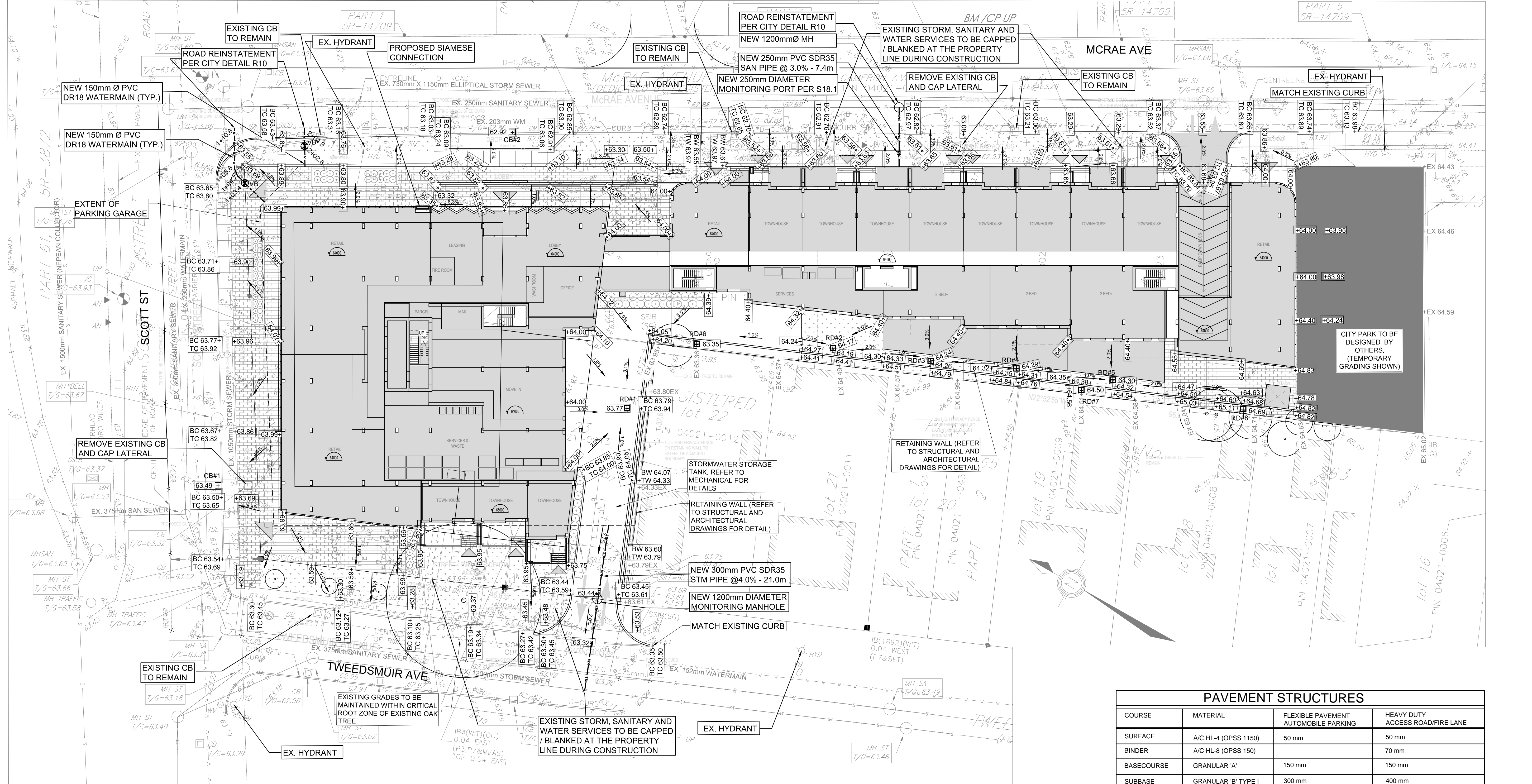


- NOTES:
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS BY NEUF ARCHITECTES SENCRL. REFER TO ARCHITECTURAL PLANS FOR DIMENSIONS.
 - ALL WATERMANS TO BE INSULATED IF LESS THAN 2.4 METERS COVER AS PER CITY OF OTTAWA STANDARD DETAIL W22. AT ANY PROXIMITY OF SEWER MANHOLES, INSULATE WATERMAIN AS PER CITY DETAIL W23.
 - SEWERS ARE TO MAINTAIN 500mm BARRELL TO BARRELL CLEARANCE ABOVE AND 250mm BARRELL TO BARRELL CLEARANCE BELOW WATERMANS 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.
 - 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.
 - TEMPORARY SUPPORT OF EXISTING UNDERGROUND UTILITIES IN ACCORDANCE WITH CITY STANDARD DETAIL W28.
 - WATERMAIN TRENCH AND BENDING TO BE INSTALLED AS PER CITY DETAIL W17.
 - TAPPING VALVE SYSTEM CONNECTION TO CITY WATERMAIN BY CITY FORCES. EXCAVATION, BACKFILLING AND REINSTATEMENT BY CONTRACTOR.
 - CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATION OF ALL EXISTING UG 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.
 - 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.
 - 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.
 - 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.
 - 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.
 - ANY ASPHALT CUT SHALL BE SAW CUT ON THE TRENCH FOR THE ENTIRE LENGTH OF THE EXCAVATION OR PIPE INSTALLATIONS. REINSTATEMENT OF THE ROAD SHALL MATCH EXISTING OR MEET CITY STANDARD R10.
 - 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.
 - 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.
 - DRAWINGS TO BE READ IN CONJUNCTION WITH CONTRACT SPECIFICATIONS.
 - 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.
 - 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.
 - 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.
 - REFER TO LANDSCAPE DRAWINGS FOR DETAILS ON LANDSCAPING TREATMENTS AND PLANTINGS.
 - 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.
 - EROSION AND SEDIMENT CONTROL MEASURES (IN ACCORDANCE WITH THE REQUIREMENTS OF OPSS 805 - NOVEMBER 2016 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 LONG-TERM 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.
 - THE CONTRACTOR ACKNOWLEDGES THAT FAILURE TO IMPLEMENT APPROPRIATE EROSION AND SEDIMENT CONTROL MEASURES MAY BE SUBJECT TO PENALTIES IMPOSED BY ANY APPLICABLE REGULATORY AGENCY.
 - CONNECTION OF THE WATER SERVICES TO THE CITY WATERMAIN BY CITY FORCES. EXCAVATION, BACKFILLING AND REINSTATEMENT BY CONTRACTOR.
 - REFER TO THE STORM WATER MANAGEMENT & SITE SERVICING REPORTS FROM R.V. ANDERSON DATED FEBRUARY 19, 2020 FOR FURTHER DETAILS.
 - REFER TO GEOTECHNICAL REPORT BY PINCHIN LTD. DATED FEBRUARY 19, 2020 FOR SOILS INFO.
 - SIDEWALK DEPRESSIONS PER CITY DETAIL SC6.
 - REFER TO MECHANICAL DRAWINGS FOR INTERNAL PLUMBING INCLUDING WATER METER, BACKFLOW PREVENTION, INTERNAL PIPING ETC.

STORM INVERT SCHEDULE			
STRUCTURE	GROUND	INVERT	COMMENTS
RD#1	63.77	SEE MECHANICAL	ROOF DRAIN: SEE MECHANICAL
RD#2	64.17	SEE MECHANICAL	ROOF DRAIN: SEE MECHANICAL
RD#3	64.24	SEE MECHANICAL	ROOF DRAIN: SEE MECHANICAL
RD#4	64.29	SEE MECHANICAL	ROOF DRAIN: SEE MECHANICAL
RD#5	64.30	SEE MECHANICAL	ROOF DRAIN: SEE MECHANICAL
RD#6	63.35	SEE MECHANICAL	ROOF DRAIN: SEE MECHANICAL
RD#7	64.50	SEE MECHANICAL	ROOF DRAIN: SEE MECHANICAL
RD#8	64.69	SEE MECHANICAL	ROOF DRAIN: SEE MECHANICAL
CB#1	63.49	62.24	NEW SURFACE STYLE CATCHBASIN PER CITY DETAIL S19.1.
CB#2	62.92	EXISTING	REPLACE FRAME AND COVER WITH SURFACE STYLE PER CITY DETAIL S19.1.
STORM CISTERN	IN BLDG	SEE MECHANICAL	DISCHARGE FROM CISTERN PUMPED TO STM LATERAL FOR OBSERVATION PORT DETAILS: SEE MECHANICAL
BUILDING/PARKING GARAGE CONNECTION	63.90	60.30	CONNECTION TO BUILDING SERVICES: SEE MECHANICAL
MONITORING MANHOLE	63.44	59.92	NEW 1200mm DIAMETER MANHOLE PER OPSD 701.010. FRAME/COVER PER S24.1 & S25.
WATERMAIN CROSSING	63.23	59.65	STM LATERAL CROSSES UNDER 150mm WATERMAIN. BOTTOM OF WM = 60.75m (CLEARANCE = 800mm)
SANITARY CROSSING	63.16	59.56	STM LATERAL CROSSES UNDER 375mm SANITARY SEWER. SEWER INVERT = 60.39m (CLEARANCE = 800mm)
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
1+00.0	BUILDING/PARKING GARAGE CONNECTION	SEE MECHANICAL	63.99	CONNECTION TO BUILDING SERVICES: SEE MECHANICAL
1+03.4	VALVE & VALVE BOX	61.48	63.88	VALVE AND VALVE BOX PER W24
1+04.7	22.5deg BEND	61.34	63.84	CONCRETE THRUST BLOCK PER W25.3
1+05.8	22.5deg BEND	61.34	63.84	CONCRETE THRUST BLOCK PER W25.3
1+10.8	CONNECTION TO 203mm Ø WM.	61.01	63.70	CONNECT TO CITY WATERMAIN AS PER W33
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 203mm Ø WM.	60.57	63.43	CONNECT TO CITY WATERMAIN AS PER W33

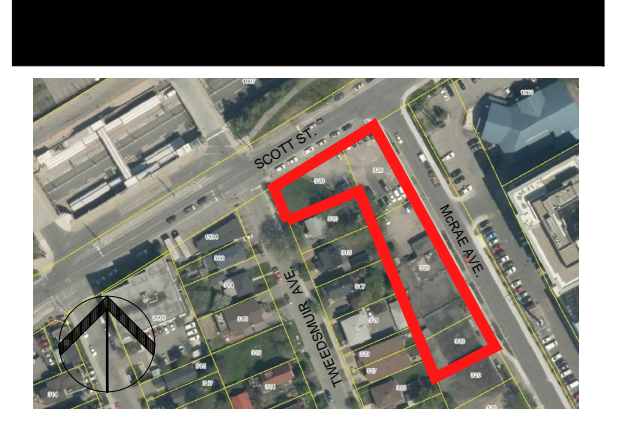
SANITARY INVERT SCHEDULE			
STRUCTURE	GROUND	INVERT	COMMENTS
BUILDING/PARKING GARAGE CONNECTION	63.66	61.35	CONNECTION TO BUILDING SERVICES: SEE MECHANICAL FOR MONITORING PORT IN PARKING GARAGE
MONITORING PORT	63.65	61.32	NEW 250mm DIAMETER MANHOLE PER CITY DETAIL S18.1. STEEL COVER REQUIRED.
WATERMAIN CROSSING	62.78	61.20	SAN LATERAL CROSSES OVER 203mm WATERMAIN. TOP OF WM = 60.40m (CLEARANCE = 800mm)
CONNECTION TO MAIN SEWER	62.97	61.13	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.



PAVEMENT STRUCTURES			
COURSE	MATERIAL	FLEXIBLE PAVEMENT AUTOMOBILE PARKING	HEAVY DUTY ACCESS ROAD/FIRE LANE
SURFACE	A/C HL-4 (OPSS 1150)	50 mm	50 mm
BINDER	A/C HL-8 (OPSS 150)	70 mm	70 mm
BASECOURSE	GRANULAR 'A'	150 mm	150 mm
SUBBASE	GRANULAR 'B' TYPE I	300 mm	400 mm

*NOTE: FOR DETAILED PAVEMENT STRUCTURE SPECIFICATIONS AND GUIDELINES, REFER TO THE GEOTECHNICAL INVESTIGATION, PROJECT FILE NO. 230236.004, DATED 28 NOVEMBER 2018, PREPARED BY PINCHIN LTD.

NOT FOR CONSTRUCTION - SUBJECT TO CHANGE PENDING OUTSTANDING APPROVALS



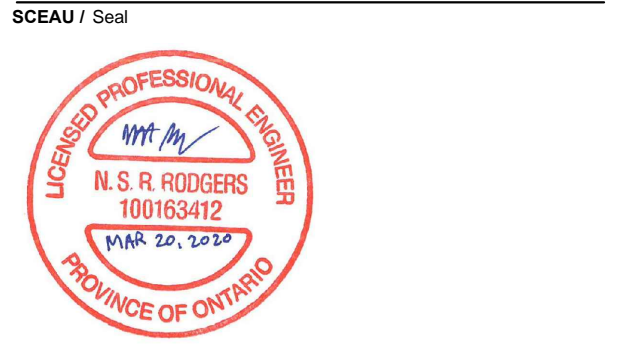
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CLIENT Client
GWL REALTY ADVISORS

COVERAGE Project
320 MCRAE
 EMBLACEMENT Location NO PROJET No.
320 MCRAE 194453

NO	REVISION	DATE
1	QA SUBMISSION	02/24/2020
2	FOR COORDINATION	02/26/2020
3	SITE PLAN SUBMISSION	03/20/2020

DESSIN PAR Drawn by
NR
 DATE
03/20/20
 TITRE DU DESSIN Drawing Title
SITE SERVICING, GRADING AND STORM WATER MANAGEMENT PLAN

VERIFIER PAR Checked by
TMK
 DATE
03/20/20
 ECHELLE Scale
1:250

REVISION Revision
 NO DESSIN Dwg Number
C01