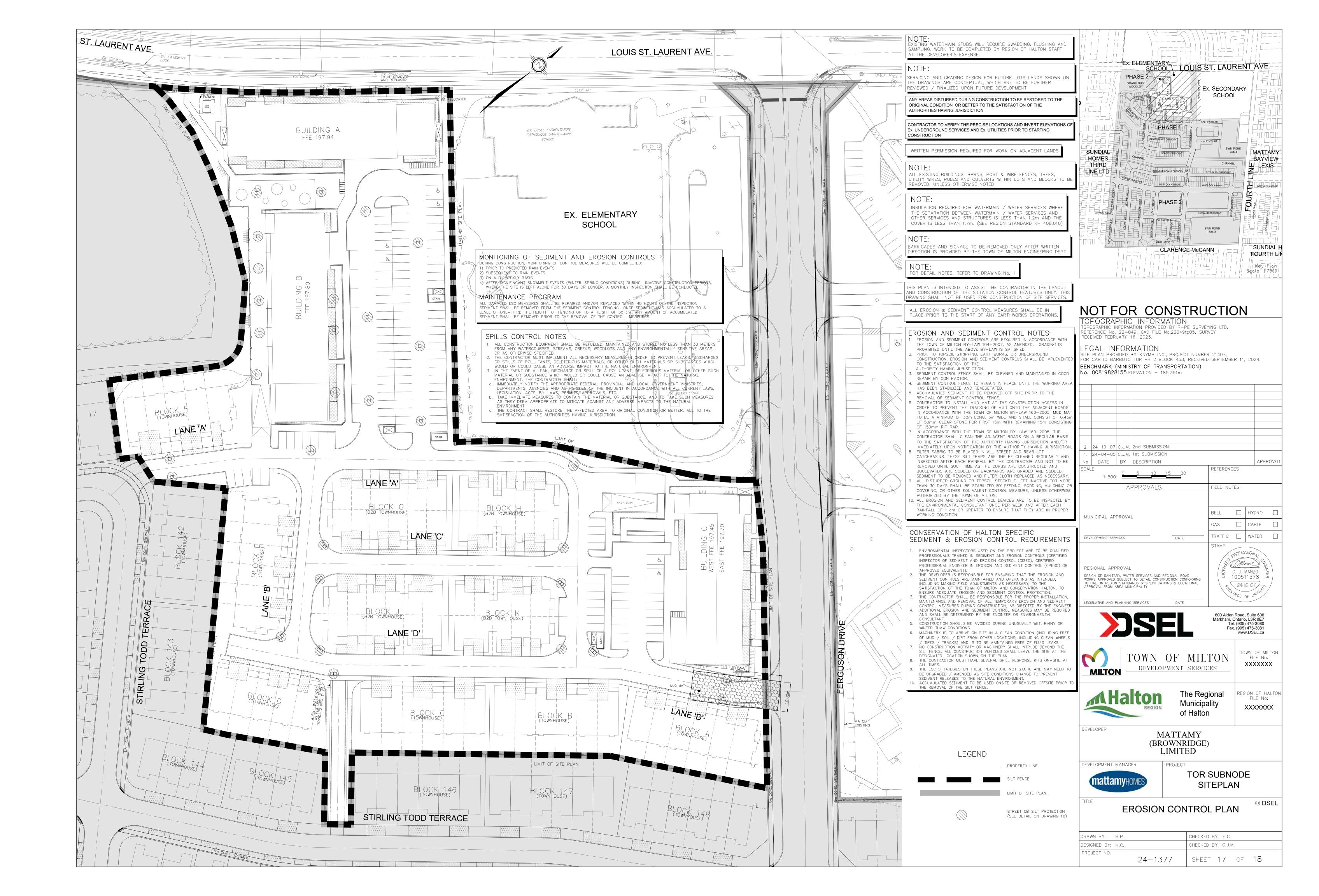
DEVELOPMENT MANAGER mattamyHOM

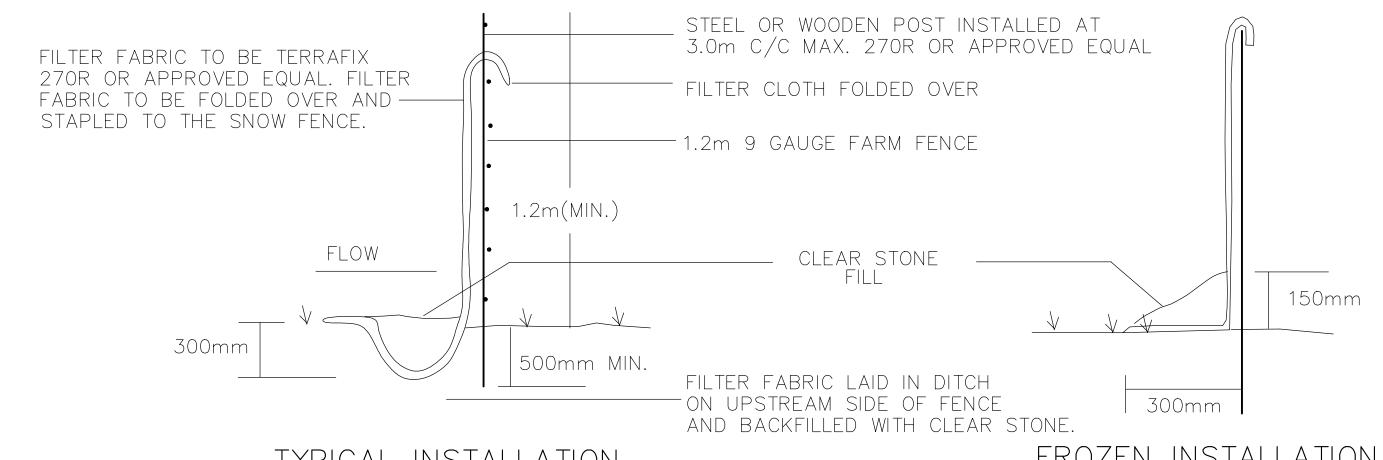
DEVELOPER

TOR SUBNODE SITEPLAN

DETAILS AND TABLES

DRAWN BY: H.P.	CHECKED BY: E.G.
DESIGNED BY: H.C.	CHECKED BY: C.J.M.
PROJECT NO. 24-1377	SHEET 16 OF 18



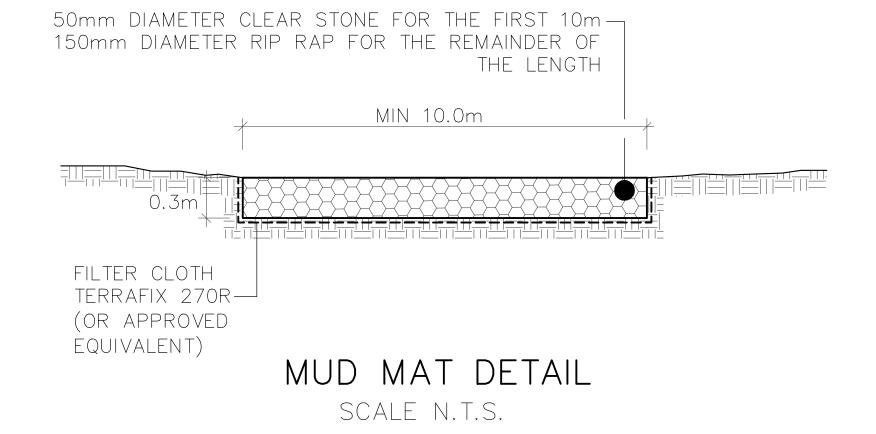


TYPICAL INSTALLATION

FROZEN INSTALLATION

SILT CONTROL FENCE

SCALE: N.T.S



FILTER CLOTH UNDER GRATE FINISHED-TERRAFIX 270R GRADE PLAN

DETAIL FOR STREET CB SILT PROTECTION SCALE: NTS

NOT FOR CONSTRUCTION

TOPOGRAPHIC INFORMATION
TOPOGRAPHIC INFORMATION PROVIDED BY R-PE SURVEYING LTD.,
REFERENCE No. 22-049, CAD FILE No.22049tp05, SURVEY
RECEIVED FEBRUARY 16, 2023.

LEGAL INFORMATION SITE PLAN PROVIDED BY KNYMH INC., PROJECT NUMBER 21407, FOR GARITO BARBUTO TOR PH 2 BLOCK 458, RECEIVED SEPTEMBER 11, 2024.

BENCHMARK (MINISTRY OF TRANSPORTATION)
No. 00819828155 ELEVATION = 185.351m

2.	24-10-07	C.J.M.	2nd SUBMISSION		
1.	24-04-05	C.J.M.	1st SUBMISSION		
No.	DATE	BY	DESCRIPTION		APP
SCAL	SCALE:			REFERENCES	
	NITO				

NTS APPROVALS FIELD NOTES

HYDRO MUNICIPAL APPROVAL GAS CABLE TRAFFIC | WATER |

REGIONAL APPROVAL DESIGN OF SANITARY, WATER SERVICES AND REGIONAL ROAD WORKS APPROVED SUBJECT TO DETAIL CONSTRUCTION CONFORMING TO HALTON REGION STANDARDS & SPECIFICATIONS & LOCATIONAL APPROVAL FROM AREA MUNICIPALITY

LEGISLATIVE AND PLANNING SERVICES DATE

C. J. MANZO 100511578 24-10-07



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DEVELOPMENT SERVICES

TOWN OF MILTON DEVELOPMENT SERVICES

TOWN OF MILTON FILE No: XXXXXX



The Regional Municipality of Halton

REGION OF HALTOI FILE No: XXXXXXX

DEVELOPER

MATTAMY (BROWNRIDGE) LIMITED

DEVELOPMENT MANAGER



TOR SUBNODE SITEPLAN

EROSION CONTROL PLAN DETAILS DISEL

DRAWN BY: H.P. CHECKED BY: E.G. CHECKED BY: C.J.M. DESIGNED BY: H.C. PROJECT NO. SHEET **18** OF **18** 24-1377