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	1.	ISSUED FOR TENDER	TMA	2023-01-05
	No.	REVISION	BY	YYYY-MM-DD

MG 02.70.01 6000 60 201 2000

CONSTRUCTION NOTES AND SPECIFICATIONS

THE PROPOSED BUILDING.

THE MOST RECENT REVISION.

1. GENERAL

- 1.1. THESE PLANS ARE NOT FOR CONSTRUCTION UNTIL SIGNED AND SEALED BY ENGINEER AND APPROVED BY THE LOCAL MUNICIPALITY.
- 1.2. THESE PLANS ARE TO BE USED FOR SERVICING AND GRADING ONLY; ANY OTHER INFORMATION SHOWN IS FOR ILLUSTRATION PURPOSES ONLY. THESE PLANS MUST NOT BE USED TO SITE
- 1.3. NO CHANGES ARE TO BE MADE WITHOUT THE APPROVAL OF THE DESIGN ENGINEER.
- 1.4. THESE PLANS ARE NOT TO BE REPRODUCED IN WHOLE OR IN PART WITHOUT THE PERMISSION OF MTE CONSULTANTS INC.
- 1.5. PRIOR TO CONSTRUCTION, THE CONTRACTOR MUST:
 1.5.1. CHECK AND VERIFY ALL EXISTING CONDITIONS, LOCATIONS

THE BENCHMARK ELEVATIONS, EXISTING SERVICE

CONNECTIONS AND EXISTING INVERTS. REPORT ALL DISCREPANCIES TO THE ENGINEER PRIOR TO PROCEEDING.

1.5.2. OBTAIN ALL UTILITY LOCATES AND REQUIRED PERMITS AND

AND ELEVATIONS WHICH INCLUDES BUT IS NOT LIMITED TO

- LICENSES.

 1.5.3. CONFIRM ALL DRAWINGS USED FOR CONSTRUCTION ARE OF
- 1.6. THE CONTRACTOR SHALL ASSUME ALL LIABILITY FOR ANY DAMAGE TO EXISTING WORKS. THE CONTRACTOR IS RESPONSIBLE FOR RESTORATION OF ALL DAMAGED AND/OR DISTURBED PROPERTY WITHIN THE MUNICIPAL RIGHT-OF-WAY TO LOCAL MUNICIPALITY STANDARDS
- 1.7. ALL UNDERGROUND SERVICES ARE TO BE CONSTRUCTED IN FULL COMPLIANCE WITH THE ONTARIO PROVINCIAL BUILDING CODE (PART 7, PLUMBING), THE ONTARIO PROVINCIAL STANDARD SPECIFICATIONS (OPSS) AND THE REQUIREMENTS OF THE LOCAL MUNICIPALITY AND THE REGIONAL MUNICIPALITY OF WATERLOO; WHICH CODES AND REGULATIONS SHALL SUPERSEDE ALL OTHERS.
- .8. CONTRACTOR IS RESPONSIBLE FOR CONTACTING ENGINEER 48
 HRS PRIOR TO COMMENCING WORK TO ARRANGE FOR
 INSPECTION. ENGINEER TO DETERMINE DEGREE OF INSPECTION
 AND TESTING REQUIRED FOR CERTIFICATION OF UNDERGROUND
 SERVICE INSTALLATION AS MANDATED BY ONTARIO BUILDING
 CODE, DIVISION C, PART 1, SECTION 1.2.2, GENERAL REVIEW.
 FAILURE TO NOTIFY ENGINEER WILL RESULT IN EXTENSIVE POST
 CONSTRUCTION INSPECTION AT CONTRACTORS EXPENSE.
- 1.9. STORM SEWERS AND SERVICES TO HAVE A MINIMUM 1.4m
 COVER TO TOP OF PIPE. WHERE COVER TO TOP OF PIPE IS
 DEFICIENT, CONTRACTOR SHALL INSTALL SHALLOW BURIED PIPE
 IN ACCORDANCE WITH APPLICABLE "SEWER PIPE INSULATION
 DETAIL" INDICATED IN DRAWING DETAILS. CONTACT DESIGN
- 1.10. PLAN TO BE READ IN CONJUNCTION WITH DRAWING C1.1, C2.1, C2.2 AND C2.3 PREPARED BY MTE CONSULTANTS INC. AND

ENGINEER FOR "SEWER PIPE INSULATION DETAIL" IF REQUIRED.

1.11. SITE PLAN INFORMATION TAKEN FROM PLAN PREPARED BY CORNERSTONE ARCHITECTURE, DATED DECEMBER 08, 2022.

LANDSCAPE PLAN.

- 1.12. EXISTING TOPOGRAPHIC INFORMATION TAKEN FROM PLAN PREPARED BY MTE CONSULTANTS INC, DATED MARCH 18, 2022.
- 1.13. FILTER FABRIC TO BE TERRAFIX 200R OR APPROVED EQUAL.
- 1.14. MAXIMUM GRASSED SLOPE TO BE 3:1. SLOPES GREATER THAN 3:1 TO BE LANDSCAPED WITH LOW MAINTENANCE GROUND
- 1.15. SIDE SLOPES OF ALL STOCKPILES OR EXTRACTION FACES TO BE MAINTAINED AT 70 DEGREES OR LESS BETWEEN EARLY APRIL AND LATE AUGUST TO DETER BANK SWALLOWS FROM NESTING.
- 1.16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRAFFIC AND SAFETY MEASURES DURING THE CONSTRUCTION PERIOD INCLUDING THE SUPPLY, INSTALLATION AND REMOVAL OF ALL NECESSARY SIGNALS, DELINEATORS, MARKERS, AND BARRIERS. ALL SIGNS, ETC. SHALL CONFORM TO THE STANDARDS OF THE LOCAL MUNICIPALITY AND THE MTO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
- 1.17. THE POSITION OF POLE LINES, CONDUITS, WATERMAINS, SEWERS AND OTHER UNDERGROUND AND OVERGROUND UTILITIES AND STRUCTURES IS NOT NECESSARILY SHOWN ON THE CONTRACT DRAWINGS, AND, WHERE SHOWN, THE ACCURACY OF THE POSITION OF SUCH UTILITIES AND STRUCTURES IS NOT GUARANTEED. BEFORE STARTING WORK, THE CONTRACTOR SHALL INFORM HIMSELF OF THE EXACT LOCATION OF ALL SUCH UTILITIES AND STRUCTURES AND SHALL ASSUME ALL LIABILITY FOR DAMAGE TO THEM.
- 1.18. CONTRACTOR TO MAINTAIN A 'CONFINED TRENCH CONDITION' IN ALL SEWER AND SERVICE TRENCHES.
- 1.19. FOLLOWING COMPLETION OF PROPOSED WORKS AND PRIOR TO OCCUPANCY INSPECTION, ALL STORM AND SANITARY SEWERS ARE TO BE FLUSHED, AND ALL CATCHBASIN AND CATCHBASIN MANHOLE SUMPS ARE TO BE CLEANED OF DEBRIS AND SILT.

2. STORM SEWERS

- 2.1. PIPE BEDDING FOR RIGID PIPE TO BE CLASS "B" AS PER OPSD 802.030, 802.031, OR 802.032. PIPE BEDDING FOR FLEXIBLE PIPE TO BE AS PER OPSD 802.010. BEDDING MATERIAL AND COVER MATERIAL TO BE GRANULAR "A". TRENCH BACKFILL TO BE NATIVE MATERIAL REPLACED IN 300mm LIFTS AND COMPACTED TO 95% STANDARD PROCTOR DENSITY.
- 2.2. STORM SEWERS, 150mmø AND SMALLER, SHALL BE POLYVINYL CHLORIDE (PVC) PIPE DR28 ASTM—D3034 WITH INTEGRAL BELL AND SPIGOT UTILIZING FLEXIBLE ELASTOMERIC SEALS.
- 2.3. STORM SEWERS 200mmø TO 375mmø SHALL BE POLYVINYL CHLORIDE (PVC) PIPE DR35 ASTM-D3034 OR RIBBED PVC SEWER PIPE CSA B182.4-M90 ASTM-F794 WITH INTEGRAL BELL AND SPIGOT UTILIZING FLEXIBLE ELASTOMERIC SEALS. RIBBED PVC NOT TO BE USED WITHIN RIGHT-OF-WAY.

- 2.4. STORM SEWERS, 450mmø AND LARGER, SHALL BE CONCRETE PIPE, CSA-A257.2 65-D WITH RUBBER GASKET JOINT OR RIBBED PVC SEWER PIPE CSA B182.4-M90 ASTM-F794 WITH INTEGRAL BELL AND SPIGOT UTILIZING FLEXIBLE ELASTOMERIC RIBBED PVC NOT TO BE USED WITHIN RIGHT-OF-WAY.
- 2.5. FACTORY FABRICATED WYES SHALL BE USED FOR ALL SERVICE CONNECTIONS.
- 2.6. MANHOLES AND MANHOLE CATCHBASINS TO BE 1200mmø
 PRECAST WITH ALUMINIUM STEPS AT 300mm CENTRES AS PER
 OPSD 701.010 UNLESS OTHERWISE SPECIFIED.
- 2.7. ALL STORM STRUCTURES TO HAVE A MINIMUM 600mm DEEP SUMP. WHEN THE STRUCTURE INCLUDES THE INSTALLATION OF A SNOUT (OR APPROVED EQUIVALENT) THE SUMP DEPTH TO BE MIN 2.5 TIMES THE OUTLET PIPE DIAMETER SIZE.
- 2.8. MANHOLE AND CATCHBASIN, FRAMES, GRATES, CASTINGS AND LIDS TO BE QUALITY GREY IRON ASTM A48 CLASS 30B.
- 2.9. STORM MANHOLE LIDS TO BE PER OPSD 401.010 TYPE 'B' CATCHBASIN AND CATCHBASIN MANHOLE GRATES TO BE PER OPSD 400.100. DITCH INLET CATCHBASIN GRATES TO BE PER OPSD 403.010.
- 2.10. ADJUSTMENT UNITS FOR STORM STRUCTURES TO BE IN ACCORDANCE WITH OPSD 704.010 OR 704.011.
- 2.11. STORM SEWERS AND SERVICES TO HAVE MINIMUM 1.4m COVER TO TOP OF PIPE WHERE COVER TO TOP OF PIPE IS DEFICIENT CONTRACTOR SHALL INSTALL SHALLOW BURIED SEWER PIPE IN ACCORDANCE WITH APPLICABLE "SEWER PIPE INSULATION DETAIL" INDICATED IN DRAWING DETAILS, INSULATION SHALL BE RIGID EXTRUDED POLYSTYRENE (EPS) BOARD, WITH A THICKNESS SUFFICIENT TO PROVIDE AN RSI-1.76 (R10) INSULATING FACTOR (TYPICALLY 50-65mm), INSULATION BOARD WIDTH SHALL BE 1.8m FOR UP TO 200mm NOMINAL PIPE DIAMETER, 2.4m FOR 201mm-800mm DIAMETER AND 3.0m FOR 801mm-1400mm. ALL JOINTS SHALL BE TIGHTLY BUTTED TOGETHER (TAPE OR OTHERWISE SECURE JOINTS TO RESIST MOVEMENT DURING BACKFILL COVER). RIGID EPS BOARD SHALL HAVE A MINIMUM COMPRESSIVE STRÉNGTH OF 140kPa (20psi), AND A MAXIMUM WATER ABSORPTION RATE OF 2.0% BY VOLUME. ACCEPTABLE PRODUCTS ARE DOW STYROFOAM-SM OR -HI (FULL LINE), OWENS CORNING FOAMULAR (200, 250, OR HIGHER), PLASTISPAN HD-M28 OR OTHER ENGINEER-APPROVED
- 2.12. UNDER NO CIRCUMSTANCES SHALL THE BUILDING FOUNDATION DRAINS BE CONNECTED DIRECTLY TO THE STORM SEWER
- 2.13. ALL WEEPING TILE DRAINAGE TO BE PUMPED TO THE STORM SEWER SYSTEM.

3. SANITARY SEWERS

3.1. ADJUSTMENT UNITS FOR SANITARY STRUCTURES TO BE IN ACCORDANCE WITH OPSD 704.010 OR 704.011.

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4. EROSION AND SEDIMENT CONTROL

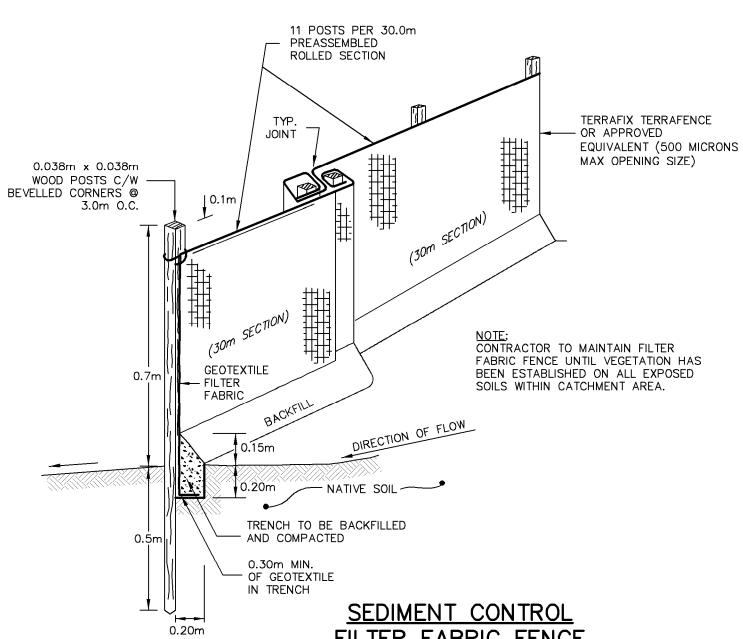
- 4.1. CONTRACTOR TO INSTALL EROSION CONTROL MEASURES AS SHOWN PRIOR TO CONSTRUCTION AND MAINTAIN IN GOOD CONDITION UNTIL CONSTRUCTION IS COMPLETED AND ALL DISTURBED GROUND SURFACES HAVE BEEN RESTABILIZED EITHER BY PAVING OR RESTORATION OF VEGETATIVE COVER.
- 4.2. ALL SEDIMENT CONTROL FENCING TO BE INSTALLED PRIOR TO ANY AREA GRADING, EXCAVATING OR DEMOLITION COMMENCING.
- 4.3. EROSION CONTROL FENCING TO BE INSTALLED AROUND BASE OF ALL STOCKPILES. ALL STOCKPILES TO BE KEPT 2.5m MINIMUM FROM PROPERTY LINE.
- 4.4. EROSION PROTECTION TO BE PROVIDED AROUND ALL STORM AND SANITARY MHs AND CBs.
- 4.5. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED AS SITE DEVELOPMENT PROGRESSES. CONTRACTOR TO PROVIDE ALL ADDITIONAL EROSION CONTROL STRUCTURES.
- 4.6. EROSION CONTROL STRUCTURES TO REMAIN IN PLACE UNTIL
- 4.7. NO ALTERNATE METHODS OF EROSION PROTECTION SHALL BE PERMITTED UNLESS APPROVED BY THE ENGINEER AND THE LOCAL MUNICIPALITY'S DEPARTMENT OF PUBLIC WORKS.
- 4.8. CONTRACTOR TO CLEAN ROADWAY AND SIDEWALKS OF SEDIMENTS RESULTING FROM CONSTRUCTION TRAFFIC FROM THE SITE EACH DAY.
- 4.9. CONTRACTOR MUST REMOVE EROSION AND SEDIMENTATION FENCING PRIOR TO COMPLETION OF PROJECT. CONTRACTOR TO HAVE EROSION AND SEDIMENTATION FENCE INSPECTED WHEN VEGETATION HAS ESTABLISHED, BUT PRIOR TO FENCE BECOMING OVERGROWN. ENGINEER'S REPRESENTATIVE TO DETERMINE IF VEGETATION HAS REACHED THE CRITICAL POINT AND WILL THEN INSTRUCT CONTRACTOR TO REMOVE FENCE.

5. MAINTENANCE RECOMMENDATIONS

- 5.1. EROSION CONTROL STRUCTURES TO BE MONITORED REGULARLY AND ANY DAMAGE REPAIRED IMMEDIATELY. SEDIMENTS TO BE REMOVED WHEN ACCUMULATIONS REACH A MAXIMUM OF 1/3 THE HEIGHT OF THE FENCE.
- 5.2. OWNER'S REPRESENTATIVE TO MONITOR EROSION CONTROL STRUCTURES TO ENSURE FENCING IS INSTALLED AND MAINTENANCE IS PERFORMED TO MUNICIPALITY REQUIREMENTS.

300mmø CAST IRON MANHOLE & COVER (OPW MODEL 104A–1219.) TROM MANHOLE STATE OF THE POSITIVE DRAINAGE AWAY FROM MANHOLE CLEANOUT PLUG CLEANOUT RISER (150mmø ON 150mmø LINE) GRANULAR BACKFILL

INSTALLATION OF CLEANOUTS
IN LANDSCAPED AREAS



----APPROXIMATELY 600mm----

INSTALLATION OF CLEANOUTS

IN HARD SURFACE AREAS

300mmø CAST IRON

MANHOLE & COVER (OPW MODEL 104A-1219.)

SURFACE MATERIAL)

ENSURE POSITIVE

MANHOLE

-CLEANOUT PLUG

(150mmø ON 150mmø LINE)

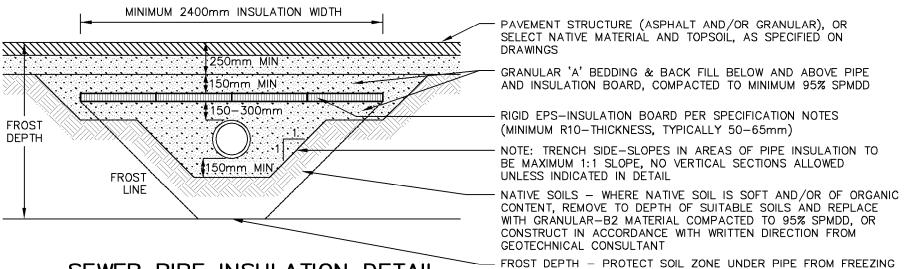
CLEANOUT RISER

-GRANULAR BACKFILL

DRAINAGE AWAY FROM

ASPHALT/CONCRETE PAD

(TO MATCH SURROUNDING



SEWER PIPE INSULATION DETAIL

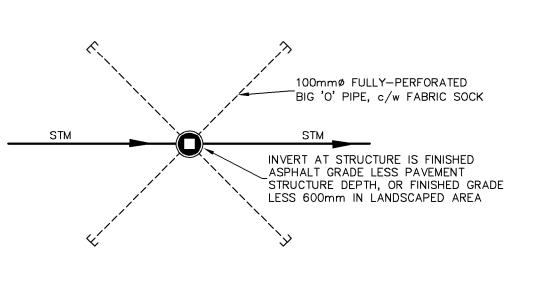
FOR SEWER PIPES HAVING LESS THAN 1400mm COVER AND MINIMUM 615mm COVER

O.50m MIN.
OF GEOTEXTILE
IN TRENCH

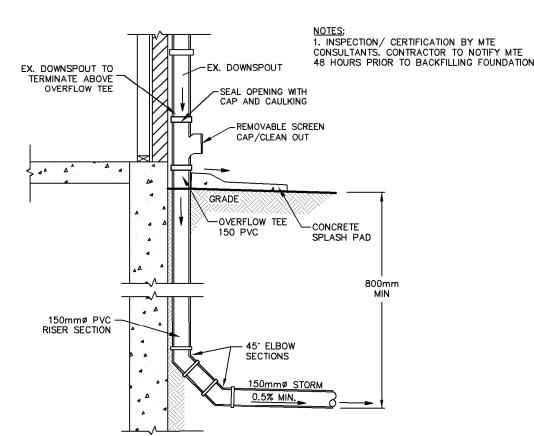
SEDIMENT CONTROL
FILTER FABRIC FENCE

N.T.S.

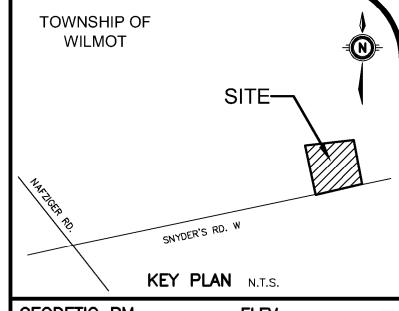
NOTES:
1. INSPECTION / CERTIFIC
CONSULTANTS. CONTROL
48 HOURS PRIOR TO BAI
SEAL OPENING WITH
CAP AND CAULKING



SUBDRAIN DETAIL TYPICAL PLAN VIEW



DOWNSPOUT RISER DETAIL



GEODETIC BM ELEV. =

SITE BENCHMARK

ELEV. = 359.252 m

MTE POINT #9003. IT IS A CUT CROSS ON THE SIDEWALK.

IT IS LOCATED ON THE PARKING LOT BY A LIGHT STANDARD

AND NEAR THE FOOTBALL COURT.

NOTE TO CONTRACTOR:

DO NOT SCALE DRAWINGS.

CONTRACTORS MUST CHECK AND VERIFY ALL DIMENSIONS AND REPORT ANY DISCREPANCIES TO THE ENGINEER BEFORE PROCEEDING WITH THE WORK.

ALL DRAWINGS REMAIN THE PROPERTY OF THE ENGINEER

AND SHALL NOT BE REPRODUCED OR REUSED WITHOUT THE ENGINEER'S WRITTEN PERMISSION.

THE OWNER/ARCHITECT/CONTRACTOR IS ADVISED THAT

M.T.E. CONSULTANTS INC. CANNOT CERTIFY ANY COMPONENT OF THE SITE WORKS NOT INSPECTED DURING CONSTRUCTION. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO NOTIFY M.T.E. CONSULTANTS INC. PRIOR TO COMMENCEMENT OF CONSTRUCTION TO ARRANGE FOR INSPECTION.

NOTE:

- I. PROPERTY-LINE IS APPROXIMATE ONLY.
- 2. THIS PLAN IS PART OF A SET OF PLANS WHICH COMPRISE OF THE FOLLOWING: C1.1, C2.1, C2.2 AND C2.3.
- 3. EXISTING UTILITIES, WTM, SEPTIC TANK AND SAN ARE TAKEN FROM WATERLOO—OXFORD DISTRICT SECONDARY SCHOOL SITE PLAN RECORD DRAWINGS BY KINGSLAND + ARCHITECTS INC. FOR WRDSB DATED 15/12/07 AND ARE CONSIDERED APPROXIMATE ONLY. CONTRACTOR TO FIELD VERIFY AND REPORT ANT DISCREPANCIES TO ENGINEER.

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I	No.	REVISION	BY	YYYY-MM-
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519-743-6500



WATERLOO REGION
DISTRICT SCHOOL BOARD
51 ARDELT AVE. KITCHENER, ON

WATERLOO—OXFORD DISTRICT SECONDARY SCHOOL

1206 SNYDER'S RD. W
DRAWING

NOTES & DETAILS PLAN

Project Manager	Project No.
T.ARNDT	50972-201
Design By TMA	Checked By LEI
Drawn By SRB	Checked By TMA
Surveyed By MTE-OLS	Drawing No.
Date Dec.21/22	C2.3

Sheet 4 of

Scale

PAVEMENT STRUCTURE

MATERIAL		RECOMMENDED THICKNESS		
		LIGHT TRAFFIC	HEAVY TRAFFIC	WALKWAYS
ASPHALTIC	HL3	30mm	50mm	50mm
CONCRETE	HL4 OR HL8	50mm	50mm	-
GRANULAR 'A' BASE		125mm	150mm	100mm
GRANULAR 'B' SUBBASE		400mm	500mm	300mm