APPENDIX R

30 Percent Design Package and Costing

SOUTHWEST AGINCOURT TRANSPORTATION CONNECTIONS STUDY FROM VILLAGE GREEN SQUARE TO DOWRY STREET



TORONITO

LIST OF DRAWINGS

19M-01888_SHEETS_000 - TITLE SHEET 19M-01888_SHEETS_000 - STANDARD NOTES SHEET 19M-01888_SHEETS_001 - NEW NORTH - SOUTH STREET 19M-01888_SHEETS_002 - NEW NORTH - SOUTH STREET 19M-01888_SHEETS_003 - NEW NORTH - SOUTH STREET 19M-01888_SHEETS_004 - GORDON AVENUE 19M-01888_SHEETS_005 - COWDRAY COURT 19M-01888_SHEETS_006 - COLLINGWOOD STREET 19M-01888_SHEETS_007 - COLLINGWOOD STREET 19M-01888_SHEETS_008 - SHEPPARD AVENUE 19M-01888_SHEETS_009 - SHEPPARD AVENUE 19M-01888_SHEETS_010 - REIDMOUNT AVENUE 19M-01888_SHEETS_011 - REIDMOUNT AVENUE 19M-01888_SHEETS_012 - DOWRY STREET 19M-01888_SHEETS_013 - PROPOSED MULTI-USE TRAIL 19M-01888_SHEETS_014 - PROPOSED MULTI-USE TRAIL 19M-01888_SHEETS_015 - PROPOSED MULTI-USE TRAIL 19M-01888_SHEETS_016 - PROPOSED MULTI-USE TRAIL

APPENDED DRAWINGS

GENERAL ARRANGEMENT DRAWINGS - CP RAIL ROAD UNDERPASS
GENERAL ARRANGEMENT DRAWINGS - CP RAIL MULTI-USE TRAIL CROSSING
PROPOSED SERVICING AND UTILITY DRAWING
30% COST ESTIMATE FOR COMPLETE STREET AND MULTI-USE TRAIL
RENDERED PLAN OF PREFERRED PACKAGE OF IMPROVEMENTS

30% SUBMISSION

DATE:

JULY, 2023

<u>LE</u>	SISLATION, REGULATION AND CODES		CONSTRUCTION. ANY DISCREPANCIES E REPORTED TO THE CONSULTANT AND T NECESSARY CHANGES
1.	ALL WORK WITHIN THE CITY RIGHT-OF-WAY SHALL BE CONSTRUCTED ACCORDING TO THE LATEST CITY OF TORONTO STANDARD DRAWINGS AND SPECIFICATIONS. ONTARIO PROVINCIAL STANDARD DRAWINGS AND SPECIFICATIONS MAY BE USED WHERE NO CITY STANDARD OR SPECIFICATION IS AVAILABLE SUBJECT TO THE APPROVAL OF THE CITY OF TORONTO.	18.	NO PORTION OF THE WORK SHALL BE C CONSTRUCTION DRAWINGS, APPROVED PLANS AND PERMITS FOR SUCH PORTIC THE PROVISIONS HEREOF AND GIVING
2.	ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE CURRENT OCCUPATIONAL HEALTH AND SAFETY ACT AND REGULATIONS FOR CONSTRUCTION PROJECTS. THE GENERAL CONTRACTOR SHALL BE DEEMED TO BE THE CONSTRUCTOR AS DEFINED IN THE ACT.		EXECUTIVE DIRECTOR OF TECHNICAL S SUCH NOTICE TO SPECIFY THE ANTICIP PRE-CONSTRUCTION COORDINATION M WORKING DAYS PRIOR TO THE COMMEN
3.	ALL TEMPORARY TRAFFIC CONTROL AND SIGNAGE DURING CONSTRUCTION AND SHALL BE ACCORDING TO THE CURRENT ONTARIO TRAFFIC MANUAL FOR BOOK 7 TEMPORARY CONDITIONS FIELD EDITION.	19.	THE REMOVAL OF TREES REQUIRES TH DIVISION (CONTACT PETER DMYSTRASZ WILL DIFFER IN DIFFERENT PARTS OF T
4.	ANY PERSON AUTHORIZED TO CARRY OUT WORK ON WATERMAINS, SHALL COMPLY WITH THE QUALITY MANAGEMENT SYSTEM (QMS) AND THE CURRENT "CITY OF TORONTO DRINKING WATER WORKS PERMIT (DWWP) AND MUNICIPAL DRINKING WATER LICENCE (MDWL) CONDITIONS SPECIFIC TO WATERMAIN PREAUTHORIZED ALTERATION" DOCUMENT.	20.	ALL AREAS DISTURBED DURING CONST RESTORED TO ORIGINAL OR BETTER CO 100MM OF TOPSOIL AND SHALL BE SODI
<u>CC</u>	NSTRUCTION NOTES	21.	THE CONTRACTOR SHALL REFER TO TH CONDITIONS FOR TEMPORARY CONSTR
1.	ALL MATERIAL FOR SEWER, FORCEMAIN, WATERMAIN, HYDRANTS AND APPURTENANCES, SHALL BE ACCORDING TO CITY OF TORONTO MATERIAL/MANUFACTURER SPECIFICATIONS AS REQUIRED BY CHAPTER 6. MATERIAL SPECIFICATIONS FROM DESIGN CRITERIA FOR SEWERS AND WATERMAINS MANUAL.	22.	CONTRACTOR SHALL VERIFY AND MATC MATERIAL. ANY DISCREPANCIES SHALL COMMENCEMENT OF CONSTRUCTION A THE CITY OF TORONTO.
2.	UTILITY SEPARATION SHALL BE ACCORDING TO APPENDIX 'D' OF THE CITY OF TORONTO DESIGN CRITERIA FOR SEWERS AND WATERMAINS MANUAL.	23	ANY DAMAGE TO PROPERTY ADJACENT
3.	SERVICE CONNECTIONS AND UTILITY CUTS MADE IN ROAD PAVEMENTS SHALL BE BACKFILLED WITH UNSHRINKABLE FILL ACCORDING TO TS 4.60.	24	RESPONSIBILITY OF THE CONTRACTOR.
4.	ALL AREAS DISTURBED DURING CONSTRUCTION WITHIN THE CITY'S RIGHT-OF-WAY SHALL BE RESTORED TO ORIGINAL OR BETTER CONDITION AND TO THE SATISFACTION OF THE CONTRACT ADMINISTRATOR. GRASS AREAS SHALL BE TREATED WITH 100 mm OF TOPSOIL AND SHALL BE	24.	SUITABILITY AND COMPACTION OF ALL F
5	SODDED ACCORDING TO TS 5.00 AND TS 5.10.	26.	TOPSOIL AND OTHER SOILS WITH EXCES
5.	PURPOSES ONLY. THE CONTRACTOR SHALL SATISFY THEMSELVES AS TO THE ACTUAL LOCATION AND DEPTH OF ANY UTILITY AND SHALL BE LIABLE FOR ALL OR ANY DAMAGE.	27.	BE REMOVED AND DISPOSED OFF SITE. THE EXPOSED NATURAL SUBGRADE SH,
6.	ANY DISCREPANCIES BETWEEN SITE CONDITIONS AND CONSTRUCTION DRAWINGS MUST BE REPORTED TO THE CONSULTANT PRIOR TO COMMENCEMENT OF CONSTRUCTION AND APPROPRIATE ACTION TAKEN TO THE SATISFACTION OF THE CONTRACT ADMINISTRATOR AND CITY.	28.	THE APPROVED FILL SHOULD BE PLACE AND SHALL BE UNIFORMLY COMPACTED OPERATION SHALL BE FULLY SUPERVIS
7.	ALL SURVEY STAKE LAYOUT POINTS SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO CONSTRUCTION. ANY DISCREPANCIES BETWEEN THE DRAWINGS AND THE LAYOUT SHALL BE IMMEDIATELY REPORTED TO THE CONSULTANT.	29.	THE FILL SHOULD NOT BE CONSTRUCTE INTERMITTENT FREEZING TEMPERATUR TIME, A SUITABLE SOIL COVER MUST BE
8.	ATTENTION IS DIRECTED TO THE POSSIBILITY OF EXISTING PRIVATE SPRINKLERS AND LIGHTING SYSTEMS WITHIN THE RIGHT-OF-WAY, WHICH ARE NOT SHOWN ON THE PLANS. LOCATING, WORKING AROUND, AND PROTECTING THESE SYSTEMS SHALL BE COMPLETED AT NO EXTRA COST TO THE CITY.	30.	ALL CATCHBASINS TO BE FITTED WITH S CITY OF TORONTO STD.
9.	AT ALL LOCATIONS WHERE THE PROPOSED WATERMAIN CROSSES UNDER OR ABOVE THE EXISTING SEWERS OR UTILITIES, GRANULAR A BEDDING MATERIAL IS TO EXTEND FROM THE LOWER PIPE TO THE TOP OF THE UPPER PIPE. GRANULAR A TO BE COMPACTED TO MINIMUM 98%	<u>RO</u> 1.	AD RECONSTRUCTION RECONSTRUCTION OF DRIVEWAY ENTR
10	OF MAXIMUM DRY DENSITY.	2.	LIMITS OF SIDEWALK / CURB RECONSTR
	WATERMAIN AND EXISTING GAS MAINS. MAINTAIN 300 mm MINIMUM VERTICAL CLEARANCES BETWEEN THE NEW WATERMAIN AND EXISTING GAS MAINS LESS THAN 300 mm IN DIAMETER. MAINTAIN 600 mm MINIMUM VERTICAL CLEARANCE BETWEEN THE NEW WATERMAIN AND EXISTING	3.	CHAINAGE IS ESTABLISHED FROM THE CONT CALCULATED ALONG THE GUTTER LINE
11.	GAS MAINS EQUAL TO OR GREATER THAN 300 mm IN DIAMETER. ALL EXISTING WATERMAINS AND SEWER PIPES LARGER THAN 300 MM DIAMETER SHALL BE	4.	HEIGHT OF CURB FACES MAY VARY ALC CONFIRMED IN THE FIELD.
12.	ALL DIMENSIONS ARE EXPRESSED IN METRES (m) AND PIPE SIZES ARE EXPRESSED IN MILLIMETRES (mm) UNLESS OTHERWISE NOTED.	5.	ADJUST ALL STRUCTURES (MAINTENANG ELEVATIONS INCLUDING BREAKING DOV TO ALLOW FOR MINIMUM 150 mm ADJUS
GR/	ADING & ROAD/PAVEMENT:	6.	ALL CURB SHALL BE CONSTRUCTED WIT FUTURE SIDEWALK CONSTRUCTION.
	ALL AREA GRADING AND RESULTING DRAINAGE PATTERNS SHALL NOT ADVERSELY AFFECT	7.	FULL DEPTH SAW-CUTS ARE REQUIRED AND PAVEMENT UNLESS OTHERWISE S
2.	THE STORM DRAINAGE SHALL BE SELF CONTAINED WITHIN THE SUBJECT PROPERTY UNTIL IT CAN BE DISCHARGED, REUSED, INFILTRATED AND/OR EVAPOTRANSPIRED IN A MANNER ACCEPTABLE	8.	SAW CUT EXISTING PAVEMENT, SIDEWA CONSTRUCTION LIMITS TO PROVIDE A C
3.	MINIMUM GENERALLY ACCEPTED GRADIENT - 2.0%.	9.	CONSTRUCT PEDESTRIAN SIDEWALK RA ACCORDING TO T-310.030-7, T-310.030-8
1.	MAXIMUM GENERALLY ACCEPTABLE GRADIENT - 5.0%.	10.	EXISTING ENTRANCE RAMPS TO BE RE ACCORDING TO T-310.050-1.
5. 6.	MAXIMUM ACCEPTABLE SLOPE 3 PARTS HORIZONTAL TO 1 PART VERTICAL. NO ALTERATIONS TO EXISTING BOUNDARY ELEVATIONS OR ADJACENT LANDS SHALL BE UNDERTAKEN UNLESS WRITTEN AGREEMENT WITH THE ADJACENT PROPERTY OWNER IS OBTAINED AND SUBMITTED IN A FORMAT ACCEPTABLE TO THE CITY	11.	ADJUSTMENT OF APPROACHES, WALKV DETERMINED IN THE FIELD BY THE CON
7.	THE MINIMUM GRADIENT ON ANY DRIVEWAY SHALL BE 2.0%. THE MAXIMUM DRIVEWAY GRADIENT	12.	EXISTING ASPHALT THICKNESS MAY VA (MINIMUM 2.0 m).
3.	IS 8.0%. RETAINING WALLS SHALL BE CONSTRUCTED ENTIRELY ON THE UPPER PROPERTY SO THAT TIE BACKS (IF REQUIRED) DO NOT CROSS PROPERTY BOUNDARIES.	13.	FILTER FABRIC TO BE PLACED UNDER O TRAPS ARE TO BE CLEANED REGULARL CURBS ARE CONSTRUCTED AND THE B SODDED FILTER FABRIC FOR SILT CON
9.	MAXIMUM PONDING DEPTH 0.3M.	14.	THE CONTRACTOR SHALL USE THE SUF
0.	PROPOSED SPOT ELEVATIONS SHOWN ARE ON ASPHALT, LANDSCAPE OR CONCRETE AREAS. UNLESS OTHERWISE NOTED TOP OF CURB ELEVATIONS ARE 0.15M ABOVE ASPHALT ELEVATIONS EXCEPT AT CURB DEPRESSIONS AND WHEEL CHAIR RAMPS.		 OUTLINED IN THE CITY OF TORONTO MA TS 1151 MATERIAL SPECIFICATION TS1101 MATERIAL SPECIFICATION
1.	WHERE NEW ASPHALT MATCHES EXISTING ASPHALT, GRIND EXISTING ASPHALT A MINIMUM OF 300MM WIDE AND 40MM DEEP FOR KEYING. APPLY HOT RUBBER SEALING COMPOUND IN ACCORDANCE WITH OPSS 1212. ALL SURFACES TO BE TACK COATED WITH SS-1.	<u>SAI</u>	NITARY & STORM SEWERS
2.	THE CONCRETE CURB, CONCRETE SIDEWALK (IF APPLICABLE) AND ALL RESTORATION ALONG	1.	CONNECTION PVC PIPE TO BE AS PER S
	WITH ALL APPLICABLE AND CURRENT CITY OF TORONTO STANDARDS. CITY OF TORONTO STANDARDS INCLUDE BUT NOT LIMITED TO:	2. 3	BEDDING FOR FLEXIBLE PIPE SHALL BE
	T-350.01 - URBAN ENTRANCES; T-310.010-2 - CONCRETE SIDEWALK WITH BOULEVARD; T-600.11-1 - CONCRETE CURB (BORDERING DRIVEWAY RETURN CURB AT ENTRANCES); T-600.05-1 - CONCRETE CURB AND GUTTER.	3. 4.	MAINTENANCE HOLES AS PER CITY OF (1500MM). FRAME AND COVER AS PER C
3.	MINIMUM PAVEMENT REQUIREMENTS FOR DRIVEWAY ENTRANCES ARE AS PER GEOTECHNICAL RECOMMENDATION.	5.	(STORM) BENCHING SHALL BE AS PER CITY OF T BE GRANULAR 'A'.
4.	PAVEMENT STRUCTURE DESIGN AS PER GEOTECHNICAL RECOMMENDATION.	6.	SANITARY MAINTENANCE HOLE SHALL H
5.	UNLESS INDICATED OTHERWISE, ALL WORK WITHIN THE CITY RIGHT-OF-WAY SHALL BE UNDERTAKEN IN ACCORDANCE WITH CITY OF TORONTO DESIGN STANDARDS AND SPECIFICATION AND THE UNDERTAKING. ONTARIO PROVINCIAL STANDARDS MAY, SUBJECT TO THE APPROVAL OF THE CITY OF TORONTO. BE USED WHERE NO STANDARD OR SPECIFICATION IS NOTED	7.	AS PER OPSD 401.030 REINFORCED CONCRETE PIPE SHALL B
6.	ANY DISCREPANCIES BETWEEN SITE CONDITIONS AND THE DRAWINGS MUST BE REPORTED TO	8. Q	NON-REINFORCED CONCRETE PIPE 150
	THE SUMBLE ANT FINITING SUMMERSENT OF SUMBIKUCTION AND APPKUPKIATE ACTION		

TAKEN TO THE SATISFACTION OF THE CITY OF TORONTO.

- 10. SINGLE CATCHBASINS SHALL BE AS PER CITY OF TORONTO STANDARD T-705.010 COMPLETE WITH GOSS TRAP. FRAME AND COVER AS PER OPSD-400.070.
- 1. DOUBLE CATCHBASINS SHALL BE AS PER CITY OF TORONTO STANDARD T-705.020 COMPLETE WITH GOSS TRAP.

17. ALL SURVEY POINTS SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO REPANCIES BETWEEN THE DRAWINGS AND THE LAYOUT SHALL BE SULTANT AND THE CONSULTANT SHALL NOTIFY THE CITY OF THE

- DRK SHALL BE CARRIED OUT WITHOUT FIRST HAVING OBTAINED APPROVED NGS, APPROVED PROJECT SCHEDULE(S), APPROVED TRAFFIC STAGING SUCH PORTION OF THE INFRASTRUCTURE WORK IN ACCORDANCE WITH AND GIVING 10 WORKING DAYS PRIOR WRITTEN NOTICE TO THE TECHNICAL SERVICES THAT SUCH WORK IS TO BE CARRIED OUT WITH THE ANTICIPATED DATE OF COMMENCEMENT OF THE WORK. A ORDINATION MEETING WITH CITY STAFF IS TO BE HELD A MINIMUM OF 5 O THE COMMENCEMENT OF ANY OF THE WORK.
- REQUIRES THE APPROVAL OF PARKS, FORESTRY & RECREATION ER DMYSTRASZ, SUPERVISOR URBAN FORESTRY, 416-494-8551 - CONTACT NT PARTS OF THE CITY).
- URING CONSTRUCTION WITHIN THE CITY'S RIGHT-OF-WAY SHALL BE OR BETTER CONDITION. GRASSED AREAS SHALL BE PROVIDED WITH SHALL BE SODDED AS PER T.S. 5.00 & T.S. 5.10.
- _ REFER TO THE ONTARIO TRAFFIC MANUAL BOOK 7, TEMPORARY RARY CONSTRUCTION SIGNAGE.
- ERIFY AND MATCH EXISTING PAVEMENT STRUCTURE IN DEPTH AND PANCIES SHALL BE REPORTED TO THE CONSULTANT PRIOR TO INSTRUCTION AND APPROPRIATE ACTION TAKEN TO THE SATISFACTION OF
- RTY ADJACENT TO THE CONSTRUCTION SITE SHALL BE THE CONTRACTOR.
- O BE COMPLETE WITH 150MM GRANULAR BASE AS OUTLINE IN CITY OF ON T.S. 3.70 OR AS DIRECTED BY THE CITY INSPECTOR.
- CTION OF ALL FILL MATERIALS SHALL BE CONFIRMED BY THE
- LS WITH EXCESSIVE ORGANICS AND/OR WEAK SOILS SHOULD
- UBGRADE SHALL BE INSPECTED AND APPROVED BY THE GEOTECHNICAL
- ULD BE PLACE IN LAYERS NOT EXCEEDING 300MM BEFORE COMPACTION LY COMPACTED TO AT LEAST 100% OF THE MATERIAL'S SPMDD. THIS LY SUPERVISED BY GEOTECHNICAL PERSONNEL.
- CONSTRUCTED DURING WINTER MONTHS WHEN PERSISTENT OR TEMPERATURES OCCUR. IF THE FILL AREAS ARE LEFT FOR A PERIOD OF OVER MUST BE PROVIDED TO PREVENT FROST ACTION AND
- E FITTED WITH SEDIMENT BARRIER UNTIL COMPLETION OF WORKS AS PER
- RIVEWAY ENTRANCES SHALL BE ACCORDING TO T-310.050-8.
- IRB RECONSTRUCTION ARE APPROXIMATE, ACTUAL LIMITS ARE TO BE BY THE CONTRACT ADMINISTRATOR.
- ED FROM THE CENTRELINE OF CONSTRUCTION AND GUTTER GRADES ARE GUTTER LINE.
- MAY VARY ALONG LENGTH OF GUTTER, AS SHOWN ON PROFILE, OR TO BE
- (MAINTENANCE HOLES, CATCH BASINS, ETC.) TO SUIT NEW DESIGN REAKING DOWN AND REMOVAL OF PORTION OF TOP OF STRUCTURES 150 mm ADJUSTMENTS.
- STRUCTED WITH A LEDGE AT THE BACK OF THE CURB TO FACILITATE
- RE REQUIRED AT CONSTRUCTION LIMITS OF EXISTING CURB, SIDEWALK OTHERWISE SHOWN.
- MENT, SIDEWALK, CURB, GUTTER, DRIVEWAYS, WALKWAYS, ETC. AT O PROVIDE A CLEAN JOINT FOR THE PROPOSED WORK.
- SIDEWALK RAMPS WITH TACTILE WALKING SURFACE INDICATORS -7, T-310.030-8, T-310.030-9, T-310.030-10 AND T-310.030-11.
- MPS TO BE RE-INSTATED. VEHICULAR SIDEWALK RAMP SHALL BE
- ACHES, WALKWAYS, AND STEPS MAY BE REQUIRED. LIMITS ARE TO BE LD BY THE CONTRACT ADMINISTRATOR.
- KNESS MAY VARY, TAPER TO MATCH EXISTING AT CONSTRUCTION LIMITS
- ACED UNDER GRATES ON ALL CATCHBASINS TO TRAP SEDIMENT. SILT ED REGULARLY AND ARE NOT TO BE REMOVED UNTIL SUCH TIME AS THE ED AND THE BOULEVARDS ARE SODDED OR BACKYARDS GRADED AND
- USE THE SUPERPAVE ASPHALT MIX (NEW REQUIREMENT IN 2018)

FOR SILT CONTROL TO BE TERRA FIX 270R OR APPROVED EQUIVALENT.

- TORONTO MATERIAL SPECIFICATIONS LISTED BLEOW: SPECIFICATION FOR SUPERPAVE, STONE MASTIC AND WARM MIX ASPHALT SPECIFICATION FOR PERFORMANCE GRADED ASPHALT CEMENT
- PER SDR-35 CSA B182.2-06 CERTIFIED ASTM D3034-04A, F679-03. SERVICE O BE AS PER SDR-28 CSA B182.2-06 CERTIFIED ASTM D3034-04A.
- PIPE SHALL BE AS PER OPSD 802.010, 802.013 OR 802.014.
- ERMITTED WITHIN THE MUNICIPAL RIGHT OF WAY.
- PER CITY OF TORONTO STANDARD, T-701.010 (1200MM), T-701.011 OVER AS PER OPSD 401.010 TYPE A CLOSED (SANITARY) TYPE B OPEN
- PER CITY OF TORONTO STANDARD T-701.021. BEDDING MATERIAL SHALL
- HOLE SHALL HAVE WATERTIGHT FRAME AND COVER IN PONDING AREAS
- PIPE SHALL BE AS PER CSA A257.2-03 (MINIMUM 65D).
- RETE PIPE 150MM TO 250MM SHALL BE AS PER CSA A257.1-03 CLASS 3.
- SHALL BE CLASS B AS PER OPSD 802.030, 802.031, 802.032 OR 802.033

- 12. SERVICE CONNECTIONS AND UTILITY CUTS TO BE BACKFILLED WITH UNSHRINKABLE FILL.
- 13. CB LEADS TO BE 200MM PVC SDR-35 FOR SINGLE CATCHBASINS AND 250MM PVC SDR-35 FOR DOUBLE CATCHBASINS UNLESS OTHERWISE NOTED.
- 14. ALL MANHOLE AND CATCHBASIN EXCAVATIONS TO BE BACKFILLED WITH GRANULAR 'B' COMPACTED TO 95% PROCTOR DENSITY, OR AS DIRECTED BY THE SOILS CONSULTANT.
- 15. 'MODULOC' OR APPROVED MANHOLE AND CATCHBASIN ADJUSTERS TO BE USED IN LIEU OF BRICKING
- 16. SEWER TRENCHES CLOSE TO BUILDING TO BE VERTICAL AS REQUIRED, TO AVOID DISTURBING THE NATIVE EARTH AT FOUNDATION LEVEL.
- 17. CONTRACTOR TO SUPPLY ALL NECESSARY FITTINGS, COUPLERS, SADDLES, TEES, WYES, ETC. TO COMPLETE ALL SEWER CONNECTIONS REQUIRED. SEWER CONNECTIONS SHALL CONFORM TO CITY OF TORONTO STD. 708.03.
- 18. ALL EXISTING SANITARY AND STORM SERVICE CONNECTIONS AND CATCH BASIN LEADS TO BE ABANDONED, SHALL HAVE A WATERTIGHT CAP AT THE MAIN. THE SECTION OF SEWER THAT IS TO BE ABANDONED SHALL BE REMOVED AND BACKFILLED IN ACCORDANCE WITH THE TRENCH BACKFILL SPECIFICATION.
- 19. ADJUST TOP ELEVATIONS OF EXISTING MANHOLES, CATCHBASINS, AND VALVES AS REQUIRED.
- 20. ALL MANHOLES AND CATCHBASINS TO BE FOUNDED ON SUITABLE MATERIAL. GEOTECHNICAL CONSULTANT TO CONFIRM SUBGRADE PRIOR TO PLACING ALL MANHOLES AND CATCHBASINS.
- 21. CONTRACTOR TO SUPPORT EXISTING MANHOLES AND OTHER UNDERGROUND SERVICES WHEN MAKING CONNECTIONS TO EXISTING MANHOLES OR SEWERS.

EROSION AND SEDIMENT CONTROL

- 1. EROSION AND SEDIMENT CONTROL (ESC) MEASURES WILL BE IMPLEMENTED PRIOR TO AND MAINTAINED DURING CONSTRUCTION PHASES TO PREVENT ENTRY OF SEDIMENT INTO THE WATER. ALL DAMAGED EROSION AND SEDIMENT CONTROL MEASURES SHOULD BE REPAIRED OR REPLACED WITHIN 48 HOURS OF INSPECTION.
- 2. ALL DISTURBED AREAS WILL BE MINIMIZED TO THE EXTENT POSSIBLE, AND TEMPORARILY OR PERMANENTLY STABILIZED, OR RESTORED AS THE WORK PROGRESSES.
- THE EROSION AND SEDIMENT CONTROL STRATEGIES OUTLINED ON THE PLANS ARE NOT STATIC AND MAY NEED TO BE UPGRADED/AMENDED AS SITE CONDITIONS CHANGE TO MINIMIZE SEDIMENT LADEN RUNOFF FROM LEAVING THE WORK AREA. IF THE PRESCRIBED MEASURES ON THE PLANS ARE NOT EFFECTIVE IN PREVENTING THE RELEASE OF A DELETERIOUS SUBSTANCE, THEN ALTERNATIVE MEASURES MUST BE IMPLEMENTED IMMEDIATELY TO MINIMIZE POTENTIAL ECOLOGICAL IMPACTS AND A TORONTO REGION CONSERVATION AUTHORITY ENFORCEMENT OFFICE SHOULD BE IMMEDIATELY CONTACTED. ADDITIONAL ESC MEASURES TO BE KEPT ON SITE AND USED AS NECESSARY.
- 4. ALL ACTIVITIES, INCLUDING MAINTENANCE PROCEDURES, WILL BE CONTROLLED TO PREVENT THE ENTRY OF PETROLEUM PRODUCTS, DEBRIS, RUBBLE, CONCRETE OR OTHER DELETERIOUS SUBSTANCES INTO THE WATER. VEHICULAR REFUELING AND MAINTENANCE AND REFUELING WILL BE CONDUCTED A MINIMUM OF 30 M FROM THE WATER.
- 5. ALL GRADES WITHIN THE REGULATORY FLOOD PLAN WILL BE MAINTAINED OR MATCHED.
- 6. SEDIMENT BARRIERS, CHECK DAMS AND TEMPORARY CONSTRUCTION ACCESS TO BE INSTALLED PRIOR TO THE BEGINNING OF CONSTRUCTION.
- 7. ALL SEDIMENT CONTROL DEVICES TO BE ROUTINELY INSPECTED AND MAINTAINED IN PROPER WORKING ORDER UNTIL AREA IS STABILIZED.
- 8. IF NECESSARY, TRUCKS WILL BE WASHED DOWN BEFORE LEAVING THE SITE.
- THE SITE WILL BE WET DOWN IF NECESSARY TO CONTROL DUST.
- 10. ALL CONSTRUCTION EQUIPMENT MUST BE PARKED ON-SITE.
- 11. CONTRACTOR WILL COMPLY WITH CITY OF TORONTO NOISE BY-LAW
- 12. SEDIMENT CONTROL FENCE TO BE AS PER CITY OF TORONTO STANDARD T-219.130-1.
- 13. ALL CONSTRUCTION VEHICLES TO ENTER AND EXIT SITE FROM TEMPORARY CONSTRUCTION
- 14. ALL TOPSOIL STOCKPILES TO BE SURROUNDED WITH SEDIMENT CONTROL FENCING.
- 15. FILTER FABRIC TO BE PLACED UNDER GRATES ON ALL CATCHBASINS TO TRAP SEDIMENT. SILT TRAPS ARE TO BE CLEANED REGULARLY AND ARE NOT TO BE REMOVED UNTIL SUCH TIME AS THE CURBS ARE CONSTRUCTED AND THE BOULEVARDS ARE SODDED OR BACKYARDS GRADED AND SODDED. FILTER FABRIC FOR SILT CONTROL TO BE TERRA FIX 270R OR APPROVED EQUIVALENT.
- 16. FILTER CLOTH WILL BE PLACED ON ALL CATCHBASINS ON MERCER STREET & BLUE JAYS WAY AS SEEN ON SHEET E1 AND WITHIN THE SITE LIMITS.
- STREET SWEEPING, CATCH BASIN CLEANING AND DUST CONTROL ARE THE RESPONSIBILITY OF THE DEVELOPER AND MUST BE KEPT UNDER CONTROL ON ALL ROADWAYS TO THE SATISFACTION OF THE CITY.
- 18. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONDITION OF THE SITE AT ALL TIMES. EROSION AND SEDIMENT CONTROL MEASURES INCLUDING SEDIMENT CONTROL FENCE, CATCHBASIN SEDIMENT BARRIERS, SEDIMENT TRAPS AND OTHER EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO COMMENCING CONSTRUCTION, IN ACCORDANCE WITH CITY REQUIREMENTS.
- 19. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING POSITIVE SURFACE DRAINAGE TO THE SEDIMENT CONTROL STRUCTURES, FOR THE DURATION OF THE CONSTRUCTION PERIOD.
- 20. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL EROSION AND SEDIMENT CONTROL DEVICES AND STRUCTURES IN GOOD WORKING ORDER AT ALL TIMES. CONTRACTOR SHALL INSPECT SUCH DEVICES AT LEAST ONCE PER WEEK AND AFTER EACH RAINFALL EVENT GREATER THAN 10MM, AND MAKE ALL NECESSARY REPAIRS AS REQUIRED.
- 21. ALL SEDIMENTS SHALL BE DISPOSED OFF-SITE AS PER CITY REGULATIONS.
- 22. CONTRACTOR IS RESPONSIBLE FOR CLEAN UP OF MUDTRACKING ON A DAILY BASIS OR ON A MORE FREQUENT BASIS IF DIRECTED BY THE CITY OR OWNER.
- 23. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL OF ALL EROSION AND SEDIMENT CONTROL DEVICES AND STRUCTURES ONCE SEEDING OR SODDING IS IN PLACE AND THE SITE HAS STABILIZED.

GENERAL REVIEW CONFORMANCE

- 1. THE CONTRACTOR SHALL NOT PROCEED WITH CONSTRUCTION UNLESS THE CONTRACT ADMINISTRATOR HAS PROVIDED REVIEW REQUIREMENTS IN WRITING NECESSARY FOR PROVISION OF GENERAL REVIEW CONFORMANCE AS REQUIRED BY THE ONTARIO BUILDING CODE. CONTRACTOR SHALL PROVIDE CONTRACT ADMINISTRATOR 72 HOURS NOTICE (3 BUSINESS DAYS) PRIOR TO COMMENCEMENT OF WORK.
- TRAFFIC CONTROL PLAN SHALL BE PROVIDED BY THE CONTRACTOR PRIOR TO THE START OF WORK.

PERMITS

- 1. OBTAINING PERMITS ARE THE RESPONSIBILITY OF THE OWNER AND CONTRACTOR.
- CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND APPROVALS PRIOR TO COMMENCING CONSTRUCTION. ALL PERMITS AND ASSOCIATED DRAWINGS AND CONDITIONS MUST BE ON-SITE AND AVAILABLE UPON REQUEST. THE FOLLOWING IS A LIST OF SOME PERMITS WHICH MAY BE REQUIRED:
- CITY OF TORONTO PLUMBING AND DRAIN PERMIT
- ANY CITY OCCUPANCY PERMIT TO ENTER PUBLIC ROADS STRUCTURAL ENGINEER'S CERTIFICATION OF SHOP DRAWING FOR ANY NECESSARY SHORING.

- WATERMAINS

DIMENSIONS

- HYDRANT.

- T-1103.020
- STANDARD T-1101.02-2
- T.S. 7.40.

1. ALL WATERMAIN SERVICE CONNECTIONS SHALL BE CONSTRUCTED IN ACCORDANCE WITH T-1104.01, T-1104.02-1 AND T-1104.02-2.

WATERMAIN AND WATERMAIN APPURTENANCES SHALL CONFORM TO CITY OF TORONTO MATERIAL / MANUFACTURER SPECIFICATIONS FOR DISTRIBUTION WATERMAINS AND APPURTENANCES REVISION JUNE 2007.

ALL POLYVINYL CHLORIDE (PVC) PIPES, RANGING IN SIZE FROM 100 MM THROUGH 300 MM IN DIAMETER. SHALL BE CLASS 150, SDR 18 AND MANUFACTURED IN ACCORDANCE AWWA C900-07 AND TO CSA B137.3-05 AND SHALL HAVE CAST IRON OUTSIDE DIAMETER

BEDDING FOR FLEXIBLE PIPE SHALL BE AS PER OPSD 802.010, 802.013 OR 802.014. BEDDING MATERIAL TO BE GRANULAR 'A'.

5. COVER REQUIRED ON WATERMAIN IS 1.7M MINIMUM.

PROVISIONS FOR FLUSHING THE WATER LINE PRIOR TO TESTING ETC. MUST BE PROVIDED WITH AT LEAST A 50MM OUTLET ON 100MM AND LARGER LINES AS PER T-1104.03-1. ON FIRE LINES, FLUSHING OUTLET TO BE 100MM DIAMETER MINIMUM OR A

7. ALL HYDRANTS TO BE AS PER CITY OF TORONTO STANDARD T-1105.01. IT SHALL CONFORM WITH THE MATERIAL SPECIFICATIONS CONTAINED IN CITY OF TORONTO MATERIAL / MANUFACTURER SPECIFICATIONS FOR DISTRIBUTION WATERMAINS AND APPURTENANCES REVISION JUNE 2007.

WATERMAINS TO BE INSTALLED TO GRADES AS SHOWN ON APPROVED PLANS, COPY OF GRADE SHEET MUST BE SUPPLIED TO INSPECTOR PRIOR TO COMMENCEMENT OF WORK. WHERE REQUESTED BY INSPECTOR.

9. ALL CURB AND VALVE BOXES TO BE LOCATED AT STREET LINE.

. MECHANICAL RESTRAINTS SHALL BE INSTALLED AT ALL JOINTS BETWEEN FITTINGS, BENDS, TEES, CROSSES AND VALVES. MECHANICAL RESTRAINTS SHALL CONFORM TO THE MATERIAL SPECIFICATIONS CONTAINED IN CITY OF TORONTO MATERIAL / MANUFACTURER SPECIFICATIONS FOR DISTRIBUTION WATERMAINS AND APPURTENANCES REVISION JUNE 2007.

11. ALL TEES, PLUGS, HORIZONTAL AND VERTICAL BENDS, REDUCERS AND HYDRANTS TO HAVE CONCRETE THRUST BLOCKS AS PER CITY OF TORONTO STANDARD T-1103.01,

WATERMAINS MUST FOLLOW THE MINISTRY OF THE ENVIRONMENT PROCEDURES THAT GOVERN THE SEPARATION OF SEWERS AND WATERMAINS F-6-1. A MINIMUM VERTICAL CLEARANCE 0.30M OVER, 0.5M UNDER SEWERS AND ALL OTHER UTILITIES WHEN CROSSING. MUST ALSO MAINTAIN 2.5M HORIZONTAL SEPARATION.

13. ALL VALVES LESS THAN 400MM TO BE IN A VALVE AND BOX AS PER CITY OF TORONTO

14. SACRIFICIAL ANODES TO BE INSTALLED FOR ALL METAL PIPES AND APPURTENANCES, WATER SERVICES AND FITTINGS AS PER CITY OF TORONTO STANDARD T-1106.04, T-1106.05 AND T-1106.06 CONSTRUCTION SPECIFICATION T.S. 7.22 & T.S. 7.20

15. TRACER WIRE INSTALLATION AS PER CITY OF TORONTO CONSTRUCTION SPECIFICATION

16. ALL PROPOSED WATER PIPING MUST BE ISOLATED FROM EXISTING LINES IN ORDER TO ALLOW INDEPENDENT PRESSURE TESTING AND CHLORINATING FROM THE EXISTING SYSTEM. FLUSHING, SWABBING AND TESTING OF WATERMAIN AS PER ONTARIO PROVINCIAL STANDARDS AND SPECIFICATIONS, AS WELL AS CITY OF TORONTO SPECIFICATION TS 7.30 OR LATEST AMENDMENT.

AFTER PASSING THE HYDROSTATIC PRESSURE TEST AND LEAKAGE TEST. CHLORINATION CAN PROCEED. SAMPLING OF THE NEW MAINS IS TO BE DONE AT THE REQUIRED LOCATIONS PRIOR TO CONNECTING TO THE CITY WATERMAIN SYSTEM. THE TEE FITTING IS TO BE CUT INTO THE EXISTING WATERMAIN TO MAKE THE CONNECTION. TO MAINTAIN THE PRESSURE IN THE NEW MAIN DURING INSTALLATION OF SERVICE, A 50 MM BY-PASS WITH AN APPROVED PRESSURE DIFFERENTIAL BACKELOW PREVENTER, MOUNTED ABOVE GROUND LEVEL IS TO BE INSTALLED AROUND THE CLOSED ISOLATING VALVE.

18. CITY WATER VALVES CAN ONLY BE OPERATED BY CITY STAFF.

19. ALL REMOTE READOUT UNITS WILL BE INSTALLED AS REQUIRED BY THE CURRENT WATER SUPPLY BY-LAW. CHAPTER 851 AND AS PER CITY OF TORONTO CONSTRUCTION SPECIFICATION TS 7.50.

20. BOTH THE FIRE AND DOMESTIC WATER SERVICES MUST COMPLY WITH THE CURRENT BUILDING CODE ACT, THE CURRENT WATER SUPPLY BY-LAW, CHAPTER 851 AND CSA B-64 SERIES STANDARDS.

21. WATER SERVICE VALVE AND BOX ON EACH SERVICE PER CITY OF TORONTO STANDARD DRAWING T-1101.02-2.

22. TRACER WIRE WILL BE #10 GAUGE AWG SINGLE OR SEVEN STRAND, INSULATED COPPER WIRE. SEE TS-7.40.

23. ALL DIRECT BURIED FLANGE-TO-FLANGE CONNECTIONS TO HAVE STAINLESS STEEL (PASSIVE 304) NUTS AND BOLTS.

24. ALL DIRECT BURIED VALVES AND FITTINGS TO HAVE LARGE SIZE PROTECTO-CAP (ASTM 418.1) APPLIED TO ALTERNATING BOLTS. PROVIDE SUFFICIENT BOLT LENGTH TO ACCOMMODATE CAPS.

25. FROST COLLARS ARE TO BE PROVIDED ON CURB STOPS AND VALVE BOXES, WHEN LOCATED WITHIN THE LIMITS OF THE DRIVEWAY.

REINSTATEMENT

ELEVATIONS.

T-1103 020

T.S. 7.40.

1. ALL SURFACE FEATURES SUCH AS CURBS AND SIDEWALKS DISTURBED, DAMAGED OR REMOVED DURING THE CONTRACTOR'S ACTIVITIES SHALL BE REINSTATED TO ITS ORIGINAL CONDITIONS.

ALL EXISTING FEATURES TO REMAIN, I.E. MANHOLE LIDS, CATCH BASINS, VALVE CHAMBER LIDS, VALVE BOXES, ETC. SHALL BE ADJUSTED TO SUIT THE FINISHED

MECHANICAL RESTRAINTS SHALL BE INSTALLED AT ALL JOINTS BETWEEN FITTINGS, BENDS, TEES, CROSSES AND VALVES. MECHANICAL RESTRAINTS SHALL CONFORM TO THE MATERIAL SPECIFICATIONS CONTAINED IN CITY OF TORONTO MATERIAL / MANUFACTURER SPECIFICATIONS FOR DISTRIBUTION WATERMAINS AND APPURTENANCES REVISION JUNE 2007.

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6. ALL VALVES LESS THAN 400MM TO BE IN A VALVE AND BOX AS PER CITY OF TORONTO STANDARD T-1101.02-2.

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- 9. CITY WATER VALVES CAN ONLY BE OPERATED BY CITY STAFF.
- 10. ALL REMOTE READOUT UNITS WILL BE INSTALLED AS REQUIRED BY THE CURRENT WATER SUPPLY BY-LAW, CHAPTER 851 AND AS PER CITY OF TORONTO CONSTRUCTION SPECIFICATION TS 7.50.
- 11. BOTH THE FIRE AND DOMESTIC WATER SERVICES MUST COMPLY WITH THE CURRENT BUILDING CODE ACT, THE CURRENT WATER SUPPLY BY-LAW, CHAPTER 851 AND CSA B-64 SERIES STANDARDS.
- 2. WATER SERVICE VALVE AND BOX ON EACH SERVICE PER CITY OF TORONTO STANDARD DRAWING T-1101.02-2.
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- 16. FROST COLLARS ARE TO BE PROVIDED ON CURB STOPS AND VALVE BOXES, WHEN LOCATED WITHIN THE LIMITS OF THE DRIVEWAY.

WATERMAIN - FILL AREAS

- 1. PIPES ARE NOT TO BE LAID ON FILL UNTIL THE FIELD DENSITY TEST REPORTS HAVE BEEN SUBMITTED AND APPROVED BY THE ENGINEER.
- 2. FILL TO BE PLACED TO A MINIMUM OF 600MM ABOVE THE WATERMAIN GRADES AND TO 3.0M MINIMUM ON EACH SIDE PRIOR TO WATERMAIN LAYING COMPACTED TO A MINIMUM OF 100% STANDARD PROCTOR DENSITY IN 300MM LIFTS.
- 3. TESTS SHALL BE TAKEN ALONG CENTRELINE OF THE WATERMAIN AND ON LINES 1.50M ON EITHER SIDE OF SAME AT A MAXIMUM INTERVAL OF 30.0M. TESTS TO BE TAKEN AT EACH 600MM LIFT.
- 4. ALL HYDRANTS, TEES, VALVES, BENDS, PLUGS AND EACH PIPE JOINT ARE TO BE MECHANICALLY RESTRAINED.
- 5. PIPE JOINT DEFLECTIONS ARE NOT ALLOWED.

SEWER CONNECTIONS WITHIN CITY R.O.W.

- 1. ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE CITY OF TORONTO DESIGN STANDARDS. ALL PAVED AREAS SHALL BE RESTORED AS PER CURRENT CITY OF TORONTO STANDARDS
- 2. CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL EXISTING UTILITIES ON THE SITE AND MUST CHECK AND VERIFY ALL DIMENSIONS AND CONDITIONS ON THE JOB. REPORTING ANY DISCREPANCIES TO THE ENGINEER BEFORE PROCEEDING WITH THE WORK. ANY DAMAGES CAUSED TO EXISTING SERVICES ARE THE RESPONSIBILITY OF THE CONTRACTOR.
- PAVEMENT MUST BE SAW CUT.
- 4. TRENCH MUST BE DONE BY BOX TYPE OR CLOSE SHORE METHOD.
- 5. ROAD TO BE RESTORED AS PER THE FOLLOWING: A) ALL TRENCHES SHALL BE BACKFILLED WITH NON-SHRINK BACKFILL.
- B) PAVEMENT SHALL BE RESTORED TO THE ORIGINAL STATE AS PER THE CURRENT CITY OF TORONTO SPECIFICATIONS.
- 6. ONLY ONE LANE OF A TWO LANE ROAD CAN BE CLOSED TO TRAFFIC DURING CONSTRUCTION.
- ALL EXCESS EARTH AND MATERIALS SHALL BE REMOVED FROM THE ROAD ALLOWANCES AND SHALL BE HAULED AWAY WITH NO EXPENSE TO THE CITY OR OWNER.
- 8. SEWER CROSSINGS PER CITY STD. T-1007.01-7.

BENCH MARK AND LAYOUT INFORMATION

. TOPOGRAPHIC INFORMATION PER IBW DATED OCTOBER 02, 2022 - ELEVATIONS ARE GEODETIC AND ARE REFERRED TO CITY OF TORONTO BENCH MARK NO 12019630160 HAVING A PUBLISHED ELEVATION OF = 169.644m.

CONTACT INFORMATION

- . PRIOR TO COMMENCING ANY WORK WITHIN THE MUNICIPAL RIGHT OF WAY THE CONTRACTOR WILL OBTAIN ALL NECESSARY ROAD OCCUPANCY PERMITS FROM THE CITY'S RIGHT-OF-WAY MANAGEMENT SECTION. CONTACT 416-394-8418.
- ALL TTC TRAFFIC IS TO BE MAINTAINED DURING THE CONSTRUCTION OF THE PROPOSED SERVICE CONNECTINOS. IN ORDER TO CO-ORDINATE ALL DISRUPTIONS IN SERVICE, CONTRACTOR TO CONTACT MS EMILY ASSUNACO 416-393-3302 ATLEAST 48 HOURS PRIOR TO COMMENCING CONSTRUCTION.
- DURING THE CONSTRUCTION OF THE PROPOSED SERVICES CLOSE TO ANY EXISTING TRANSMISSION WATERMAINS, CONTRACTOR TO NOTIFY TORONTO WATER AT 416-397-0187 ATLEAST 48 HOURS PRIOR TO CONSTRUCTION.

30% SUBMISSION

DATE:

JULY. 2023











(NO ON-STREET P ROW 20 m - SECT				5					
			- F	FROM 65.5m S	NEW SOUTH OF C	/ NOR COLLINGWO	TH - S OD STREET PRELIMINAR PLAN AND F	OUTH TO 115m N Y DESIGN PROFILE	I STREET	STREET
			DESIGN	G.B.	DRAWN	A.S.	CHECKED	D.S.W.		
			SCALE	HORIZONTAL	1:200 VERT	ICAL 1:100	DRAWING		002	SHEET
			DATE				NUMBER		003	3 OF 16



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			FROM	I 115m NOR⊺	GOF TH OF COLL P	RDON INGWOOD S RELIMINAR PLAN AND F	AVEN STREET TO Y DESIGN PROFILE	UE SHEPPARD AVENUE EAST	-
		DESIGN	G.B.	DRAWN	A.S.	CHECKED	D.S.W.		
		 SCALE	HORIZONTAL	_ 1:200 VERT	ICAL 1:100	DRAWING		004	SHEET
		DATE				NUMBER		004	4 OF16

PROPOSED ASPHALT DRIVEWAY ···

PROPOSED CONCRETE CURB ··

PROPOSED PROPERTY LINE ·

EXISTING TREES · ·

PROPOSED CONCRETE MEDIAN / ISLAND ·

PROPOSED CONCRETE CURB AND GUTTER ·

						SUC	Ħ	
	RELATE	ED DRAWINGS	S: 19M-01888	-002			NOT TO SCALE	
			LEGEND)				
			PROPOSED	ROAD ······				
			PROPOSED	CYCLE TRACK				
			PROPOSED	SIDEWALK				
			PROPOSED	CONCRETE DR	IVEWAY ·····		\boxtimes	\sim
			PROPOSED	ASPHALT DRIVI	EWAY			
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		-	PROPOSED	CONCRETE CU	RB AND GUTTER ·····			
			EXISTING TF	REES ·····			0.100	0.100
			PROPOSED	PROPERTY LIN	E			
POTENTIAL TRAVEL TRAVEL INFRASTRUCTURE TRAVEL ANE INFRASTRUCTURE TRAVELATION - 2.0 AND			DEWALK	SOUTH				
ROW 25 m - SECTION D-D			11	5				
				COV	VDRAY COL	JRT		
			FROM	COV KENNEDY R	VDRAY COU COAD TO NEW NORTH - PRELIMINARY DESIGN PLAN AND PROFILE	JRT SOUTH STRE	ΕT	
	DESIGN	G.B.	FROM	COV KENNEDY R F A.S.	VDRAY COU COAD TO NEW NORTH - PRELIMINARY DESIGN PLAN AND PROFILE CHECKED D.S.W.	JRT SOUTH STRE	ΈT	
	DESIGN SCALE	G.B. HORIZONTAL	FROM DRAWN 1:200 VERT	COV KENNEDY R F A.S.	VDRAY COL COAD TO NEW NORTH - PRELIMINARY DESIGN PLAN AND PROFILE CHECKED D.S.W.	JRT SOUTH STRE	ET	SHEET

PROPOSED ROAD	
PROPOSED CYCLE TRACK ······	
PROPOSED SIDEWALK ······	
PROPOSED CONCRETE DRIVEWAY ·····	
PROPOSED ASPHALT DRIVEWAY ·····	
PROPOSED CONCRETE MEDIAN / ISLAND ······	
PROPOSED CONCRETE CURB ·····	
PROPOSED CONCRETE CURB AND GUTTER ······	
EXISTING TREES ······	0.100
PROPOSED PROPERTY LINE ·····	

					5				
			FROM	C 1 140m EAST	OLLIN OF KENNE P	IGWO DY ROAD T PRELIMINAR PLAN AND	OD ST 0 COLLING Y DESIGN PROFILE	REET wood street terminus	
		DESIGN	G.B.	DRAWN	A.S.	CHECKED	D.S.W.		
		SCALE DATE	HORIZONTAL 1:200 VERTICAL 1:100			DRAWING NUMBER		007	SHEET 7 OF 16

PROPOSED ROAD	
PROPOSED CYCLE TRACK ······	
PROPOSED SIDEWALK	
PROPOSED CONCRETE DRIVEWAY ·····	
PROPOSED ASPHALT DRIVEWAY ·····	
PROPOSED CONCRETE MEDIAN / ISLAND ······	
PROPOSED CONCRETE CURB ·····	
PROPOSED CONCRETE CURB AND GUTTER ·····	
EXISTING TREES	0.100
PROPOSED PROPERTY LINE ·····	

			•••	51				
			FROM K	SHEF ENNEDY RO F	PPARD DAD TO 23m PRELIMINARY PLAN AND F	EAST OF G DESIGN	NUE ordon avenue	
	DESIGN	G.B.	DRAWN	A.S.	CHECKED	D.S.W.		
	 SCALE	HORIZONTAL	1:200 VERT	ICAL 1:100	DRAWING		000	SHEET
	DATE				NUMBER		008	8 OF 16

TYPICAL SECTION - REIDMOUNT AVENUE

ROW 20.7 m - SECTION H-H

			EXISTING GROUND ELEVATION STATION						\\\$)			
						TORONTO			REIDMOU SHEPPARD AVENUE TO 100m PRELIMIN	NT AVEN NORTH OF SHE ARY DESIGN	IUE PPARD AVENUE	
9M-01888_PF.dgn, 19M-01888_SH.dgn								 DESIGN G.B.	DRAWN A.S. CHECKE	D D.S.W.		CHEET
NFORMATION	No.	DATE	REVISIONS	INITIAL	SIGNED			DATE	AL 1:200 VERTICAL 1:100 DRAWIN NUMBE	IG R	010	10 OF 16

PROPOSED ROAD	
PROPOSED CYCLE TRACK ······	
PROPOSED SIDEWALK	
PROPOSED CONCRETE DRIVEWAY ·····	
PROPOSED ASPHALT DRIVEWAY ·····	
PROPOSED CONCRETE MEDIAN / ISLAND · · · · · · · · · · · · · · · · · · ·	
PROPOSED CONCRETE CURB ·····	
PROPOSED CONCRETE CURB AND GUTTER ······	
EXISTING TREES ·····	0.100
PROPOSED PROPERTY LINE ·····	

NO PROFILE DATA AVAILABLE

H.C.M. STATION	EASTING	NORTHING	ELEVATION							
									In Ingente	
B.M. STATION				SURVEY(Year) XXXXXX.dgn						
				DESIGN 19M-01888_DP.dgn, 19M-01888_PF.dgn, 19M-01888_SH.dgn						
				UTILITY 19M-01888_UGS.dgn						
				MAPPING 19M-01888_TOP.dgn						
				STREETLINE 19M-01888_PSL.dgn						
HOF	RIZONTAL \ VERTICAI	L CONTROL MONUME	ENTS	DIGITAL INFORMATION	No.	DATE	REVISIONS	INITIAL SIGNED		

PROPOSED ROAD	
PROPOSED CYCLE TRACK ······	
PROPOSED SIDEWALK ······	
PROPOSED CONCRETE DRIVEWAY ·····	
PROPOSED ASPHALT DRIVEWAY ·····	
PROPOSED CONCRETE MEDIAN / ISLAND · · · · · · · · · · · · · · · · · · ·	
PROPOSED CONCRETE CURB ·····	
PROPOSED CONCRETE CURB AND GUTTER ······	
EXISTING TREES ······	0.100
PROPOSED PROPERTY LINE ·····	

			•	5)			
		FROM 100m	NORTH OF	REIDN SHEPPARD F	AVENUE TO PRELIMINAR PLAN AND	T AVE D CARDWEL Y DESIGN PROFILE	NUE LAVENUE AND DOWRY	STREET
	DESIGN	G.B.	DRAWN	A.S.	CHECKED	D.S.W.		
	 SCALE	HORIZONTAL	1:200 VERT	ICAL 1:100	DRAWING		011	SHEET
	DATE				NUMBER		UTT	11 OF 16

HORIZONTAL \ VERTICAL CONTROL MONUMENTS

DIGITAL

							DA TORONTO	
SURVEY(Year)	XXXXXX.dgn							
DESIGN	19M-01888_DP.dgn, 19M-01888_PF.dgn, 19M-01888_SH.dgn							
UTILITY	19M-01888_UGS.dgn							
MAPPING	19M-01888_TOP.dgn							
STREETLINE	19M-01888_PSL.dgn							
	DIGITAL INFORMATION	No.	DATE	REVISIONS	INITIAL	SIGNED		

PROPOSED ROAD	
PROPOSED CYCLE TRACK ······	
PROPOSED SIDEWALK	
PROPOSED CONCRETE DRIVEWAY ·····	
PROPOSED ASPHALT DRIVEWAY ·····	
PROPOSED CONCRETE MEDIAN / ISLAND ·····	
PROPOSED CONCRETE CURB ·····	
PROPOSED CONCRETE CURB AND GUTTER ······	
EXISTING TREES ······	0.100
PROPOSED PROPERTY LINE ·····	

DOWRY STREET FROM REIDMOUNT AVENUE TO EASTERLY TE PRELIMINARY DESIGN PLAN						ET RLY TEF	RMINUS	
SIGN	G.B.	DRAWN	A.S.	CHECKED	D.S.W.			
CALE HORIZONTAL 1:200 VERTICAL 1:100				DRAWING NUMBER			012	SHEET 12 OF 16

				•	51				
			F	PRC ROM SHEPP	POSE PARD AVEN P	UE TO 130m RELIMINAR PLAI	LTI-US SOUTH OF Y DESIGN	SE TRAIL SHEPPARD AVENUE	
	DESI	IGN	G.B.	DRAWN	A.S.	CHECKED	D.S.W.		
	SCAL	SCALE HORIZONT		1:200 VERT	ICAL 1:100	DRAWING		012	SHEET
	DATE	=				NUMBER		013	13 OF 16

LEGEND	
PROPOSED ROAD	
PROPOSED CYCLE TRACK ······	
PROPOSED SIDEWALK ······	
PROPOSED CONCRETE DRIVEWAY	
PROPOSED ASPHALT DRIVEWAY ·····	
PROPOSED CONCRETE MEDIAN / ISLAND ·····	
PROPOSED CONCRETE CURB ······	
PROPOSED CONCRETE CURB AND GUTTER ······	
EXISTING TREES ·····	0.100
PROPOSED MULTI-USE TRAIL ·····	

				5					
	PROPOSED MULTI-US FROM 130m SOUTH OF SHEPPARD AVENUE TO 270m SO PRELIMINARY DESIGN PLAN					SE TF DUTH OF	RAIL sheppard aven	IUE	
	DESIGN	G.B.	DRAWN	A.S.	CHECKED	D.S.W.			
	 SCALE HORIZONTAL 1:200 VE		1:200 VERT	ICAL 1:100	DRAWING			014	SHEET
	DATE				NUMBER			014	14 OF 16

EXISTING TREES ······

PROPOSED MULTI-USE TRAIL ····

	<u>MATERIAL SPE</u>	<u>DIFICATIONS:</u>
	CONCRETE	CSA A23.1/A23.2 LATEST EDITION.
	REINFORCING STEEL	CSA G30.18 LATEST EDITION, UNLESS NOTED OTHERWISE, TENSION LAP SPLICES FOR REINFORCING STEEL SHALL BE CLASS B. REINFORCING STEEL SHALL BE GRADE 400W UNLESS NOTED OTHERWISE. BAR MARKS WITH PREFIX 'S' DENOTE STAINLESS STEEL BARS.
	BAR HOOKS	STAINLESS STEEL REINFORCEMENT SHALL BE TYPE 316LN OR DUPLEX 2205 AND HAVE A MINIMUM YIELD STRENGTH OF 500MPa, UNLESS OTHERWISE SPECIFIED. SHALL HAVE STANDARD HOOK DIMENSIONS USING MINIMUM BEND DIAMETERS, WHILE STIRRUPS AND TIES SHALL HAVE MINIMUM HOOK DIMENSIONS. ALL HOOKS SHALL BE IN ACCORDANCE WITH ARTICLE 2.17 PART 2 AREMA MANUAL UNLESS NOTED OTHERWISE
	BEARINGS	SHALL CONFORM TO AREMA CHAPTER 15, PART 10, SELF LUBRICATING SPHERICAL BRONZE ALLOY BEARING AND IN ACCORDANCE WITH CP REQUIREMENTS.
	STRUCTURAL STEEL	FRACTURE CRITICAL MEMBERS (FCM): GIRDERS WEBS, FLANGE PLATES, MAIN WELDS AT PLATE GIRDERS, END BEARING STIFFENERS AND CONNECTIONS OF FCM MEMBERS. STRUCTURAL STEEL MEMBERS DESIGNATED AS "FCM" SHALL MEET THE REQUIREMENTS OF CAN/CSA G40.21, LATEST EDITION, GRADE 350AT, CATEGORY 5. THE IMPACT TEST REQUIREMENTS SHALL BE IN ACCORDANCE WITH AREMA CHAPTER 15 TABLE 15-1-14 ZONE 3 REQUIREMENTS FOR ASTM A709M GRADE 345 STRUCTURAL STEEL.
		PRIMARY MEMBERS: CONNECTION ANGLES, INTERMEDIATE STIFFENERS, AND JACKING STIFFENERS SHALL MEET THE MINIMUM REQUIREMENTS OF CAN/CSA G40.21 LATEST EDITION GRADE 350AT CATEGORY 2.
		OTHER STEEL MEMBERS: STRUCTURAL STEEL MEMBERS NOT DESIGNATED AS "FCM" SHALL MEET THE MINIMUM REQUIREMENTS OF CAN/CSA G40.21, GRADE 350A.
		ALL BOLTED CONNECTION SHALL BE MADE WITH 24mm DIAMETER HOLES FOR M22 BOLTS, UNLESS NOTED OTHERWISE IN ACCORDANCE WITH ASTM A325M. MINIMUM EDGE DISTANCE AND DIRECT SPACING SHALL BE 40mm AND 70mm, RESPECTIVELY, UNLESS NOTED OTHERWISE. BOLTS SHALL BE A325, TYPE 3 WHEN USED WITH ATMOSPHERIC CORROSION RESISTING PROPERTIES. ALL BOLTS SHALL BE INSTALLED BY THE TURN-OF-NUT METHOD PER AREMA CHAPTER 15. ALL HOLES SHALL BE DRILLED FULL SIZE OR SUBDRILLED AND REAMED FULL SIZE.
G	WELDING	SHALL BE AS PER CSA 0104 LATEST EDITION.
۷.	GALVANIZING GRATING	SHALL BE AS PER CSA-G164, LATEST EDITION. SHALL BE AS PER AMICO KIEMP COMPANY OR APPROVED EQUIVALENT
	METALLIZING	CSA-G189, LATEST EDITION - METALLIZED SURFACES SHALL BE SEALED AND TOP COATED WITH APPROVED WATERBORNE ACRYLIC PAINT WITH MINIMUM DRY FILM THICKNESS OF 50 MICRONS. THE PAINT COLOR SHALL MATCH THE COLOR OF OXIDIZED STEEL.
	WATERPROOFING	SHALL BE EITHER A BUTYL RUBBER, EPDM OR COLD LIQUID—APPLIED ELASTOMERIC MEMBRANE IN ACCORDANCE WITH AREMA CHAPTER 8 PART 29. WATERPROOFING MEMBRANES SHALL BE PROTECTED WITH TWO LAYERS OF ASPHALTIC PANELS IN ACCORDANCE WITH AREMA CHAPTER 8, PART 29.
	Q EXIST TR	ACK
	5486 (CLEARANCE)	5486 (CLEARANCE)
/		
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<u>B</u>	05050505050	
	++++++++++++++++++++++++++++++++++++++	THE PROPOSED GRADE
		(BEHIND THE BRIDGE)
	+++ 34 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	-EXISTING GRADE
		SHORING
TRUC	TION	STAGE I CONSTRUCTION
		OF ELEVATED VALK
		$ \cap N = 1$
	<u>SEU</u>	<u>ION - I</u> :50
		SW AGINCOURT TRANSPORTATION
		CONNECTIONS STUDY

CPR GRADE SEPARATION CHECKED M.Z. DESIGN M.Z. CONTRACT No. DRAWN I.T. SCALE AS SHOWN DRAWING NUMBER DATE

16\2019\ CAFY07 BY: YAZ :\DIV BY: AM × AND NAME: 4:06:21 PM /2023 11:42:1 OCATION / 5/15/2023 / TED: 9/11/

Pipe Input View PIPEHYD->DIAMETER 150mm	CLIENT		- 11 '	5	
200mm	TITLE ROBINSON GLEN COMMUNITY CITY OF MARKHAM	100 Co t: 905.0	ommerce Valley Dr. W 882.1100 f: 905.882	est, Thornhill, 2.0055	, ON Canada L3T 0A1 www.wsp.com
300mm	PROPOSED WATER	Checked	M.M.	Drawn	I.B.
		Date	DEC 2022	Proj. No.	19M-01888
		Scale	N.T.S.	Figure No.	WM-2

D ON: Wednesday 12/07/2022

SW Agincourt EA

Cost Estimate for Multi-use Trail D1

115	
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Q	uantity	Unit	Cost/Unit		Total
Watermain and Appurtenances	450	m	400	(1)	180,000
Sanitary Sewers	-	m	N/A	(2)	-
Storm Sewers	600	m	750	(3)	450,000
Stormwater Storage Required	300	m ³	1,000	(4)	300,000
Allowance for LID	1	LS	200,000	(5)	200,000
Allowance for Oil Grit Separator	1	LS	100,000	()	100,000
Allowance of Utility Relocation	1	LS	750,000		750,000
Roadway Earth Excavation	13,000	m³	40		520,000
Asphalt Surface Course (50mm depth)	2,200	t	130		286,000
Asphalt Surface Course(140mm depth)	6,000	t	110		660,000
Granular A (150mm)	7,000	t	22		154,000
Granular B (500mm)	23,000	t	21		483,000
Concrete Curb and Gutter	4,700	m	85		399,500
Concrete Sidewalk / Median / Platform	9,100	m²	85		773,500
Cycle Track	2,500	m²	65		162,500
Road Signs	2	km	15,000		30,000
Pavement Marking - Durable	2	km	40,000		80,000
Cold Plane existing Pavement	2,000	m²	15		30,000
Removal of Curb and Gutter	1,800	m	25		45,000
New traffic signals	2	LS	300,000		600,000
Traffic signal modification (GO dwy)	1	LS	20,000		20,000
Noise mitigation	1	LS	75,000		75,000
Miscellaneous Items (15%)					931,000
Soil Removal from underpass	7,500	m ³	150	(6)	1,125,000
CP Grade Separation Structure					
 Flagging for 2 years 	1	LS	1,000,000		1,000,000
· Shoring	1	LS	8,000,000		8,000,000
 Track Staging 	1	LS	1,000,000		1,000,000
Structure Construction	1	LS	12,000,000		12,000,000
Structure Contingencies	1	LS	3,000,000		3,000,000
Subtotal Excluding GST, HST (see other exclusions bel	ow)				33,354,500
Contingency		Approximately	25%		8,339,000
Total					41.694.000

Total

Notes:

General

- This cost estimate has been prepared in absence of a detailed design
- This is a preliminary estimate only.
- The estimate is for underground services and utility relocation only.
- This estimate does not include streetscaping aspects
- This estimate does not include external infrastructure upgrades, if necessary.
- Does not account for property impact costs

Specific

- (1) Unit cost for 300Ø watermain plus valve & chamber cost (at 100m spacing), hydrant cost (at 50m spacing) and a flushing cost.
- (2) Sanitary sewers are not proposed as part of the proposed N/S road so no sanitary sewer cost has been included.
- (3) Unit cost for 675Ø storm sewer plus manhole cost (assumed 1800Ø at 100m spacing).
- (4) Approximate storage volume required at the low point of the underpass.
- (5) This is an extremely preliminary high-level estimate. The size and location of OGS will be determined in the detailed design stage.
- (6) Assumed unit cost for remediation/management of contaminated soil from the proposed underpass excavation

SW Agincourt EA

Cost Estimate for Multi-use Trail D1

Qu	uantity	Unit	Cost/Unit	Total
Multi-use trail Strcutural design through CP Rail Miscellaneous Items (15%)	660 1	m LS	350 450,000	(1) 231,000 450,000 103,000
Subtotal Excluding GST, HST (see other exclusions be Contingency	elow)	Approximately	25%	784,000 196,000
Total				980,000

Notes:

<u>General</u>

- This cost estimate has been prepared in absence of a detailed design

- This is a preliminary estimate only.

- Does not account for property impact costs

