

KETTLE CREEK SUBDIVISION
37719 LAKE LINE
PORT STANLEY, ONTARIO

CONSULTANT:



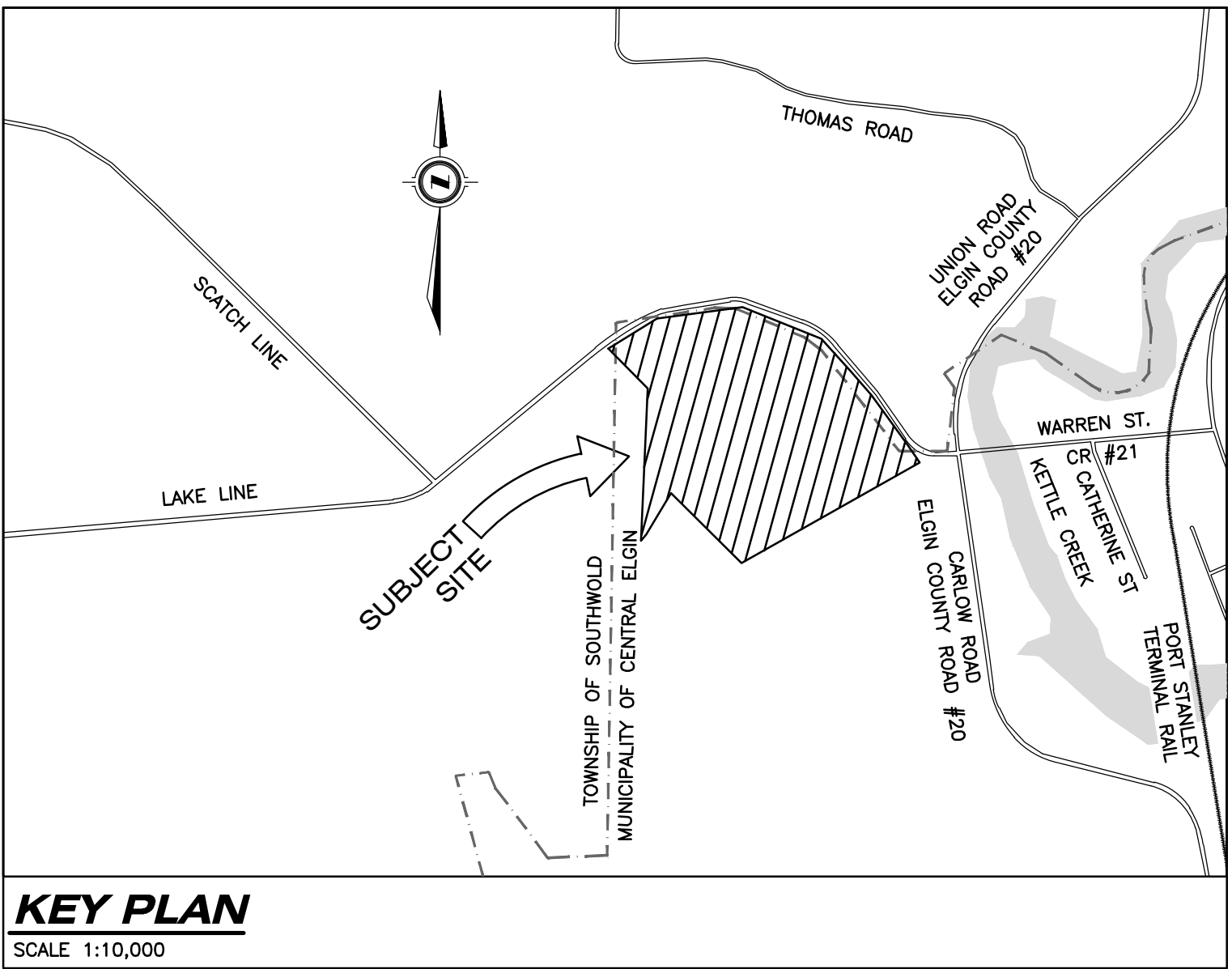
STRIK
BALDINELLI
MONIZ

PLANNING • CIVIL • STRUCTURAL • MECHANICAL • ELECTRICAL

1599 Adelaide St. N, Unit 301, London, Ontario, N5X 4E8

Tel: (519) 471-6667 Fax: (519) 471-0034

Email: sbm@sbmltd.ca



THE CORPORATION OF THE MUNICIPALITY OF
CENTRAL ELGIN

LIST OF DRAWINGS

1	NOTES, LEGEND, AND DETAILS	10A	SUBDIVISION GRADING PLAN – SOUTHEAST	15B	EASEMENT/EXTENSION/RECONSTRUCTION – STA 4+180 TO 4+409 PLAN & PROFILE
2	SUBDIVISION PLAN	10B	SUBDIVISION GRADING PLAN – NORTHWEST	15C	EASEMENT/EXTENSION/RECONSTRUCTION – STA 4+409 TO 4+615 PLAN & PROFILE
3	EXISTING CONDITIONS, REMOVALS AND SEDIMENT & EROSION CONTROL PLAN	10C	SUBDIVISION GRADING PLAN – SOUTHWEST & SWM POND GRADING PLAN	15D	EASEMENT/EXTENSION/RECONSTRUCTION – STA 5+000 TO 5+658 PLAN & PROFILE
4	MASTER SERVICING PLAN	11	MAJOR FLOWS CATCHMENT AREAS PLAN	16	CONCEPTUAL STREET LIGHT PLAN
5	STORM CATCHMENT AREAS PLAN	12	STORMWATER MANAGEMENT FACILITY SECTIONS, NOTES AND DETAILS	17	COMMUNITY MAILBOX AND OGS DETAILS
6A	STORM DESIGN SHEET	13A	STREET 'A' – STA 1+000 TO 1+323 PLAN & PROFILE	18	MUNICIPALITY OF CENTRAL ELGIN STANDARD DETAILS
6B	MUNICIPAL DRAIN DESIGN SHEETS	13B	STREET 'A' – STA 1+323 TO 1+646 PLAN & PROFILE	19	ONTARIO PROVINCIAL STANDARD DRAWINGS
7	SANITARY CATCHMENT AREAS PLAN	13C	STREET 'A' – STA 1+646 TO 1+864 PLAN & PROFILE		
8	SANITARY DESIGN SHEET	14	STREET 'B' – PLAN & PROFILE		
9	WATER DISTRIBUTION PLAN	15A	EASEMENT/EXTENSION/RECONSTRUCTION – STA 3+000 TO 4+180 PLAN & PROFILE		

GENERAL NOTES:

1. THE OWNER'S PROFESSIONAL ENGINEER IS REQUIRED TO FIELD REVIEW THE INSTALLATION OF SERVICES INCLUDED IN THIS PROJECT IN ACCORDANCE WITH THE GENERAL REVIEW/COMMITMENT/PERMITTING PROCESS. THE CONTRACTOR IS TO PROVIDE STRIK, BALDINELLI, MONIZ LTD. (SBM) AND THE MUNICIPALITY OF CENTRAL ELGIN PHYSICAL SERVICES DEPARTMENT AT LEAST 48 HOURS NOTICE PRIOR TO COMMENCING CONSTRUCTION OF THE SITE SERVICES.
2. AT LEAST 48 HOURS PRIOR TO COMMENCING CONSTRUCTION ON ANY EXISTING ROAD ALLOWANCE MAINTAINED BY THE COUNTY OF ELGIN, THE CONTRACTOR SHALL OBTAIN THE NECESSARY PERMITS FROM THE COUNTY ENGINEER'S DEPARTMENT, AFTER DISCUSSION WITH THE STAFF.
3. THE OWNER/OWNER'S CONTRACTOR SHALL HAVE ITS PROFESSIONAL ENGINEER PROVIDE FULL-TIME ONSITE REVIEW DURING CONSTRUCTION ON AN EXISTING MUNICIPAL STREET OR EXISTING ANY PROVIDED. THE QUALITY OF WORK UPON COMPLETION OF ALL WORKS TO BE CONSTRUCTED.
4. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE MINIMUM STANDARDS AND SPECIFICATIONS OF THE CURRENT ONTARIO BUILDING CODE (OBC) AND ANY APPLICABLE STATUTES, REGULATIONS, CODES AND BY-LAWS.
5. SBM IS NOT RESPONSIBLE FOR THE INFORMATION (EXISTING TOPOGRAPHY, BENCHMARKS, PROPERTY BOUNDARY, ETC.) PROVIDED BY OTHERS.

CONSTRUCTION NOTES:

1. THE OWNER'S CONTRACTOR IS TO CONTACT THE CONSULTING ENGINEER (SBM) FOR FINAL ONSITE REVIEW. THE CONTRACTOR IS TO PROVIDE AT LEAST 48 HOURS NOTICE PRIOR TO REQUIRED ONSITE REVIEW.
2. THE OWNER'S CONTRACTOR SHALL TAKE ALL PRECAUTIONARY MEASURES UNDER THE OCCUPATIONAL HEALTH AND SAFETY ACT AS REQUIRED BY THE MINISTRY OF LABOUR TO EXECUTE THE WORK.
3. THE OWNER'S CONTRACTOR IS TO REVIEW AND CONFIRM ALL EXISTING CONDITION INFORMATION & INFORM SBM OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION. SBM IN NO WAY ACCEPTS RESPONSIBILITY FOR ANY INACCURACIES FOUND ON THIS PLAN RELATIVE TO EXISTING CONDITIONS FOR THE SITE.
4. PRIOR TO COMMENCING ANY CONSTRUCTION, ALL SEWER OUTLET INFORMATION, BENCHMARKS, ELEVATIONS, DIMENSIONS, GRADES, ETC. MUST BE CHECKED BY THE CONTRACTOR AND VERIFIED AND ANY DISCREPANCIES REPORTED TO THE ENGINEERS.
5. PRIOR TO COMMENCING ANY WORK ON THE INSTALLATION OF SERVICES & GRADING, AN APPROVED SET OF PLANS AND SPECIFICATIONS MUST BE AVAILABLE ON THE JOB AND SHALL REMAIN THERE WHILE WORK IS BEING DONE.
6. STRIP FULL DEPTH OF TOPSOIL IN AREAS TO BE DISTURBED AND STOCK PILE FOR RE-USE IN GRASSED/LANDSCAPED AREAS.
7. OWNER'S CONTRACTOR IS RESPONSIBLE FOR ALL AS-BUILT INVERTS AND GRADES, RECORD ANY DEVIATION OF PIPE OR STRUCTURE LOCATION INVOLVED WITH THIS PROJECT AND OWNER'S CONTRACTOR TO PROVIDE A COPY OF THE AS-BUILT DRAWING SHOWING ALL CHANGES CLEARLY MARKED IN RED.
8. THE OWNER'S CONTRACTOR SHALL CONSTRUCT TEMPORARY MEASURES TO CONTROL SILT ENTERING THE STORM DRAINAGE SYSTEM TO THE SPECIFICATIONS OUTLINED IN THE GUIDELINES ON EROSION AND SEDIMENT CONTROL FOR URBAN CONSTRUCTION SITES PREPARED BY THE MINISTRY OF NATURAL RESOURCES. THESE MEASURES ARE TO BE INSTALLED PRIOR TO COMMENCING ANY CONSTRUCTION FOR THIS PROJECT AND ARE TO REMAIN IN PLACE UNTIL CONSTRUCTION HAS BEEN COMPLETED TO BASE ASPHALT AND SOD OR THE SATISFACTION OF THE MUNICIPAL ENGINEER.
9. THE CONTRACTOR IS RESPONSIBLE FOR:
- 9.1. CONNECTING ANY EXISTING SEWER OR DRAIN ENCOUNTERED DURING CONSTRUCTION TO A NEW SEWER OF SIMILAR TYPE, SIZE AND MATERIAL OR INTO ANOTHER EXISTING SEWER OF THE SAME TYPE AND TO REPORT ON AS-BUILT DRAWINGS.
- 9.2. ENSURING THAT THERE IS NO INTERRUPTION OF ANY SURFACE OR SUBSURFACE DRAINAGE FLOW THAT WOULD ADVERSELY AFFECT NEIGHBOURING PROPERTIES.
10. NO FOUNDATION DRAIN CONNECTIONS WILL BE PERMITTED INTO THE SANITARY SEWERS AND NO DIRECT GRAVITY CONNECTIONS FROM THE FOUNDATION DRAINS WILL BE PERMITTED TO THE STORM SYSTEM UNLESS THE STORM SYSTEM HAS THE CAPACITY TO PROVIDE FOR SUCH CONNECTIONS TO THE SATISFACTION OF THE MUNICIPAL ENGINEER.
11. WORK ON OR ADJACENT TO THE MUNICIPAL CITY RIGHT OF WAY (R.O.W.) SHALL BE COMPLETED IN ACCORDANCE WITH THE ONTARIO TRAFFIC MANUAL BOOK 7 AND BOOK 18 CURRENT EDITION.

SURFACE WORKS NOTES:

1. ALL WORK IN THE MUNICIPAL ROAD ALLOWANCE SHALL MEET THE MINIMUM STANDARDS AND SPECIFICATIONS OF THE CURRENT MUNICIPALITY OF CENTRAL ELGIN INFRASTRUCTURE DESIGN GUIDELINES AND CONSTRUCTION STANDARDS (IDGCS) ARE TO BE APPLIED TO WORKS WITHIN THE MUNICIPAL ROAD ALLOWANCE UNLESS OTHERWISE APPROVED BY THE MUNICIPALITY ENGINEER. THE CONTRACTOR IS REQUIRED TO OBTAIN & PAY FOR PERMIT TO WORK IN MUNICIPAL R.O.W.
2. ALL SURFACES WHICH ARE DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO A CONDITION AT LEAST AS GOOD AS ORIGINAL, OR AS PER BELOW (WHICHEVER IS GREATER) OR MUNICIPAL RIGHT OF WAY TO THE SATISFACTION OF THE MUNICIPAL ENGINEER, ALL AT NO COST TO THE MUNICIPALITY
- 2.1. GRASSED AREAS TO BE RESTORED w/ 100mm (MIN) TOPSOIL + SOD
- 2.2. CONCRETE SIDEWALK TO OPSD 310.010 (CONCRETE SIDEWALK).
- 2.3. CONCRETE CURB AND GUTTER TO OPSD 600.100 (CONCRETE MOUNTABLE CURB WITH NARROW GUTTER) OR OPSD 600.110 (CARLOW ROAD BARRIER CURB).
- 2.4. ANY ASPHALT AREA DISTURBED DURING CONSTRUCTION SHALL BE RESTORED AS FOLLOWS:
- 2.4.1. PROOF ROLL SUBGRADE (TO THE SATISFACTION OF THE GEOTECHNICAL ENGINEER) PRIOR TO PLACEMENT OF GRANULARS (98% STANDARD PROCTOR MAXIMUM DRY DENSITY (SPMDD) MIN).
- 2.4.2. MILL ADJACENT ASPHALT TO BE TIED INTO 50mm DEEP x 500mm WIDE. PRIOR TO RESTORATION SEE DETAIL ON SHEET C1.

PROPOSED PAVEMENT STRUCTURES						(TO THE SATISFACTION OF THE GEOTECHNICAL ENGINEER)
MATERIAL	LAKE LINE	STREET 'A'	STREET 'B'	CARLOW ROAD	PARKING LOT	DRIVEWAY
HL-3	40mm	40mm	40mm	40mm	35mm	-
HL-4	-	-	-	-	-	60mm
HL-8	40mm	40mm	40mm	40mm	40mm	-
GRANULAR 'A'	150mm	150mm	150mm	150mm	150mm	150mm
GRANULAR 'B'	400mm	400mm	400mm	400mm	350mm	-

- 2.5. RESTORE ALL PAVEMENT MARKINGS TO MATCH EXISTING PRE-CONSTRUCTION CONDITIONS (UNLESS OTHERWISE NOTED) AND MARKINGS SHALL BE COMPLETED IN ACCORDANCE WITH OPSD 710 'CONSTRUCTION SPECIFICATION FOR PAVEMENT MARKING'.
- 2.6. ALL EXTERIOR HORIZONTAL CONCRETE SHALL BE MIN 150mm THICK PER IDGCS 6.6.e), 30 MPa AT 28 DAYS c/w 5-8% AIR ENTRAINMENT AND TEMPERATURE BETWEEN 10-28°C. ON MIN 150mm THICK GRANULAR 'A' COMPACTED TO 100% SPMDD.
3. ALL AREAS OUTSIDE THE CONSTRUCTION LIMITS SHALL NOT BE DISTURBED, ANY DAMAGED TO THOSE AREAS ARE TO BE REPAIRED AT THE CONTRACTORS EXPENSE.

SERVICING NOTES:

(SEE ADDITIONAL SERVICING NOTES ON SHEET 4)

1. ALL STORM AND/OR SANITARY SEWER INSTALLATION SHALL BE IN ACCORDANCE WITH THE CURRENT MUNICIPALITY OF CENTRAL ELGIN'S STANDARDS AND SPECIFICATIONS AND THE CURRENT EDITION OF THE ONTARIO BUILDING CODE.
2. ALL ORGANIC, UNSTABLE OR UNSUITABLE MATERIALS BENEATH THE ROAD ALLOWANCE, SERVICES, UTILITIES, OR FOUNDATIONS MUST BE REMOVED AND THESE AREAS BACKFILLED WITH AN APPROVED FILL MATERIAL. ALL TO THE SATISFACTION OF A GEOTECHNICAL ENGINEER AND SHOULD BE PLACED IN LIFTS NOT EXCEEDING 300mm (LOOSE) THAT ARE COMPACTED TO 95% SPMDD (100% FOR PAVED SURFACES). THE FILL MATERIAL SHOULD COMPRISE OF CLEAN, COMPACTIBLE FILL WITHIN 3% OF THE OPTIMUM MOISTURE CONTENT.
3. REMOVE ALL TRENCH WATER WHEN PIPE LAYING IS IN PROGRESS. ALL REQUIREMENTS FOR DEWATERING PERMITS (INCLUDING THE MINISTRY OF ENVIRONMENT, CONSERVATION AND PARKS (M.E.C.P)'S PERMIT TO TAKE WATER, IF REQUIRED) SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
4. CONNECTIONS FROM FOUNDATIONS, WEEPING TILE, SUMP PUMP, AND ROOF DRAINS ARE NOT PERMITTED TO ENTER THE SANITARY SEWER SYSTEM AND SHALL BE IN ACCORDANCE WITH THE MUNICIPALITY OF CENTRAL ELGIN INFRASTRUCTURE DESIGN GUIDELINES AND CONSTRUCTION STANDARDS INCLUDING, BUT NOT LIMITED TO REQUIREMENTS IN SECTION 2.7.
5. ALL PROPOSED STORM SEWER PIPE SHALL BE: PVC SMOOTH WALL (CSA B182.2) (100# TO 600#) OR RIBBED (CSA B182.4) (200# TO 600#) OR REINFORCED CONCRETE (CAN/CSA 257.2) AND SANITARY SEWER PIPE TO BE: PVC SMOOTH WALL (CSA B182.2) (100# TO 600#) OR RIBBED (CSA B182.4) (200# TO 600#). PVC PIPE SHALL BE LAID WITH TYPE I BEDDING UNDER 4.5m OF COVER AND TYPE II BEDDING OVER 4.5m OF COVER. CONCRETE PIPE SHALL BE LAID WITH CLASS B (B1 OR B2) BEDDING. ALL SEWER BACKFILL MUST BE COMPACTED TO 95% STANDARD MAXIMUM DRY DENSITY (MINIMUM) (100% FOR PAVED AREAS). REFER TO OPSD 802.010, OPSD 802.030, AND MUNICIPALITY OF CENTRAL ELGIN CURRENT STANDARDS.
6. THE MINIMUM DEPTH OF A STORM SEWER SHALL BE 1.5m (1.25m FOR CATCH BASIN LEADS) FROM THE FINISHED GROUND ELEVATION TO THE CROWN OF THE PIPE AS PER THE MUNICIPALITY OF CENTRAL ELGIN INFRASTRUCTURE DESIGN GUIDELINES AND CONSTRUCTION STANDARDS. WHERE THE MINIMUM DEPTH CANNOT BE ACHIEVED AND THEREFORE FROST PROTECTION IS WARRANTED, INSULATION IS REQUIRED AS PER THE MUNICIPALITY OF CENTRAL ELGIN DRAWIN W-3 'WATERMAIN CROSS OVER DETAIL'.
7. ALL STORM AND SANITARY SEWERS/SERVICES AND CATCHBASIN LEADS SHALL HAVE APPROVED RUBBER GASKET JOINTS + BE INSTALLED USING A LASER LEVEL.
8. CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR ALL PRECAST CONCRETE STRUCTURES PRIOR TO ORDERING THEM FOR REVIEW BY ENGINEER.
9. ALL CATCHBASINS TO HAVE 0.6m SUMP AS PER OPSD 705.010 AND CATCHBASIN MAINTENANCE HOLES 1200# & LARGER TO HAVE 0.3m SUMP AS PER OPSD 701.010.
10. 3.0m LENGTHS OF 150mm DIAMETER PERFORATED FILTER WRAPPED PVC PIPE ARE TO BE INSTALLED AS SUBDRAINS CONNECTED TO TWO SIDES OF EACH CATCHBASIN AND CATCHBASIN MAINTENANCE HOLE WITHIN PAVED AREAS. THE SUBDRAINS ARE TO BE LOCATED JUST BELOW SUBGRADE ELEVATION AND RUN PARALLEL WITH THE CURB AS PER MUNICIPALITY OF CENTRAL ELGIN DRAWING SCS-1.
11. MAINTENANCE HOLES TO BE CONSTRUCTED OF PRE-CAST CONCRETE. ALL MAINTENANCE HOLES TO BE INSTALLED IN ACCORDANCE WITH THE ONTARIO PROVINCIAL STANDARDS (OPSD) DIVISION 700 DETAILS AND REQUIREMENTS. SEE LIST OF COMMON DETAILS.
12. ENSURE MINIMUM OF 1' ADJUSTMENT UNIT FOR ALL STRUCTURES. MAXIMUM TOTAL ADJUSTMENT UNITS HEIGHT: 300mm.
13. RUNG SPACING IN MAINTENANCE HOLES TO BE 300mm MIN. AND A MAX. OF 600mm DISTANCE BETWEEN THE LID AND THE FIRST RUNG.
14. WATERMAINS 250mm AND ABOVE MUST BE RESTRAINED FOR 30.0m IN EITHER DIRECTION OF DEAD END/VALVE.
15. WHERE ANY WATER SERVICE CONNECTION IS REQUIRED TO BE MADE FOLLOWING THE CONSTRUCTION OF CURB, GUTTER, CONCRETE SIDEWALKS, AND/OR WEARING SURFACE COAT OF ASPHALT ON ANY STREET IN A NEW SUBDIVISION, SUCH WATER SERVICE CONNECTION SHALL NOT BE MADE USING 'OPEN CUT' METHODS BUT SHALL BE MADE USING TRENCHLESS TECHNOLOGIES AND IN SUCH A MANNER AS TO ELIMINATE THE POSSIBILITY OF SETTLEMENT OF SUCH CURB, GUTTER, CONCRETE SIDEWALKS AND/OR WEARING SURFACE COAT OF ASPHALT; IT BEING UNDERSTOOD THAT THIS POLICY SHALL APPLY, EXCEPT WHERE IN THE OPINION OF THE MUNICIPAL ENGINEER, GROUND CONDITIONS ARE SUCH THAT THE USE OF DRILLING OR BORING METHODS BECOME UNREASONABLE OR UNECONOMICAL.
16. ALL WATERMAIN MATERIAL AND CONSTRUCTION SHALL CONFORM TO THE CURRENT MUNICIPALITY'S STANDARDS AND SPECIFICATIONS.
17. ALL FIRE HYDRANTS SHALL BE 3-WAY HYDRANTS c/w STORZ CONNECTION WITH VALVE DIRECTIONAL OPERATION TO BE ESTABLISHED BY MUNICIPALITY OF CENTRAL ELGIN AS PER THE MUNICIPALITY OF CENTRAL ELGIN'S STANDARDS AND SPECIFICATIONS.
18. ALL WATERMAIN VALVES SHALL BE GATE VALVES MANUFACTURED TO ANWA C500 AND EPOXY COATED TO ANWA C550 WITH VALVE DIRECTIONAL OPERATION TO BE ESTABLISHED BY MUNICIPALITY OF CENTRAL ELGIN.
19. INSTALLATION, HYDROSTATIC TESTING, SWABBIING, FLUSHING AND DISINFECTION SHALL BE DONE IN ACCORDANCE WITH THE MUNICIPALITY OF CENTRAL ELGIN'S STANDARDS AND SPECIFICATIONS.
20. SEPARATION BETWEEN BURIED WSC & PDC AS PER M.E.C.P GUIDELINES AND MUNICIPALITY OF CENTRAL ELGIN'S STANDARDS AND SPECIFICATIONS.
21. WATER SERVICE TO HAVE WATER PIPE TO HAVE 12AWG TRACER WIRE INSTALLED ON ALL PVC WATERMAINS, VALVES, AND FIRE HYDRANTS. APPROVED TRACER WIRE FOR OPEN CUT INSTALLATION: "COPPERHEAD 1230-HS". WATERMAIN TO BE INSTALLED WITH 1.7m MIN COVER. PEX WATER SERVICE REQUIRES BRASS FITTINGS AS PER THE MUNICIPALITY OF CENTRAL ELGIN'S STANDARDS AND SPECIFICATIONS. PROVIDE PIPE RESTRAINTS AS REQUIRED BY THE PIPE MANUFACTURER.
22. WHEN CROSSING ABOVE A SANITARY/STORM SEWER THE CONTRACTOR IS TO ENSURE A MINIMUM 0.15m VERTICAL SEPARATION FROM THE UNDERSIDE OF THE WATER SERVICE TO THE TOP OF THE SEWER AS OUTLINED IN THE CURRENT EDITION OF THE M.E.C.P "DESIGN GUIDELINES FOR DRINKING-WATER SYSTEMS" AND INSULATE WATER SERVICE MUNICIPAL ELGIN DRAWING W-5, WHERE REQUIRED.
23. ALL SUBSTITUTIONS MUST BE APPROVED BY THE MUNICIPAL ENGINEER.
24. THE ELEVATION OF THE GROUND WATER TABLE IS UNKNOWN. CONTRACTOR TO ADVISE SBM IF GROUNDWATER IS ENCOUNTERED DURING EXCAVATION OPERATIONS; FURTHER REVIEW/INVESTIGATION BY A GEOTECHNICAL ENGINEER MAY BE REQUIRED. IF GROUNDWATER IS ENCOUNTERED DURING EXCAVATION OPERATIONS, CIVIL STRUCTURES AND PIPES ARE TO BE DESIGNED FOR HYDROSTATIC PRESSURE AND UPLIFT/BUOYANCY FORCES. PROVIDE SHOP DRAWINGS SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE PROVINCE OF ONTARIO FOR REVIEW. CONTRACTOR IS RESPONSIBLE OF APPLYING FOR ANY REGISTRY AND/OR PERMIT TO TAKE WATER IF REQUIRED, SEE NOTE ON SHEET 2.

AS CONSTRUCTED SERVICES	COMPLETION	No.	REVISIONS	D/M/Y	BY	CONSULTANT
DESIGN	JSF/KJC	1	ISSUED FOR ENGINEERING SUBMISSION	17/02/21	JSF	
DRAWN	JSF	2	CONCEPTUAL ZONING DATA CHART ADDED	08/03/21	JSF	
CHECKED	KAM	3	FOR PRE-SUBMISSION CONSULTATION MEETING	05/04/21	JSF	
APPROVED	NGU	4	ISSUED FOR DRAFT PLAN APPLICATION	16/07/21	JSF	
DATE	08/02/2021					
CAD	SBM-18-0530					

UTILITIES NOTES:

1. ALL WORK FOR COORDINATION, DESIGN, AND CONSTRUCTION OF UTILITIES IS BY OTHERS. SBM DESIGN AND DRAWINGS ARE FOR MUNICIPAL SERVICING ONLY. ANY UTILITY INFORMATION SHOWN IS FOR REFERENCE/COORDINATION PURPOSES ONLY AND MAY NOT BE ACCURATE.
2. THE UTILITY PROVIDERS MUST BE INFORMED AT LEAST TWO WEEKS PRIOR TO CONSTRUCTION ON ANY EXISTING CITY ROAD ALLOWANCE. ALL EXISTING UNDERGROUND SERVICE OR UTILITIES WITHIN THE LIMITS OF THE CONSTRUCTION SITE SHALL BE LOCATED AND MARKED. ANY UTILITIES, DAMAGED OR DISTURBED DURING CONSTRUCTION, SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE GOVERNING BODY AT THE CONTRACTOR'S EXPENSE.
3. ALL EXISTING UNDERGROUND UTILITY (TELEPHONE, HYDRO, GAS, CABLE, SEWER, WATERMAINS, ETC.) THAT WILL BE CROSSED UNDER DURING THE INSTALLATION OF SERVICES FOR THIS DEVELOPMENT SHALL BE SUPPORTED, AS MAY BE REQUIRED BY THE OWNERS OF THE UTILITY BE CROSSED UNDER.
4. OWNER'S CONTRACTOR TO LOCATE/FIELD VERIFY LOCATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
5. OWNER'S CONTRACTOR TO COORDINATE WITH UTILITIES PROVIDER FOR BRACING, DECOMMISSIONING AND/OR RELOCATION OF EXISTING GAS, HYDRO, TELEPHONE, CABLE, ETC. SERVICES, IF REQUIRED.

LIST OF STANDARD DETAILS:

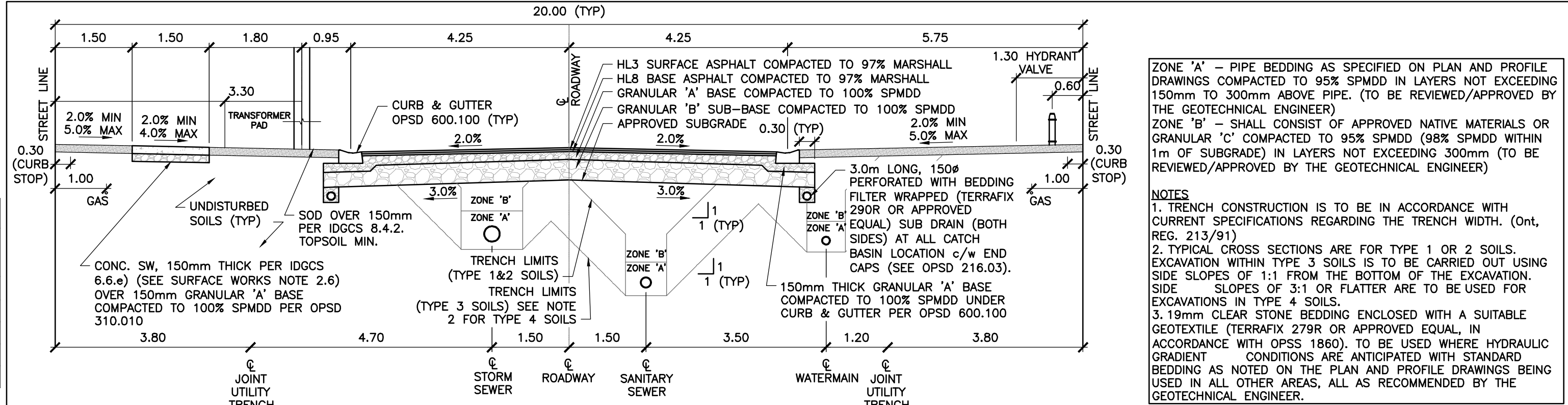
ONTARIO PROVINCIAL STANDARDS:

OPSD 219.110	LIGHT-DUTY SILT FENCE BARRIER
OPSD 219.180	STRAW BALE FLOW CHECK DAM
OPSD 219.240	SEDIMENT TRAP FOR DEWATERING
OPSD 310.010	CONCRETE SIDEWALK
OPSD 310.033	CONCRETE SIDEWALK RAMP AT UNSIGNALIZED INTERSECTIONS
OPSD 310.039	CONCRETE SIDEWALK RAMP TACTILE WALKING SURFACE INDICATORS COMPONENT
OPSD 351.010	URBAN RESIDENTIAL ENTRANCES
OPSD 400.020	CAST IRON, SQUARE FRAME WITH SQUARE FLAT GRATE FOR CATCH BASINS, HERRING BONE OPENINGS
OPSD 401.020	CAST IRON, CIRCULAR FRAME WITH CIRCULAR 745mm COVER FOR MAINTENANCE HOLES
OPSD 401.030	CAST IRON, SQUARE FRAME WITH CIRCULAR WATERTIGHT COVER FOR MAINTENANCE HOLES
OPSD 404.020	ALUMINUM SAFETY PLATFORM FOR CIRCULAR MAINTENANCE HOLES
OPSD 405.020	MAINTENANCE HOLE STEPS, SOLID
OPSD 406.010	ALUMINUM LADDER FOR MAINTENANCE HOLES
OPSD 600.100	CONCRETE MOUNTABLE CURB WITH NARROW GUTTER
OPSD 608.010	METHOD OF TERMINATION FOR CONCRETE CURB & GUTTER
OPSD 610.010	CATCH BASIN FRAME WITH GRATE INSTALLATION AT CURB WITH GUTTER
OPSD 701.010	PRECAST CONCRETE MAINTENANCE HOLE, 1200mm DIAMETER
OPSD 701.011	PRECAST CONCRETE MAINTENANCE HOLE, 1500mm DIAMETER
OPSD 701.012	PRECAST CONCRETE MAINTENANCE HOLE, 1800mm DIAMETER
OPSD 701.013	PRECAST CONCRETE MAINTENANCE HOLE, 2400mm DIAMETER
OPSD 705.020	PRECAST CONCRETE TWIN INLET CATCH BASIN, 600mmX1450mm
OPSD 708.010	CATCH BASIN CONNECTION FOR RIGID MAIN PIPE SEWER
OPSD 708.020	SUPPORT FOR PIPE AT CATCH BASIN OR MAINTENANCE HOLE
OPSD 708.030	CATCH BASIN CONNECTION, FLEXIBLE PIPE SEWER

OPSD 802.010	FLEXIBLE PIPE EMBEDMENT AND BACKFILL, EARTH EXCAVATION
OPSD 802.030	RIGID PIPE BEDDING COVER AND BACKFILL, TYPE 1 OR 2 SOIL, EARTH EXCAVATION
OPSD 804.040	CONCRETE HEADWALL FOR SEWER OR CULVERT PIPE
OPSD 804.050	GRATING FOR CONCRETE ENDWALL
OPSD 810.010	GENERAL RIP-RAP LAYOUT FOR SEWER AND CULVERT OUTLETS
OPSD 912.145	GUIDE RAIL SYSTEM, STEEL BEAM WOODEN POST ASSEMBLY
OPSD 1003.020	C&T-IN-PLACE MAINTENANCE HOLE DROP STRUCTURE WYE
OPSD 1006.010	SEWER SERVICE CONNECTION FOR RIGID MAIN PIPE SEWER
MUNICIPALITY OF CENTRAL ELGIN STANDARD DRAWINGS:	
SCS-1	URBAN (RESIDENTIAL) RIGHT OF WAY STANDARD CROSS SECTION
W-1	TYPICAL HYDRANT INSTALLATION
W-2	TYPICAL SERVICE CONNECTION 19mm AND 25mm DIAMETER SIZE
W-3	WATERMAIN CROSS OVER DETAIL
W-5	TYPICAL ISOLATION VALVE DETAIL
W-6	TYPICAL ANODE INSTALLATION DETAIL

REFERENCE DOCUMENTS:

1. SWM BRIEF BY SBM LTD. DATED 17/02/2019.
2. INFORMATION OBTAINED FROM PLAN OF SUBDIVISION BY CALLON DIETZ INC. FILE NO: 19-22517 A, PLOTTED OCTOBER 10, 2019.
3. TOPOGRAPHIC INFORMATION OBTAINED FROM COORDINATION FILE FROM GIBSON SURVEYING INC. FILE NO: 09-888-TOPO RECEIVED MARCH 22, 2018 AND ADDITIONAL TOPOGRAPHIC INFORMATION RECEIVED AUGUST 13, 2018 & SEPTEMBER 25, 2018.
4. ADDITIONAL LEGAL AND TOPOGRAPHIC INFORMATION BY SBMG FEBRUARY 5 & AUGUST 8, 2020.
5. EXISTING INFORMATION OBTAINED FROM AS-BUILT DRAWINGS PROVIDED BY THE MUNICIPALITY OF CENTRAL ELGIN.
6. INFORMATION OBTAINED FROM SUPPLEMENTARY GEOTECHNICAL INVESTIGATION BY EXP SERVICES INC. PROJECT No: LON-0013222-GE SUBMITTED APRIL 9, 2015.



TYPICAL ROAD CROSS SECTION

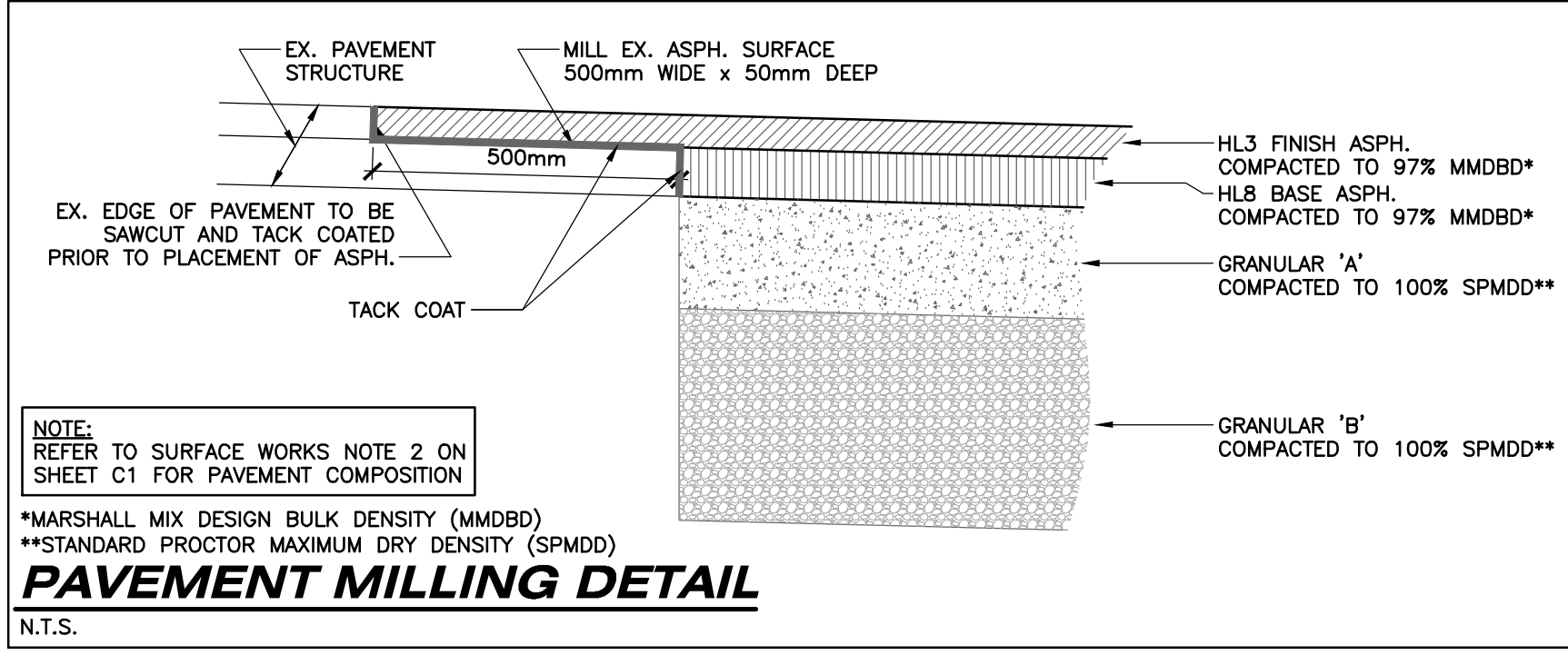
1:75

REFERENCE: SCS-1 - URBAN (RESIDENTIAL) RIGHT OF WAY STANDARD CROSS SECTION (SEE REFERENCE FOR ADDITIONAL NOTES)

LEGEND:

EXISTING SPOT ELEVATION	BUILDING ENTRANCE	PROPOSED SILT FENCE
EXISTING SPOT ELEVATION (TO REMAIN)	OVERHEAD DOOR	PROPOSED TREE PRESERVATION FENCE
PROPOSED SPOT ELEVATION	PROPOSED ASPHALT	LIMITS OF SUBJECT PROPERTY
PROPOSED SWALE ELEVATION	PROPOSED CONCRETE	DECIDUOUS/CONIFEROUS TREE
EXISTING CATCH BASIN	PROPOSED RETAINING WALL (DESIGNED BY OTHERS)	DECIDUOUS/CONIFEROUS TREE TO BE REMOVED
PROPOSED CATCH BASIN	MILL/PAVE LAP JOINT AS PER DETAIL ON THIS PAGE	
EXISTING CLEANOUT	LIMITS OF DRAINAGE AREA	
PROPOSED CLEANOUT	PROPOSED SILT SACK	
PROPOSED CATCH BASIN MAINTENANCE HOLE	PROPOSED STRAW BALE BARRIER	
EXISTING MAINTENANCE HOLE	EXISTING BUILDING	
PROPOSED MAINTENANCE HOLE	PROPOSED BUILDING	
PROPOSED SWALE		
PROPOSED SLOPE		
PROPOSED DRAINAGE DIRECTION		
EXISTING OVERLAND FLOW ROUTE		
PROPOSED OVERLAND FLOW ROUTE		
PROPOSED SIGN, TYPE OF SIGN		

20.0-300# ST @ 1.0%	EXISTING STORM SEWER
20.0-300# ST @ 1.0%	PROPOSED STORM SEWER
20.0-150# SA @ 1.0%	EXISTING SANITARY SEWER
20.0-150# SA @ 1.0%	PROPOSED SANITARY SEWER
150 PVC WSC	EXISTING WATERMAIN
150 PVC WSC	PROPOSED WATERMAIN
	EXISTING FIRE HYDRANT
	PROPOSED FIRE HYDRANT
	EXISTING WATER VALVE
	PROPOSED WATER VALVE
	PROPOSED CURB STOP
	PROPOSED RAMP
BH#	BOREHOLE (SEE REFERENCE DOCUMENT #6)
TP#	TEST PIT (SEE REFERENCE DOCUMENT #6)



*MARSHALL MIX DESIGN BULK DENSITY (MMBDD)

**STANDARD PROCTOR MAXIMUM DRY DENSITY (SPMDD)

PAVEMENT MILLING DETAIL

N.T.S.

LEGAL INFORMATION

PART OF
CLERGY RESERVE LOT "D"
NORTH OF THE LAKE ROAD
PART OF
JAMES BEGG LOTS 14 & 15
REGISTERED PLAN No. 20 (MIDD)
AND PART OF
ROAD ALLOWANCE BETWEEN
LOTS 14 & 15 NORTH OF THE LAKE
ROAD
AND ALL OF
LOT "T", REGISTERED PLAN No.39
IN THE
MUNICIPALITY OF CENTRAL ELGIN
COUNTY OF ELGIN

KEY PLAN

N.T.S.

BENCHMARKS:

MONUMENT NAME: 01019915404 (GEODETIC BENCHMARK)

LOCATION: BRASS CAP ON THE SOUTH SIDE OF LAKE ROAD, IN THE COUNTY OF ELGIN, IN THE TOWNSHIP OF SOUTHWOLD, APPROX. 8.0m SOUTH OF THE CENTRELNE OF LAKE ROAD AND 11.8m EAST OF THE PRODUCTION OF THE CENTRELNE OF SCOTCH ROAD.

ELEVATION: 214.432m (CGVD28:78)

MONUMENT NAME: 0011926U1648 (GEODETIC BENCHMARK)

LOCATION: PORT STANLEY LONDON & PORT STANLEY RAILWAY, BRIDGE OVER KETTLE CREEK, 0.8km NORTH OF STATION, TABLET IN EAST END OF BRIDGE SEAT OF SOUTH CONCRETE ABUTMENT, 30cm FROM NORTH EDGE.

ELEVATION: 178.167m (CGVD28:78)

MONUMENT NAME: SITE BENCHMARK

LOCATION: WITNESS SIB 1.000m SOUTH OF NORTHWEST CORNER OF MUN. 37719 LAKE ROAD, PORT STANLEY

ELEVATION: 214.742m

(CONTRACTOR TO CONFIRM BENCHMARK INFORMATION PRIOR TO CONSTRUCTION)

LIST OF SUBMITTALS

NOTE: CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR REVIEW PRIOR TO ORDERING MATERIALS

SHOP DRAWINGS - STORM & SANITARY STRUCTURES

SHOP DRAWINGS - RETAINING WALL

PRODUCT SPECIFICATIONS - SEWER AND WATERMAIN, INCLUDING APPURTENANCES

ASPHALT JOB MIX FORMULA(E)

CONCRETE (CURB AND SIDEWALK) MIX DESIGN(S)

GRANULAR 'A' AND 'B' SIEVE ANALYSIS'

EXCESS FILL - DUMP SITE INFORMATION AND PERMISSION LETTER

MATERIAL TESTING REPORT - ENGINEERED FILL SOURCE LETTER (RE CONTAMINANTS, ETC.)

MATERIAL TESTING REPORT - ENGINEERED FILL COMPACTION

MATERIAL TESTING REPORT - ENGINEERED FILL PLAN

MATERIAL TESTING REPORT - SUBGRADE COMPACTION/PREPARATION

MATERIAL TESTING REPORT - GRANULAR COMPACTION

MATERIAL TESTING REPORT - CONCRETE CYLINDERS

MATERIAL TESTING REPORT - ASPHALT COMPACTION

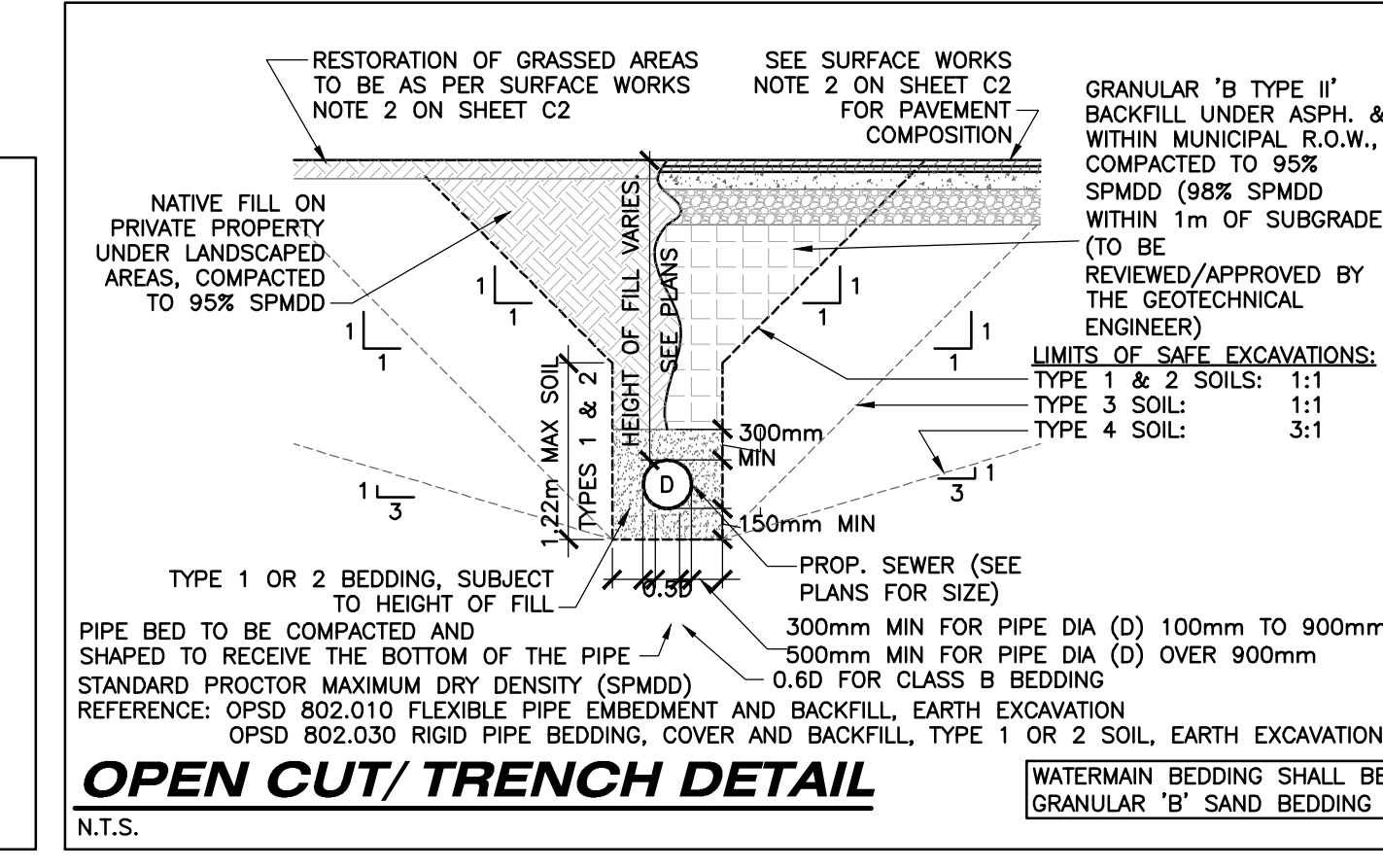
MATERIAL TESTING REPORT - ASPHALT SAMPLES

AS-BUILT SURVEY FOR EARTHWORKS QUANTITIES

CCTV OF STORM AND SANITARY SEWERS

WATERMAIN TESTING RESULTS

MANDREL, LEAKAGE, AND LOW PRESSURE AIR TESTING RESULTS

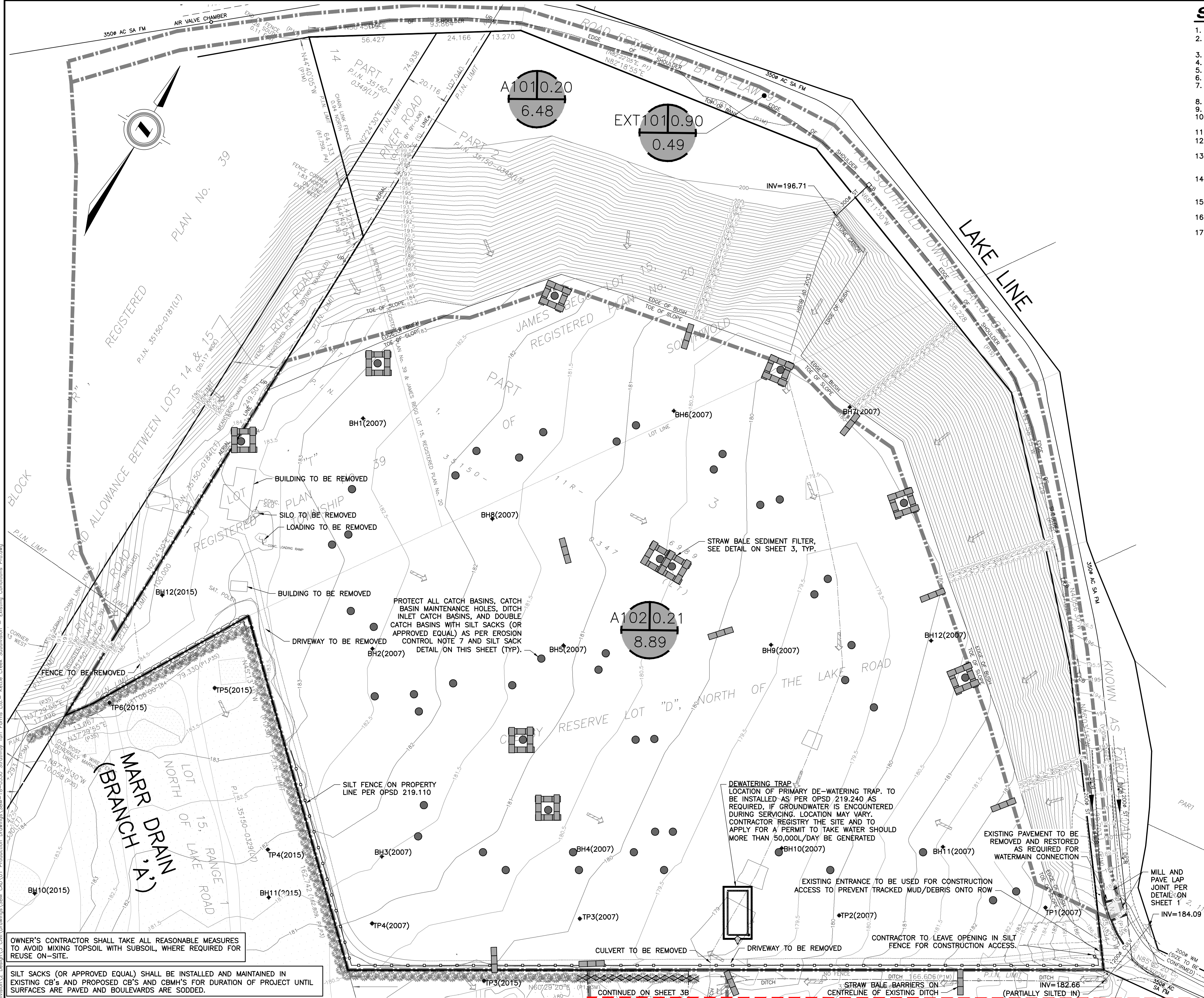


OPEN CUT/ TRENCH DETAIL

N.T.S.

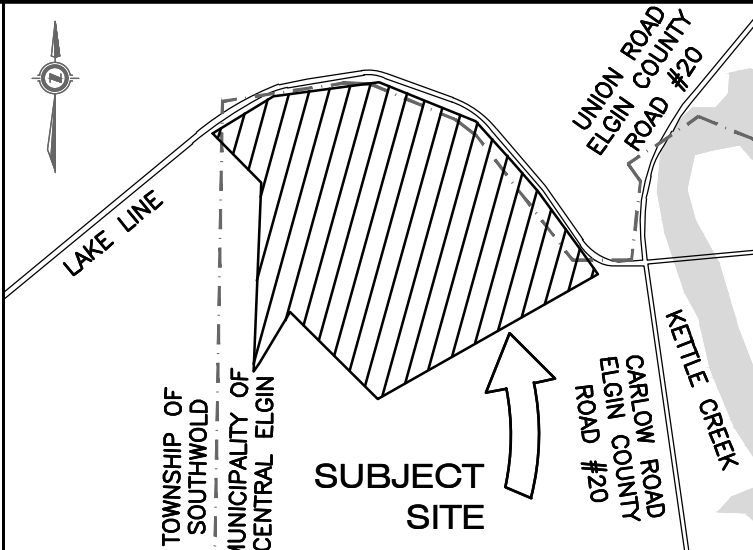
WATERMAIN BEDDING SHALL BE GRANULAR 'B' SAND BEDDING

S:\2018 Jobs\SBM-18-0530-Storming-Turf Forms List - Kettle Creek Subdivision\3 - Design\3 CAD Drawings\SBM CAD\01 Production Drawings\SBM-18-0530-Storming-Turf Forms List - Kettle Creek Subdivision - Notes and Details.dwg



SEDIMENT & EROSION CONTROL MEASURES:

1. PROTECT ALL EXPOSED SURFACES AND CONTROL ALL RUNOFF DURING CONSTRUCTION.
2. SEDIMENT AND EROSION CONTROL MEASURES TO BE REMOVED AT COMPLETION OF PROJECT (FOLLOWING COMPLETION OF BASE ASPHALT AND SOD).
3. MAINTAIN EROSION CONTROL MEASURES DURING CONSTRUCTION.
4. ALL COLLECTED SEDIMENT TO BE DISPOSED OF AT AN APPROVED LOCATION.
5. MINIMIZE AREA DISTURBED DURING CONSTRUCTION.
6. ALL DEWATERING TO BE DISPOSED OF IN AN APPROVED SEDIMENTATION BASIN.
7. PROTECT ALL CATCH BASINS, MANHOLES AND PIPE ENDS FROM SEDIMENT INTRUSION WITH GEOTEXTILE FABRIC (TERRAFIX 270 R), SILT SACKS, OR APPROVED EQUAL.
8. PREVENT WIND-BLOWN DUST.
9. STRAW BALES TO BE USED IN LOCALIZED AREAS AS DIRECTED BY THE ENGINEER DURING CONSTRUCTION FOR WORKS WHICH ARE IN OR ADJACENT TO FLOOD LINES, FILL LINES AND HAZARDOUS SLOPES.
10. STRAW BALES TO BE TERMINATED BY ROUNDING BALES TO CONTAIN AND FILTER RUNOFF.
11. OBTAIN APPROVAL FROM THE KETTLE CREEK CONSERVATION AUTHORITY (KCCA) PRIOR TO CONSTRUCTION FOR WORKS WHICH ARE IN, OR ADJACENT TO FLOOD LINES, FILL LINES AND HAZARDOUS SLOPES.
12. ALL SILT FENCING AND DETAILS ARE AT THE MINIMUM TO BE CONSTRUCTED IN ACCORDANCE WITH THE MINISTRY OF NATURAL RESOURCES GUIDELINES ON EROSION AND SEDIMENT CONTROL FOR URBAN CONSTRUCTION SITES.
13. ALL OF THE ABOVE NOTES AND ANY SEDIMENT & EROSION CONTROL MEASURES ARE AT THE MINIMUM TO BE IN ACCORDANCE WITH THE MINISTRY OF NATURAL RESOURCES GUIDELINES ON EROSION AND SEDIMENT CONTROL FOR URBAN CONSTRUCTION SITES.
14. SEDIMENT AND EROSION CONTROL MEASURES ARE TO BE INSPECTED WEEKLY OR FOLLOWING SIGNIFICANT RAINFALL EVENTS.
15. ON-SITE SEDIMENT AND EROSION CONTROL MEASURES ARE TO BE REVIEWED AND MODIFIED TO MEET THE CHANGING SITE.
16. SEDIMENT AND EROSION CONTROL MEASURES SHALL BE REPAIRED WITHOUT DELAY BY THE OWNERS CONTRACTOR AS INSTRUCTED BY THE CONTRACT ADMINISTRATOR/ENGINEER AT NO EXPENSE TO THE OWNER.



KEY PLAN

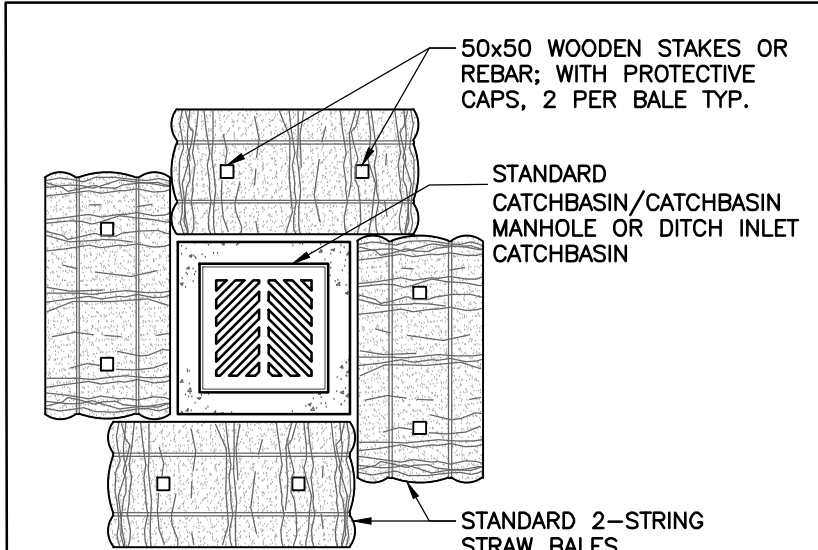
N.T.S.

LEGAL INFORMATION

PART OF
CLERGY RESERVE LOT "D"
NORTH OF THE LAKE ROAD
PART OF
JAMES BEGG LOTS 14 & 15
REGISTERED PLAN No. 20 (MIDD)
AND PART OF
ROAD ALLOWANCE BETWEEN
LOTS 14 & 15 NORTH OF THE LAKE
ROAD
AND ALL OF
LOT "T", REGISTERED PLAN No.39
IN THE
MUNICIPALITY OF CENTRAL ELGIN
COUNTY OF ELGIN

BENCHMARKS:

MONUMENT NAME: 01019915404 (GEODETIC BENCHMARK)
LOCATION: BRASS CAP ON THE SOUTH SIDE OF LAKE ROAD, IN THE COUNTY OF ELGIN, IN THE TOWNSHIP OF SOUTHWOLD, APPROX. 8.0m SOUTH OF THE CENTRELINE OF LAKE ROAD AND 11.8m EAST OF THE PRODUCTION OF THE CENTRELINE OF SCOTCH ROAD.
ELEVATION: 214.432m (CGVD28/78)
MONUMENT NAME: 001192601648 (GEODETIC BENCHMARK)
LOCATION: PORT STANLEY LONDON & PORT STANLEY RAILWAY, BRIDGE OVER KETTLE CREEK, 0.8km NORTH OF STATION, TABLET IN EAST END OF BRIDGE SEAT OF SOUTH CONCRETE ABUTMENT, 30cm FROM NORTH EDGE.
ELEVATION: 178.167m (CGVD28/78)
MONUMENT NAME: SITE BENCHMARK
LOCATION: WITNESS SIB 1,000m SOUTH OF NORTHWEST CORNER OF MUN. 37719 LAKE ROAD, PORT STANLEY
ELEVATION: 214.742m
(CONTRACTOR TO CONFIRM BENCHMARK INFORMATION PRIOR TO CONSTRUCTION)



STRAW BALE SEDIMENT FILTER
N.T.S.

NOTES:
1. PROVIDE GEOTEXTILE WRAP UNDER LID OF CATCHBASIN DURING CONSTRUCTION AND REMOVE ONLY ONCE CONSTRUCTION IS COMPLETE.
2. OVERLAP STRAW BALES 1/4 OF THE WIDTH OF THE BALE TYP.

RESTORATION NOTE:
ALL WORK IN THE ROAD ALLOWANCE SHALL MEET THE MINIMUM SPECIFICATIONS OF THE MUNICIPALITY OF CENTRAL ELGIN PHYSICAL SERVICES DEPARTMENT. THE MUNICIPALITY OF CENTRAL ELGIN INFRASTRUCTURE DESIGN GUIDELINES AND CONSTRUCTION STANDARDS ARE TO BE APPLIED TO WORKS WITHIN THE MUNICIPAL ROAD ALLOWANCE UNLESS OTHERWISE APPROVED BY THE MUNICIPALITY.

SITE PREPARATION NOTE:
THIS PLAN HAS BEEN PREPARED TO IDENTIFY REMOVALS, EROSION & SEDIMENT CONTROL MEASURES AND TEMPORARY CONSTRUCTION WORKS FOR THE BENEFIT OF THE OWNER'S CONTRACTOR IN ADVANCE OF SERVING WORKS. IT IS NOT INTENDED TO IDENTIFY PERMANENT GRADING PATTERNS. ALL EXISTING SURFACE AND UNDERGROUND DRAINAGE MUST BE MAINTAINED DURING CONSTRUCTION.

STORM DRAINAGE NOTE:
STORM DRAINAGE MAY TEMPORARILY NEED TO BE CONTROLLED AND PUMPED FROM STORM SEWER SYSTEM. ANY SUCH TEMPORARY MEASURES SHALL BE CONDUCTED AT NO EXTRA COST TO THE CONTRACT AND BE BASED UPON THE OWNER'S CONTRACTOR'S WATER CONTROL PLANS, WHICH MUST BE APPROVED BY THE CONTRACT ADMINISTRATOR/ENGINEER PRIOR TO CONSTRUCTION.

UTILITIES NOTE:
FOR CLARITY, NOT ALL EXISTING UTILITIES MAY BE SHOWN. THE OWNER'S CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL UTILITY LOCATES PRIOR TO CONSTRUCTION.

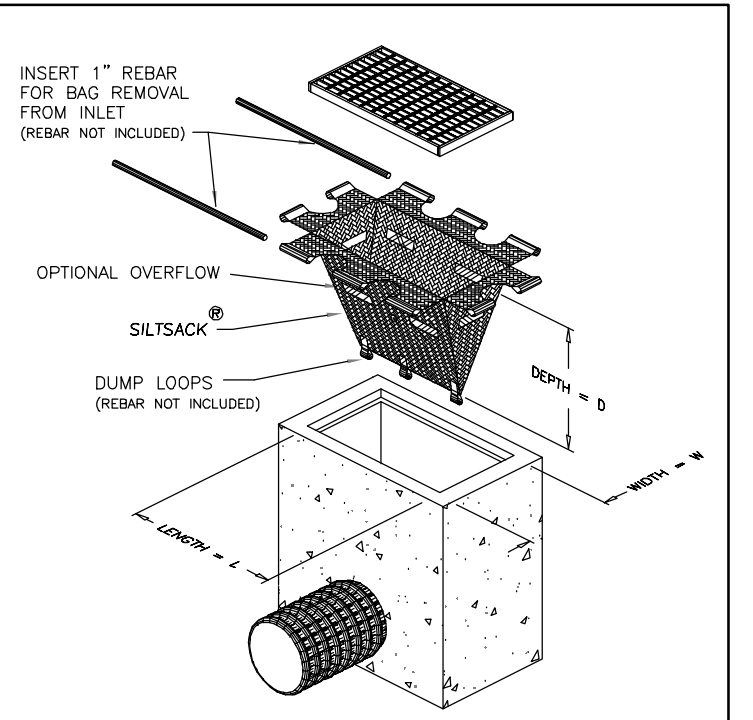
SEDIMENT AND EROSION CONTROL MEASURES MAY ONLY BE REMOVED UPON STABILIZATION OF CONTRIBUTING CATCHMENT AREA AND SUBJECT TO APPROVAL OF ENGINEER/MUNICIPALITY OF CENTRAL ELGIN.

UNLESS OTHERWISE NOTED ON THE PLANS, GEOTEXTILE SHALL BE NON-WOVEN TO MEET CLASS 2-OPSS 1860.07.02 (I.E. TERRAFIX 270R, OR APPROVED EQUAL) WITH 300mm MIN. OVERLAPS.

THE OWNER'S CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL MEASURES IN COMPLIANCE WITH THE ONTARIO TRAFFIC MANUAL BOOK 7 FOR ALL WORKS WITHIN THE MUNICIPALITY RIGHT-OF-WAY. THE OWNER'S CONTRACTOR SHALL SUBMIT TRAFFIC CONTROL PLANS TO THE MUNICIPALITY/ENGINEER FOR REVIEW PRIOR TO PROCEEDING WITH CONSTRUCTION.

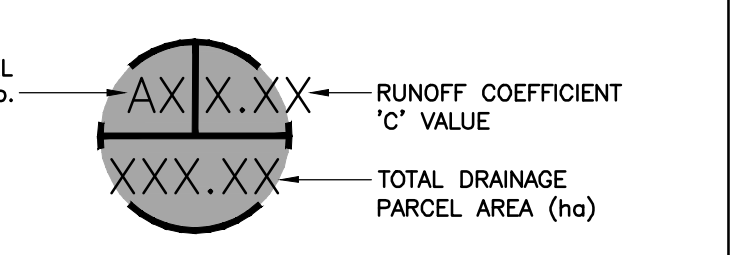
ROAD OCCUPANCY PERMIT NOTE:
ROAD OCCUPANCY PERMIT FOR ALL EXTERNAL WORKS IS REQUIRED, CONTRACTOR TO APPLY FOR IT.

EXISTING SERVING NOTE:
INVERTS OF THE EX. SANITARY & STORM SEWERS @ CONNECTION POINTS SHALL BE CONFIRMED BY THE OWNER'S CONTRACTOR PRIOR TO THE START OF CONSTRUCTION/ORDERING STRUCTURES. THE CONSULTANT IS TO BE INFORMED IF DIFFERENT THAN NOTED.



SILT SACK DETAIL
N.T.S.

NOTE:
REFER TO MANUFACTURER'S SPECIFICATIONS FOR INSTALLATION



CATCHMENT AREA MARKER
N.T.S.

REFER TO NOTES, LEGEND, AND DETAILS ON SHEET 1, 17, 18 & 19

AS CONSTRUCTED SERVICES	COMPLETION	DESIGN	No.	REVISIONS	D/M/Y	BY	CONSULTANT
		JSF/KJC	1	ISSUED FOR ENGINEERING SUBMISSION	17/02/21	JSF	
		JSF	2	CONCEPTUAL ZONING DATA CHART ADDED	08/03/21	JSF	
		KAM	3	FOR PRE-SUBMISSION CONSULTATION MEETING	05/04/21	JSF	
		NGU	4	ISSUED FOR DRAFT PLAN APPLICATION	16/07/21	JSF	
		DATE		02/07/2021			
		CAD		SBM-18-0530			

STRIK BALDINELLI MONIZ
PLANNING - CIVIL - STRUCTURAL - MECHANICAL - ELECTRICAL
1599 Adelaide St. N, Unit 301, London, Ontario, N5X 4E8
Tel: (519) 471-6667 Fax: (519) 471-0034
Email: sbm@sbmltd.ca

PRELIMINARY NOT FOR CONSTRUCTION

MUNICIPALITY OF CENTRAL ELGIN
THE CORPORATION OF THE MUNICIPALITY OF CENTRAL ELGIN

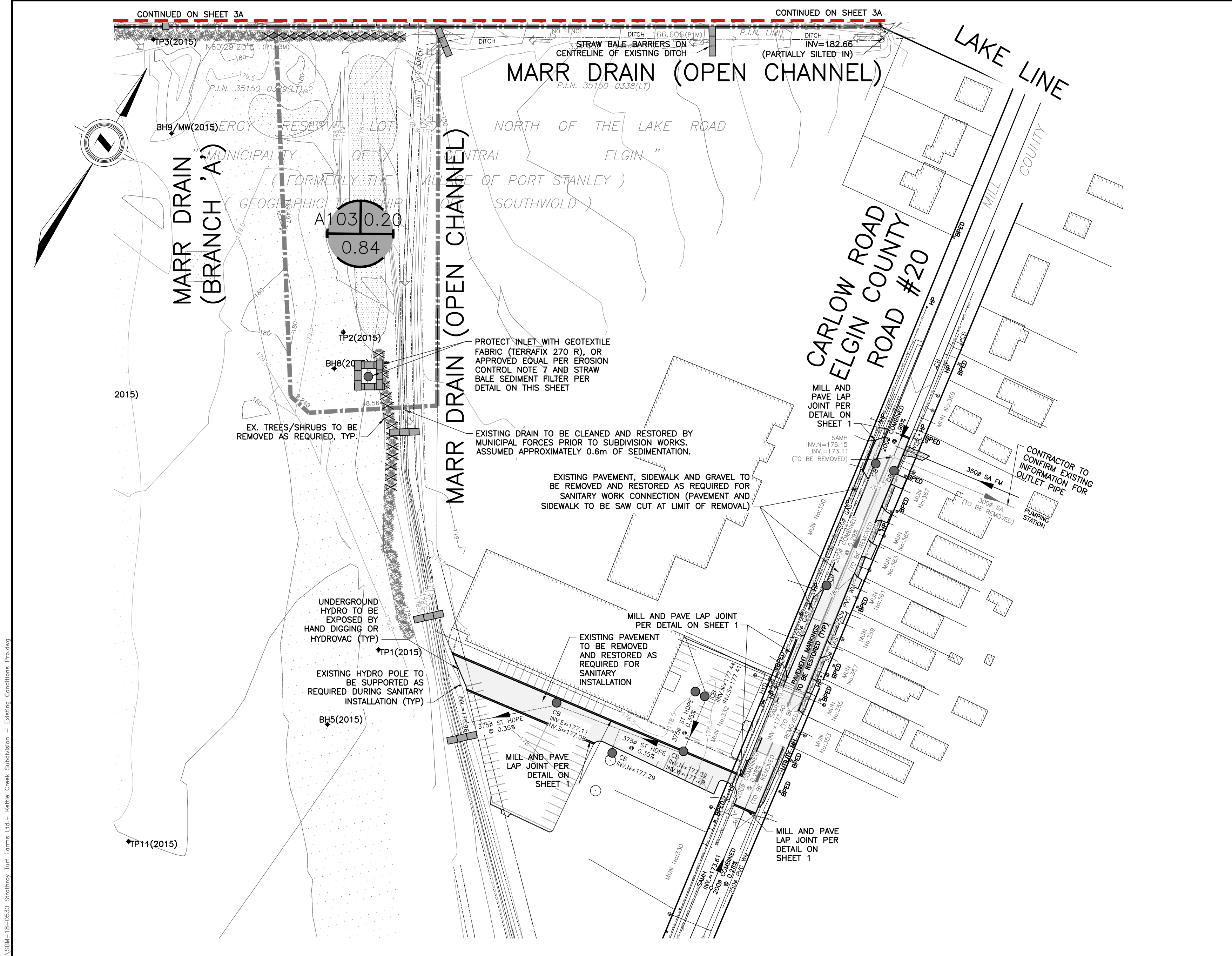
SCALE
SCALE - 1:1000
10.0 0 20.0m

EXISTING CONDITIONS, REMOVALS, AND SEDIMENT & EROSION CONTROL PLAN
KETTLE CREEK SUBDIVISION
37719 LAKE LINE
PORT STANLEY, ONTARIO

PROJECT No.
SBM-18-0530

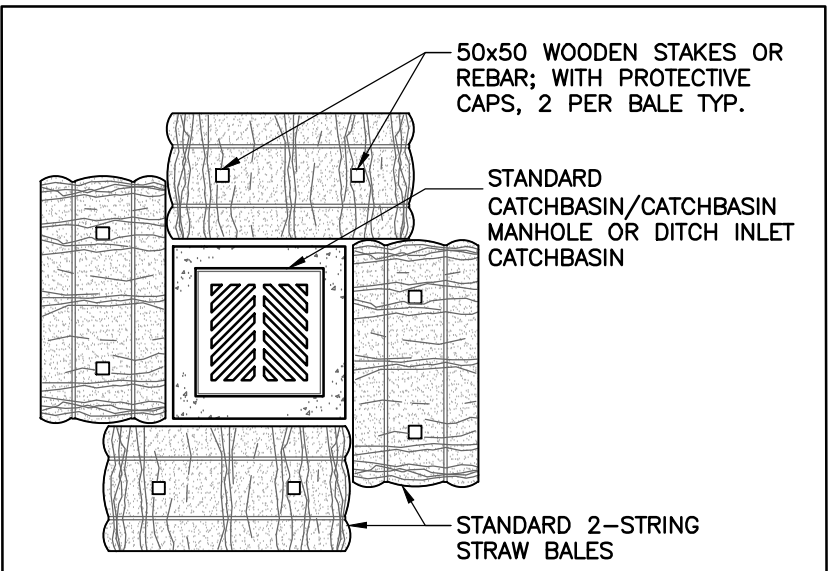
SHEET No.
3A

PLAN FILE No.
—



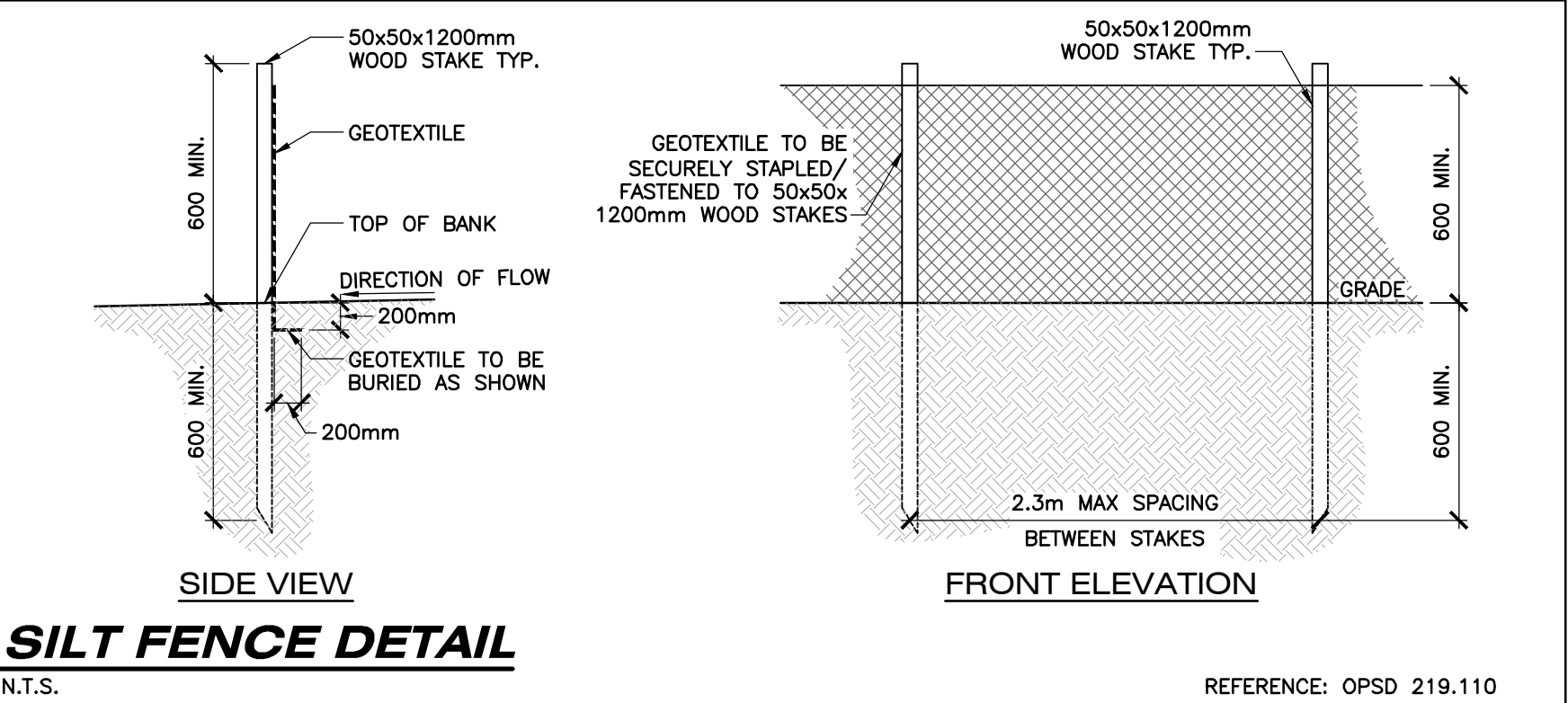
SEDIMENT & EROSION CONTROL MEASURES:

1. PROTECT ALL EXPOSED SURFACES AND CONTROL ALL RUNOFF DURING CONSTRUCTION.
2. SEDIMENT AND EROSION CONTROL MEASURES TO BE REMOVED AT COMPLETION OF PROJECT (FOLLOWING COMPLETION OF BASE ASPHALT AND SOD).
3. MAINTAIN EROSION CONTROL MEASURES DURING CONSTRUCTION.
4. ALL COLLECTED SEDIMENT TO BE DISPOSED OF AT AN APPROVED LOCATION.
5. MINIMIZE AREA DISTURBED DURING CONSTRUCTION.
6. ALL DEWATERING TO BE DISPOSED OF IN AN APPROVED SEDIMENTATION BASIN.
7. PROTECT ALL CATCH BASINS, MANHOLES AND PIPE ENDS FROM SEDIMENT INTRUSION WITH GEOTEXTILE FABRIC (TERRAFIX 270 R), SILT SACKS, OR APPROVED EQUAL.
8. KEEP ALL SUMPS CLEAN DURING CONSTRUCTION.
9. PREVENT WIND-BLOWN DUST.
10. STRAW BALES TO BE USED IN LOCALIZED AREAS AS DIRECTED BY THE ENGINEER DURING CONSTRUCTION FOR WORKS WHICH ARE IN OR ADJACENT TO FLOOD LINES, FILL LINES AND HAZARDOUS SLOPES.
11. STRAW BALES TO BE TERMINATED BY ROUNDING BALES TO CONTAIN AND FILTER RUNOFF.
12. OBTAIN APPROVAL FROM THE KETTLE CREEK CONSERVATION AUTHORITY (KCCA) PRIOR TO CONSTRUCTION FOR WORKS WHICH ARE IN, OR ADJACENT TO FLOOD LINES, FILL LINES AND HAZARDOUS SLOPES.
13. ALL SILT FENCING AND DETAILS ARE AT THE MINIMUM TO BE CONSTRUCTED IN ACCORDANCE WITH THE MINISTRY OF NATURAL RESOURCES GUIDELINES ON EROSION AND SEDIMENT CONTROL FOR URBAN CONSTRUCTION SITES.
14. ALL OF THE ABOVE NOTES AND ANY SEDIMENT & EROSION CONTROL MEASURES ARE AT THE MINIMUM TO BE IN ACCORDANCE WITH THE MINISTRY OF NATURAL RESOURCES GUIDELINES ON EROSION AND SEDIMENT CONTROL FOR URBAN CONSTRUCTION SITES.
15. SEDIMENT AND EROSION CONTROL MEASURES ARE TO BE INSPECTED WEEKLY OR FOLLOWING SIGNIFICANT RAINFALL EVENTS.
16. ON-SITE SEDIMENT AND EROSION CONTROL MEASURES ARE TO BE REVIEWED AND MODIFIED TO MEET THE CHANGING SITE.
17. SEDIMENT AND EROSION CONTROL MEASURES SHALL BE REPAIRED WITHOUT DELAY BY THE OWNERS CONTRACTOR AS INSTRUCTED BY THE CONTRACT ADMINISTRATOR/ENGINEER AT NO EXPENSE TO THE OWNER.

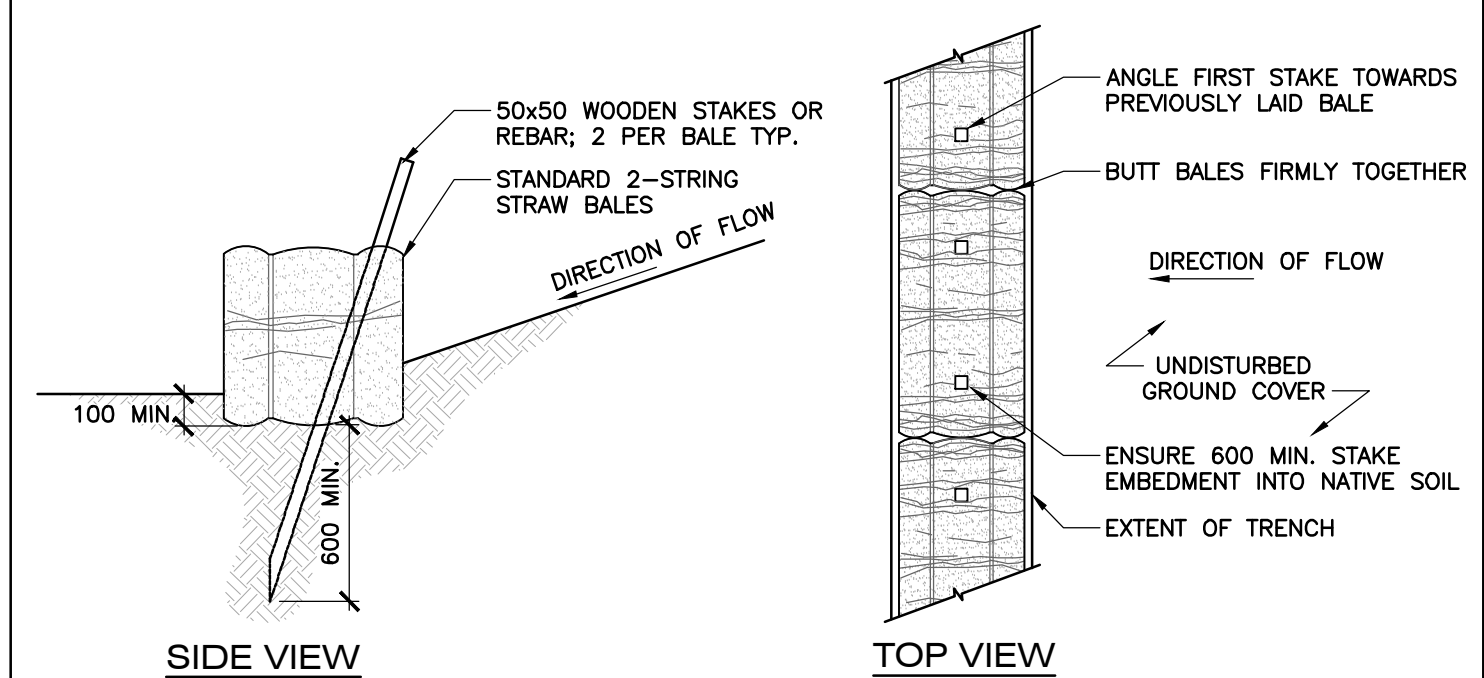


- NOTES:
1. PROVIDE GEOTEXTILE WRAP UNDER LID OF CATCHBASIN DURING CONSTRUCTION AND REMOVE ONLY ONCE CONSTRUCTION IS COMPLETE.
 2. OVERLAP STRAW BALES 1/4 OF THE WIDTH OF THE BALE TYP.

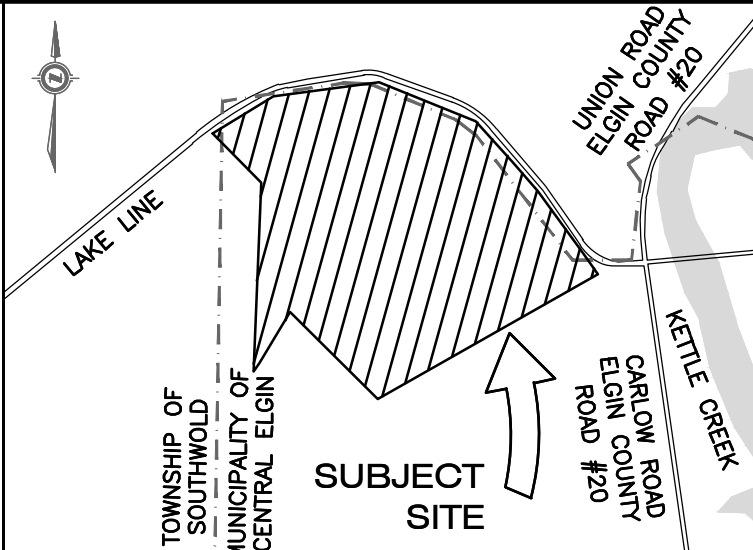
STRAW BALE SEDIMENT FILTER
N.T.S.



SILT FENCE DETAIL
N.T.S. REFERENCE: OPSD 219.110



TYP. STRAW BALE BARRIER
N.T.S.



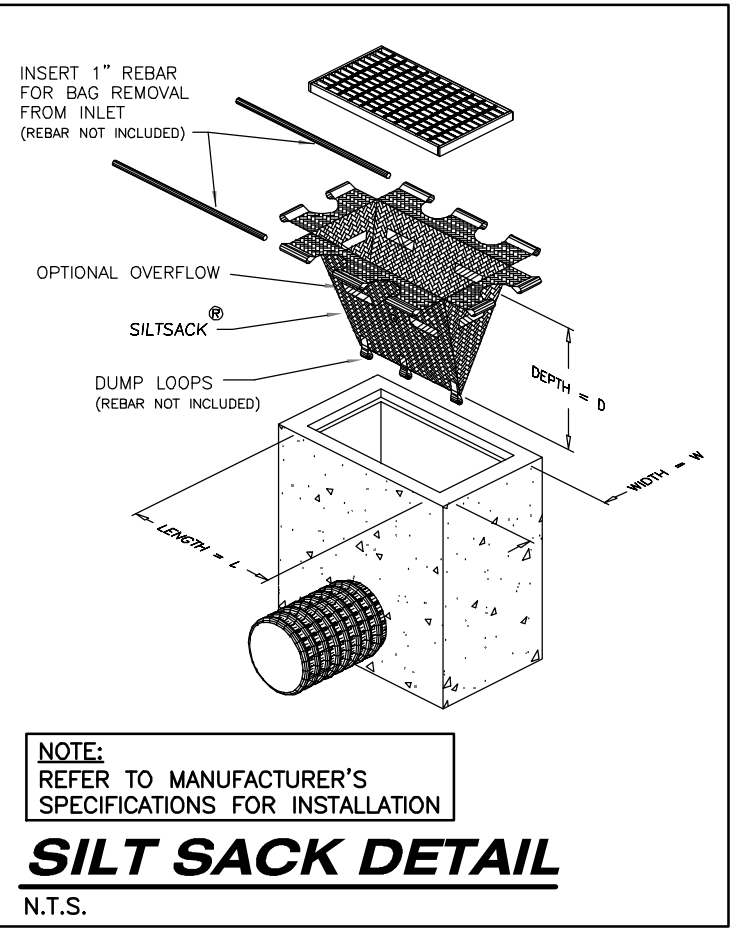
KEY PLAN
N.T.S.

LEGAL INFORMATION

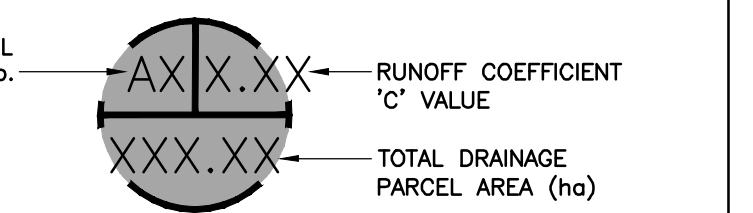
PART OF
CLERGY RESERVE LOT "D"
NORTH OF THE LAKE ROAD
PART OF
JAMES BEGG LOTS 14 & 15
REGISTERED PLAN No. 20 (MIDD)
AND PART OF
ROAD ALLOWANCE BETWEEN
LOTS 14 & 15 NORTH OF THE LAKE
ROAD
AND ALL OF
LOT "T", REGISTERED PLAN No.39
IN THE
MUNICIPALITY OF CENTRAL ELGIN
COUNTY OF ELGIN

BENCHMARKS:

MONUMENT NAME: 01019915404 (GEODETIC BENCHMARK)
LOCATION: BRASS CAP ON THE SOUTH SIDE OF LAKE ROAD, IN THE COUNTY OF ELGIN, IN THE TOWNSHIP OF SOUTHWOLD, APPROX. 8.0m SOUTH OF THE CENTRELINE OF LAKE ROAD AND 11.8m EAST OF THE PRODUCTION OF THE CENTRELINE OF SCOTCH ROAD.
ELEVATION: 214.432m (CGVD28-78)
MONUMENT NAME: 0011926U1648 (GEODETIC BENCHMARK)
LOCATION: PORT STANLEY LONDON & PORT STANLEY RAILWAY, BRIDGE OVER KETTLE CREEK, 0.8km NORTH OF STATION, TABLE IN EAST END OF BRIDGE SEAT OF SOUTH CONCRETE ABUTMENT, 30cm FROM NORTH EDGE.
ELEVATION: 178.167m (CGVD28-78)
MONUMENT NAME: SITE BENCHMARK
LOCATION: WITNESS SIB 1.000m SOUTH OF NORTHWEST CORNER OF MUN. 37719 LAKE ROAD, PORT STANLEY
ELEVATION: 214.742m
(CONTRACTOR TO CONFIRM BENCHMARK INFORMATION PRIOR TO CONSTRUCTION)



SILT SACK DETAIL
N.T.S.



CATCHMENT AREA MARKER
N.T.S.

REFER TO NOTES, LEGEND, AND DETAILS ON SHEET 1, 17, 18 & 19

UNLESS OTHERWISE NOTED ON THE PLANS, GEOTEXTILE SHALL BE NON-WOVEN TO MEET CLASS 2-OPSS 1860.07.02 (I.E. TERRAFIX 270R, OR APPROVED EQUAL) WITH 300mm MIN. OVERLAPS.

ROAD OCCUPANCY PERMIT NOTE:
ROAD OCCUPANCY PERMIT FOR ALL EXTERNAL WORKS IS REQUIRED, CONTRACTOR TO APPLY FOR IT.

OWNER'S CONTRACTOR SHALL TAKE ALL REASONABLE MEASURES TO AVOID MIXING TOPSOIL WITH SUBSOIL, WHERE REQUIRED FOR REUSE ON-SITE.

SILT SACKS (OR APPROVED EQUAL) SHALL BE INSTALLED AND MAINTAINED IN EXISTING CB'S AND PROPOSED CB'S AND CBM'S FOR DURATION OF PROJECT UNTIL SURFACES ARE PAVED AND BOULEVARDS ARE SODDED.

OWNER'S CONTRACTOR TO CLEAR AND GRUB SITE PRIOR TO CONSTRUCTION AND DISPOSE OF ALL DEBRIS AND EXCESS FILL/TOPSOIL OFF-SITE AT AN APPROVED FACILITY.

EXISTING WATER SERVICE MUST BE CUT AND CAPPED AT THE SOURCE AND CURB BOXES MUST BE CUT 600 BELOW FINISHED GRADE, ALL AT NO COST TO THE MUNICIPALITY.

TOPSOIL STOCKPILE SIZES/LOCATIONS TO BE DETERMINED IN THE FIELD. SILT FENCE SHALL BE CONSTRUCTED AT THE EDGE OF DOWNGRADE EDGES OF TOPSOIL STOCKPILE

SILT FENCE TO BE CONSTRUCTED ON PROPERTY LINE. LINE WORK IS SHOWN AS OFFSET FOR CLARITY.

OWNER'S CONTRACTOR SHALL BE RESPONSIBLE FOR REGULAR MONITORING & CLEANUP OF TRACKED MUD/DEBRIS ON ADJACENT LANDS & PUBLIC ROADS TO THE SATISFACTION OF THE ENGINEER/MUNICIPALITY OF CENTRAL ELGIN.

EXISTING SERVICING NOTE:
INVERTS OF THE EX. SANITARY & STORM SEWERS @ CONNECTION POINTS SHALL BE CONFIRMED BY THE OWNER'S CONTRACTOR PRIOR TO THE START OF CONSTRUCTION/ORDERING STRUCTURES. THE CONSULTANT IS TO BE INFORMED IF DIFFERENT THAN NOTED.

ALL NATIVE FILL PLACED SHALL MEET THE REQUIREMENTS FOR ENGINEERED FILL, COMPACTED TO 100% SPMDD OR AS OUTLINED IN THE GEOTECHNICAL REPORT.

BOULEVARD AREAS AND CONCRETE SIDEWALKS DISTURBED DURING INSTALLATION OF SERVICES SHALL BE RESTORED TO MATCH EX. CONDITION OR SURFACE WORKS NOTES ON SHEET 01, WHICHEVER IS GREATER, ALL AT NO COST TO THE MUNICIPALITY.

DISPOSAL NOTE:
ALL ITEMS NOTED AS "TO BE REMOVED" SHALL BE DISCARDED OFF-SITE AT AN APPROVED FACILITY.

THE OWNER'S CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL MEASURES IN COMPLIANCE WITH THE ONTARIO TRAFFIC MANUAL BOOK 7 FOR ALL WORKS WITHIN THE MUNICIPALITY RIGHT-OF-WAY. THE OWNER'S CONTRACTOR SHALL SUBMIT TRAFFIC CONTROL PLANS TO THE MUNICIPALITY/ENGINEER FOR REVIEW PRIOR TO PROCEEDING WITH CONSTRUCTION.

SEDIMENT AND EROSION CONTROL MEASURES MAY ONLY BE REMOVED UPON STABILIZATION OF CONTRIBUTING CATCHMENT AREA AND SUBJECT TO APPROVAL OF ENGINEER/MUNICIPALITY OF CENTRAL ELGIN.

RESTORATION NOTE:
ALL WORK IN THE ROAD ALLOWANCE SHALL MEET THE MINIMUM SPECIFICATIONS OF THE MUNICIPALITY OF CENTRAL ELGIN PHYSICAL SERVICES DEPARTMENT. THE MUNICIPALITY OF CENTRAL ELGIN INFRASTRUCTURE DESIGN GUIDELINES AND CONSTRUCTION STANDARDS ARE TO BE APPLIED TO WORKS WITHIN THE MUNICIPAL ROAD ALLOWANCE UNLESS OTHERWISE APPROVED BY THE MUNICIPALITY.

SITE PREPARATION NOTE:
THIS PLAN HAS BEEN PREPARED TO IDENTIFY REMOVALS, EROSION & SEDIMENT CONTROL MEASURES AND TEMPORARY CONSTRUCTION WORKS FOR THE BENEFIT OF THE OWNER'S CONTRACTOR IN ADVANCE OF SERVICING WORKS. IT IS NOT INTENDED TO IDENTIFY PERMANENT GRADING PATTERNS. ALL EXISTING SURFACE AND UNDERGROUND DRAINAGE MUST BE MAINTAINED DURING CONSTRUCTION.

STORM DRAINAGE NOTE:
STORM DRAINAGE MAY TEMPORARILY NEED TO BE CONTROLLED AND PUMPED FROM STORM SEWER SYSTEM. ANY SUCH TEMPORARY MEASURES SHALL BE CONDUCTED AT NO EXTRA COST TO THE CONTRACT AND BE BASED UPON THE OWNER'S CONTRACTOR'S WATER CONTROL PLANS. WHICH MUST BE APPROVED BY THE CONTRACT ADMINISTRATOR/ENGINEER PRIOR TO CONSTRUCTION.

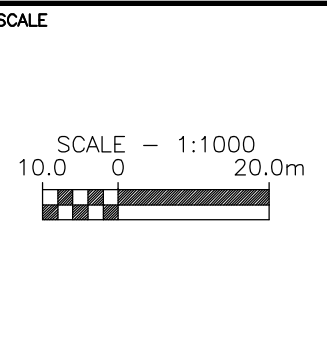
UTILITIES NOTE:
FOR CLARITY, NOT ALL EXISTING UTILITIES MAY BE SHOWN. THE OWNER'S CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL UTILITY LOCATES PRIOR TO CONSTRUCTION.

AS CONSTRUCTED SERVICES	COMPLETION	No.	REVISIONS	D/M/Y	BY	CONSULTANT
DESIGN	JSF/KJC	1	ISSUED FOR ENGINEERING SUBMISSION	17/02/21	JSF	
DRAWN	JSF	2	CONCEPTUAL ZONING DATA CHART ADDED	08/03/21	JSF	
CHECKED	KAM	3	FOR PRE-SUBMISSION CONSULTATION MEETING	05/04/21	JSF	
APPROVED	NGU/KAM	4	ISSUED FOR DRAFT PLAN APPLICATION	16/07/21	JSF	
DATE	02/07/2021					
CAD	SBM-18-0530					

STRIK BALDINELLI MONIZ
PLANNING - CIVIL - STRUCTURAL - MECHANICAL - ELECTRICAL
1599 Adelaide St. N, Unit 301, London, Ontario, N5X 4E8
Tel: (519) 471-6667 Fax: (519) 471-0034
Email: sbm@sbmltd.ca

PRELIMINARY NOT FOR CONSTRUCTION

ENGINEER'S STAMP
C.TECH'S STAMP
THE CORPORATION OF THE MUNICIPALITY OF CENTRAL ELGIN



TITLE	PROJECT No.
EXISTING CONDITIONS, REMOVALS, AND SEDIMENT & EROSION CONTROL PLAN	SBM-18-0530
KETTLE CREEK SUBDIVISION	SHEET No. 3B
37719 LAKE LINE PORT STANLEY, ONTARIO	PLAN FILE No.

MONUMENT NAME: 01019915404 (GEODETIC BENCHMARK)

ELEVATION: 214.432m (CGVD28:78)

ELEVATION: 178.167m (CGVD28:78)

ELEVATION: 214.742m

THE LENGTH OF TRENCH OPENING AT ANY GIVEN TIME SHALL NOT EXCEED TWO LENGTHS OF PIPE.

WATERMAIN & SEWER CROSSING NOTE:

- REFERENCE: MUNICIPALITY OF CENTRAL ELGIN DESIGN GUIDELINES AND CONSTRUCTION STANDARDS

ALL CLEARANCES TO ELECTRICAL CONDUCTORS AS SET OUT IN THE 2012 OBC DIV. B-3.1.19.1 'ELECTRICAL CONDUCTOR CLEARANCES TO BUILDINGS' SHALL BE

ROAD OCCUPANCY PERMIT NOTE:
ROAD OCCUPANCY PERMIT FOR ALL EXTERNAL WORKS IS REQUIRED.

STORM DRAINAGE NOTE:
STORM DRAINAGE MAY TEMPORARILY NEED TO BE CONTROLLED AND PUMPED FROM STORM SEWER SYSTEM. ANY SUCH TEMPORARY MEASURES SHALL BE CONDUCTED AT NO EXTRA COST TO THE CONTRACT AND BE BASED UPON THE OWNER'S CONTRACTORS WATER CONTROL PLANS, WHICH MUST BE APPROVED BY THE CONTRACT ADMINISTRATOR/ENGINEER PRIOR TO CONSTRUCTION.

THE OWNER'S CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL MEASURES IN COMPLIANCE WITH THE ONTARIO TRAFFIC MANUAL BOOK 7 FOR ALL WORKS WITHIN THE MUNICIPAL RIGHT-OF-WAY. THE OWNER'S OWNER'S CONTRACTOR SHALL SUBMIT TRAFFIC CONTROL PLANS TO THE MUNICIPALITY/ENGINEER FOR REVIEW PRIOR TO PROCEEDING WITH CONSTRUCTION.

(SEE SERVICING NOTES ON SHEET 1)

ALL SERVING LOCATIONS SHALL BE INSTALLED AS PER MUNICIPALITY OF CENTRAL ELGIN DESIGN GUIDELINES & CONSTRUCTION STANDARDS INCLUDING, BUT NOT LIMITED TO SECTION 2.7 (WITH SANITARY SERVICES MARKED WITH A MARKER POST PAINTED RED) & DRAWING W-2 (NO STORM PDC'S TO BE PERMITTED PER SECTION 2.7) WITH NON STANDARD OR TOP OF RUN WATER SERVICE LOCATIONS SHOWN ON WATER DISTRIBUTION PLAN AND STORM AND SANITARY LOCATIONS SHOWN ON THE CATCHMENT AREA PLANS.

ALL SANITARY SERVICES SHALL BE 125Ø PVC DR28 @ 2.0% MINIMUM AS PER SECTION 2.7 c/w CLEANOUT WITH METAL CAP 100mm BELOW FINISHED GRADE ON PROPERTY LINE AS PER SECTION 4.3.10. PDC SHALL BE INSTALLED PER OPSD 1006.010 USING FACTORY MADE TEES. SANITARY PDC'S TO BE INSTALLED TO PROPERTY LINE WITH 1.0m DEPTH BELOW USF ELEVATION.

ALL WATER SERVICES SHALL BE INSTALLED PER MUNICIPALITY OF CENTRAL ELGIN DRAWING W-2, DESIGN GUIDELINES & CONSTRUCTION STANDARDS SECTION 5.8.3, AND SERVICING NOTES ON SHEET 1. WATER SERVICES TO BE INSTALLED AT LEAST TO PROPERTY LINE.

ALL WATERMAINS AND APPURTENANCES SHALL BE CONSTRUCTED AS PER MUNICIPALITY OF CENTRAL ELGIN SPECIFICATIONS.

- ALL CATCH BASINS (CB) & REAR YARD CATCH BASINS (RYCB) TO BE 600X600 TO OPSD 705.010, WITH FRAME AND GRATE TO OPSD 400.020
- ALL CATCH BASIN MAINTENANCE HOLES (CBMH) TO BE 1200x TO OPSD 701.010 (UNLESS OTHERWISE NOTED), WITH FRAME AND GRATE TO OPSD 400.020.
- ALL MAINTENANCE HOLES (SAMH/STMH/MDMH) TO BE 1200x TO OPSD 701.010 (UNLESS OTHERWISE NOTED), WITH FRAME AND GRATE TO OPSD 400.020 (UNLESS OTHERWISE NOTED) AND SHALL BE LOCATED TO AVOID CONFLICT WITH THE EXISTING UTILITY.
- ALL DOUBLE CATCH BASINS (DCB) TO BE 600X1450 TO OPSD 705.010 WITH FRAMES AND GRATES TO OPSD 400.020
- ALL DOUBLE CATCH BASIN MAINTENANCE HOLES (DCBMH) TO BE 1500x TO OPSD 701.011 (UNLESS OTHERWISE NOTED), WITH FRAMES AND GRATES TO OPSD 400.020.
- ALL MAINTENANCE HOLES TO BE BENCHMARKED AS PER OPSD 701.021.
- OGS TO BE CDS MODEL CDS_445_10m, 7.5 CFS TREATMENT CAPACITY STORM WATER TREATMENT UNIT, SEE DETAIL ON SHEET 17, OR APPROVED EQUIVALENT.
- ALL LEADINGS TO OPSD 804.030 (LESS THAN 900# PIPE) OR OPSD 804.040 c/w GRATING PER OPSD 804.050, GUARDRAILS (AS REQUIRED) PER OPSD 980.101, AND BAFFLE BLOCKS.
- ALL MAINTENANCE HOLES GREATER THAN 5m DEPTH SHALL HAVE SAFETY LANDINGS INSTALLED AT LEAST HALF WAY AS PER OPSD 404.020.
- THE AREA BETWEEN MAINTENANCE HOLES SHALL BE BACKFILLED WITH CONCRETE OR CRUSHED STONE WHERE THE DISTANCE BETWEEN THEM IS LESS THAN 0.6m. GRANULAR MATERIAL WHERE THE DISTANCE BETWEEN THEM IS 0.6m TO 2.4m, OR APPROVED NATIVE MATERIAL WHERE THE DISTANCE BETWEEN THEM IS GREATER THAN 2.4m. ALL BACKFILL SHALL BE PROPERLY COMPACTED TO THE SPMD0 SPECIFIED IN THE GEOTECHNICAL REPORT AS APPROVED BY MATERIAL TESTING OR BY THE GEOTECHNICAL ENGINEER REPRESENTATIVE.
- ALL CATCH BASINS & DOUBLE CATCH BASINS SHALL HAVE 0.6m SUMP AND ALL CATCH BASIN MAINTENANCE HOLES SHALL HAVE 0.3m SUMP
- ALL CATCH BASIN LEADS TO BE 200# @ 1.0% MINIMUM WITH CONNECTION PER OPSD 708.010 OR 708.030
- ALL REAR YARD CATCH BASIN AND DOUBLE CATCH BASIN LEADS TO BE 250# @ 0.56% MINIMUM WITH CONNECTION PER OPSD 708.010 OR 708.030

PIPE NOTES:

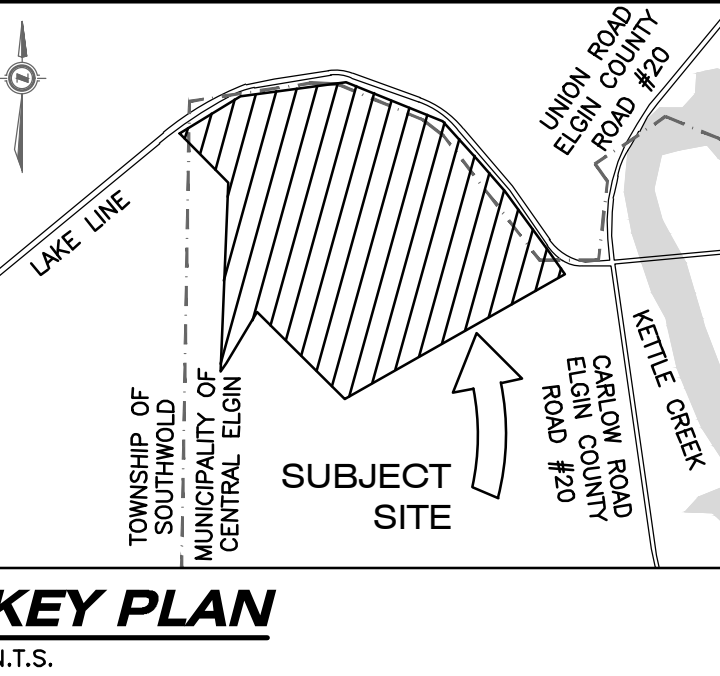
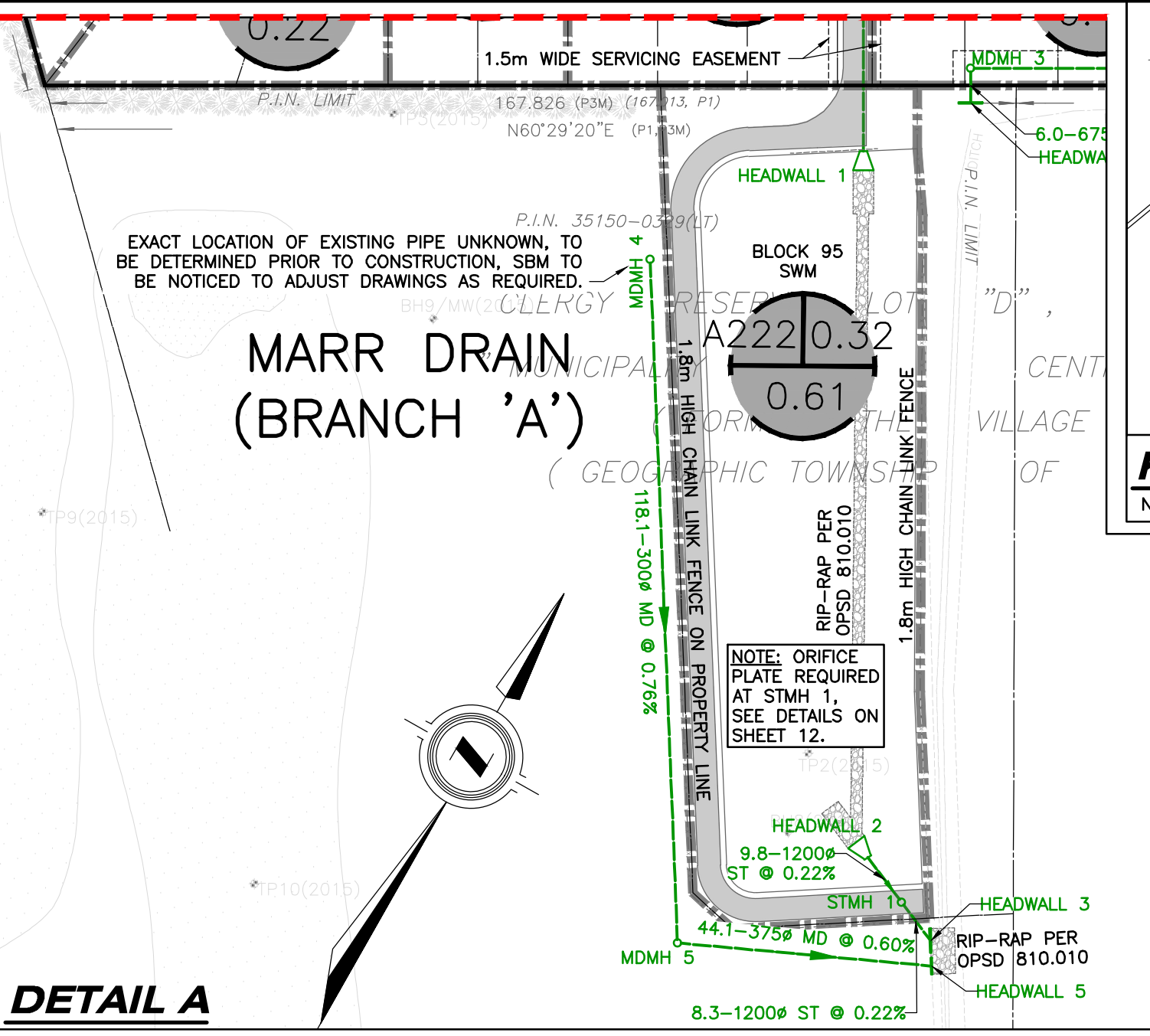
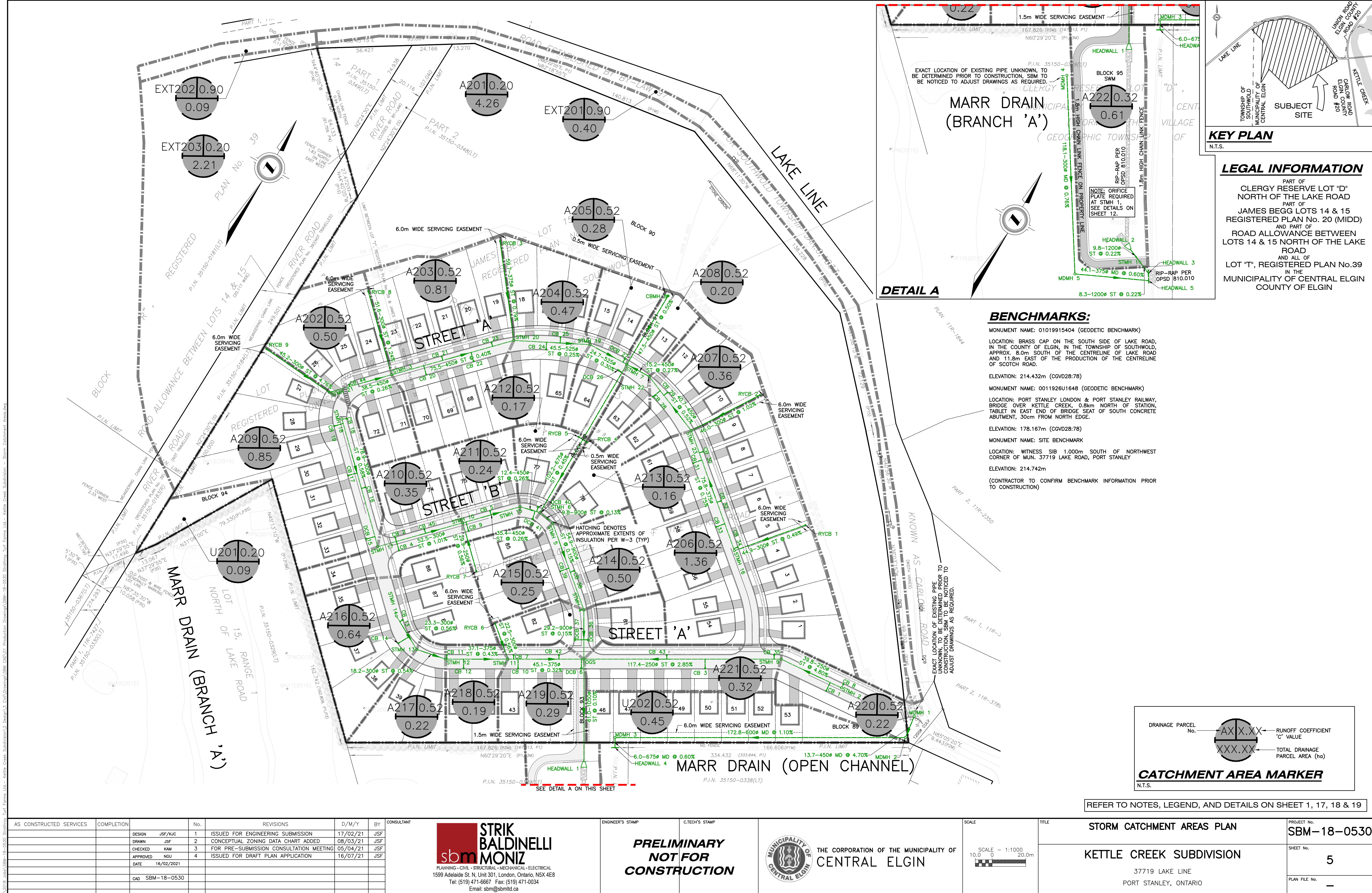
- ALL SEWER PIPE 125Ø TO 200Ø SHALL BE PVC DR28
- ALL SEWER PIPE 250Ø TO 525Ø SHALL BE PVC DR35
- ALL SEWER PIPE 600Ø OR GREATER SHALL BE CONCRETE CLASS 65-D

ALL SUBSTITUTIONS TO BE APPROVED BY MUNICIPAL ENGINEER

- STMH 4, 5, 6, 7 & 7 SHALL BE 1800# AS PER OPSD 701.012 AS PER SIZING REQUIREMENTS OF OPSD 701.021
- STMH 1 SHALL BE 2400# AS PER OPSD 701.013 AS PER SIZING REQUIREMENTS OF OPSD 701.021
- ALL MAINTENANCE HOLE SIZING BASED ON ASSUMED PIPE SIZES, REQUIRED SIZE TO BE CONFIRMED BY MANUFACTURER
- SAMH 2, 9, 15, 20, 21, 23, 24, 25, AND 27 SHALL HAVE SAFETY PLATFORMS AS PER OPSD 404.020
- SAMH 15, AND 21 SHALL HAVE DROP STRUCTURES AS PER OPSD 1003.020
- ALL SUBSTITUTIONS TO BE APPROVED BY MUNICIPAL ENGINEER

NOTE: FOR CLARITY NO PDC'S OR WSC'S ARE SHOWN. FOR STANDARD SERVICING LOCATIONS SEE THE MUNICIPALITY OF CENTRAL ELGIN DESIGN GUIDELINES & CONSTRUCTION STANDARDS SECTION 2.7

REFER TO NOTES, LEGEND, AND DETAILS ON SHEET 1, 17, 18 & 19



LEGAL INFORMATION

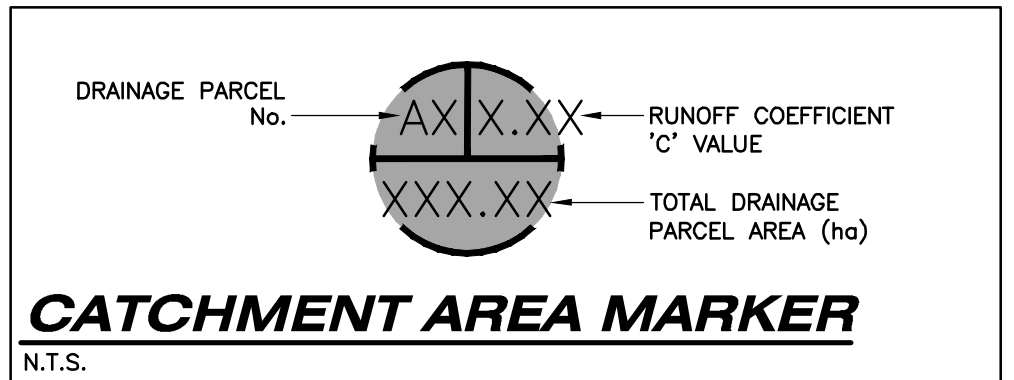
PART OF
CLERGY RESERVE LOT "D"
NORTH OF THE LAKE ROAD
PART OF
JAMES BEGG LOTS 14 & 15
REGISTERED PLAN No. 20 (MIDD)
AND PART OF
ROAD ALLOWANCE BETWEEN
LOTS 14 & 15 NORTH OF THE LAKE
ROAD
AND ALL OF
LOT "T", REGISTERED PLAN No.39
IN THE
MUNICIPALITY OF CENTRAL ELGIN
COUNTY OF ELGIN

BENCHMARKS:

MONUMENT NAME: 01019915404 (GEODETIC BENCHMARK)
LOCATION: BRASS CAP ON THE SOUTH SIDE OF LAKE ROAD, IN THE COUNTY OF ELGIN, IN THE TOWNSHIP OF SOUTHWOLD, APPROX. 8.0m SOUTH OF THE CENTRELINE OF LAKE ROAD AND 11.8m EAST OF THE PRODUCTION OF THE CENTRELINE OF SCOTCH ROAD.
ELEVATION: 214.432m (CGVD28:78)

MONUMENT NAME: 0011926U1648 (GEODETIC BENCHMARK)
LOCATION: PORT STANLEY LONDON & PORT STANLEY RAILWAY, BRIDGE OVER KETTLE CREEK, 0.8km NORTH OF STATION, TABLET IN EAST END OF BRIDGE SEAT OF SOUTH CONCRETE ABUTMENT, 30cm FROM NORTH EDGE.
ELEVATION: 178.167m (CGVD28:78)

MONUMENT NAME: SITE BENCHMARK
LOCATION: WITNESS SIB 1.000m SOUTH OF NORTHWEST CORNER OF MUN. 37719 LAKE ROAD, PORT STANLEY
ELEVATION: 214.742m
(CONTRACTOR TO CONFIRM BENCHMARK INFORMATION PRIOR TO CONSTRUCTION)



REFER TO NOTES, LEGEND, AND DETAILS ON SHEET 1, 17, 18 & 19

AS CONSTRUCTED SERVICES	COMPLETION	No.	REVISIONS	D/M/Y	BY	CONSULTANT	ENGINEER'S STAMP	C.TECH'S STAMP	SCALE	TITLE	PROJECT No.
										STORM CATCHMENT AREAS PLAN	SBM-18-0530
										KETTLE CREEK SUBDIVISION	SHEET No.
										37719 LAKE LINE PORT STANLEY, ONTARIO	5
											PLAN FILE No.

AS CONSTRUCTED SERVICES

COMPLETION

No.

REVISIONS

D/M/Y

BY

CONSULTANT

DATE

CAD

1

ISSUED FOR ENGINEERING SUBMISSION

17/02/21

JSF

2

CONCEPTUAL ZONING DATA CHART ADDED

08/03/21

JSF

3

FOR PRE-SUBMISSION CONSULTATION MEETING

05/04/21

JSF

4

ISSUED FOR DRAFT PLAN APPLICATION

16/07/21

JSF

16/02/2021

SBM-18-0530

STRIK

BALDINELLI

MONIZ

PLANNING - CIVIL - STRUCTURAL - MECHANICAL - ELECTRICAL

1599 Adelaide St. N, Unit 301, London, Ontario, N5X 4E8

Tel: (519) 471-6667 Fax: (519) 471-0034

Email: sbm@sbmltd.ca

PRELIMINARY

NOT FOR

CONSTRUCTION

MUNICIPALITY OF

CENTRAL ELGIN

THE CORPORATION OF THE MUNICIPALITY OF

CENTRAL ELGIN

SCALE

1:1000

10.0 0 20.0m

TITLE

STORM CATCHMENT AREAS PLAN

KETTLE CREEK SUBDIVISION

37719 LAKE LINE

PORT STANLEY, ONTARIO

PROJECT No.

SBM-18-0530

SHEET No.

5

PLAN FILE No.

MONUMENT NAME: 01019915404 (GEODETIC BENCHMARK)

LOCATION: BRASS CAP ON THE SOUTH SIDE OF LAKE ROAD
IN THE COUNTY OF ELGIN, IN THE TOWNSHIP OF SOUTHWOLD
APPROX. 8.0m SOUTH OF THE CENTRELINE OF LAKE ROAD
AND 11.8m EAST OF THE PRODUCTION OF THE CENTRELINE
OF SCOTCH ROAD.

ELEVATION: 214.432m (CGVD28:78)

MONUMENT NAME: 0011926U1648 (GEODETIC BENCHMARK)

LOCATION: PORT STANLEY LONDON & PORT STANLEY RAILWAY
BRIDGE OVER KETTLE CREEK, 0.8km NORTH OF STATION.
TABLET IN EAST END OF BRIDGE SEAT OF SOUTH CONCRETE
ABUTMENT, 30cm FROM NORTH EDGE.

ELEVATION: 178.167m (CGVD28:78)

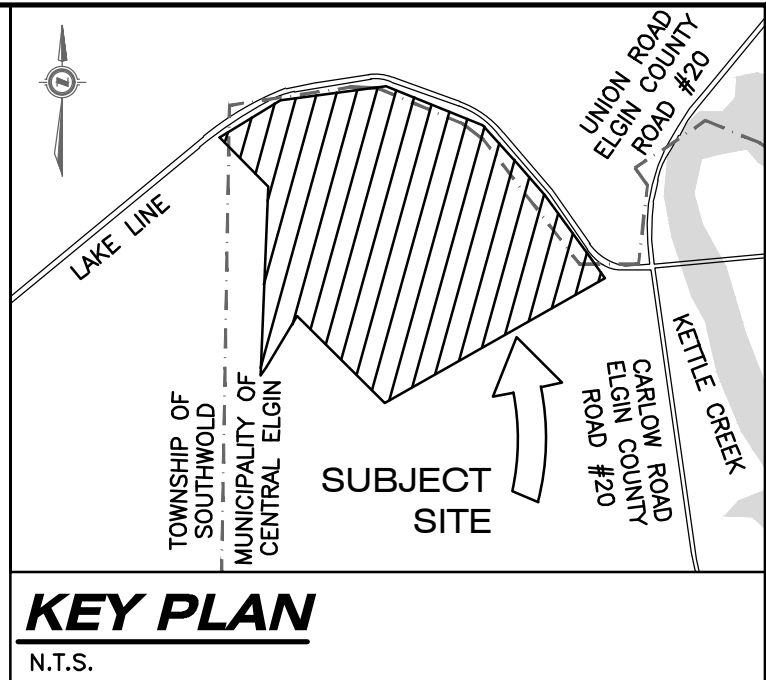
MONUMENT NAME: SITE BENCHMARK

LOCATION: WITNESS SIB 1.000m SOUTH OF NORTHWEST
CORNER OF MUN. 37719 LAKE ROAD, PORT STANLEY

ELEVATION: 214.742m

(CONTRACTOR TO CONFIRM BENCHMARK INFORMATION PRIOR TO CONSTRUCTION)

PART OF
 CLERGY RESERVE LOT "D"
 NORTH OF THE LAKE ROAD
 PART OF
 JAMES BEGG LOTS 14 & 15
 REGISTERED PLAN No. 20 (MIDD)
 AND PART OF
 ROAD ALLOWANCE BETWEEN
 LOTS 14 & 15 NORTH OF THE LAKE
 ROAD
 AND ALL OF
 LOT "T", REGISTERED PLAN No.39
 IN THE
 MUNICIPALITY OF CENTRAL ELGIN
 COUNTY OF ELGIN



MUNICIPALITY OF CENTRAL ELGIN

RUNOFF COEFFICIENT 'C' VALUES

THE FOLLOWING 'C' VALUES WILL APPLY WHEN DESIGNING STORM SEWERS:

PARKS, PLAYGROUNDS, OPEN SPACE

SINGLE FAMILY

SEMI-DETACHED

APARTMENTS

COMMERCIAL, INSTITUTIONAL & INDUSTRIAL

DENSELY BUILT, PAVED

0.20

0.52 USED IN COMBINATION WITH ROW

0.52 USED IN COMBINATION WITH ROW

0.50 - 0.70

0.50 - 0.90

0.90

PROJECT NAME: KETTLE CREEK SUBDIVISION

FLOW Q = 2.78 x A x I x R

WHERE Q=PEAK FLOW IN LITRES PER SECOND (L / s)

A=AREA IN HECTARES (Ha)

R=RUNOFF COEFFICIENT



I=RAINFALL INTENSITY (mm / hr)

RETURN PERIOD = 2 YEARS

Date:	July 14, 2021
Job Number:	SBM-18-0530
Client:	Strathroy Turf Farms
Project:	Kettle Creek Subdivision
Designed By:	JSF
Reviewed By:	KAM/NGU
Project File No.	SBM-18-0530

LOCATION				AREA		TOTAL (A x C)							RAINFALL INTENSITY			Q	SEWER DESIGN								PROFILE				
AREA No.	STREET	FROM MANHOLE	TO MANHOLE	DELTA HECTARE	TOTAL HECTARES	C	AxC	TOTAL SECTION	TOTAL LATERAL	TOTAL SEWER	TOTAL 2.78AxC	TIME ENTRY mm		INTENSITY mm/hr	L / s	PIPE SIZE mm	n	SLOPE %	Q CAP l/s	VELOCITY m / s	LENGTH m	TIME OF FLOW	FALL IN SEWER	HEADLOSS IN D.S. MH	DROP IN MANHOLE	INVERT ELEVATION			
												SECTION	ACCUM.													U.S.	D.S.		
EXT201	LAKE LINE	EXTERNAL	CBMH 8	0.40	0.40	0.90	0.36	0.00	0.00	0.36	1.00	0.0	20.0	53.1	53.1														
A201	BLOCK 91	CBMH 8	STMH 7	4.26	4.66	0.20	0.85	0.36	0.00	1.21	3.37	0.0	20.0	53.1	178.8	450	0.013	0.50	201.6	1.27	47.5	0.62	0.238	0.000	-	179.25	179.01		
												0.6	20.6																
EXT202	LAKE LINE	EXTERNAL	EXTERNAL	0.09	0.09	0.90	0.08	0.00	0.00	0.08	0.23	0.0	20.0	53.1	11.9														
EXT203	LAKE LINE	EXTERNAL	STMH 21	2.21	2.30	0.20	0.44	0.08	0.00	0.52	1.45	0.0	20.0	53.1	77.2														
A202	STREET 'A'	STMH 21	STMH 3	0.50	2.80	0.52	0.26	0.52	0.00	0.78	2.18	0.0	20.0	53.1	115.5	450	0.013	0.26	145.4	0.91	38.5	0.70	0.100	0.000	-	179.59	179.49		
A203	STREET 'A'	STMH 3	STMH 20	0.81	3.61	0.52	0.42	0.78	0.00	1.20	3.35	0.7	20.7	51.9	173.7	450	0.013	0.40	180.3	1.13	75.5	1.11	0.302	0.000	0.010	179.48	179.18		
A204	STREET 'A'	STMH 20	STMH 19	0.47	4.08	0.52	0.24	1.20	0.00	1.45	4.03	1.1	21.8	50.1	201.8	525	0.013	0.25	215.0	0.99	45.5	0.76	0.114	0.025	0.080	179.10	178.99		
A205	STREET 'A'	STMH 19	STMH 7	0.28	4.36	0.52	0.15	1.45	0.00	1.59	4.43	0.8	22.6	49.0	217.1	525	0.013	0.30	235.5	1.09	24.7	0.38	0.074	0.127	0.030	178.96	178.89		
												0.4	23.0																
A206	STREET 'A'	STMH 16	STMH 23	1.36	1.36	0.52	0.71	0.00	0.00	0.71	1.97	0.0	20.0	53.1	104.3	375	0.013	0.75	151.8	1.37	75.8	0.92	0.569	0.028	-	179.92	179.35		
A207	STREET 'A'	STMH 23	STMH 22	0.36	1.72	0.52	0.19	0.71	0.00	0.89	2.49	0.9	20.9	51.5	128.1	450	0.013	0.52	205.6	1.29	40.7	0.52	0.212	0.018	0.080	179.27	179.06		
A208	STREET 'A'	STMH 22	STMH 7	0.20	1.92	0.52	0.10	0.89	0.00	1.00	2.78	0.5	21.4	50.7	140.7	450	0.013	0.27	148.1	0.93	15.2	0.27	0.041	0.127	0.030	179.03	178.99		
												0.3	21.7																
	BLOCK 92	STMH 7	STMH 6	0.00	10.94	0.20	0.00	1.21	2.59	3.80	10.58	0.0	21.9	50.1	529.4	675	0.013	0.45	563.9	1.58	102.2	1.08	0.460	0.051	0.146	178.74	178.28		
												1.1	22.9																
A209	STREET 'A'	STMH 18	STMH 17	0.85	0.85	0.52	0.44	0.00	0.00	0.44	1.23	0.0	20.0	53.1	65.2	300	0.013	0.58	73.6	1.04	78.9	1.26	0.458	0.096	-	179.70	179.24		
A210	STREET 'B'	STMH 17	STMH 10	0.35	1.20	0.52	0.18	0.44	0.00	0.62	1.73	1.3	21.3	51.0	88.4	300	0.013	1.01	97.2	1.37	52.5	0.64	0.530	0.000	0.222	179.02	178.49		
A211	STREET 'B'	STMH 10	STMH 15	0.24	1.44	0.52	0.12	0.62	0.00	0.75	2.08	0.6	21.9	50.0	104.1	450	0.013	0.26	145.4	0.91	35.4	0.65	0.092	0.023	0.080	178.41	178.32		
A212	STREET 'B'	STMH 15	STMH 6	0.17	1.61	0.52	0.09	0.75	0.00	0.84	2.33	0.6	22.5	49.0	114.1	450	0.013	0.26	145.4	0.91	12.4	0.23	0.032	0.021	0.030	178.29	178.26		
												0.2	22.8																
A213	STREET 'B'	STMH 6	STMH 5	0.16	12.55	0.52	0.08	0.84	3.80	4.73	13.14	0.0	22.9	48.5	637.4	900	0.013	0.13	652.7	1.03	9.8	0.16	0.013	0.033	0.053	178.20	178.19		
A214	STREET 'B'	STMH 5	STMH 4	0.50	13.05	0.52	0.26	4.73	0.00	4.99	13.86	0.2	23.1	48.3	669.4	900	0.013	0.15	701.1	1.10	54.9	0.83	0.082	0.022	0.030	178.16	178.08		
A215	STREET 'B'	STMH 4	OGS	0.25	13.30	0.52	0.13	4.99	0.00	5.12	14.22	0.8	23.9	47.2	671.0	900	0.013	0.15	701.1	1.10	29.2	0.44	0.044	0.000	0.059	178.02	177.98		
												0.4	24.3																
A216	STREET 'A'	STMH 14	STMH 13	0.64	0.64	0.52	0.33	0.00	0.00	0.33	0.93	0.0	20.0	53.1	49.1	300	0.013	0.56	72.4	1.02	23.3	0.38	0.130	0.032	-	179.25	179.12		
A217	STREET 'A'	STMH 13	STMH 12	0.22	0.86	0.52	0.11	0.33	0.00	0.45	1.24	0.4	20.4	52.4	65.2	300	0.013	0.54	71.1	1.01	18.2	0.30	0.098	0.019	0.030	179.09	178.99		
A218	STREET 'A'	STMH 12	STMH 11	0.19	1.05	0.52	0.10	0.45	0.00	0.55	1.52	0.3	20.7	51.9	78.8	375	0.013	0.43	115.0	1.04	37.1	0.59	0.160	0.000	0.080	178.91	178.75		
A219	STREET 'A'	STMH 11	OGS	0.29	1.34	0.52	0.15	0.55	0.00	0.70	1.94	0.6	21.3	50.9	98.7	375	0.013	0.32	99.2	0.90	45.1	0.84	0.144	0.051	0.062	178.69	178.55		
												0.8	22.1																
A220	STREET 'A'	STMH 2	STMH 9	0.22	0.22	0.52	0.11	0.00	0.00	0.11	0.32	0.0	20.0	53.1	16.9	250	0.013	4.80	130.3	2.65	39.8	0.25	1.910	0.090	-	184.27	182.36		
A221	STREET 'A'	STMH 9	OGS	0.32	0.54	0.52	0.17	0.11	0.00	0.28	0.78	0.2	20.2	52.6	41.1	250	0.013	2.85	100.4	2.05	117.4	0.96	3.346	0.051	0.860	181.50	178.15		
												1.0	21.2																
	BLOCK 95	OGS	HW 1	0.00	15.18	0.20	0.00	5.12	0.98	6.09	16.94	0.0	23.9	47.2	799.0	1050	0.013	0.10	863.5	1.00	61.0	1.02	0.061	-	0.016	177.96	177.90		
A222	SWM FACILITY	HW 2	STMH 1	0.61	15.79	0.32	0.20	6.09	0.00	6.29	17.48	1.0	24.9	45.9	802.2	1200	0.013	0.22	1828.6	1.62	9.8	0.10	0.022	0.000	-	177.07	177.05		
	SWM FACILITY	STMH 1	HW 3	0.00	15.79	0.32	0.00	6.29	0.00	6.29	17.48	0.1	25.0	45.8	864.0	1200	0.013	0.22	1828.6	1.62	8.3	0.09	0.018	-	0.010	177.04	177.00		

REFER TO NOTES, LEGEND, AND
DETAILS ON SHEET 1, 17, 18 & 19

AS CONSTRUCTED SERVICES	COMPLETION		No.	REVISIONS	D/M/Y	BY	CONSULTANT	ENGINEER'S STAMP	C.TECH'S STAMP	SCALE	TITLE	PROJECT No. SBM-18-0530	
		DESIGN JSF/KJC	1	ISSUED FOR ENGINEERING SUBMISSION	17/02/21	JSF	 STRIK BALDINELLI MONIZ PLANNING • CIVIL • STRUCTURAL • MECHANICAL • ELECTRICAL 1599 Adelaide St. N, Unit 301, London, Ontario, N5X 4E8 Tel: (519) 471-6667 Fax: (519) 471-0034 Email: sbm@sbmtld.ca	<p align="center">PRELIMINARY NOT FOR CONSTRUCTION</p>	 <p align="center">THE CORPORATION OF THE MUNICIPALITY OF CENTRAL ELGIN</p>	N/A	STORM DESIGN SHEET		SHEET No. 6A
		DRAWN JSF	2	CONCEPTUAL ZONING DATA CHART ADDED	08/03/21	JSF					KETTLE CREEK SUBDIVISION		PLAN FILE No. -
		CHECKED KAM	3	FOR PRE-SUBMISSION CONSULTATION MEETING	05/04/21	JSF					37719 LAKE LINE		
		APPROVED NGJ	4	ISSUED FOR DRAFT PLAN APPLICATION	16/07/21	JSF					PORT STANLEY, ONTARIO		
		DATE 16/02/2021											
		CAD SBM-18-0530											

MONUMENT NAME: 01019915404 (GEODETIC BENCHMARK)

LOCATION: BRASS CAP ON THE SOUTH SIDE OF LAKE ROAD, IN THE COUNTY OF ELGIN, IN THE TOWNSHIP OF SOUTHWOLD, APPROX. 8.0m SOUTH OF THE CENTRELINE OF LAKE ROAD AND 11.8m EAST OF THE PRODUCTION OF THE CENTRELINE OF SCOTCH ROAD.

MONUMENT NAME: 0011926U1648 (GEODETIC BENCHMARK)

ELEVATION: 178.167m (CGVD28:78)

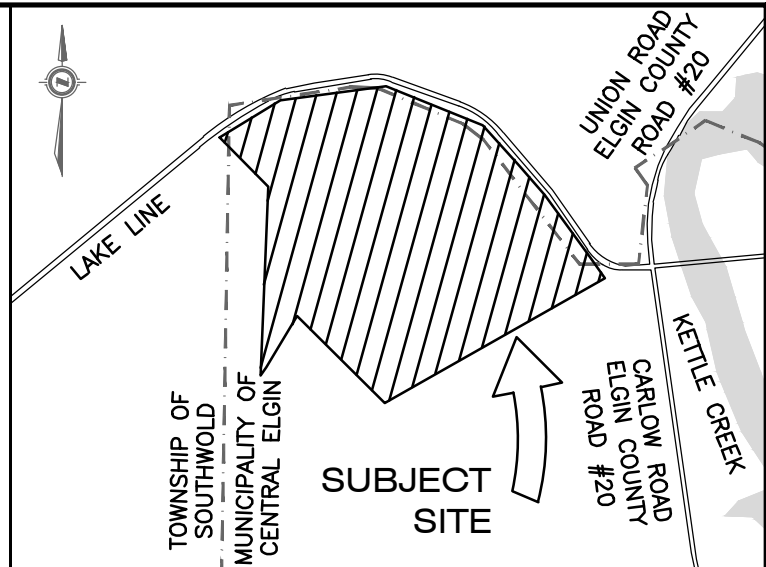
MONUMENT NAME: SITE BENCHMARK

LOCATION: WITNESS SIB 1.000m SOUTH OF NORTHWEST
CORNER OF MUN. 37719 LAKE ROAD, PORT STANLEY

ELEVATION: 214.742m

(CONTRACTOR TO CONFIRM BENCHMARK INFORMATION PRIOR TO CONSTRUCTION)

PART OF
 CLERGY RESERVE LOT "D"
 NORTH OF THE LAKE ROAD
 PART OF
 JAMES BEGG LOTS 14 & 15
 REGISTERED PLAN No. 20 (MIDD)
 AND PART OF
 ROAD ALLOWANCE BETWEEN
 LOTS 14 & 15 NORTH OF THE LAKE
 ROAD
 AND ALL OF
 LOT "T", REGISTERED PLAN No.39
 IN THE
 MUNICIPALITY OF CENTRAL ELGIN
 COUNTY OF ELGIN



N.T.S.

REFER TO NOTES, LEGEND, AND
DETAILS ON SHEET 1, 17, 18 & 19

MUNICIPALITY OF CENTRAL ELGIN

Date:	August 17, 2021
Job Number:	SBM-18-0530
Client:	Strathroy Turf Farms
Project:	Kettle Creek Subdivision
Designed By:	JSF
Reviewed By:	KAM/NGu
Project File No.	SBM-18-0530

618.1 L/s used for Q value due to incoming flows from Marr Drain (maximum possible flows from upstream run of connection point, 450dia @ 4.7%

MUNICIPALITY OF CENTRAL ELGIN

Date:	August 19, 2021
Job Number:	SBM-18-0530
Client:	Strathroy Turf Farms
Project:	Kettle Creek Subdivision
Designed By:	JSF
Reviewed By:	KAM/NGU
Project File No.	SBM-18-0530

84.3 L/s used for Q value due to incoming flows from Marr Drain Branch 'A' (maximum possible flows from upstream run of connection point, 300dia @ 0.76%

S:\2018 Jobs\SBM-18-0530 Strathroy Turf Farms Ltd. - Kettle Creek Subdivision\2 Design\3 Civil\Drawings\SBM CAD\01 Production Drawings\SBM-18-0530 Strathroy Turf Farms Ltd. - Kettle Creek Subdivision - Storm Catchment Areas.dwg

BENCHMARKS:

MONUMENT NAME: 01019915404 (GEODETIC BENCHMARK)

LOCATION: BRASS CAP ON THE SOUTH SIDE OF LAKE ROAD, IN THE COUNTY OF ELGIN, IN THE TOWNSHIP OF SOUTHWOLD, APPROX. 8.0m SOUTH OF THE CENTRELINE OF LAKE ROAD AND 11.8m EAST OF THE PRODUCTION OF THE CENTRELINE OF SCOTCH ROAD.

ELEVATION: 214.432m (CGVD28:78)

MONUMENT NAME: 0011926U1648 (GEODETIC BENCHMARK)

LOCATION: PORT STANLEY LONDON & PORT STANLEY RAILWAY,
BRIDGE OVER KETTLE CREEK, 0.8km NORTH OF STATION,
TABLET IN EAST END OF BRIDGE SEAT OF SOUTH CONCRETE
ABUTMENT, 30cm FROM NORTH EDGE.

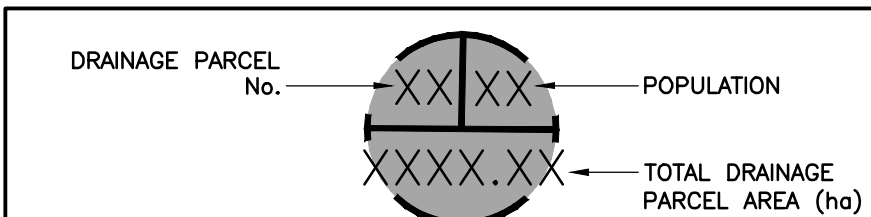
ELEVATION: 178.167m (CGVD28:78)

MONUMENT NAME: SITE BENCHMARK

LOCATION: WITNESS SIB 1.000m

ELEVATION: 214.742m

(CONTRACTOR TO CONFIRM BENCHMARK INFORMATION PRIOR TO CONSTRUCTION)



SANITARY SEWER
CATCHMENT AREA MARKER

N.T.S.

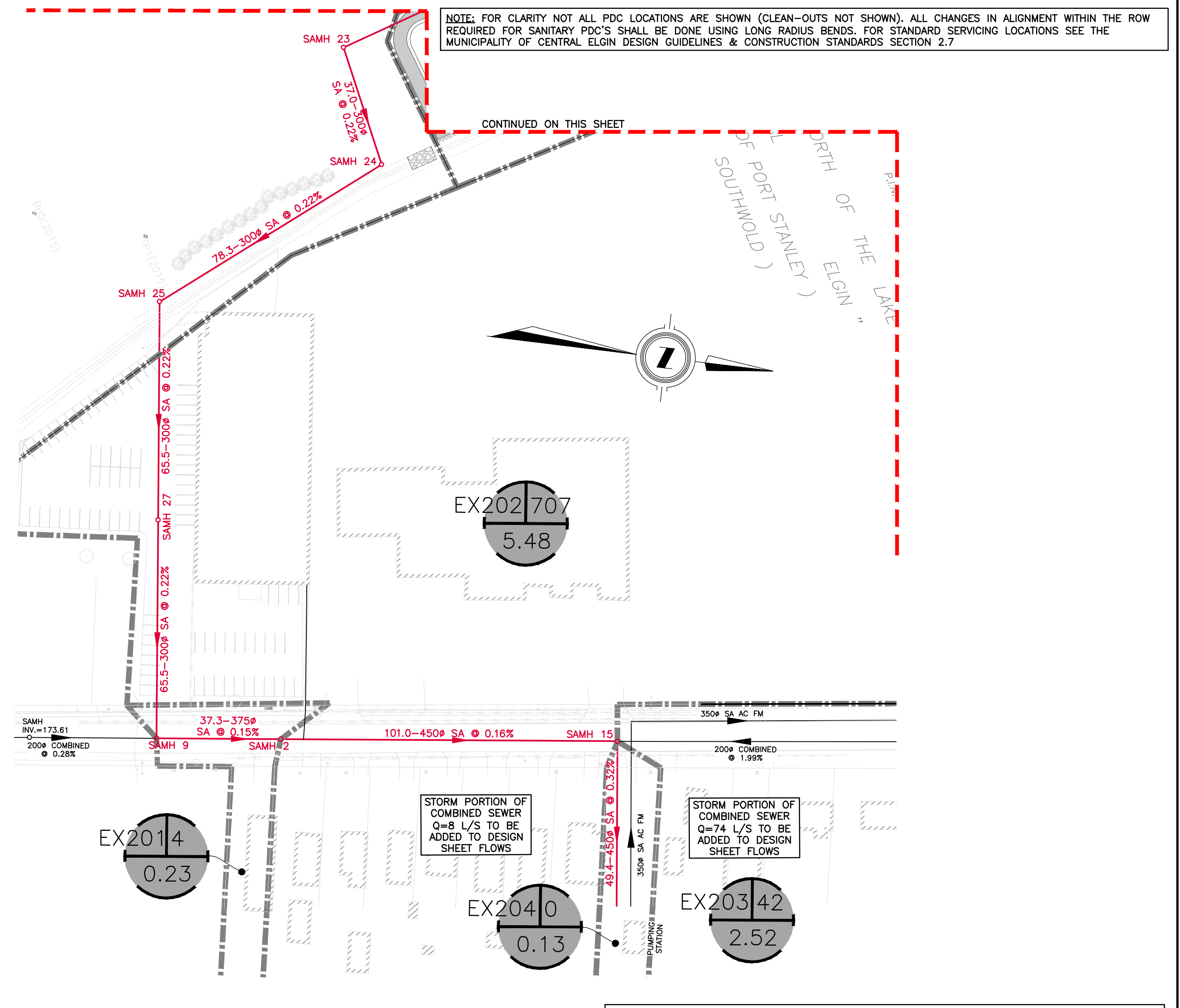
NOTE: FOR CLARITY NOT ALL PDC LOCATIONS ARE SHOWN (CLEAN-OUTS NOT SHOWN). ALL CHANGES IN ALIGNMENT WITHIN THE ROW REQUIRED FOR SANITARY PDC'S SHALL BE DONE USING LONG RADIUS BENDS. FOR STANDARD SERVICING LOCATIONS SEE THE MUNICIPALITY OF CENTRAL ELGIN DESIGN GUIDELINES & CONSTRUCTION STANDARDS SECTION 2.7

KEY PLAN

N.T.S.

LEGAL INFORMATION

PART OF
CLERGY RESERVE LOT "D"
NORTH OF THE LAKE ROAD
PART OF
JAMES BEGG LOTS 14 & 15
REGISTERED PLAN No. 20 (MIDD)
AND PART OF
ROAD ALLOWANCE BETWEEN
LOTS 14 & 15 NORTH OF THE LAKE
ROAD
AND ALL OF
LOT "T", REGISTERED PLAN No.39
IN THE
MUNICIPALITY OF CENTRAL ELGIN
COUNTY OF ELGIN



REFER TO NOTES, LEGEND, AND DETAILS ON SHEET 1, 17, 18 & 19

AS CONSTRUCTED SERVICES	COMPLETION		No.	REVISIONS	D/M/Y	BY	CONSULTANT
		DESIGN JSF/KJC	1	ISSUED FOR ENGINEERING SUBMISSION	17/02/21	JSF	
		DRAWN JSF	2	CONCEPTUAL ZONING DATA CHART ADDED	08/03/21	JSF	
		CHECKED KAM	3	FOR PRE-SUBMISSION CONSULTATION MEETING	05/04/21	JSF	
		APPROVED NGU	4	ISSUED FOR DRAFT PLAN APPLICATION	16/07/21	JSF	
		DATE 08/02/2021					
		CAD SBM-18-0530					

**sbm STRIK
BALDINELLI
MONIZ**
PLANNING • CIVIL • STRUCTURAL • MECHANICAL • ELECTRICAL
1599 Adelaide St. N, Unit 301, London, Ontario, N5X 4E8
Tel: (519) 471-6667 Fax: (519) 471-0034
Email: sbm@sbnldt.ca

ENGINEER'S STAMP

**PRELIMINARY
NOT FOR
CONSTRUCTION**

C.TECH'S STAMP

C.TECH'S STAMP



THE CORPORATION OF THE MUNICIPALITY OF
CENTRAL ELGIN

	SCALE
--	-------



	TITLE
--	-------

SANITARY CATCHMENT AREAS PLAN

KETTLE CREEK SUBDIVISION

37719 LAKE LINE
PORT STANLEY, ONTARIO

PROJECT No.

PROJECT NO.
SBM-18-0530

SHEET No. _____

7

PLAN FILE No.

S:\2018 Jobs\SBM-18-0530 Strathroy Turf Farms Ltd. - Kettle Creek Subdivision\3. Civil Drawings\SBM CAD\01 Production Drawings\SBM-18-0530 Strathroy Turf Farms Ltd. - Kettle Creek Subdivision - Sanitary Collocation - As-built.dwg



STRIK

BALDINELLI

MONIZ

PLANNING • CIVIL • STRUCTURAL • MECHANICAL • ELECTRICAL

LONDON LOCATION

1599 Adelaide St. N., Units 301 & 203
London, ON N5X 4E8
P: 519-471-6667

KITCHENER LOCATION

1415 Huron Rd., Unit 225
Kitchener, ON N2R 0L3
P: 519-725-8093

www.sbmltd.ca

sbm@sbmltd.ca

Sanitary Sewer Design Sheet
Municipality of Central Elgin

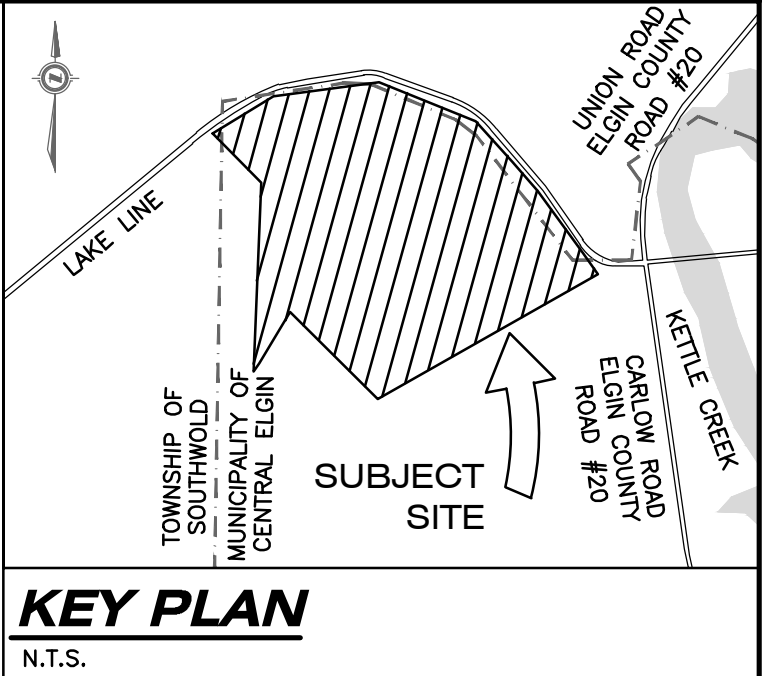
Residential Population Densities

Area Basis
Average Daily Domestic Flows = 3.5 people/unit
Future Medium Density Block assumed at 75 units per hectare
Populations for school and community centre approximated

Design Criteria (Litres/capita/day) 400
Sewage Infiltration (Litres/hectare/sec) 0.2
Harmon Formula (Peaking Factor)
M = (1 + 14/(4+P^0.5))
Uncertain Development Factor of 1.1 applied to sewage peak flow

Date: July 8, 2021
Job Number: SBM-18-0530
Client: Strathroy Turf Farms
Project: Kettle Creek Subdivision
Designed By: JSF
Reviewed By: KAM/NGU
Project File No.: SBM-18-0530

Location				Area						Sewage Flows				Sewer design						Profile Design					
Area No.	Street Name	From MH	To MH	Delta Hectare	Total Hectare	People Per Lot	No. of Lots	Delta Pop.	Total Pop.	Harmon Peaking Factor	Infil L/S	Sewage L/S	Total L/S	n	Pipe Slope %	Calc'd Dia. mm	Dia. mm	Capacity L/S	Velocity m/s	Length m	Fall in Sewer	Headloss	Drop in U.S. MH	U.S. Invert	D.S. Invert
A201	STREET 'A'	SAMH 14	SAMH 16	1.21	1.21	3.5	14	49	49	4.3165	0.24	0.98	1.22	0.013	0.42%	68.51	200	21.27	0.68	113.6	0.48	0.008	-	178.74	178.26
A202	STREET 'A'	SAMH 16	SAMH 17	0.46	1.67	3.5	5	18	67	4.2873	0.33	1.33	1.66	0.013	0.42%	76.94	200	21.27	0.68	44.4	0.19	0.010	0.03	178.23	178.04
A203	STREET 'A'	SAMH 17	SAMH 18	0.47	2.14	3.5	5	18	85	4.2622	0.43	1.68	2.11	0.013	0.42%	84.04	200	21.27	0.68	36.1	0.15	0.009	0.03	178.01	177.86
A204	STREET 'A'	SAMH 18	SAMH 19	0.36	2.50	3.5	4	14	99	4.2448	0.50	1.95	2.45	0.013	0.42%	88.89	200	21.27	0.68	40.6	0.17	0.008	0.03	177.83	177.66
A205	STREET 'A'	SAMH 19	SAMH 20	1.05	3.55	3.5	14	49	148	4.1929	0.71	2.87	3.58	0.013	0.42%	102.58	200	21.27	0.68	111.7	0.47	0.008	0.03	177.63	177.16
A206	STREET 'A'	SAMH 20	SAMH 21	0.31	3.86	3.5	3	11	159	4.1827	0.77	3.08	3.85	0.013	0.42%	105.39	200	21.27	0.68	33.4	0.14	0.023	0.03	177.13	176.99
A207	STREET 'A'	SAMH 8	SAMH 21	0.41	0.41	3.5	2	7	7	4.4283	0.08	0.14	0.23	0.013	2.45%	26.12	200	51.37	1.64	21.7	0.53	0.000	-	181.35	180.82
A208	STREET 'A'	SAMH 21	SAMH 3	0.56	4.83	3.5	6	21	187	4.1585	0.97	3.60	4.57	0.013	0.42%	112.35	200	21.27	0.68	101.6	0.43	0.023	0.06	176.93	176.50
A209	STREET 'A'	SAMH 14	SAMH 13	0.70	0.70	3.5	6	21	21	4.3776	0.14	0.43	0.57	0.013	0.58%	48.32	200	24.99	0.80	71.7	0.42	0.000	-	178.86	178.44
A210	STREET 'A'	SAMH 13	SAMH 12	0.51	1.21	3.5	6	21	42	4.3294	0.24	0.84	1.08	0.013	0.42%	65.51	200	21.27	0.68	69.4	0.29	0.008	0.01	178.43	178.14
A211	STREET 'A'	SAMH 12	SAMH 11	0.32	1.53	3.5	3	11	53	4.3095	0.31	1.06	1.36	0.013	0.42%	71.40	200	21.27	0.68	20.1	0.08	0.014	0.03	178.11	178.03
A212	STREET 'A'	SAMH 11	SAMH 10	0.22	1.75	3.5	2	7	60	4.2980	0.35	1.19	1.54	0.013	0.42%	74.81	200	21.27	0.68	20.1	0.08	0.023	0.03	178.00	177.92
A213	STREET 'A'	SAMH 10	SAMH 3	0.47	2.22	3.5	5	18	78	4.2716	0.44	1.54	1.99	0.013	1.20%	67.53	200	35.95	1.14	79.2	0.95	0.023	0.03	177.89	176.94
A214	STREET 'B'	SAMH 7	SAMH 6	0.54	0.54	3.5	9	32	32	4.3502	0.11	0.64	0.75	0.013	0.90%	49.53	200	31.13	0.99	74.8	0.67	0.015	-	178.17	177.50
A215	STREET 'B'	SAMH 6	SAMH 5	0.19	0.73	3.5	2	7	39	4.3353	0.15	0.78	0.93	0.013	0.42%	61.83	200	21.27	0.68	16.0	0.07	0.015	0.07	177.43	177.36
A216	STREET 'B'	SAMH 5	SAMH 4	0.66	1.39	3.5	9	32	71	4.2814	0.28	1.41	1.69	0.013	0.42%	77.31	200	21.27	0.68	55.3	0.23	0.008	0.03	177.33	177.10
A217	STREET 'B'	SAMH 4	SAMH 3	0.17	1.56	3.5	2	7	78	4.2716	0.31	1.54	1.85	0.013	0.42%	80.13	200	21.27	0.68	31.7	0.13	0.023	0.03	177.07	176.94
	STREET 'A'	SAMH 3	SAMH 1	0.00	8.61	3.5	0	0	343	4.0530	1.72	6.44	8.16	0.013	0.42%	139.66	200	21.27	0.68	48.5	0.20	0.021	0.50	176.44	176.24
A218	SWM FACILITY	SAMH 1	SAMH 22	0.84	9.45	3.5	0	0	343	4.0530	1.89	6.44	8.33	0.013	0.42%	140.73	200	21.27	0.68	31.6	0.13	0.021	0.06	176.18	176.05
	SWM FACILITY	SAMH 22	SAMH 26	0.00	9.45	3.5	0	0	343	4.0530	1.89	6.44	8.33	0.013	0.42%	140.73	200	21.27	0.68	71.4	0.30	0.000	0.06	175.99	175.69
	SWM FACILITY	SAMH 26	SAMH 23	0.00	9.45	3.5	0	0	343	4.0530	1.89	6.44	8.33	0.013	1.60%	109.52	200	41.51	1.32	71.4	1.14	0.000	0.01	175.68	174.54
	GOLF COURSE	SAMH 23	SAMH 24	0.00	9.45	3.5	0	0	343	4.0530	1.89	6.44	8.33	0.013	0.22%	158.87	300	45.38	0.64	37.0	0.08	0.006	0.50	174.04	173.96
	GOLF COURSE	SAMH 24	SAMH 25	0.00	9.45	3.5	0	0	343	4.0530	1.89	6.44	8.33	0.013	0.22%	158.87	300	45.38	0.64	78.3	0.17	0.017	0.06	173.90	173.73
	COMMUNITY CNTR	SAMH 25	SAMH 27	0.00	9.45	3.5	0	0	343	4.0530	1.89	6.44	8.33	0.013	0.22%	158.87	300	45.38	0.64	65.5	0.14	0.000	0.03	173.70	173.56
	COMMUNITY CNTR	SAMH 27	SAMH 9	0.00	9.45	3.5	0	0	343	4.0530	1.89	6.44	8.33	0.013	0.22%	158.87	300	45.38	0.64	65.5	0.14	0.019	0.01	173.55	173.41
	CARLOW ROAD	EXISTING	SAMH 9											0.013	0.28%	0.00	200	17.30	0.55	38.1	0.11	0.000	-	173.61	173.50
				APPROX POPULATION OF 82 FOR COMMUNITY CENTRE ADDED TO DELTA POPULATION BELOW										MAX CAPACITY OF ABOVE PIPE ADDED TO DOWNSTREAM Q											
EX201	CARLOW ROAD	SAMH 9	SAMH 2	0.23	10.41	3.5	1	4	347	4.0507	2.08	6.51	25.89	0.013	0.15%	261.22	375	67.95	0.62	37.3	0.06	0.000	0.18	173.33	173.27
EX202	CARLOW ROAD	SAMH 2	SAMH 15	5.48	15.89	3.5	7	707	1054	3.7852	3.18	18.47	76.00	0.013	0.16%	386.48	450	114.11	0.72	101.0	0.16	0.053	0.08	173.19	173.03
				APPROX POPULATION OF 600 FOR SCHOOL ADDED TO DELTA POPULATION ABOVE										Q OF 8 L/S ADDED TO AREA EX202 TO ACCOUNT FOR STORM PORTION OF COMBINED SEWER											
EX203	STREET 'A'	EXISTING	SAMH 15	2.52	2.52	3.5	12	42	42	4.3294	0.50	0.84	75.35	0.013	1.99%	240.13	200	46.30	1.47	158.3	3.15	0.053	-	179.30	176.15
DIFFERENCE IN CAPACITY OF PIPE ABOVE AND ASSUMED TOTAL SEWAGE DEMAND ADDED TO EX202 AND ALL DOWN STREAM ASSUMING STORM ORF TO DOWN STREAM CB														Q OF 74 L/S ADDED TO AREA EX203 TO ACCOUNT FOR STORM PORTION OF COMBINED SEWER											
EX204	PUMPING STATION	SAMH 15	SA PUMP	0.13	18.54	3.5	0	0	1096	3.7740	3.71	19.15	122.16	0.013	0.32%	405.48	450	161.38	1.01	49.4	0.16	0.000	3.17	172.98	172.82





LEGAL INFORMATION

PART OF
CLERGY RESERVE LOT "D"
NORTH OF THE LAKE ROAD
PART OF
JAMES BEGG LOTS 14 & 15
REGISTERED PLAN No. 20 (MIDD)
AND PART OF
ROAD ALLOWANCE BETWEEN
LOTS 14 & 15 NORTH OF THE LAKE
ROAD
AND ALL OF
LOT "T", REGISTERED PLAN No.39
IN THE
MUNICIPALITY OF CENTRAL ELGIN
COUNTY OF ELGIN

BENCHMARKS:

MONUMENT NAME: 01019915404 (GEODETC BENCHMARK)
LOCATION: BRASS CAP ON THE SOUTH SIDE OF LAKE ROAD, IN THE COUNTY OF ELGIN, IN THE TOWNSHIP OF SOUTHWOLD, APPROX. 8.0m SOUTH OF THE CENTRELINE OF LAKE ROAD AND 11.8m EAST OF THE PRODUCTION OF THE CENTRELINE OF SCOTCH ROAD.
ELEVATION: 214.432m (CGVD28:78)
MONUMENT NAME: 0011926U1648 (GEODETC BENCHMARK)
LOCATION: PORT STANLEY LONDON & PORT STANLEY RAILWAY, BRIDGE OVER KETTLE CREEK, 0.84m NORTH OF STATION, TABLET IN EAST END OF BRIDGE SEAT OF SOUTH CONCRETE ABUTMENT, 30cm FROM NORTH EDGE.
ELEVATION: 178.167m (CGVD28:78)
MONUMENT NAME: SITE BENCHMARK
LOCATION: WITNESS SIB 1.000m SOUTH OF NORTHWEST CORNER OF MUN. 37719 LAKE ROAD, PORT STANLEY
ELEVATION: 214.742m
(CONTRACTOR TO CONFIRM BENCHMARK INFORMATION PRIOR TO CONSTRUCTION)

REFER TO NOTES, LEGEND, AND
DETAILS ON SHEET 1, 17, 18 & 19

AS CONSTRUCTED SERVICES		COMPLETION	No.	REVISIONS	D/M/Y	BY	CONSULTANT	ENGINEER'S STAMP	C.TECH'S STAMP	SCALE	TITLE	PROJECT No.	
				DESIGN JSF/KJC	1	ISSUED FOR ENGINEERING SUBMISSION	17/02/21	JSF	 <div>STRIK BALDINELLI MONIZ</div> <div>PLANNING - CIVIL - STRUCTURAL - MECHANICAL - ELECTRICAL 1599 Adelaide St. N, Unit 301, London, Ontario, N5X 4E8 Tel: (519) 471-8667 Fax: (519) 471-0034 Email: sbm@sbmild.ca</div>	 <div>THE CORPORATION OF THE MUNICIPALITY OF CENTRAL ELGIN</div>	N/A	SANITARY DESIGN SHEET	SBM-18-0530
			DRAWN JSF	2	CONCEPTUAL ZONING DATA CHART ADDED	08/03/21	JSF	SHEET No.					
			CHECKED KAM	3	FOR PRE-SUBMISSION CONSULTATION MEETING	05/04/21	JSF	8					
			APPROVED NGU	4	ISSUED FOR DRAFT PLAN APPLICATION	16/07/21	JSF	PLAN FILE No.					
			DATE 08/02/2021					—					
			CAD SBM-18-0530										

MONUMENT NAME: 01019915404 (GEODETIC BENCHMARK)

ELEVATION: 214.432m (CGVD28:78)

MONUMENT NAME: 0011926U1648 (GEODETIC BENCHMARK)

ELEVATION: 178.167m (CGVD28:78)

MONUMENT NAME: SITE BENCHMARK

LOCATION: WITNESS SIB 1.000m SOUTH OF NORTHWEST
CORNER OF MUN. 37719 LAKE ROAD, PORT STANLEY

ELEVATION: 214.742m

(CONTRACTOR TO CONFIRM BENCHMARK INFORMATION PRIOR TO CONSTRUCTION)



PART OF
 CLERGY RESERVE LOT "D"
 NORTH OF THE LAKE ROAD
 PART OF
 JAMES BEGG LOTS 14 & 15
 REGISTERED PLAN No. 20 (MIDD)
 AND PART OF
 ROAD ALLOWANCE BETWEEN
 LOTS 14 & 15 NORTH OF THE LAKE
 ROAD
 AND ALL OF
 LOT "T", REGISTERED PLAN No.39
 IN THE
 MUNICIPALITY OF CENTRAL ELGIN
 COUNTY OF ELGIN

WATERMAIN & SEWER CROSSING NOTE:

1. UNDER PRACTICAL CONDITIONS, WATERMANS SHALL CROSS ABOVE SEWERS WITH SUFFICIENT VERTICAL SEPARATION TO ALLOW FOR PROPER BEDDING AND STRUCTURAL SUPPORT OF THE WATERMAIN AND SEWER. INSULATE AS PER MINIMUM REQUIREMENTS OF THE NATIONAL ELGIN DRAWING NO. 3 (WHERE REQUIRED). ROW MINIMUM VERTICAL SEPARATION 15m TO PROVIDE SUFFICIENT BEDDING DEPTH WHEN WATERMAIN IS CROSSING ABOVE THE SEWER.
2. WHEN IT IS NOT POSSIBLE FOR THE WATERMAIN TO CROSS ABOVE THE SEWER, THE WATERMAIN PASSING UNDER A SEWER SHALL BE PROTECTED BY:
 - 2.1. PERMANENT STRUCTURAL SEPARATION BETWEEN THE WATERMAIN AND THE INVERT OF THE SEWER AND THE CROWN OF THE WATERMAIN;
 - 2.2. PROVIDING ADEQUATE STRUCTURAL SUPPORT FOR THE SEWERS TO PREVENT EXCESSIVE DEFLECTION OF JOINTS AND SETTLING; AND
 - 2.3. ENSURING THAT THE WATERMAIN WATER PIPE SHALL BE CENTERED AT THE POINT OF CROSSING SO THAT THE JOINTS WILL BE EQUIDISTANT AND AS FAR AS POSSIBLE FROM THE SEWER.

REFERENCE: MUNICIPALITY OF CENTRAL ELGIN DESIGN GUIDELINES AND CONSTRUCTION STANDARDS

INSULATION NOTE:

INSULATE SEWERS + WATER PIPES AS PER THE MUNICIPALITY OF CENTRAL ELGIN
DRAWING W-3 'WATERMAIN CROSS OVER DETAIL' WHERE 1.70m (1.25m FOR CATCH
BASIN LEADS AND 1.5m FOR SEWER MAINS) COVER CAN NOT BE PROVIDED.

ALL WATERMAIN CONSTRUCTION TO CONFORM TO THE CURRENT STANDARDS AND SPECIFICATIONS OF THE MUNICIPALITY OF CENTRAL ELGIN ENGINEERING DEPARTMENT. WHERE COVER IS LESS THAN 1.7m (EVEN TEMPORARY CONDITIONS), THE WATERMAIN/SERVICE SHALL BE ADEQUATELY INSULATED OVER THE AFFECTED LENGTH.

NOTE: FOR CLARITY NOT ALL WATER SERVICE LOCATIONS ARE SHOWN (CURB STOPS NOT SHOWN). FOR STANDARD SERVICING LOCATIONS SEE THE MUNICIPALITY OF CENTRAL ELGIN DESIGN GUIDELINES & CONSTRUCTION STANDARDS SECTION 2.7

AS CONSTRUCTED SERVICES	COMPLETION	No.	REVISIONS	D/M/Y	BY
	DESIGN JSF/KJC	1	ISSUED FOR ENGINEERING SUBMISSION	17/02/21	JSF
	DRAWN JSF	2	CONCEPTUAL ZONING DATA CHART ADDED	08/03/21	JSF
	CHECKED KAM	3	FOR PRE-SUBMISSION CONSULTATION MEETING	05/04/21	JSF
	APPROVED NGU	4	ISSUED FOR DRAFT PLAN APPLICATION	16/07/21	JSF
	DATE 08/02/2021				
	CAD SBM-18-0530				

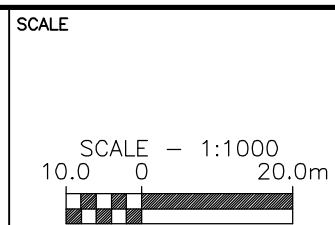
sbm **STRIK
BALDINELLI
MONIZ**
PLANNING - CIVIL - STRUCTURAL - MECHANICAL - ELECTRICAL
1599 Adelaide St. N, Unit 301, London, Ontario, N5X 4E8
Tel: (519) 471-6667 Fax: (519) 471-0034
Email: sbm@sbmld.ca

ENGINEER'S STAMP

**PRELIMINARY
NOT FOR
CONSTRUCTION**



THE CORPORATION OF THE MUNICIPALITY OF
CENTRAL ELGIN



TITLE

WATER DISTRIBUTION PLAN

KETTLE CREEK SUBDIVISION

37719 LAKE LINE
PORT STANLEY, ONTARIO

PROJECT No.

SBM-18-0530

SHEET No.

PLAN FILE No.

GRADING CERTIFICATE:

I HEREBY CERTIFY THAT THE PROPOSED GRADING AND APPURTENANT DRAINAGE WORKS COMPLY WITH SOUND ENGINEERING DESIGN AND THAT THE PROPOSED GRADING IS COMPATIBLE WITH EXISTING DRAINAGE PATTERNS ON AND ACROSS THESE LANDS AND THE ADJOINING LANDS OR APPLICABLE CITY BY-LAWS.

ROAD OCCUPANCY PERMIT NOTE:
ROAD OCCUPANCY PERMIT FOR ALL EXTERNAL WORKS IS REQUIRED.

RESTORATION NOTE:
ALL WORK IN THE ROAD ALLOWANCE SHALL MEET THE MINIMUM SPECIFICATIONS OF THE MUNICIPALITY OF CENTRAL ELGIN PHYSICAL SERVICES DEPARTMENT. THE INFRASTRUCTURE DESIGN GUIDELINES AND CONSTRUCTION STANDARDS ARE TO BE APPLIED TO WORKS WITHIN THE MUNICIPAL ROAD ALLOWANCE UNLESS OTHERWISE APPROVED BY THE MUNICIPALITY.

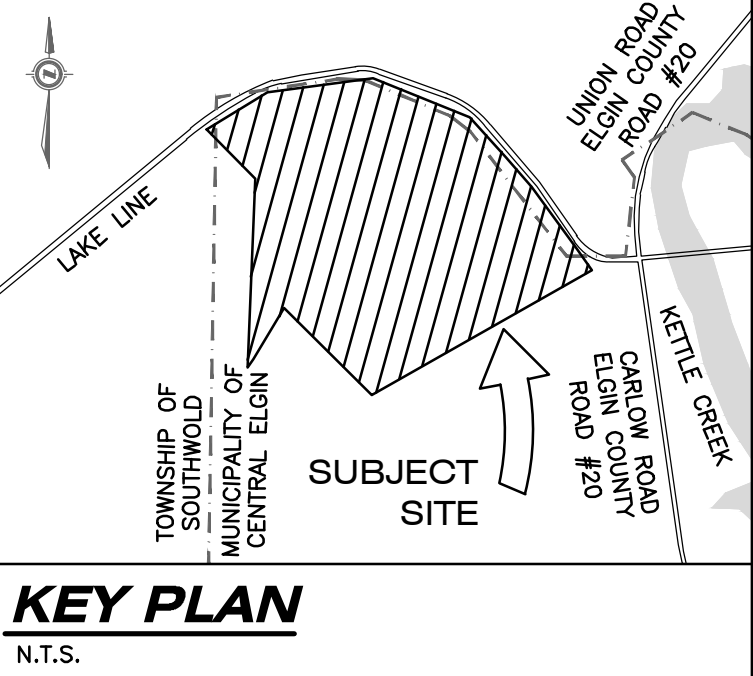
FOR GRADING ON ADJACENT LANDS, IF REQUIRED, DEVELOPER SHALL OBTAIN WRITTEN APPROVAL FROM ADJACENT LAND OWNER.

THE OWNER'S CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL MEASURES IN COMPLIANCE WITH THE ONTARIO TRAFFIC MANUAL BOOK 7 FOR ALL WORKS WITHIN THE MUNICIPALITY RIGHT-OF-WAY. THE OWNER'S CONTRACTOR SHALL SUBMIT TRAFFIC CONTROL PLANS TO THE MUNICIPALITY/ENGINEER FOR REVIEW PRIOR TO PROCEEDING WITH CONSTRUCTION.

ALL CLEARANCES TO ELECTRICAL CONDUCTORS AS SET OUT IN THE 2012 OBC DIV. B-3.1.19.1 'ELECTRICAL CONDUCTOR CLEARANCES TO BUILDINGS' SHALL BE MAINTAINED

BOULEVARD AREAS AND CONCRETE SIDEWALKS DISTURBED DURING INSTALLATION OF SERVICES SHALL BE RESTORED TO MATCH EX. CONDITION OR SURFACE WORKS NOTES ON SHEET C1, WHICHEVER IS GREATER, ALL AT NO COST TO THE MUNICIPALITY.

TACTILE PLATE NOTE:
CAST IRON TACTILE PLATES POWDER COATED RED ARE REQUIRED IN THE SIDEWALK RAMPS PER AODA LEGISLATION, OPSD 310.033, AND OPSD 310.039.



LEGAL INFORMATION

PART OF
CLERGY RESERVE LOT "D"
NORTH OF THE LAKE ROAD
PART OF
JAMES BEGG LOTS 14 & 15
REGISTERED PLAN No. 20 (MIDD)
AND PART OF
ROAD ALLOWANCE BETWEEN
LOTS 14 & 15 NORTH OF THE LAKE
ROAD
AND ALL OF
LOT "T", REGISTERED PLAN No.39
IN THE
MUNICIPALITY OF CENTRAL ELGIN
COUNTY OF ELGIN

BENCHMARKS:

MONUMENT NAME: 01019915404 (GEODETTIC BENCHMARK)

LOCATION: BRASS CAP ON THE SOUTH SIDE OF LAKE ROAD, IN THE COUNTY OF ELGIN, IN THE TOWNSHIP OF SOUTHWOOD. APPROX. 8.0m SOUTH OF THE CENTRELINE OF LAKE ROAD AND 11.8m EAST OF THE PRODUCTION OF THE CENTRELINE OF SCOTCH ROAD.

ELEVATION: 214.432m (CGVD28:78)

MONUMENT NAME: 0011926U1648 (GEODETTIC BENCHMARK)

LOCATION: PORT STANLEY LONDON & PORT STANLEY RAILWAY, BRIDGE OVER KETTLE CREEK, 0.8km NORTH OF STATION, TABLET IN EAST END OF BRIDGE SEAT OF SOUTH CONCRETE ABUTMENT, 30cm FROM NORTH EDGE.

ELEVATION: 178.167m (CGVD28:78)

MONUMENT NAME: SITE BENCHMARK

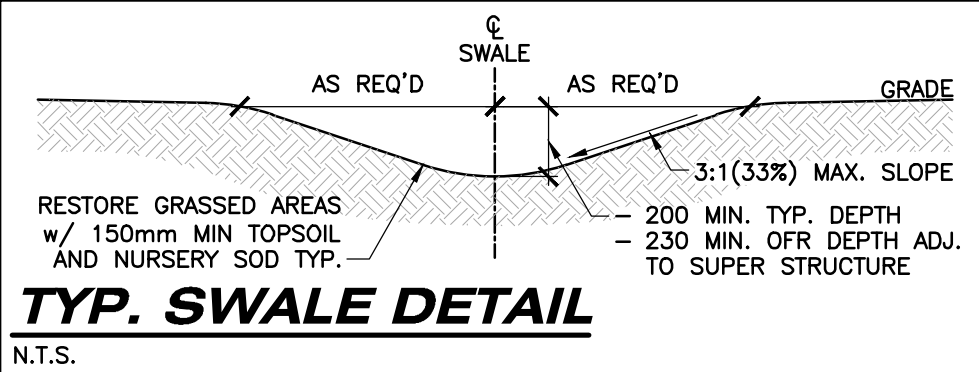
LOCATION: WITNESS SIB 1.000m SOUTH OF NORTHWEST CORNER OF MUN. 37719 LAKE ROAD, PORT STANLEY

ELEVATION: 214.742m

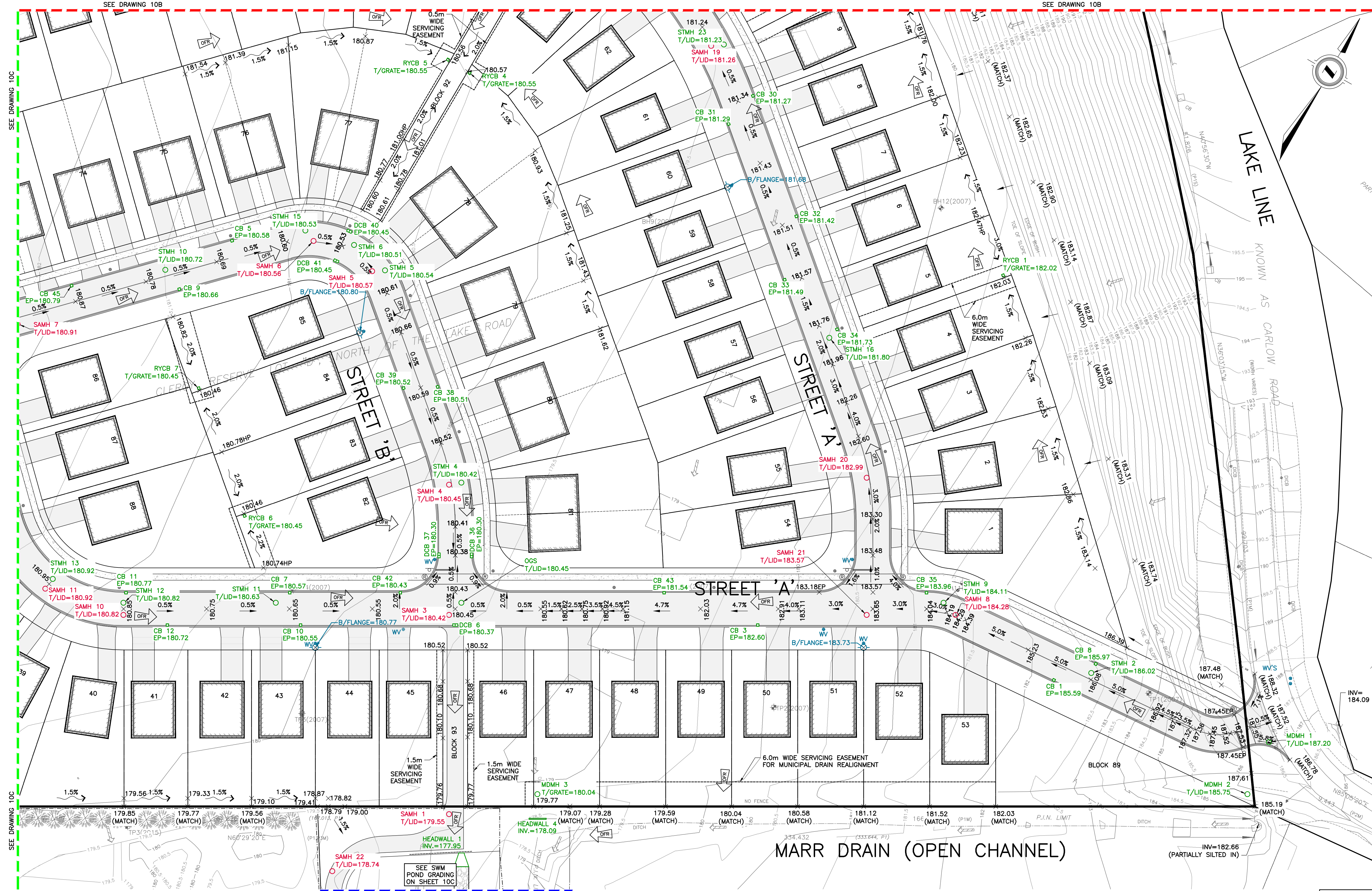
(CONTRACTOR TO CONFIRM BENCHMARK INFORMATION PRIOR TO CONSTRUCTION)

GRADING NOTES:

- EXISTING GRADES AND DRAINAGE OF ABUTTING LANDS IS NOT TO BE DISTURBED.
- REAR YARD SWALES SHALL BE LOCATED 2m FROM REAR PROPERTY LINE WITH REAR YARD CATCH BASINS 0.6m FROM SIDE YARD PROPERTY LINE.
- DRIVEWAYS SHALL BE A MINIMUM OF 3% AND MAXIMUM OF 10% (ALL REASONABLE EFFORTS SHALL BE TAKEN FOR 8% MAX) TO BACK OF SIDEWALK OR BACK OF CURB WHERE THERE ARE NO SIDEWALKS.
- GROUND ELEVATIONS AT BUILDINGS ABUTTING OVERLAND FLOW ROUTES ARE TO BE 225 ABOVE OVERLAND FLOW ROUTE ELEVATIONS.
- GROUND ELEVATIONS, AT BUILDING OPENING ABUTTING OVERLAND FLOW ROUTES ARE TO BE 450mm ABOVE OVERLAND FLOW ROUTE ELEVATIONS.
- SUMP PUMP DISCHARGE MUST BE DIRECTED TO THE STORM SEWER VIA THE STORM PDC. NO SANITARY SEWER CONNECTIONS PERMITTED.
- A MINIMUM OF 150mm (6") FROM THE TOP OF FOUNDATION TO THE FINISHED GRADE OUTSIDE THE BUILDING MUST BE PROVIDED, TYPICAL.
- RETAINING WALLS, 1000mm OR GREATER, & GUARD RAILS ON TOP (IF REQUIRED) ARE TO BE DESIGNED BY AND CONSTRUCTED TO THE SPECIFICATIONS OF A REGISTERED PROFESSIONAL ENGINEER IN ACCORDANCE WITH THE ONTARIO BUILDING CODE.
- THE MIN. TOP OF FOUNDATION ELEVATION, UNDERSIDE OF FOOTING ELEVATION, BASEMENT WINDOW SILL ELEVATION, ETC. ARE TO BE CONFIRMED BY THE CONTRACTOR IN CONSULTATION WITH THE BUILDING DESIGNER, BASED ON THE FINISHED FLOOR ELEVATION PROVIDED. CONTACT STRIK, BALDINELLI, MONIZ LTD. (SBM) FOR CLARIFICATION, IF REQUIRED.
- TOP OF FOUNDATION WALL (TFW), GARAGE CUT (GC), AND UNDERSIDE OF FOOTING (USF) ARE SHOWN FOR REFERENCE ONLY. USF IS CALCULATED BASED ON A 1.27 (4'-2") FOUNDATION WALL HEIGHT AND 0.15m (6") FOOTING THICKNESS ASSUMING BACK SPLIT HOUSES. HOMEOWNER TO SUBMIT INDIVIDUAL LOT GRADING PLAN BASED ON ACTUAL BUILDING DESIGN. HOMEOWNER TO REVIEW HYDROGEOLOGICAL STUDY PRIOR TO SUBMISSION TO ENSURE SUFFICIENT CLEARANCE FROM GROUNDWATER TABLE.



REFER TO NOTES, LEGEND, AND DETAILS ON SHEET 1, 17, 18 & 19



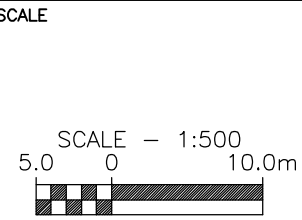
AS CONSTRUCTED SERVICES	COMPLETION	No.	REVISIONS	D/M/Y	BY	CONSULTANT
DESIGN	JSF/KJC	1	ISSUED FOR ENGINEERING SUBMISSION	17/02/21	JSF	
DRAWN	JSF	2	CONCEPTUAL ZONING DATA CHART ADDED	08/03/21	JSF	
CHECKED	KAM	3	FOR PRE-SUBMISSION CONSULTATION MEETING	05/04/21	JSF	
APPROVED	NGU	4	ISSUED FOR DRAFT PLAN APPLICATION	16/07/21	JSF	
DATE	26/07/2021					
CAD	SBM-18-0530					

STRIK BALDINELLI MONIZ
PLANNING - CIVIL - STRUCTURAL - MECHANICAL - ELECTRICAL
1599 Adelaide St. N, Unit 301, London, Ontario, N5X 4E8
Tel: (519) 471-6667 Fax: (519) 471-0034
Email: sbm@sbmltd.ca

**PRELIMINARY
NOT FOR
CONSTRUCTION**



THE CORPORATION OF THE MUNICIPALITY OF
CENTRAL ELGIN



SUBDIVISION GRADING PLAN - SOUTHEAST	PROJECT No. SBM-18-0530
KETTLE CREEK SUBDIVISION	SHEET No. 10A
37719 LAKE LINE PORT STANLEY, ONTARIO	PLAN FILE No. —

GRADING CERTIFICATE:

I HEREBY CERTIFY THAT THE PROPOSED GRADING AND APPURTENANT DRAINAGE WORKS COMPLY WITH SOUND ENGINEERING DESIGN AND THAT THE PROPOSED GRADING IS COMPATIBLE WITH EXISTING DRAINAGE PATTERNS ON AND ACROSS THESE LANDS AND THE ADJOINING LANDS OR APPLICABLE CITY BY-LAWS.

ROAD OCCUPANCY PERMIT NOTE:
ROAD OCCUPANCY PERMIT FOR ALL EXTERNAL WORKS IS REQUIRED.

RESTORATION NOTE:
ALL WORK IN THE ROAD ALLOWANCE SHALL MEET THE MINIMUM SPECIFICATIONS OF THE MUNICIPALITY OF CENTRAL ELGIN PHYSICAL SERVICES DEPARTMENT. THE INFRASTRUCTURE DESIGN GUIDELINES AND CONSTRUCTION STANDARDS ARE TO BE APPLIED TO WORKS WITHIN THE MUNICIPAL ROAD ALLOWANCE UNLESS OTHERWISE APPROVED BY THE MUNICIPALITY.

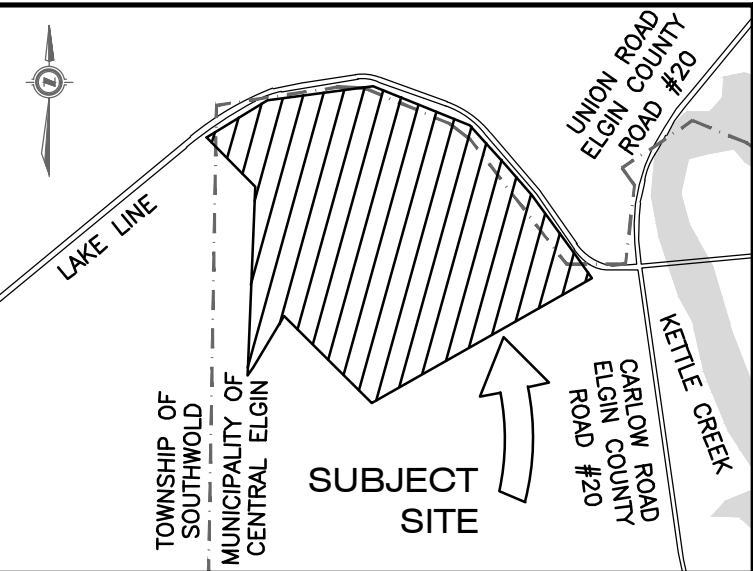
FOR GRADING ON ADJACENT LANDS, IF REQUIRED, DEVELOPER SHALL OBTAIN WRITTEN APPROVAL FROM ADJACENT LAND OWNER.

THE OWNER'S CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL MEASURES IN COMPLIANCE WITH THE ONTARIO TRAFFIC MANUAL BOOK 7 FOR ALL WORKS WITHIN THE MUNICIPALITY RIGHT-OF-WAY. THE OWNER'S OWNER'S CONTRACTOR SHALL SUBMIT TRAFFIC CONTROL PLANS TO THE MUNICIPALITY/ENGINEER FOR REVIEW PRIOR TO PROCEEDING WITH CONSTRUCTION.

ALL CLEARANCES TO ELECTRICAL CONDUCTORS AS SET OUT IN THE 2012 OBC DIV. B-3.1.19.1 'ELECTRICAL CONDUCTOR CLEARANCES TO BUILDINGS' SHALL BE MAINTAINED

BOULEVARD AREAS AND CONCRETE SIDEWALKS DISTURBED DURING INSTALLATION OF SERVICES SHALL BE RESTORED TO MATCH EX. CONDITION OR SURFACE WORKS NOTES ON SHEET 01, WHICHEVER IS GREATER, ALL AT NO COST TO THE MUNICIPALITY.

TACTILE PLATE NOTE:
CAST IRON TACTILE PLATES POWDER COATED RED ARE REQUIRED IN THE SIDEWALK RAMPS PER AODA LEGISLATION, OPSD 310.033, AND OPSD 310.039.



KEY PLAN

N.T.S.

LEGAL INFORMATION

PART OF
CLERGY RESERVE LOT "D"
NORTH OF THE LAKE ROAD
PART OF
JAMES BEGG LOTS 14 & 15
REGISTERED PLAN No. 20 (MIDD)
AND PART OF
ROAD ALLOWANCE BETWEEN
LOTS 14 & 15 NORTH OF THE LAKE
ROAD
AND ALL OF
LOT "T", REGISTERED PLAN No.39
IN THE
MUNICIPALITY OF CENTRAL ELGIN
COUNTY OF ELGIN

BENCHMARKS:

MONUMENT NAME: 01019915404 (GEODETIC BENCHMARK)

LOCATION: BRASS CAP ON THE SOUTH SIDE OF LAKE ROAD, IN THE COUNTY OF ELGIN, IN THE TOWNSHIP OF SOUTHWOLD, APPROX. 8.0m SOUTH OF THE CENTRELINE OF LAKE ROAD AND 11.8m EAST OF THE PRODUCTION OF THE CENTRELINE OF SCOTCH ROAD.

ELEVATION: 214.432m (CGVD28:78)

MONUMENT NAME: 0011926U1648 (GEODETIC BENCHMARK)

LOCATION: PORT STANLEY LONDON & PORT STANLEY RAILWAY, BRIDGE OVER KETTLE CREEK, 0.8km NORTH OF STATION, TABLET IN EAST END OF BRIDGE SEAT OF SOUTH CONCRETE ABUTMENT, 30cm FROM NORTH EDGE.

ELEVATION: 178.167m (CGVD28:78)

MONUMENT NAME: SITE BENCHMARK

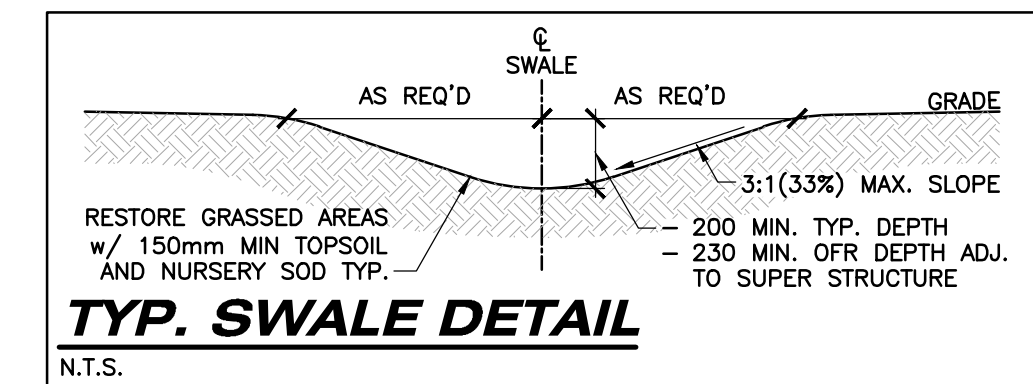
LOCATION: WITNESS SIB 1.000m SOUTH OF NORTHWEST CORNER OF MUN. 37719 LAKE ROAD, PORT STANLEY

ELEVATION: 214.742m

(CONTRACTOR TO CONFIRM BENCHMARK INFORMATION PRIOR TO CONSTRUCTION)

GRADING NOTES:

- EXISTING GRADES AND DRAINAGE OF ABUTTING LANDS IS NOT TO BE DISTURBED
- REAR YARD SWALES SHALL BE LOCATED 2m FROM REAR PROPERTY LINE WITH REAR YARD CATCH BASINS 0.6m FROM SIDE YARD PROPERTY LINE.
- DRIVEWAYS SHALL BE A MINIMUM OF 3% AND MAXIMUM OF 10% (ALL REASONABLE EFFORTS SHALL BE TAKEN FOR 8% MAX) TO BACK OF SIDEWALK OR BACK OF CURB WHERE THERE ARE NO SIDEWALKS.
- GROUND ELEVATIONS AT BUILDINGS ABUTTING OVERLAND FLOW ROUTES ARE TO BE 225 ABOVE OVERLAND FLOW ROUTE ELEVATIONS.
- GROUND ELEVATIONS AT BUILDING OPENING ABUTTING OVERLAND FLOW ROUTES ARE TO BE 450mm ABOVE OVERLAND FLOW ROUTE ELEVATIONS.
- SUMP PUMP DISCHARGE MUST BE DIRECTED TO THE STORM SEWER VIA THE STORM PDC. NO SANITARY SEWER CONNECTIONS PERMITTED.
- A MINIMUM OF 150mm (6") FROM THE TOP OF FOUNDATION TO THE FINISHED GRADE OUTSIDE THE BUILDING MUST BE PROVIDED, TYPICAL.
- RETAINING WALLS, 1000mm OR GREATER, & GUARD RAILS ON TOP (IF REQUIRED) ARE TO BE DESIGNED BY AND CONSTRUCTED TO THE SPECIFICATIONS OF A REGISTERED PROFESSIONAL ENGINEER IN ACCORDANCE WITH THE ONTARIO BUILDING CODE.
- THE MIN. TOP OF FOUNDATION ELEVATION, UNDERSIDE OF FOOTING ELEVATION, BASEMENT WINDOW SILL ELEVATION, ETC. ARE TO BE CONFIRMED BY THE CONTRACTOR IN CONSULTATION WITH THE BUILDING DESIGNER, BASED ON THE FINISHED FLOOR ELEVATION PROVIDED. CONTACT STRIK, BALDINELLI, MONIZ LTD. (SBM) FOR CLARIFICATION, IF REQUIRED.
- TOP OF FOUNDATION WALL (TFW), GARAGE CUT (GC), AND UNDERSIDE OF FOOTING (USF) ARE SHOWN FOR REFERENCE ONLY. USF IS CALCULATED BASED ON A 1.27 (4'-2") FOUNDATION WALL HEIGHT AND 0.15m (6") FOOTING THICKNESS ASSUMING BACK SPLIT HOUSES. HOMEOWNER TO SUBMIT INDIVIDUAL LOT GRADING PLAN BASED ON ACTUAL BUILDING DESIGN. HOMEOWNER TO REVIEW HYDROGEOLOGICAL STUDY PRIOR TO SUBMISSION TO ENSURE SUFFICIENT CLEARANCE FROM GROUNDWATER TABLE.



TYP. SWALE DETAIL

N.T.S.

REFER TO NOTES, LEGEND, AND DETAILS ON SHEET 1, 17, 18 & 19

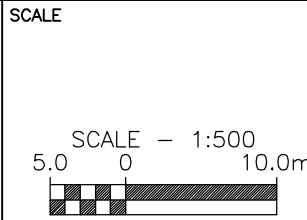
AS CONSTRUCTED SERVICES	COMPLETION	No.	REVISIONS	D/M/Y	BY	CONSULTANT
DESIGN	JSF/KJC	1	ISSUED FOR ENGINEERING SUBMISSION	17/02/21	JSF	
DRAWN	JSF	2	CONCEPTUAL ZONING DATA CHART ADDED	08/03/21	JSF	
CHECKED	KAM	3	FOR PRE-SUBMISSION CONSULTATION MEETING	05/04/21	JSF	
APPROVED	NGU	4	ISSUED FOR DRAFT PLAN APPLICATION	16/07/21	JSF	
DATE	26/07/2021					
CAD	SBM-18-0530					

STRIK BALDINELLI MONIZ
PLANNING - CIVIL - STRUCTURAL - MECHANICAL - ELECTRICAL
1599 Adelaide St. N, Unit 301, London, Ontario, N5X 4E8
Tel: (519) 471-6667 Fax: (519) 471-0034
Email: sbm@sbmltd.ca

ENGINEER'S STAMP
**PRELIMINARY
NOT FOR
CONSTRUCTION**



THE CORPORATION OF THE MUNICIPALITY OF
CENTRAL ELGIN



TITLE SUBDIVISION GRADING PLAN - NORTHWEST	PROJECT No. SBM-18-0530
KETTLE CREEK SUBDIVISION	SHEET No. 10B
37719 LAKE LINE PORT STANLEY, ONTARIO	PLAN FILE No. —

I HEREBY CERTIFY THAT THE PROPOSED GRADING AND APPURTENANT DRAINAGE WORKS COMPLY WITH SOUND ENGINEERING DESIGN AND THAT THE PROPOSED GRADING IS COMPATIBLE WITH EXISTING DRAINAGE PATTERNS ON AND ACROSS THESE LANDS AND THE ADJOINING LANDS OR APPLICABLE CITY BY-LAWS.

ROAD OCCUPANCY PERMIT NOTE:
ROAD OCCUPANCY PERMIT FOR ALL EXTERNAL WORKS IS REQUIRED.

RESTORATION NOTE:
ALL WORK IN THE ROAD ALLOWANCE SHALL MEET THE MINIMUM SPECIFICATIONS OF THE MUNICIPALITY OF CENTRAL ELGIN PHYSICAL SERVICES DEPARTMENT. THE INFRASTRUCTURE DESIGN GUIDELINES AND CONSTRUCTION STANDARDS ARE TO BE APPLIED TO WORKS WITHIN THE MUNICIPAL ROAD ALLOWANCE UNLESS OTHERWISE APPROVED BY THE MUNICIPALITY.

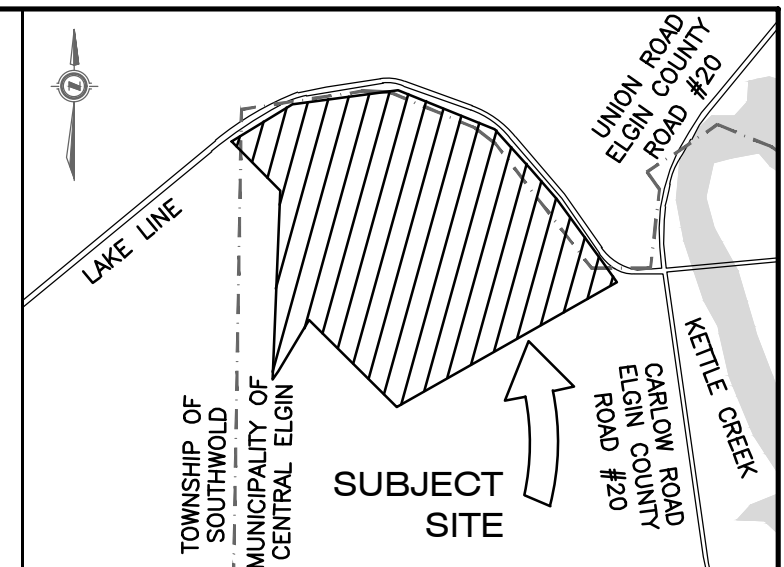
FOR GRADING ON ADJACENT LANDS, IF REQUIRED, DEVELOPER SHALL OBTAIN WRITTEN APPROVAL FROM ADJACENT LAND OWNER.

THE OWNER'S CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL MEASURES IN COMPLIANCE WITH THE ONTARIO TRAFFIC MANUAL BOOK 7 FOR ALL WORKS WITHIN THE MUNICIPALITY RIGHT-OF-WAY. THE OWNER'S OWNER'S CONTRACTOR SHALL SUBMIT TRAFFIC CONTROL PLANS TO THE MUNICIPALITY/ENGINEER FOR REVIEW PRIOR TO PROCEEDING WITH CONSTRUCTION.

ALL CLEARANCES TO ELECTRICAL CONDUCTORS AS SET OUT IN THE 2012 OBC DIV B-3.1.19.1 'ELECTRICAL CONDUCTOR CLEARANCES TO BUILDINGS' SHALL BE MAINTAINED

BOULEVARD AREAS AND CONCRETE SIDEWALKS DISTURBED DURING INSTALLATION OF SERVICES SHALL BE RESTORED TO MATCH EX. CONDITION OR SURFACE WORKS NOTES ON SHEET C1, WHICHEVER IS GREATER, ALL AT NO COST TO THE MUNICIPALITY.

TACTILE PLATE NOTE:
CAST IRON TACTILE PLATES POWDER COATED RED ARE REQUIRED IN THE SIDEWALK
RAMPS PER AODA LEGISLATION, OPSD 310.033, AND OPSD 310.039.



N.T.S.

PART OF
 CLERGY RESERVE LOT "D"
 NORTH OF THE LAKE ROAD
 PART OF
 JAMES BEGG LOTS 14 & 15
 REGISTERED PLAN No. 20 (MIDD)
 AND PART OF
 ROAD ALLOWANCE BETWEEN
 LOTS 14 & 15 NORTH OF THE LAKE
 ROAD
 AND ALL OF
 LOT "T", REGISTERED PLAN No.39
 IN THE
 MUNICIPALITY OF CENTRAL ELGIN
 COUNTY OF ELGIN

1. EXISTING GRADES AND DRAINAGE OF ABUTTING LANDS IS NOT TO BE DISTURBED.
2. REAR YARD SWALES SHALL BE LOCATED 2m FROM REAR PROPERTY LINE WITH REAR YARD CATCH BASINS 0.6m FROM SIDE YARD PROPERTY LINE.
3. DRIVEWAYS SHALL BE A MINIMUM OF 3.0m AND MAXIMUM OF 03% (ALL REASONABLE EFFORTS SHALL BE TAKEN FOR 8% MAX) TO BACK OF SIDEWALK OR BACK OF CURB WHERE THERE ARE NO SIDEWALKS.
4. GROUND ELEVATIONS AT BUILDINGS ABUTTING OVERLAND FLOW ROUTES ARE TO BE 225 ABOVE FLOW RATES AND 250 ABOVE FLOW RATES.
5. GROUND ELEVATIONS AT BUILDING OPENING ABUTTING OVERLAND FLOW ROUTES ARE TO BE 450mm ABOVE OVERLAND FLOW ROUTE ELEVATIONS.
6. SUMP PUMP DISCHARGE MUST BE DIRECTED TO THE STORM SEWER W/IN THE STORM PDC. NO SANITARY SEWER CONNECTIONS PERMITTED.
7. A MINIMUM OF 150mm (6") FROM THE TOP OF FOUNDATION TO THE FINISH GRADE OUTSIDE.
8. RETAINING WALLS, 1000mm OR GREATER, & GUARD RAILS ON TOP (IF REQUIRED) ARE TO BE DESIGNED BY AND CONSTRUCTED TO THE SPECIFICATIONS OF A REGISTERED PROFESSIONAL ENGINEER IN ACCORDANCE WITH THE CANADIAN BUILDING CODE.
9. THE MIN. TOP OF FOUNDATION ELEVATION, UNDERSIDE OF FOOTING, ELEVATION, BASEMENT WINDOW SILL ELEVATION, ETC. ARE TO BE CONFIRMED BY THE CONTRACTOR IN CONSULTATION WITH THE BUILDING DESIGNER, BASED ON THE EXISTING GROUND ELEVATION CONTACT STRIK, BALDINIEN, MONIZ LOT. (SBM) FOR CLARIFICATION, IF REQUIRED.
10. TOP OF FOUNDATION WALL (TFW), GARAGE CUT (GC), AND UNDERSIDE OF

MONUMENT NAME: 01019915404 (GEODETIC BENCHMARK)

LOCATION: BRASS CAP ON THE SOUTH SIDE OF LAKE ROAD, IN THE COUNTY OF ELGIN, IN THE TOWNSHIP OF SOUTHWOLD, APPROX. 8.0m SOUTH OF THE CENTRELIN OF LAKE ROAD AND 11.8m EAST OF THE PRODUCTION OF THE CENTRELIN OF SCOTCH ROAD.

ELEVATION: 214.432m (CGVD28:78)

MONUMENT NAME: 0011926U1648 (GEODETIC BENCHMARK)

LOCATION: PORT STANLEY LONDON & PORT STANLEY
RAILWAY, BRIDGE OVER KETTLE CREEK, 0.8km NORTH OF
STATION, TABLET IN EAST END OF BRIDGE SEAT OF
SOUTH CONCRETE ABUTMENT, 30cm FROM NORTH EDGE.

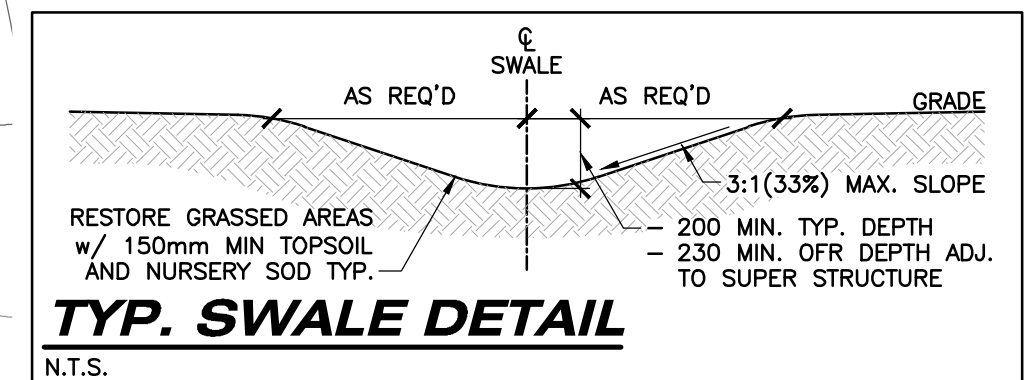
ELEVATION: 178.167m (CGVD28:78)

MONUMENT NAME: SITE BENCHMARK

LOCATION: WITNESS SIB 1.000m SOUTH OF NORTHWEST
CORNER OF MUN. 37719 LAKE ROAD, PORT STANLEY

ELEVATION: 214.742m

(CONTRACTOR TO CONFIRM BENCHMARK INFORMATION
PRIOR TO CONSTRUCTION)



REFER TO NOTES, LEGEND, AND DETAILS ON SHEET 1, 17, 18 & 19

AS CONSTRUCTED SERVICES	COMPLETION		No.	REVISIONS	D/M/Y	BY
		DESIGN JSF/KJC	1	ISSUED FOR ENGINEERING SUBMISSION	17/02/21	JSF
		DRAWN JSF	2	CONCEPTUAL ZONING DATA CHART ADDED	08/03/21	JSF
		CHECKED KAM	3	FOR PRE-SUBMISSION CONSULTATION MEETING	05/04/21	JSF
		APPROVED NGU	4	ISSUED FOR DRAFT PLAN APPLICATION	16/07/21	JSF
		DATE 26/07/2021				
		CAD SBM-18-0530				

sbm **STRIK
BALDINELLI
MONIZ**
PLANNING • CIVIL • STRUCTURAL • MECHANICAL • ELECTRICAL
1599 Adelaide St. N, Unit 301, London, Ontario, N5K 4E8
Tel: (519) 471-6667 Fax: (519) 471-0034
Email: sbm@sbmld.ca

ENGINEER'S STAMP

C.TECH'S STAMP

**PRELIMINARY
NOT FOR
CONSTRUCTION**

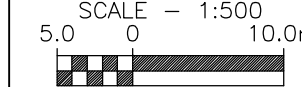


THE CORPORATION OF THE MUNICIPALITY OF
CENTRAL ELGIN

	SCALE
--	-------

C.TECH'S STAMP

SCALE



	TITLE
--	-------

SUBDIVISION GRADING PLAN – SOUTHWEST &
SWM POND GRADING PLAN

KETTLE CREEK SUBDIVISION

37719 LAKE LINE
PORT STANLEY, ONTARIO

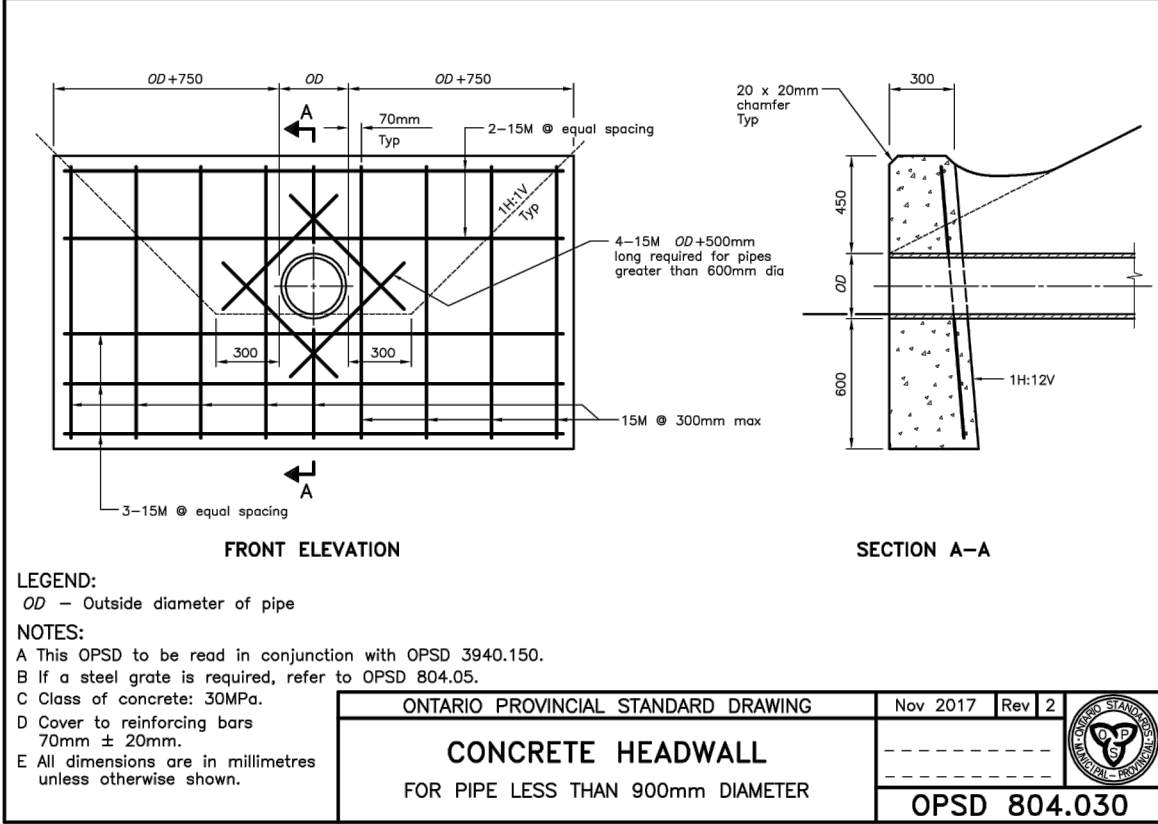
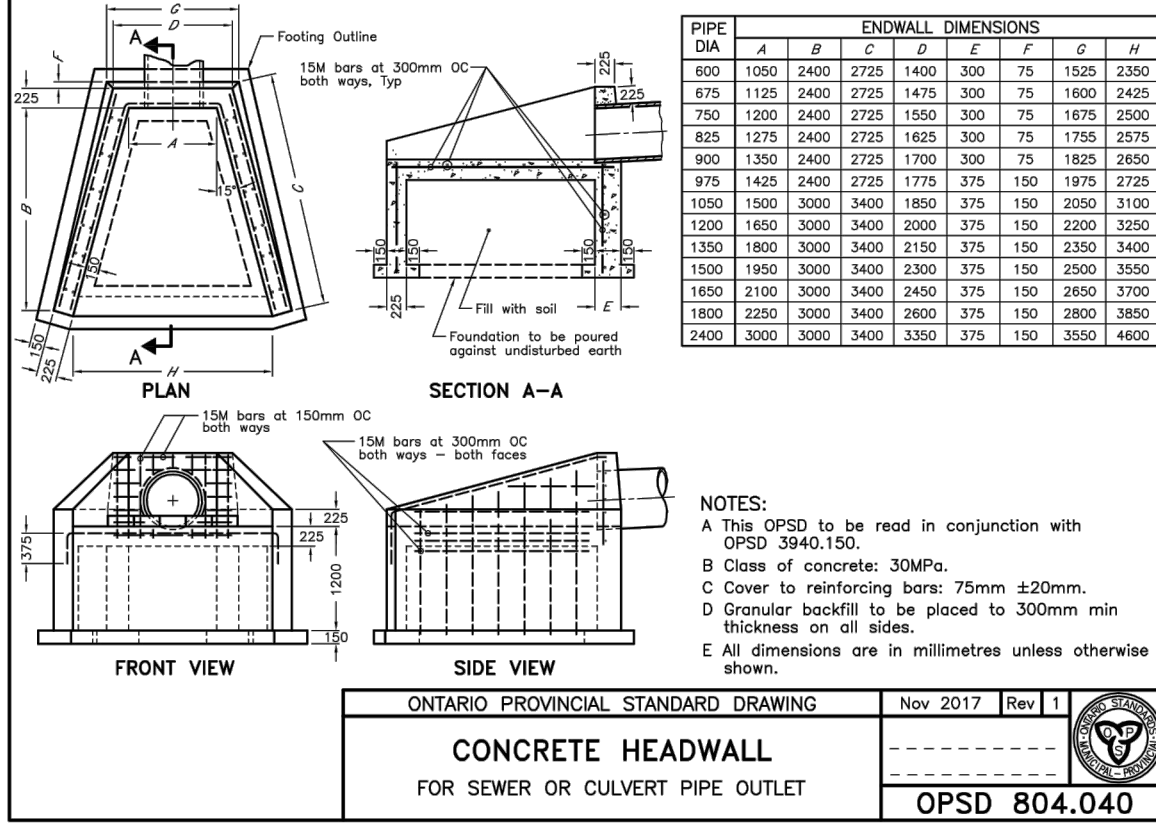
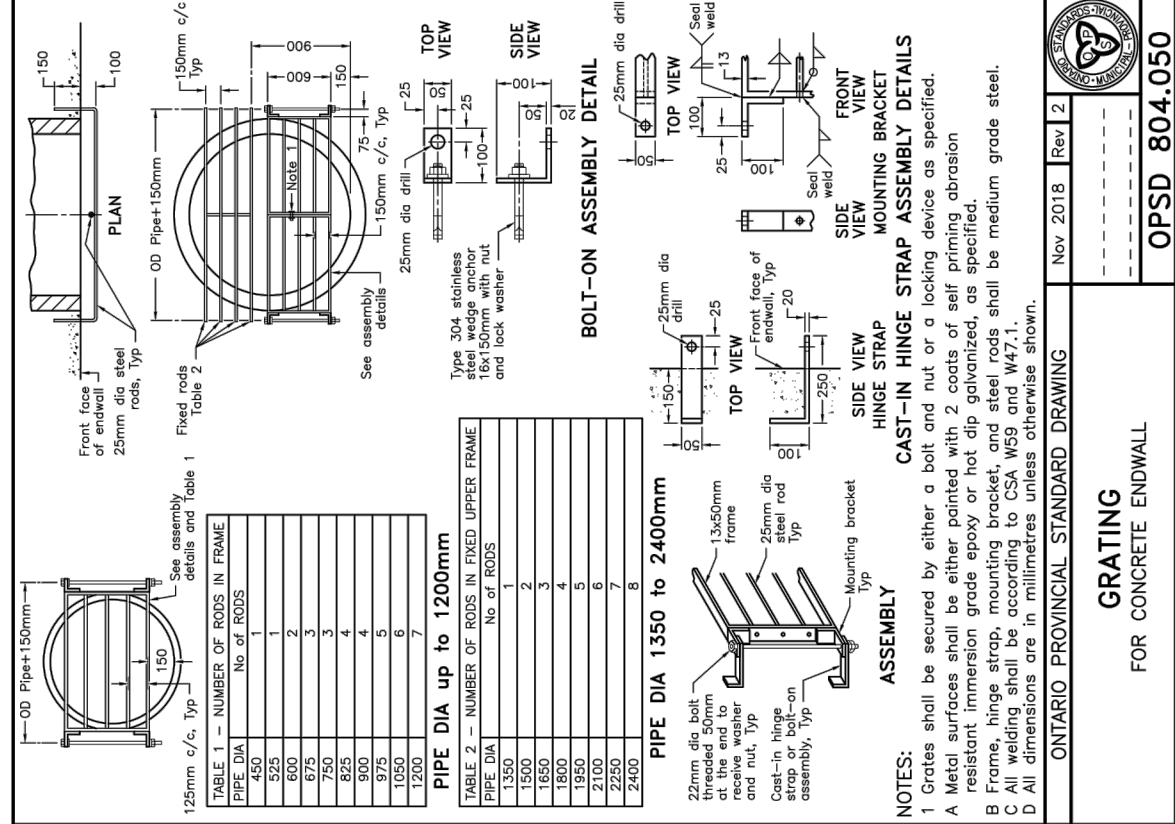
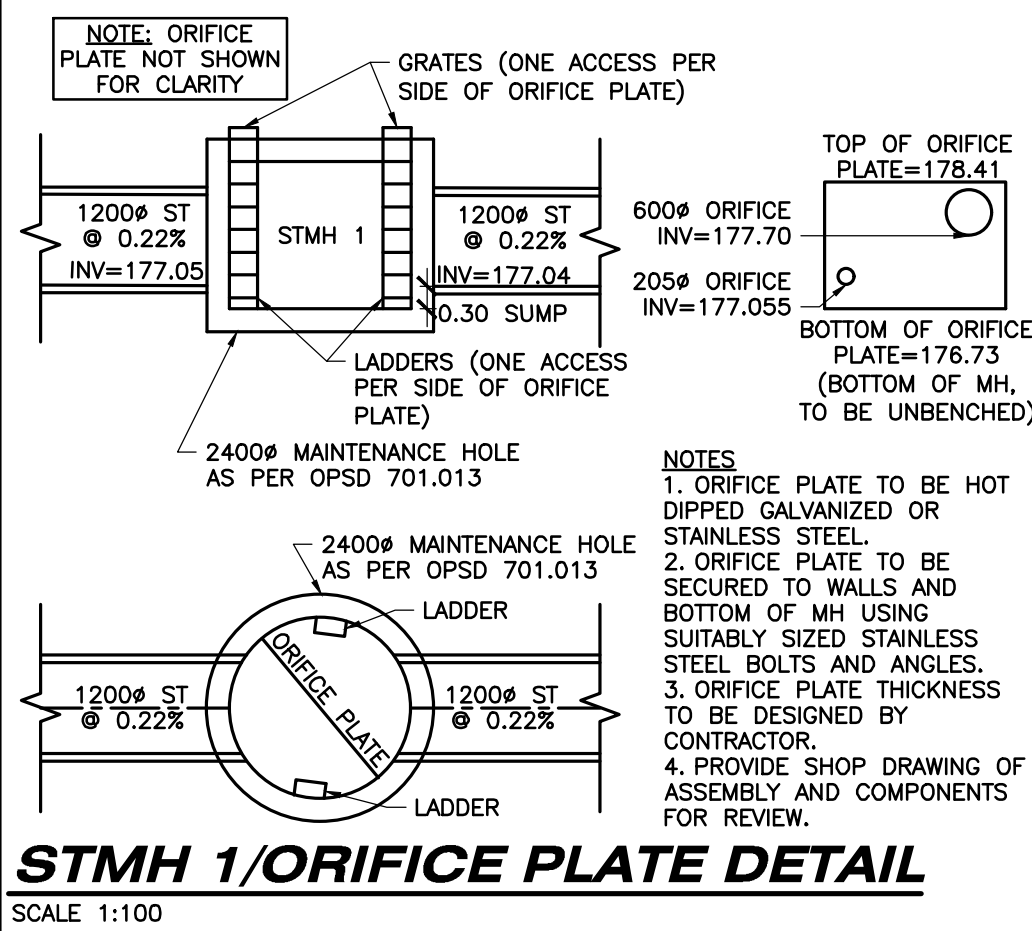
PROJECT No.	
-------------	--

PROJECT NO.
SBM-18-0530

SHEET No.

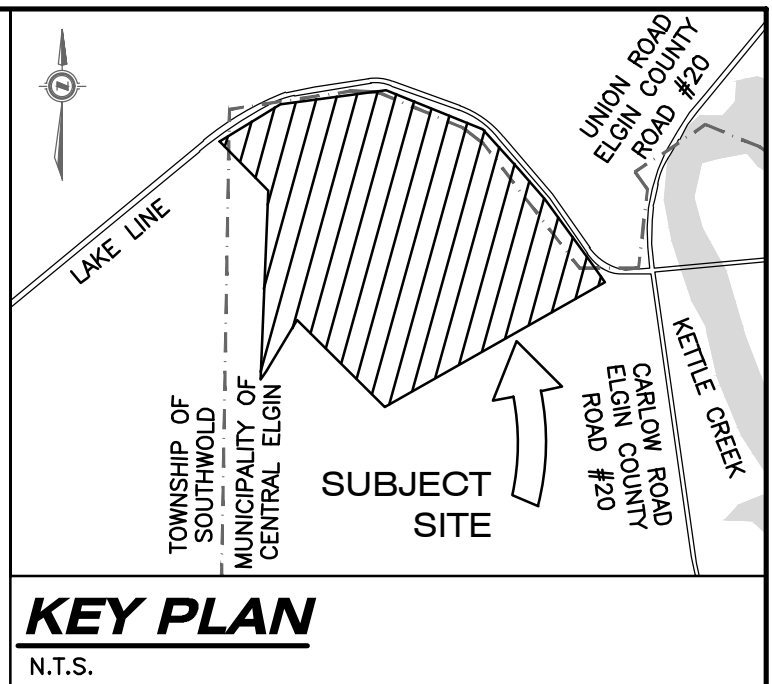
10C

PLAN FILE No.



LEGAL INFORMATION

PART OF
CLERGY RESERVE LOT "D"
NORTH OF THE LAKE ROAD
PART OF
JAMES BEGG LOTS 14 & 15
REGISTERED PLAN No. 20 (MIDD)
AND PART OF
ROAD ALLOWANCE BETWEEN
LOTS 14 & 15 NORTH OF THE LAKE
ROAD
AND ALL OF
LOT "T", REGISTERED PLAN No.39
IN THE
MUNICIPALITY OF CENTRAL ELGIN
COUNTY OF ELGIN



BENCHMARKS:

MONUMENT NAME: 01019915404 (GEODETIC BENCHMARK)

LOCATION: BRASS CAP ON THE SOUTH SIDE OF LAKE ROAD, IN THE COUNTY OF ELGIN, IN THE TOWNSHIP OF SOUTHWOLD, APPROX. 8.0m SOUTH OF THE CENTRELINE OF LAKE ROAD AND 11.8m EAST OF THE PRODUCTION OF THE CENTRELINE OF SCOTCH ROAD.

ELEVATION: 214.432m (CGVD28:78)

MONUMENT NAME: 0011926U1648 (GEODETIC BENCHMARK)

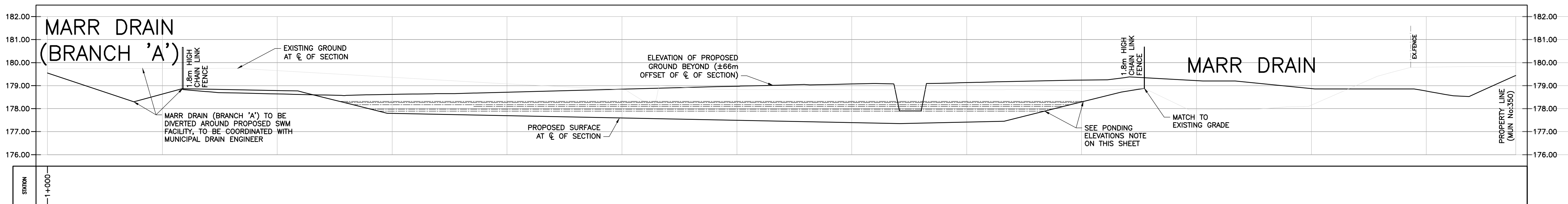
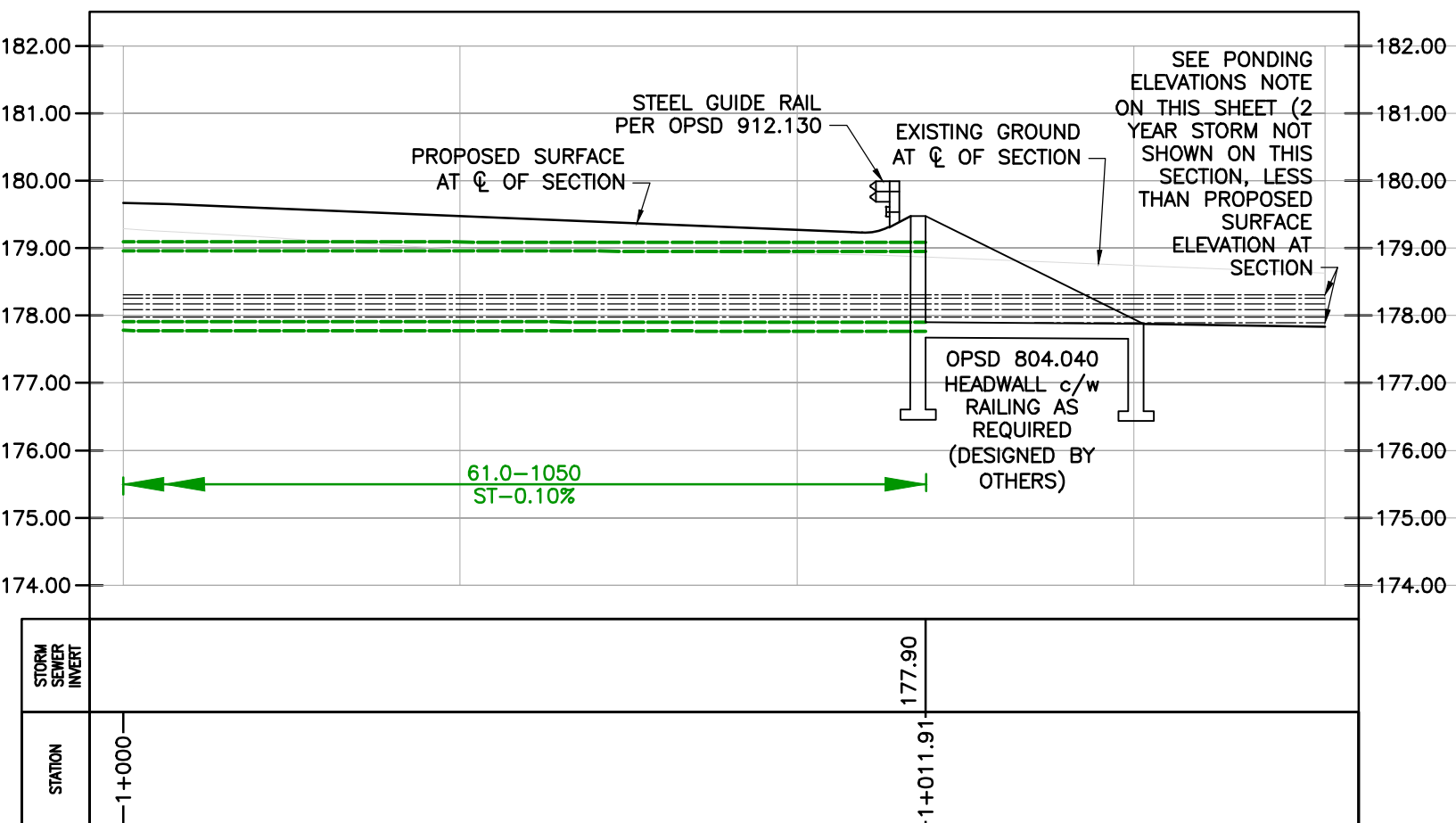
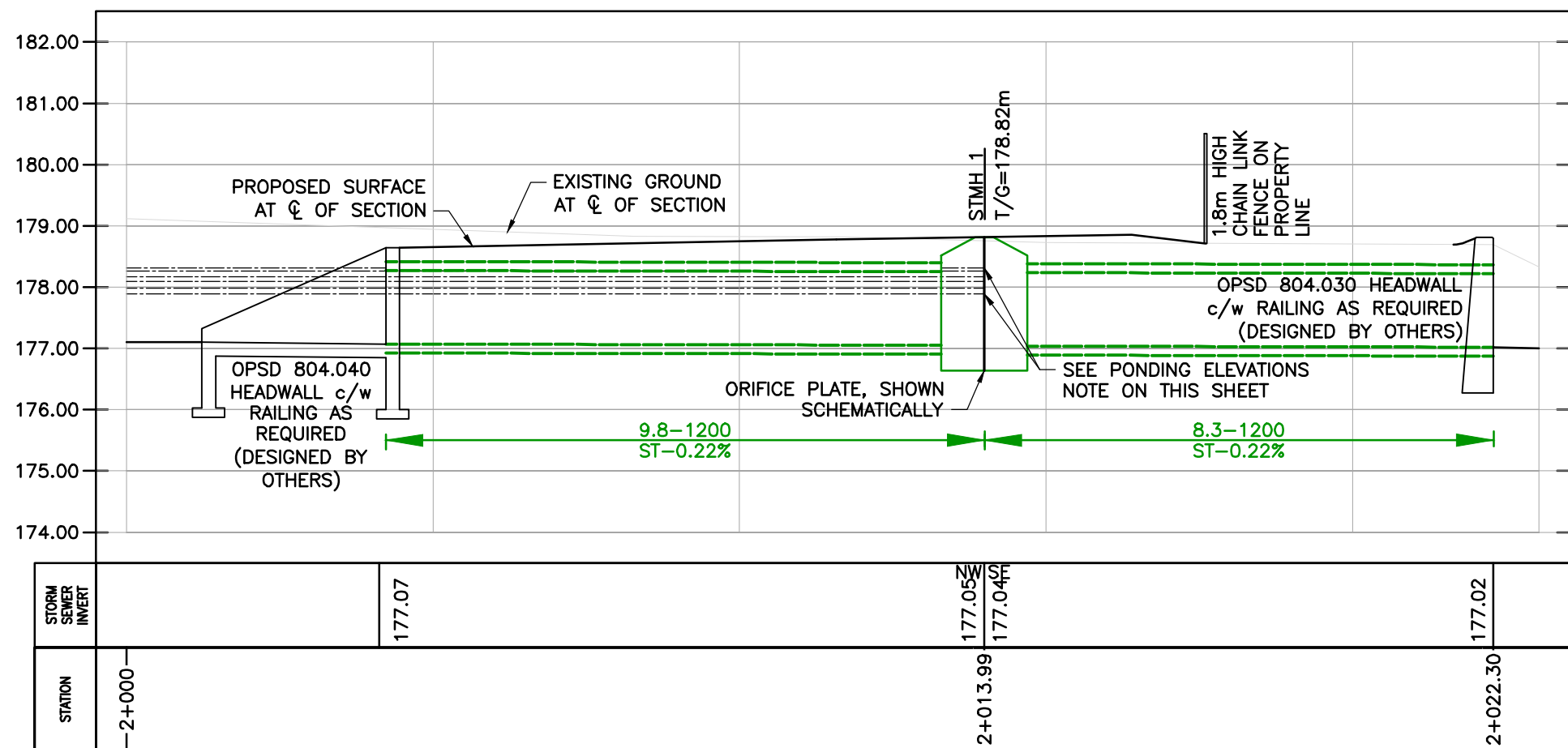
LOCATION: PORT STANLEY LONDON & PORT STANLEY RAILWAY, BRIDGE OVER KETTLE CREEK, 0.8km NORTH OF STATION, TABLET IN EAST END OF BRIDGE SEAT OF SOUTH CONCRETE ABUTMENT, 30cm FROM NORTH EDGE.

ELEVATION: 178.167m (CGVD28:78)

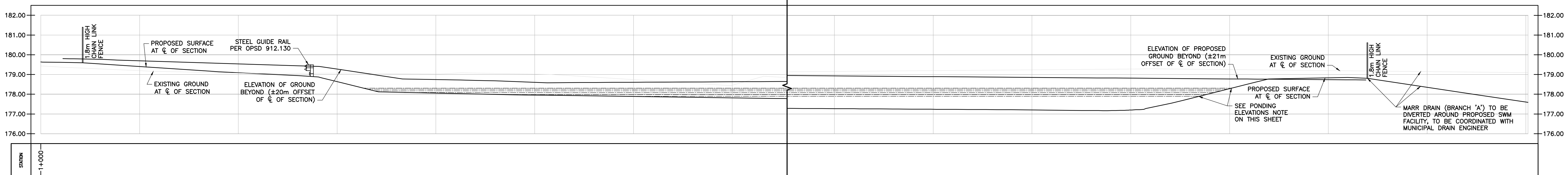
MONUMENT NAME: SITE BENCHMARK

LOCATION: WITNESS SIB 1.000m SOUTH OF NORTHWEST CORNER OF MUN. 37719 LAKE ROAD, PORT STANLEY

ELEVATION: 214.742m
(CONTRACTOR TO CONFIRM BENCHMARK INFORMATION PRIOR TO CONSTRUCTION)



SWM DRY POND SECTION B-B SEE SHEET 10C



SWM DRY POND SECTION A-A SEE SHEET 10C

REFER TO NOTES, LEGEND, AND DETAILS ON SHEET 1, 17, 18 & 19

S:\2018 Jobs\SBM-18-0530 Stormwater\Turf Forms Ltd - Kettle Creek Subdivision\SBM CAD\01 Production Drawings\SBM-18-0530 Stormwater\Turf Forms Ltd - Kettle Creek Subdivision - Grading\Production

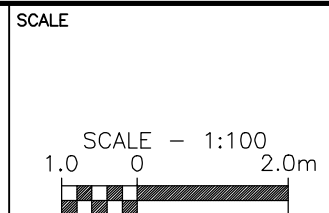
AS CONSTRUCTED SERVICES	COMPLETION	No.	REVISIONS	D/M/Y	BY	CONSULTANT
DESIGN	JSF/KJC	1	ISSUED FOR ENGINEERING SUBMISSION	17/02/21	JSF	
DRAWN	JSF	2	CONCEPTUAL ZONING DATA CHART ADDED	08/03/21	JSF	
CHECKED	KAM	3	FOR PRE-SUBMISSION CONSULTATION MEETING	05/04/21	JSF	
APPROVED	NGU	4	ISSUED FOR DRAFT PLAN APPLICATION	16/07/21	JSF	
DATE	26/07/2021					
CAD	SBM-18-0530					

STRIK BALDINELLI MONIZ
PLANNING - CIVIL - STRUCTURAL - MECHANICAL - ELECTRICAL
1599 Adelaide St. N, Unit 301, London, Ontario, N5X 4E8
Tel: (519) 471-6667 Fax: (519) 471-0034
Email: sbm@sbmltd.ca

**PRELIMINARY
NOT FOR
CONSTRUCTION**



THE CORPORATION OF THE MUNICIPALITY OF
CENTRAL ELGIN



TITLE	STORMWATER MANAGEMENT FACILITY SECTIONS, NOTES AND DETAILS	PROJECT No. SBM-18-0530
	KETTLE CREEK SUBDIVISION	SHEET No. 12
	37719 LAKE LINE PORT STANLEY, ONTARIO	PLAN FILE No. —