

	PIPE CROSSING TABLE								
CROSSING	LOWER PIPE	HIGHER PIPE	CLEARANCE	SURFACE ELEVATION					
Â	200mmØ SAN OBV=71.40	406mmØ STM INV=73.41	2.01m±*	74.01m					
B	152mmØ WM OBV=70.66	200mmØ STM INV=71.16	0.50m±**	74.01m					
Ĉ	150mmØ WM OBV=73.00	406mmØ STM INV=73.51	0.51m±**	73.98m					
(D)	150mmØ WM OBV=73.00	406mmØ STM INV=73.51	051m±**	73.97m					

\* PIPE CROSSING AS PER CITY STANDARD S10. \*\* PIPE CROSSING AS PER CITY STANDARD W25.

# NOTES:

## **GENERAL**

- COORDINATES ARE IN MTM ZONE 9 (76°30' WEST LONGITUDE) NAD-83 (ORIGINAL)
- OBTAIN ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF OTTAWA PRIOR TO STARTING CONSTRUCTION
- SERVICES ARE TO BE CONSTRUCTED TO 2.0m FROM FACE OF BUILDING.
- REFER TO "FUNCTIONAL SITE SERVICING AND STORMWATER MANAGEMENT DESIGN BRIEF. 1354 AND 1376 CARLING AVENUE DEVELOPMENT - PHASE 2" PREPARED BY MORRISON HERSHFIELD FOR SITE SERVICING REPORT
- REFER TO GEOTECHNICAL INVESTIGATION REPORT (NO. PG3736-1 DATED APRIL 12, 2018) PREPARED BY PATERSON GROUP FOR SUBSURFACE CONDITIONS, CONSTRUCTION RECOMMENDATIONS AND GEOTECHNICAL INSPECTION REQUIREMENTS. THE GEOTECHNICAL CONSULTANT SHALL REVIEW EXCAVATIONS PRIOR TO THE PLACEMENT OF GRANULAR MATERIAL.
- CONTRACTOR TO VERIFY ALL EXISTING UTILITY ELEVATIONS AT CONNECTION AND CROSSING LOCATIONS PRIOR TO CONSTRUCTION AND ADVISE THE ENGINEER OF ANY DISCREPANCIES.
- UNLESS DIRECTED OTHERWISE ANY DAMAGED ASPHALT OR CURB (REGARDLESS OF WHETHER WITHIN OR EXTERNAL TO THE SITE) SHALL BE REINSTATED IN ACCORDANCE WITH CITY STD. DET. R10 AND S1.
- UNLESS DIRECTED OTHERWISE THE CONTRACTOR SHALL REINSTATE ALL SIGNS, LIGHTING AND OTHER STREET FURNITURE DISTURBED BY THE WORK.
- THE CONTRACTOR SHALL DEVELOP AND IMPLEMENT TRAFFIC MANAGEMENT PLANS FOR WORK IN RIGHT OF WAY IN ACCORDANCE WITH OTM BOOK 7.
- 10. CLAY SEALS SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STANDARD DETAIL S8 AND SHALL BE INSTALLED AT 50m INTERVALS IN ALL PIPE TRENCHES. CLAY SEAL TO EXTEND FULL TRENCH WIDTH AND FROM BOTTOM OF TRENCH EXCAVATION TO UNDERSIDE OF ROAD STRUCTURE, WITH A MINIMUM THICKNESS OF 1m ALONG PIPE.
- 11. LOCATE AND CAP ANY EXISTING STORM, SANITARY AND WATER SERVICES AT THE PROPERTY LINE. ABANDON EXISTING SERVICES WITHIN THE R.O.W. PER STANDARD CITY OF OTTAWA DETAIL S11.4. (TYPICAL)
- 12. SUBMIT SHOP DRAWINGS FOR APPROVAL FOR ALL PRECAST STRUCTURE, GRATES & COVERS, TRENCH DRAINS.

### **SEWERS**

- 13. ALL STORM SEWERS, SANITARY SEWERS AND CATCH BASINS LEADS SHALL BE PVC DR 35 UNLESS OTHERWISE SPECIFIED.
- 14. REFER TO APPROPRIATE CITY STANDARD DETAILS FOR SEWER INSTALLATION. 22. ALL SEWER MATERIALS AND CONSTRUCTION METHODS SHALL BE IN ACCORDANCE WITH THE 2021 EDITION OF THE CITY OF OTTAWA
- STANDARD SPECIFICATIONS AND STANDARD DRAWINGS. PVC PIPE TO BE CLASS 150 DR18 TO LATEST EDITION OF A.W.W.A. SPECIFICATION C900 AND CSA B137.3 LATEST AMENDMENT WITH GASKETED BELL AND SPIGOT COUPLINGS.
- 23. MAINTENANCE HOLES AND CATCH BASIN MAINTENANCE HOLES ON STORM SEWERS LESS THAN 900mm DIAMETER SHALL BE CONSTRUCTED WITH A 300mm SUMP. BENCHING SHALL BE INSTALLED IN MAINTENANCE HOLES ON STORM SEWERS 900mm AND
- 24. STORM SEWER MAINTENANCE HOLE COVERS SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STANDARD DETAIL S24.1 ON FRAMES TO DETAIL S25.
- 25. CONTRACTOR SHALL MAINTAIN EXISTING SEWER FLOWS DURING CONSTRUCTION IN ACCORDANCE WITH CITY OF OTTAWA SPECIFICATIONS.
- 26. ALL MAINTENANCE HOLES, CATCHBASINS AND CLEANOUTS SHALL BE ADJUSTED TO POST-CONSTRUCTION GRADE 27. CCTV INSPECTION OF ALL SEWERS SHALL BE COMPLETED AS PER CITY OF OTTAWA SPECIFICATIONS PRIOR TO THE INSTALLATION
- OF BASE COURSE ASPHALT.

#### **WATERMAINS**

- 28. ALL WATERMAIN MATERIALS AND CONSTRUCTION METHODS SHALL BE IN ACCORDANCE WITH THE 2021 EDITION OF THE CITY OF OTTAWA STANDARD SPECIFICATIONS AND STANDARD DRAWINGS. PVC PIPE TO BE CLASS 150 DR18 TO LATEST EDITION OF A.W.W.A. SPECIFICATION C900 AND CSA B137.3 LATEST AMENDMENT WITH GASKETED BELL AND SPIGOT COUPLINGS.
- 29. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A WATER PERMIT AS REQUIRED FROM THE CITY OF OTTAWA, AND COMPLYING WITH ALL CITY OF OTTAWA REQUIREMENTS. THE CITY MAY REQUIRE THAT CERTAIN ACTIVITIES (E.G. VALVE OPERATION, CONNECTION OF NEW WATER SERVICE TO EXISTING WATERMAIN, DISINFECTION) BE CARRIED OUT ONLY BY CITY FORCES. 30. ALL VALVES 300mm DIAMETER AND SMALLER SHALL INCLUDE A VALVE BOX AS PER W24.
- 31. THE NEW WATERMAIN IS TO BE INSTALLED WITH A MINIMUM OF 2.4m COVER (INCLUDING HYDRANT LEAD). WHERE 2.4m COVER IS NOT POSSIBLE, PROVIDE INSULATION IN ACCORDANCE WITH CITY OF OTTAWA STANDARD DETAILS W22 & W23.
- THRUST RESTRAINT SHALL BE PROVIDED BY BOTH RESTRAINING/RETAINING RINGS AND THRUST BLOCKS AT ALL DEAD END CAPS. PLUGS, VALVES, BENDS AND REDUCERS AS PER CITY OF OTTAWA STANDARD DETAILS W25.3, W25.4, W25.5 AND W25.6, ALL TEMPORARY THRUST RESTRAINTS ARE THE RESPONSIBILITY OF THE CONTRACTOR.
- 33. TRACER WIRE SHALL BE PROVIDED FOR ALL NEW PVC WATERMAINS IN ACCORDANCE WITH THE SPECIFICATIONS AND CITY OF OTTAWA STANDARD DETAIL W36.
- 34. CATHODIC PROTECTION SHALL BE PROVIDED FOR ALL NEW WATERMAINS IN ACCORDANCE WITH THE SPECIFICATIONS AND CITY OF OTTAWA STANDARD DETAILS W39, W40, W41, W42 AND W47. CATHODIC PROTECTION OF EXISTING WATERMAINS SHALL ALSO BE PROVIDED AT CONNECTIONS BETWEEN EXISTING AND NEW WATERMAINS.
- 35. ADJUST ALL VALVE CHAMBERS, VALVE BOXES AND HYDRANTS TO FINISHED GRADE.

## UTILITY NOTE

- 36. THE POSITION OF POLE LINES, CONDUITS, WATERMAINS, SEWERS AND OTHER UNDERGROUND AND OVERGROUND UTILITIES AND STRUCTURES IS NOT NECESSARILY SHOWN ON THE CONTRACT DRAWING, AND, WHERE SHOWN, THE ACCURACY OF THE POSITION OF SUCH UTILITIES AND STRUCTURES IS NOT GUARANTEED. BEFORE STARTING WORK THE CONTRACTOR SHALL INFORM HIMSELF OF THE EXACT LOCATION OF ALL SUCH UTILITIES AND STRUCTURES, AND SHALL ASSUME ALL LIABILITY FOR DAMAGE TO THEM. THE CONTRACTOR WILL BE RESPONSIBLE FOR SUPPORTING AND PROTECTING ANY EXISTING UTILITIES, AS REQUIRED, IN ACCORDANCE WITH THE UTILITY OWNERS' REQUIREMENTS. CONTRACTOR IS REQUIRED TO OBTAIN LOCATES. IN ADVANCE OF EXCAVATION WORK.
- AND FORWARD COPIES OF THE LOCATES TO THE CONSULTANT AND THE OWNER PRIOR TO EXCAVATION. 37. ALL CROSSING OF EX. UTILITIES TO BE IN ACCORDANCE WITH CITY STD. DET. S10

## **LEGEND**

\_\_\_ NEW STORM SEWER

■ NEW SANITARY SEWER

NEW WATERMAIN **NEW MANHOLE** 

**NEW CATCH BASIN** 

NEW AREA DRAIN - TO BE CONNECTED TO MECHANICAL SYSTEM IN PARKING GARAGE

NEW WATER VALVE AND VALVE BOX

**NEW FIRE HYDRANT** 

NEW ENTRANCE

NEW FIRE DEPARTMENT CONNECTION

**EXISTING MANHOLE** 

EXISTING CATCH BASIN

**EXISTING WATER VALVE** 

**EXISTING FIRE HYDRANT** 

**EXISTING LIGHT STANDARD** 

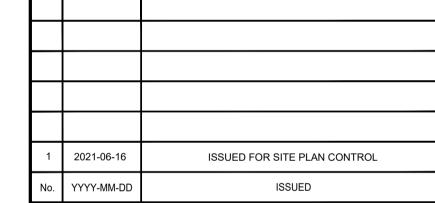
X REMOVALS

REDUCER

WASTEWATER SAMPLING CHAMBER



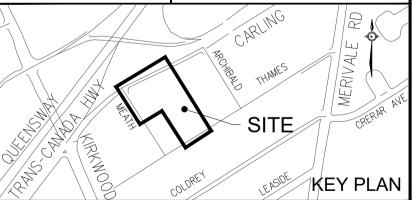
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PERMIT TO PRACTICE J.G. FOOKES Jun 22, 2021

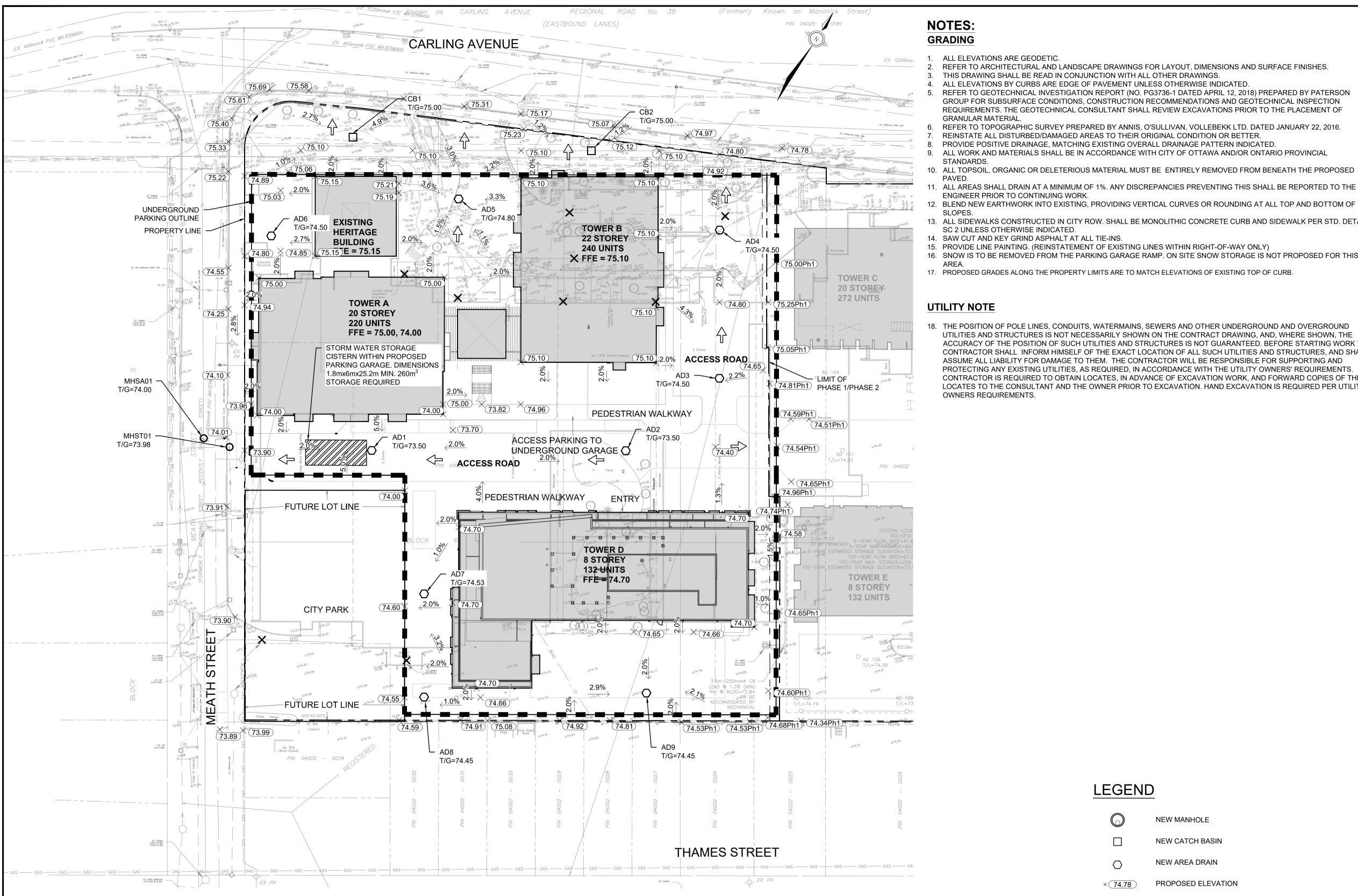




1354 & 1376 CARLING AVENUE DEVELOPMENT - PHASE 2

SITE SERVICING PLAN

2021-06-07 1:400 PROJECT NO. 210292799 RAWING NO CHECKED C901 PPROVED



## **NOTES: GRADING**

- ALL ELEVATIONS ARE GEODETIC.
- REFER TO ARCHITECTURAL AND LANDSCAPE DRAWINGS FOR LAYOUT, DIMENSIONS AND SURFACE FINISHES.
- THIS DRAWING SHALL BE READ IN CONJUNCTION WITH ALL OTHER DRAWINGS.
- ALL ELEVATIONS BY CURBS ARE EDGE OF PAVEMENT UNLESS OTHERWISE INDICATED.
- REFER TO GEOTECHNICAL INVESTIGATION REPORT (NO. PG3736-1 DATED APRIL 12, 2018) PREPARED BY PATERSON GROUP FOR SUBSURFACE CONDITIONS, CONSTRUCTION RECOMMENDATIONS AND GEOTECHNICAL INSPECTION REQUIREMENTS. THE GEOTECHNICAL CONSULTANT SHALL REVIEW EXCAVATIONS PRIOR TO THE PLACEMENT OF GRANULAR MATERIAL.
- REFER TO TOPOGRAPHIC SURVEY PREPARED BY ANNIS, O'SULLIVAN, VOLLEBEKK LTD. DATED JANUARY 22, 2016.
- REINSTATE ALL DISTURBED/DAMAGED AREAS TO THEIR ORIGINAL CONDITION OR BETTER.
- PROVIDE POSITIVE DRAINAGE, MATCHING EXISTING OVERALL DRAINAGE PATTERN INDICATED.
- ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA AND/OR ONTARIO PROVINCIAL STANDARDS.
- 11. ALL AREAS SHALL DRAIN AT A MINIMUM OF 1%. ANY DISCREPANCIES PREVENTING THIS SHALL BE REPORTED TO THE ENGINEER PRIOR TO CONTINUING WORK.
- SLOPES. 13. ALL SIDEWALKS CONSTRUCTED IN CITY ROW. SHALL BE MONOLITHIC CONCRETE CURB AND SIDEWALK PER STD. DETAIL
- SC 2 UNLESS OTHERWISE INDICATED. 14. SAW CUT AND KEY GRIND ASPHALT AT ALL TIE-INS.
- 15. PROVIDE LINE PAINTING. (REINSTATEMENT OF EXISTING LINES WITHIN RIGHT-OF-WAY ONLY)
- 16. SNOW IS TO BE REMOVED FROM THE PARKING GARAGE RAMP. ON SITE SNOW STORAGE IS NOT PROPOSED FOR THIS
- 17. PROPOSED GRADES ALONG THE PROPERTY LIMITS ARE TO MATCH ELEVATIONS OF EXISTING TOP OF CURB.

#### **UTILITY NOTE**

18. THE POSITION OF POLE LINES, CONDUITS, WATERMAINS, SEWERS AND OTHER UNDERGROUND AND OVERGROUND UTILITIES AND STRUCTURES IS NOT NECESSARILY SHOWN ON THE CONTRACT DRAWING, AND, WHERE SHOWN, THE ACCURACY OF THE POSITION OF SUCH UTILITIES AND STRUCTURES IS NOT GUARANTEED. BEFORE STARTING WORK THE CONTRACTOR SHALL INFORM HIMSELF OF THE EXACT LOCATION OF ALL SUCH UTILITIES AND STRUCTURES, AND SHALL ASSUME ALL LIABILITY FOR DAMAGE TO THEM. THE CONTRACTOR WILL BE RESPONSIBLE FOR SUPPORTING AND PROTECTING ANY EXISTING UTILITIES, AS REQUIRED, IN ACCORDANCE WITH THE UTILITY OWNERS' REQUIREMENTS. CONTRACTOR IS REQUIRED TO OBTAIN LOCATES, IN ADVANCE OF EXCAVATION WORK, AND FORWARD COPIES OF THE LOCATES TO THE CONSULTANT AND THE OWNER PRIOR TO EXCAVATION. HAND EXCAVATION IS REQUIRED PER UTILITY OWNERS REQUIREMENTS.

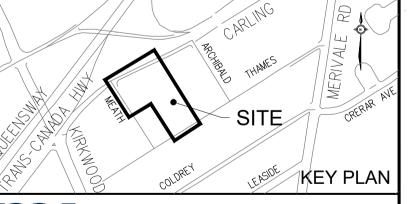
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1	2021-06-17	ISSUED FOR SITE PLAN CONTROL
No.	YYYY-MM-DD	ISSUED

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1354 & 1376 CARLING AVENUE DEVELOPMENT - PHASE 2

**GRADING PLAN** 

	DESIGN		DATE	SCALE	
		DO	2021-06-07	1.11	$\cap \cap$
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## LEGEND

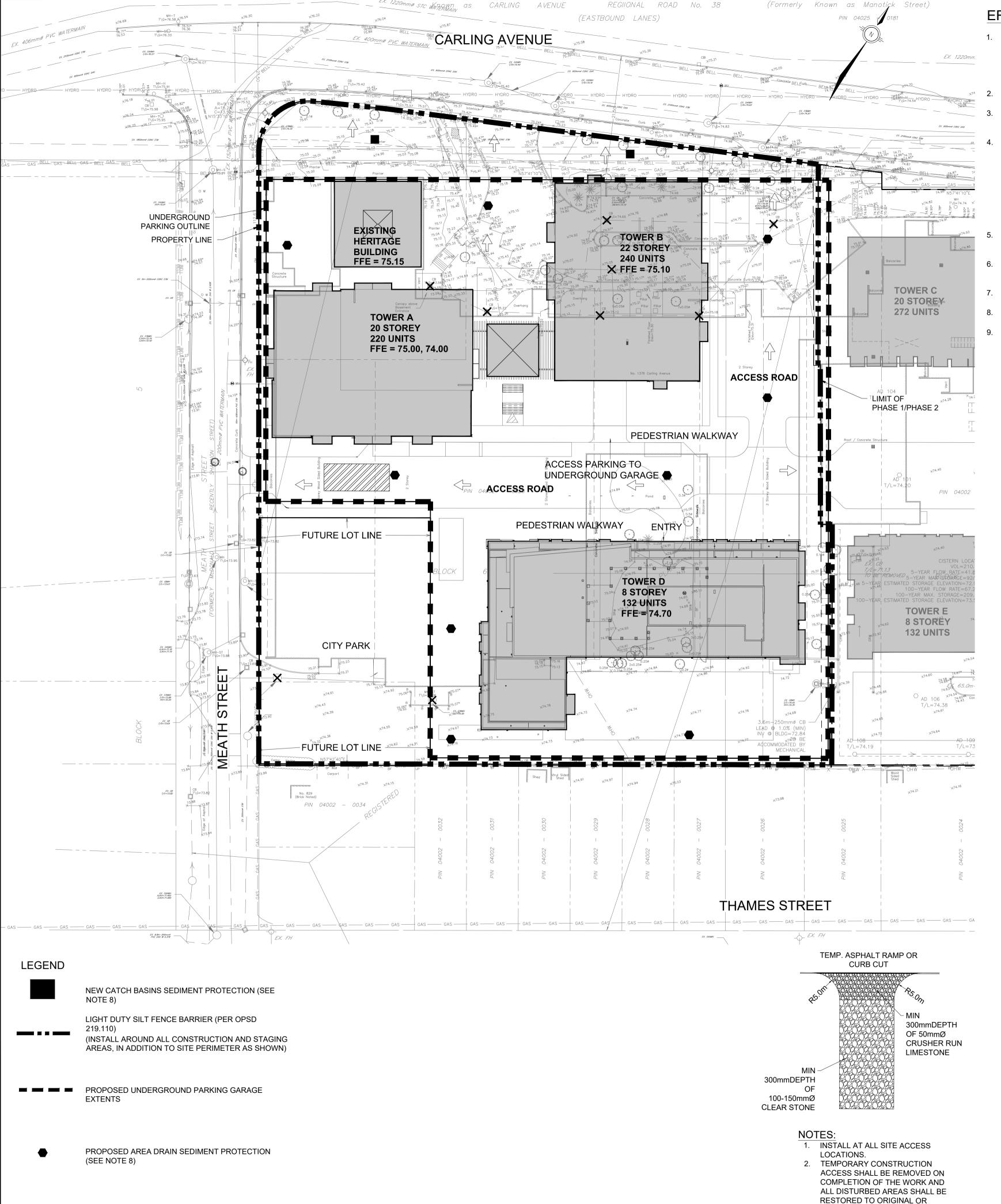
NEW CATCH BASIN **NEW AREA DRAIN** × (74.78 PROPOSED ELEVATION EXISTING ELEVATION PROPOSED SLOPE DIRECTION 7.9% PROPOSED FINISH GRADE AT TOP OF GRATE × (73.50T/G **ELEVATION FROM PHASE-1** DIRECTION OF MAJOR OVERLAND FLOW PROPOSED CURB PROPOSED DEPRESSED CURB

**NEW MANHOLE** 

■ ■ UNDERGROUND PARKING GARAGE EXTENTS

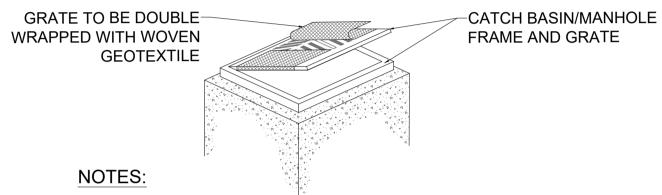
— - - - PROPERTY EXTENTS





## **EROSION AND SEDIMENT CONTROL NOTES:**

- THE CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES, TO PROVIDE FOR PROTECTION OF THE AREA DRAINAGE SYSTEM AND THE RECEIVING WATERCOURSE, DURING CONSTRUCTION ACTIVITIES. THIS INCLUDES LIMITING THE AMOUNT OF EXPOSED SOIL. USING FILTER CLOTH UNDER THE GRATES OF CATCHBASINS AND MANHOLES. AND INSTALLING SILT FENCES AND OTHER EFFECTIVE SEDIMENT TRAPS. THE CONTRACTOR ACKNOWLEDGES THAT FAILURE TO IMPLEMENT APPROPRIATE EROSION AND SEDIMENT CONTROL MEASURES MAY BE SUBJECT TO PENALTIES IMPOSED BY ANY APPLICABLE REGULATORY AGENCY TO BE PAID FOR AT THE CONTRACTOR'S EXPENSE.
- EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE IMPLEMENTED PRIOR TO CONSTRUCTION AND REMAIN IN PLACE UNTIL VEGETATION IS ESTABLISHED AND APPROVAL IS GRANTED BY THE ENGINEER TO REMOVE MEASURES. REGULAR INSPECTION AND MAINTENANCE OF THE EROSION AND SEDIMENT MEASURES SHALL BE UNDERTAKEN. THE IMPLEMENTATION AND ADJUSTMENT AND/OR CORRECTIVE MAINTENANCE OF THE EROSION AND SEDIMENT MEASURES IS AN INTEGRAL PART OF THE PLAN AND MUST BE PERFORMED.
- CATCH BASIN AND AREA DRAIN SEDIMENT PROTECTION SHALL BE PROVIDED FOR ALL CATCH BASINS, CATCH BASIN MAINTENANCE HOLES, DITCH INLETS, AREA DRAINS, AND OPEN GRATE MAINTENANCE HOLES WITHIN THE WORK AREA, WITHIN 50m OF THE WORK AREA, OR WHICH RECEIVE RUN-OFF FROM THE WORK AREA. CATCH BASIN INLET PROTECTION IS REQUIRED BOTH FOR EXISTING STRUCTURES (INCLUDING STRUCTURES WHICH WILL BE REMOVED AS PART OF THE WORK) AND NEW STRUCTURES INSTALLED AS PART OF THE WORK. CATCH BASIN SEDIMENT PROTECTION SHALL INVOLVE BOTH (i) WRAPPING GRATE WITH FILTER CLOTH, AND (ii) SURROUNDING CATCH BASIN OR DRAIN WITH SEDIMENT CAPTURE FILTER SOCK. SEDIMENT CAPTURE FILTER SOCK SHALL BE STACKED (IN SOFT GROUND) OR HELD IN PLACE USING SANDBAGS (IN PAVED AREAS). CATCH BASIN SEDIMENT PROTECTION SHALL BE INSPECTED REGULARLY AND MAINTAINED AS NECESSARY. ANY VISIBLE ACCUMULATION OS SEDIMENT SHALL BE REMOVED AND DISPOSED OFF-SITE.
- INTEGRITY AND FUNCTION BY THE CONTRACTOR. ANY REQUIRED REPAIRS TO EROSION AND SEDIMENT CONTROL MEASURES TO BE COMPLETED WITHIN 24 HOURS
- ALL SEDIMENT CONTROL MEASURES ARE TO BE MAINTAINED BY THE CONTRACTOR AS NECESSARY. SEDIMENTS REMOVED FROM THE CONTROL MEASURES (SILT FENCES, CATCHBASIN SEDIMENT CONTROLS, ETC.) SHALL BE DISPOSED OF IN ACCORDANCE WITH MOECC GUIDELINES
- 7. IF NECESSARY, ADDITIONAL SEDIMENT CONTROL MEASURES MAY BE INSTALLED AS DIRECTED BY THE ENGINEER OR THE RIDEAU VALLEY CONSERVATION AUTHORITY
- ONCE NEW CATCH BASINS AND AREA DRAINS ARE INSTALLED, GEOTEXTILE FILTER FABRIC SHALL BE PLACED AS PER NOTE 4, AND SHALL REMAIN IN PLACE UNTIL THE COMPLETION OF CONSTRUCTION ACTIVITIES.
- 9. CONTRACTOR IS RESPONSIBLE TO KEEP THE ROADS FREE AND CLEAN FROM MUD OR DEBRIS.

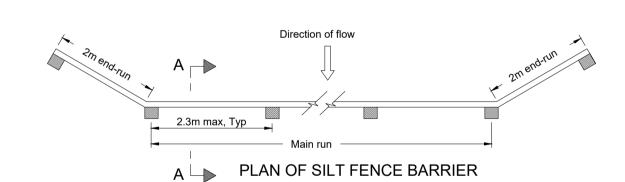


## 1. TO BE USED UNDER APPROPRIATE DRAINAGE CIRCUMSTANCES, DURING

- THE CONSTRUCTION PERIOD.
- 2. WOVEN GEOTEXTILE TO HAVE A MINIMUM EQUIVALENT OPENING, SIZE OF 0.15mm AND A MAXIMUM EQUIVALENT OPENING SIZE OF 0.25mm.
- 3. WOVEN GEOTEXTILE TO BE REPLACED PERIODICALLY WHEN
- ACCUMULATED SEDIMENTS INTERFERE WITH DRAINAGE. 4. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.

CATCH BASIN /MANHOLE

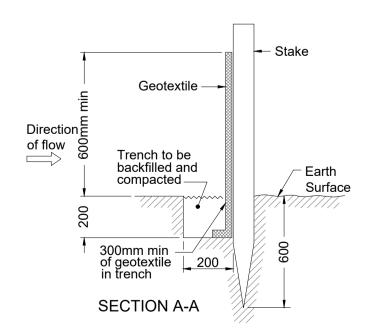
PROTECTION DETAIL N.T.S.



## NOTES:

- 1. WOVEN GEOTEXTILE TO HAVE A MINIMUM EQUIVALENT OPENING, SIZE OF 0.15mm AND A MAXIMUM EQUIVALENT OPENING SIZE OF 0.25mm.
- 2. WOVEN GEOTEXTILE TO HAVE A HORIZONTAL OVERLAP OF 100mm AT
- 3. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.

LIGHT DUTY SILT FENCE **BARRIER AS PER OPSD 219.110** N.T.S.



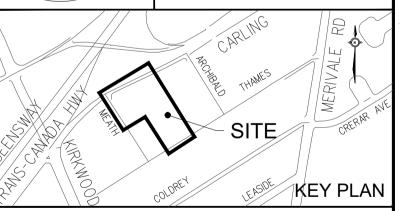
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PERMIT TO PRACTICE J.G. FOOKES پر **Jun 22, 202**1ر





1354 & 1376 CARLING AVENUE DEVELOPMENT - PHASE 2

**EROSION AND SEDIMENT** CONTROL PLAN

2021-06-17 1:400 ROJECT NO. 210292799 RAWING NO C903 PPROVED

HORIZONTAL

BETTER CONDITION.

