NOTES:

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS BY NEUF ARCHITECTES SENCRL. REFER TO ARCHITECTURAL PLANS FOR DIMENSIONS.
2. ALL WATERMAINS TO BE INSULATED IF LESS THAN 2.4 METERS COVER AS PER CITY OF OTTAWA STANDARD DETAIL W22, AT ANY PROXIMITY OF SEWER MANHOLES, INSULATE WATERMAIN AS PER CITY DETAIL W23.
3. SEWERS ARE TO MAINTAIN 500mm BARRELL TO BARRELL CLEARANCE ABOVE AND 250mm BARRELL TO BARRELL CLEARANCE BELOW WATERMAINS AT ALL CROSSINGS (AS PER CITY DWGS W25 AND W25.2). IF 22° BENDS ARE USED ON THE WATER MAIN, THEY MUST BE ONE METER AWAY FROM THE SEWER.
4. THRUST BLOCKS TO BE AS PER CITY OF OTTAWA STANDARD DRAWINGS W25.3 AND W25.4. RESTRAINING AND RETAINING RINGS TO BE INSTALLED IN ACCORDANCE WITH CITY STANDARD DETAILS W25.5 AND W25.6.
5. TEMPORARY SUPPORT OF EXISTING UNDERGROUND UTILITIES IN ACCORDANCE WITH CITY STANDARD DETAIL W28.
6. WATERMAIN TRENCH AND BEDDING TO BE INSTALLED AS PER CITY DETAIL W17.
7. TAPPING VALVE SYSTEM CONNECTION TO CITY WATERMAIN BY CITY FORCES; EXCAVATION, BACKFILLING AND REINSTATEMENT BY CONTRACTOR.
8. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATION OF ALL EXISTING U/G AND OVERHEAD UTILITIES. VARIOUS UTILITIES CONCERNED TO BE GIVEN REQUIRED ADVANCE NOTICE PRIOR TO ANY DIGGING FOR STAKE OUT. THE OWNER AND CONSULTANT ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE LOCATION OF EXISTING UTILITIES AS INDICATED ON THIS DRAWING.
9. UTILITY INFORMATION WAS VERIFIED IN THE FIELD WHERE POSSIBLE. INDIVIDUAL COMPANIES SHOULD BE CONTACTED BY THE CONTRACTOR PRIOR TO COMMENCEMENT FOR CONFIRMATION OF EXISTENCE AND LOCATION OF UTILITIES.
10. WATER SERVICE, STORM SEWERS AND APPURTENANCE TO COMPLY WITH THE REQUIREMENTS OF THE LATEST REVISION OF THE ONTARIO PLUMBING CODE AND APPLICABLE CITY OF OTTAWA ENGINEERING STANDARDS.
11. ALL SANITARY SEWERS TO BE INSULATED IF LESS THAN 2.0 METERS COVER. ALL STORM SEWERS TO BE INSULATED IF LESS THAN 2.0 METERS COVER. INSULATE AS PER CITY OF OTTAWA STANDARD DETAIL W22. ALL BUILDING CONNECTIONS TO HAVE SUFFICIENT COVER OR INSULATION IS REQUIRED.
12. CONTRACTOR SHALL CONTACT THE CONSULTANT, R.V. ANDERSON PRIOR TO BACKFILLING OF THE WATER SERVICE CONNECTIONS FOR THE PROPOSED LINES AND TIE-INS TO EXISTING LINES FOR AS-BUILT LOCATION RECORDS AND INSPECTION.
13. ANY ASPHALT CUT SHALL BE SAW CUT ON BOTH SIDES OF THE TRENCH FOR THE ENTIRE LENGTH OF THE EXCAVATION FOR PIPE INSTALLATIONS, REINSTATEMENT OF THE ROADS SHALL MATCH EXISTING OR MEET CITY STANDARD R10.
14. ANY CONCRETE CUT SHALL BE REMOVED AT EXPANSION JOINTS, IF NO JOINTS EXIST, THE CONCRETE SHALL BE SAW CUT ON BOTH SIDES OF THE TRENCH FOR THE ENTIRE LENGTH OF THE EXCAVATION FOR PIPE INSTALLATIONS. REINSTATEMENT SHALL MATCH EXISTING OR MEET CITY REQUIREMENTS.
15. PIPE BEDDING SHALL BE GRANULAR "A" AS PER CITY DETAIL S6, AND SHALL BE COMPACTED TO 95% SPD AND APPROVED SELECT NATIVE BACK FILL COMPACTED TO 95% SPD.
16. DRAWINGS TO BE READ IN CONJUNCTION WITH CONTRACT SPECIFICATIONS.
17. GRANULAR LAYERS BENEATH NEW ASPHALT SURFACES ON PROPERTY SHALL BE PLACED AT A THICKNESS NOT EXCEEDING 300mm. THE GRANULAR 'A' AND GRANULAR 'B' TYPE II IS TO BE COMPACTED TO A MINIMUM OF 100% SPMDD USING SUITABLE VIBRATORY EQUIPMENT.
18. THE APPROVAL OF THIS PLAN DOES NOT EXEMPT THE OWNER'S BONDED CONTRACTOR FROM THE REQUIREMENTS TO OBTAIN THE VARIOUS PERMITS/APPROVALS NORMALLY REQUIRED TO COMPLETE A CONSTRUCTION PROJECT, SUCH AS, BUT NOT LIMITED TO THE FOLLOWING: ROAD CUT PERMITS, SEWER PERMITS, APPROACH APPROVAL PERMITS, RELOCATION OF SERVICES, COMMITTEE OF ADJUSTMENT, ENCROACHMENT AGREEMENTS, WATER PERMIT, ETC
19. THE OWNER SHALL REQUIRE THAT THE SITE SERVICING CONTRACTOR PERFORM FIELD TESTS FOR QUALITY CONTROL OF ALL SANITARY SEWERS. SPECIFICALLY, THE LEAKAGE TESTING SHALL BE COMPLETED IN ACCORDANCE WITH OPSS 410.07.01.16 AND 407.07.26. THE FIELD TESTS SHALL BE PERFORMED IN THE PRESENCE OF A CERTIFIED PROFESSIONAL ENGINEER WHO SHALL SUBMIT A CERTIFIED COPY OF THE TEST RESULTS.
20. REFER TO LANDSCAPE DRAWINGS FOR DETAILS ON LANDSCAPING TREATMENTS AND PLANTINGS.
21. SEWERS TO BE CONSTRUCTED AS PER CITY OF OTTAWA SPECIFICATIONS - SPECIAL PROVISION F-4100, ALL SEWER STRUCTURES AS PER F-4070, ALL WATER MAINS AS PER F-4411 AND ALL ASSOCIATED SPECIFICATIONS. IRON ADJUSTMENTS PER F-4080.
22. EROSION AND SEDIMENT CONTROL MEASURES (IN ACCORDANCE WITH THE REQUIREMENTS OF OPSS 805 - NOVEMBER 2018 FOR TEMPORARY MEASURES) CONSISTING OF BOTH PERMANENT AND TEMPORARY MEASURES SHALL BE IMPLEMENTED PRIOR TO THE COMMENCEMENT OF CONSTRUCTION ACTIVITIES TO ENSURE THAT SEDIMENT IS CONTAINED WITHIN THE SITE. PERMANENT EROSION CONTROL MEASURES SHALL ENSURE THAT POTENTIAL LONGTERM AND LOCALIZED EROSION PROBLEMS ARE DEALT WITH PRIOR TO THEIR OCCURRENCE. FILTER FABRIC SHALL BE INSTALLED UNDER THE FRAME OF ALL PROPOSED AND EXISTING CATCHBASINS AND STORM MANHOLES IMMEDIATELY ADJACENT TO ANY DISTURBED AREAS PRIOR TO CONSTRUCTION TO PREVENT SEDIMENT FROM ENTERING INTO THE STORM SEWER SYSTEM. THE FILTER FABRIC SHALL REMAIN IN-PLACE FOR THE DURATION OF CONSTRUCTION ACTIVITIES AND SHALL NOT BE REMOVED UNTIL SUCH TIME AS THE LANDSCAPING HAS BEEN ESTABLISHED AND UPON AUTHORIZATION BY THE ENGINEER. LIGHT DUTY SEDIMENT FENCING SHALL ALSO BE PLACED AROUND THE PERIMETER OF THE SITE FOR THE DURATION OF THE CONSTRUCTION.
23. THE CONTRACTOR ACKNOWLEDGES THAT FAILURE TO IMPLEMENT APPROPRIATE EROSION AND SEDIMENT CONTROL MEASURES MAY BE SUBJECT TO PENALTIES IMPOSED BY ANY APPLICABLE REGULATORY AGENCY.
24. CONNECTION OF THE WATER SERVICES TO THE CITY WATERMAIN BY CITY FORCES; EXCAVATION, BACKFILLING AND REINSTATEMENT BY CONTRACTOR.
25. REFER TO THE STORM WATER MANAGEMENT & SITE SERVICING REPORTS FROM RV ANDERSON DATED FEBRUARY 19, 2020 FOR FURTHER DETAILS.
26. REFER TO GEOTECHNICAL REPORT BY PINCHIN LTD. DATED APRIL 29, 2020 FOR SOILS INFO.
27. SIDEWALK DEPRESSIONS PER CITY DETAIL SC6.
28. REFER TO MECHANICAL DRAWINGS FOR INTERNAL PLUMBING INCLUDING WATER METER, BACKFLOW PREVENTION, INTERNAL PIPING, FOUNDATION DRAINAGE CONNECTION ETC.

CONTAMINATED WATER / FOUNDATION DRAIN INFORMATION:
THE QUALITY OF WATER COLLECTED BY THE FOUNDATION DRAINAGE SYSTEM IS EXAMINED IN THE PHASE II ESA REPORT, DRAFT ISSUED NOVEMBER 30, 2020, THE REMEDIAL TECHNOLOGY EVALUATION + OVERVIEW LETTER, DATED NOVEMBER 26, 2020, THE WATER TAKING & DISCHARGE PLANS REPORT DATED APRIL 7, 2020, AND THE REMEDIAL PLAN FOR ADDRESSING GROUNDWATER IMPACTS MEMO DATED DECEMBER 4, 2020 (ATTACHED IN APPENDIX A) ALL PREPARED BY PINCHIN. BASED ON THE FINDINGS OF THE ABOVE REPORTS, IT IS UNDERSTOOD THAT THE GROUNDWATER ONSITE WAS FOUND TO HAVE CONTAMINANTS EXCEEDING THE ALLOWABLE LEVELS ENTERING EITHER THE SANITARY OR STORM SEWER SYSTEMS AS SPECIFIED IN THE SEWER USE BYLAW. THE ABOVE NAMED REPORTS PROPOSE REMEDIAL MEASURES INCLUDING REMOVING THE IMPACTED SOIL FROM THE SITE AND PROVIDING GROUNDWATER MONITORING TO ASSESS RESIDUAL CONTAMINANT LEVELS. FOLLOWING REMEDIAL MEASURES, THREE SCENARIOS ARE PRESENTED WHICH ALL REQUIRE ULTIMATE DISCHARGE TO THE SANITARY SYSTEM.

- SCENARIO 1: REMEDIAL ACTIONS BRING GROUNDWATER QUALITY BELOW BOTH MECP TABLE 7 STANDARDS AND SANITARY SEWER DISCHARGE STANDARDS. IN THIS CASE FOUNDATION DRAINAGE WILL BE PUMPED TO THE SANITARY SYSTEM.
- SCENARIO 2: REMEDIAL ACTIONS FAIL TO BRING GROUNDWATER QUALITY BELOW MECP TABLE 7 STANDARDS BUT SUCCESSFULLY MEET SANITARY SEWER DISCHARGE STANDARDS. IN THIS CASE FOUNDATION DRAINAGE WILL BE PUMPED TO THE SANITARY SYSTEM.
- SCENARIO 3: REMEDIAL ACTIONS FAIL TO BRING GROUNDWATER QUALITY BELOW BOTH MECP TABLE 7 STANDARDS AND ALSO FAIL TO SUCCESSFULLY MEET SANITARY SEWER DISCHARGE STANDARDS. IN THIS CASE PINCHIN HAS RECOMMENDED TREATMENT OF THE GROUNDWATER BE COMPLETED BY PASSING IT THROUGH ACTIVATED CARBON CYLINDERS BEING PUMPED TO THE SANITARY SYSTEM.

REFER TO THE ENVIRONMENTAL AND WATER TAKING REPORTS FOR FURTHER INFORMATION.

ANY WATER TREATMENT SYSTEMS, IF REQUIRED, WILL BE DESIGNED BY OTHERS AS PART OF THE BUILDING SYSTEMS.

AS ALL REMEDIAL SCENARIOS PRESENTED REQUIRE DISCHARGE TO SANITARY SEWER, THE FOUNDATION DRAINAGE FLOW RATE OF 65,000 L/DAY (0.75L/S) IS INCLUDED IN THE SITE FLOW RATES FOR THE SANITARY SEWER CAPACITY ANALYSIS IN THE SITE SERVICING REPORT. IT IS UNDERSTOOD THAT THE WATER COLLECTED BY THE FOUNDATION DRAINAGE WILL BE COLLECTED IN A SUMP PIT(S) AND PUMPED VIA INTERNAL PLUMBING WITH THE CONNECTION TO THE SANITARY SYSTEM WITHIN THE BUILDING.

STORM INVERT SCHEDULE

	STRUCTURE	GROUND	INVERT	COMMENTS
	RDI#1	63.76	SEE MECHANICAL	ROOF DRAIN: SEE MECHANICAL
	RDI#2	64.17	SEE MECHANICAL	ROOF DRAIN: SEE MECHANICAL
	RDI#3	64.24	SEE MECHANICAL	ROOF DRAIN: SEE MECHANICAL
	RDI#4	64.29	SEE MECHANICAL	ROOF DRAIN: SEE MECHANICAL
	RDI#5	64.30	SEE MECHANICAL	ROOF DRAIN: SEE MECHANICAL
	RDI#6	63.35	SEE MECHANICAL	ROOF DRAIN: SEE MECHANICAL
	RDI#7	64.50	SEE MECHANICAL	ROOF DRAIN: SEE MECHANICAL
	RDI#8	64.69	SEE MECHANICAL	ROOF DRAIN: SEE MECHANICAL
	RDI#9	63.85	SEE MECHANICAL	ROOF DRAIN: SEE MECHANICAL
	RDI#10	63.85	SEE MECHANICAL	ROOF DRAIN: SEE MECHANICAL
	RDI#11	63.85	SEE MECHANICAL	ROOF DRAIN: SEE MECHANICAL
	RDI#12	63.85	SEE MECHANICAL	ROOF DRAIN: SEE MECHANICAL
	CBI#1	62.92	EXISTING	REPLACE FRAME AND COVER WITH SURFACE STYLE PER CITY DETAIL S19.1
	CBI#2	63.17	EXISTING	REPLACE FRAME AND COVER WITH SURFACE STYLE PER CITY DETAIL S19.1
200mm PVC STORM SEWER (RAINWATER LEADERS)	CAP AT PROPERTY LINE	63.91	62.41	CAP AT PROPERTY LINE FOR FUTURE CONNECTION
	WATERMAIN CROSSING	63.82	62.35	STM LATERAL CROSSES OVER 200mm WATERMAIN. TOP OF WM = 61.18m (CLEARANCE = 1170mm)
	SANITARY CROSSING	63.65	62.33	STM LATERAL CROSSES OVER 250mm SANITARY SEWER. SEWER INVERT = 61.28m (CLEARANCE = 800mm)
	CONNECTION TO CITY SEWER	63.87	62.32	CONNECT TO 900mm STORM SEWER AS PER CITY DWG S11. CITY SEWER INVERT 61.88m
300mm PVC STORM SEWER (STORM CONNECTION)	STORM CISTERN CONNECTION	63.90	59.58	CONNECTION TO BUILDING SERVICES: SEE MECHANICAL
	MONITORING MANHOLE	63.44	59.57	NEW 1200mm DIAMETER MANHOLE PER OPSD 701.010. FRAME/COVER PER S24.1 & S25.
	WATERMAIN CROSSING	63.23	59.51	STM LATERAL CROSSES UNDER 150mm WATERMAIN. BOTTOM OF WM = 60.75m (CLEARANCE = 960mm)
	SANITARY CROSSING	63.16	59.48	STM LATERAL CROSSES UNDER 375mm SANITARY SEWER. SEWER INVERT = 60.39m (CLEARANCE = 610mm)
	CONNECTION TO CITY SEWER	63.12	59.46	CONNECT TO 1200mm STORM SEWER AS PER CITY DWG S11. CITY SEWER INVERT 58.76m.

PRIVATE WATERMAIN TABLE

	STATION	DESCRIPTION	TOP OF PIPE ELEVATION	GROUND ELEVATION	COMMENTS
150mm PVC DR18 WATER SERVICE (NORTH SIDE)	1+00.0	BUILDING/PARKING GARAGE CONNECTION	SEE MECHANICAL	63.99	CONNECTION TO BUILDING SERVICES: SEE MECHANICAL
	1+02.3	VALVE & VALVE BOX	61.48	63.88	VALVE AND VALVE BOX PER W24
	1+04.7	STORM CROSSING	60.67	63.84	WATERMAI?N CROSSES UNDER 1200mm STORM SEWER PER W25. STORM INVERT= 61.32m (BARREL TO BARREL CLEARANCE = 500mm)
	1+09.9	CONNECTION TO 203mmØ WM.	61.01	63.66	CONNECT TO CITY WATERMAIN AS PER W33
150mm PVC DR18 WATER SERVICE (EAST SIDE)	2+00.0	BUILDING/PARKING GARAGE CONNECTION	SEE MECHANICAL	63.99	CONNECTION TO BUILDING SERVICES: SEE MECHANICAL
	2+02.6	VALVE & VALVE BOX	61.39	63.89	VALVE AND VALVE BOX PER W24
	2+04.9	CONNECTION TO 203mmØ WM.	60.57	63.43	CONNECT TO CITY WATERMAIN AS PER W33
50mm PEX WATER SERVICE (PARK)	3+00.0	PARK CONNECTION	SEE MECHANICAL LANDSCAPE	64.00	NEW PARK WATER METER CHAMBER PER W31.1
	3+00.8	VALVE & VALVE BOX	61.63	64.03	VALVE AND VALVE BOX PER W24
	3+06.1	CONNECTION TO 203mmØ WM.	61.18	63.82	CONNECT TO CITY WATERMAIN AS PER W33

SANITARY INVERT SCHEDULE

	STRUCTURE	GROUND	INVERT	COMMENTS
250mm PVC	BUILDING/PARKING GARAGE CONNECTION	63.48	61.19	CONNECTION TO BUILDING SERVICES: SEE MECHANICAL FOR MONITORING PORT IN PARKING GARAGE.
	MONITORING PORT	63.45	61.16	NEW 250mm DIAMETER MANHOLE PER CITY DETAIL S18.1. STEEL COVER REQUIRED.
	WATERMAIN CROSSING	62.82	60.99	SAN LATERAL CROSSES OVER 203mm WATERMAIN. TOP OF WM = 60.42m (CLEARANCE = 570mm)
	CONNECTION TO MAIN SEWER	62.88	60.92	CONNECT TO 250mm SANITARY SEWER AT NEW 1200mm DIAMETER MANHOLE. SEWER INVERT 61.00. NEW MANHOLE PER OPSD 701.010. FRAME AND COVER PER S24 & S25.
150mm PVC	CAP AT PROPERTY LINE	63.91	61.50	CAP NEW SERVICE AT PROPERTY LINE FOR FUTURE CONNECTION.
	WATERMAIN CROSSING	63.72	61.40	SAN LATERAL CROSSES OVER 203mm WATERMAIN. TOP OF WM = 61.15m (CLEARANCE = 250mm). NOTE SEWER SERVICE PIPE SECTION TO BE PLACED TO AVOID JOINT NEAR WATER CROSSING.
	CONNECTION TO MAIN SEWER	63.76	61.36	CONNECT TO 250mm SANITARY SEWER PER S11.1. SEWER INVERT 61.26

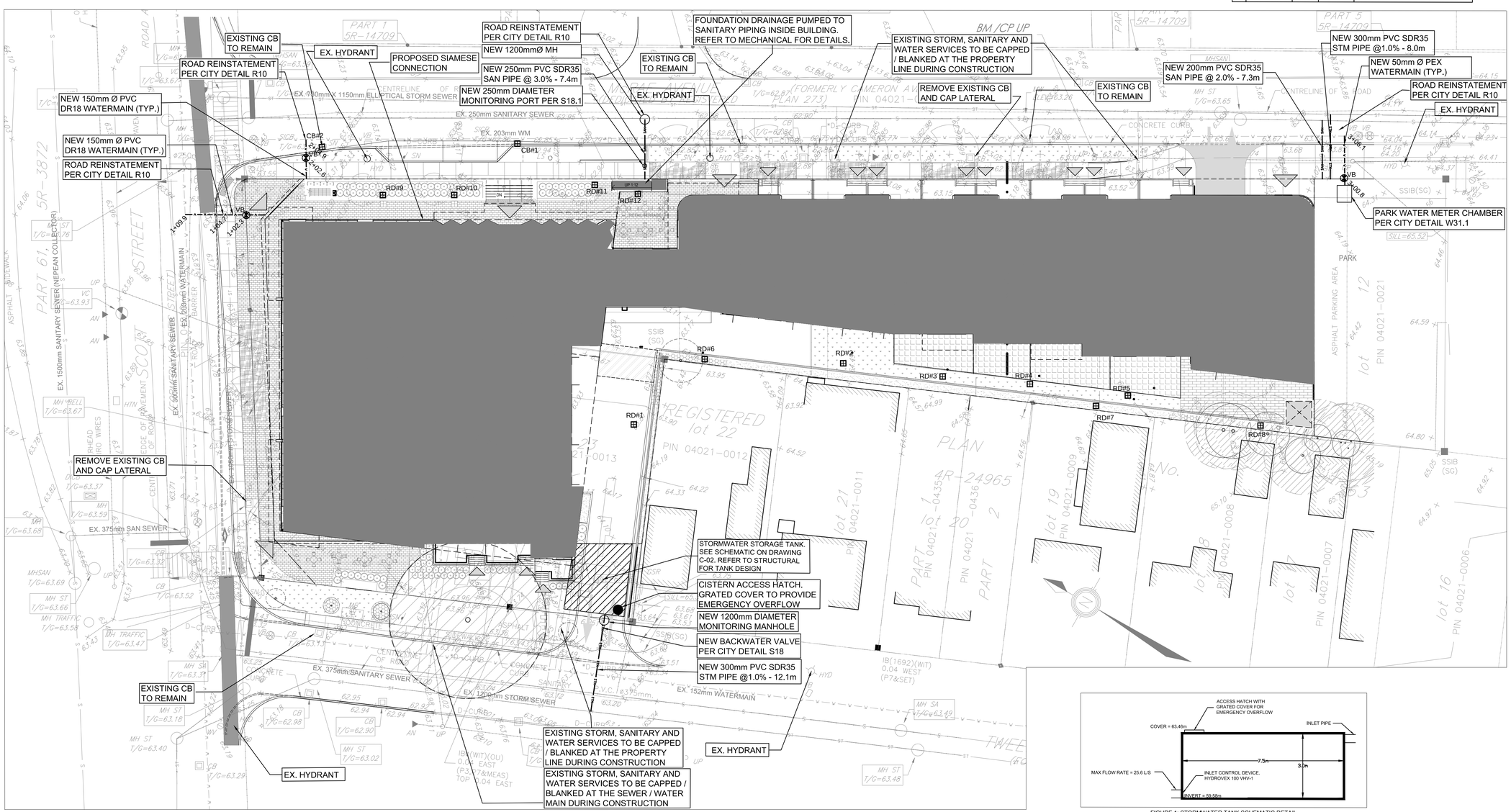
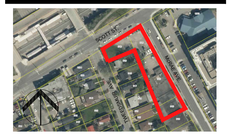


FIGURE 1: STORMWATER TANK SCHEMATIC DETAIL

NOT FOR CONSTRUCTION - SUBJECT TO CHANGE PENDING OUTSTANDING APPROVALS



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CLIENT Client
GWL REALTY ADVISORS

OUVRAGE Project
320 MCRAE

EMPLACEMENT Location
320 MCRAE

NO PROJET No.
194453

NO	REVISION	DATE
1	QA SUBMISSION	02/24/2020
2	FOR COORDINATION	02/26/2020
3	SITE PLAN SUBMISSION	03/20/2020
4	SITE PLAN RESUBMISSION	09/23/2020
5	EXCAVATION PERMIT	09/25/2020
6	FOR COORDINATION	12/22/2020
7	BUILDING PERMIT	01/04/2021
8	SITE PLAN RESUBMISSION	04/30/2021

DESSINE PAR Drawn by **NR**
VÉRIFIÉ PAR Checked by **TMK**
DATE **01/04/21**
ÉCHELLE Scale **1:250**

TITRE DU DESSIN Drawing Title
SITE SERVICING PLAN

RÉVISION Revision
NO. DESSIN Dwg Number **C01**

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