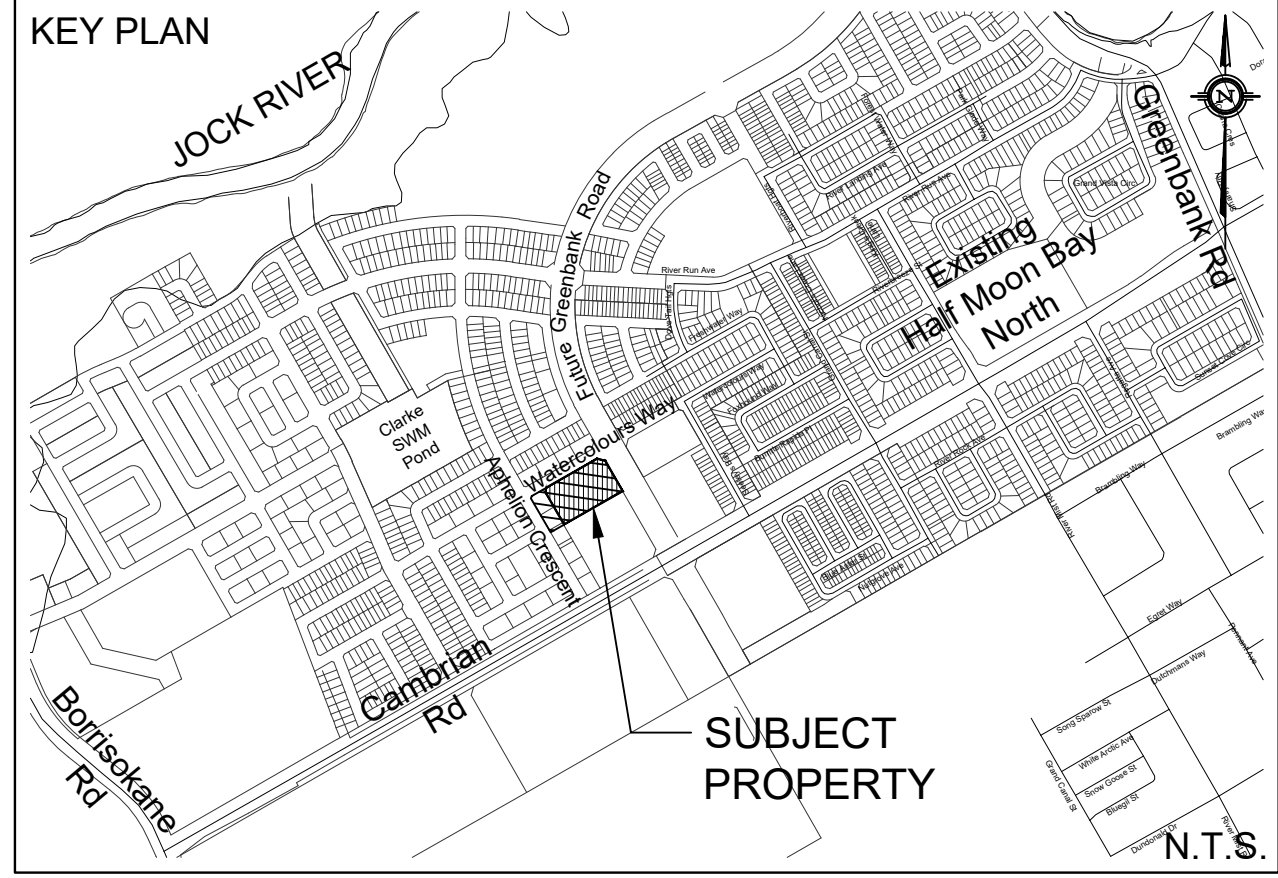


IPEX 200mmØ ICD ORIFICE LOCATION: CB1				
	ELEVATION (m)	HEAD (STAGE TO 100-YR HGL) (m)	RELEASE RATE (L/s)	PONDING VOLUME (m³)
ORIFICE INVERT	91.40	0	-	-
TOP OF LID	92.90	0.0300	15.2	0.0
MAX PONDING	93.05	0.1800	36.2	2.8

90mmØ ICD ORIFICE LOCATION: CB3				
	ELEVATION (m)	HEAD (STAGE TO 100-YR HGL) (m)	RELEASE RATE (L/s)	PONDING VOLUME (m³)
ORIFICE INVERT	91.31	0	-	-
TOP OF LID	92.81	0.0000	0.8	0.0
MAX PONDING	93.11	0.2400	8.5	100.7

200mmØ ICD ORIFICE LOCATION: CICB2				
	ELEVATION (m)	HEAD (STAGE TO 100-YR HGL) (m)	RELEASE RATE (L/s)	PONDING VOLUME (m³)
ORIFICE INVERT	91.41	0	-	-
TOP OF LID	92.91	0.0400	17.4	0.0
MAX PONDING	93.05	0.1800	36.2	2.9

195mmØ ICD ORIFICE LOCATION: CB4				
	ELEVATION (m)	HEAD (STAGE TO 100-YR HGL) (m)	RELEASE RATE (L/s)	PONDING VOLUME (m³)
ORIFICE INVERT	91.31	0	-	-
TOP OF LID	92.81	0.0000	0	0.0
MAX PONDING	93.11	0.2400	39.7	92.3



**LEGEND**

- PROPERTY LINE
- PROPOSED SWALE
- PROPOSED PERFORATED SUBDRAIN
- PROPOSED SPOT ELEVATION
- PROPOSED TOP OF CURB ELEVATION
- PROPOSED BOTTOM OF WALL ELEVATION
- PROPOSED TOP OF WALL ELEVATION
- PROPOSED TOP OF LID ELEVATION
- PROPOSED GRADE AND DIRECTION
- PROPOSED 3:1 TERRACING
- PROPOSED/EXISTING SPOT ELEVATION
- BLOCKS EQUIPPED WITH SUMP PUMPS
- 1.3m x 1.3m PROPOSED HYDRO TRANSFORMER
- PROPOSED HEAVY DUTY ASPHALT
- PROPOSED STORM MANHOLE
- PROPOSED SANITARY MANHOLE
- PROPOSED CATCH BASIN
- PROPOSED CB 'T'
- PROPOSED FIRE HYDRANT
- EMERGENCY FLOW ROUTE
- SURFACE PONDING AREA
- 5-YR PONDING
- 100-YR PONDING
- MAX PONDING
- FINISHED FLOOR ELEVATION (FFE)
- TOP OF FOOTING (TOF)
- UNDERSIDE OF FOOTING (USF)
- FUTURE CENTERLINE GRADE PER DWG NO. 32, HALF MOON BAY WEST PHASE 1, DSEL PROJ. No. 16-888, REV 5, DATED 2019-01-29

**NOT FOR CONSTRUCTION**

**TOPOGRAPHIC INFORMATION**  
TOPOGRAPHIC INFORMATION PROVIDED BY J.D. BARNES LIMITED  
PROJ. NO. 16-10-100-00, SURVEY DATED FEBRUARY 22, 2017,  
CITY OF OTTAWA 2K MAPPING, RECEIVED ON JANUARY 18, 2016

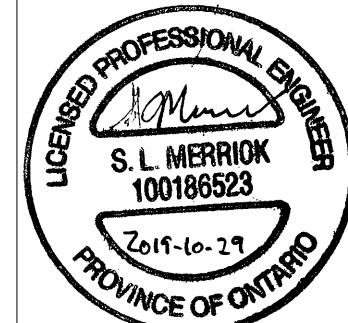
**SITE PLAN INFORMATION**  
SITE PLAN PROVIDED BY KORSIAK URBAN PLANNING  
PROJ. NO. 16-1085, DATED AUGUST 7, 2019

**GEOTECHNICAL STUDY**  
GEOTECHNICAL RECOMMENDATIONS PROVIDED BY PATERSON GROUP  
PROJ. NO. PG4877-1, DATED MARCH 5, 2019

**SITE SERVICING AND STORMWATER MANAGEMENT STUDY**  
SERVICING AND STORMWATER MANAGEMENT RECOMMENDATIONS PROVIDED BY DSEL  
DATED MARCH 2019

**BENCH MARK**  
POINT IS LOCATED 1.65km NORTH OF BARNSDALE ROAD AND 5km SOUTH OF  
FALLOWFIELD ROAD ON HIGHWAY 416 NORTH OF KEMPVILLE. THE POINT IS SET EAST  
OF THE NORTHBOUND LANE IN THE GRASSY SHOULDER.  
ELEVATION=96.923m

5.	A.A.S.	19.10.29	ISSUED FOR MUNICIPAL APPROVAL
4.	A.A.S.	19.08.16	3rd SUBMISSION
3.	A.A.S.	19.07.11	2nd SUBMISSION
2.	B.N.C.	19.07.03	ISSUED FOR COORDINATION
1.	S.L.M.	19.03.14	1st SUBMISSION
No.	BY	YY.MM.DD	DESCRIPTION



**PROJECT No19-1085**

**GRADING PLAN**  
**3508 GREENBANK ROAD - HMBW PHASE 1**  
© DSEL

**MATTAMY HOMES LIMITED**  
(HALF MOON BAY)

50 HINES ROAD, SUITE 100  
OTTAWA, ON, K2K 2M5  
Tel. (613)-831-3546

**DSEL**  
david schaeffer engineering ltd  
SMART SUBDIVISIONS™

120 Iber Road Unit 103  
Stittsville, Ontario, K2S 1E9  
Tel. (613) 836-0856  
Fax. (613) 836-7183  
www.DSEL.ca

DRAWN BY: A.A.S. CHECKED BY: S.L.M. DRAWING NO. SHEET NO.  
DESIGNED BY: A.A.S. CHECKED BY: S.L.M.  
SCALE: 1:300 DATE: MARCH 2019 GP-1 2 of 5

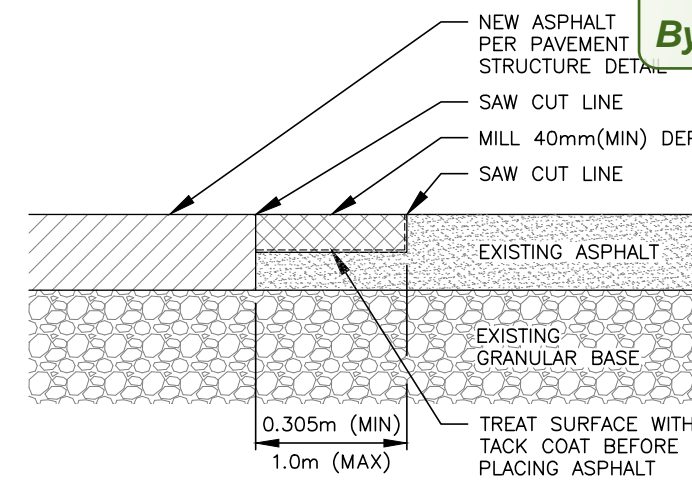
**GENERAL NOTES**

- ALL WORKS AND MATERIALS SHALL CONFORM TO THE LATEST REVISION OF THE STANDARDS AND SPECIFICATIONS FOR THE CITY OF OTTAWA, ONTARIO PROVINCIAL STANDARD DRAWINGS (OPSD) AND SPECIFICATIONS (OPSS), WHERE APPLICABLE. LOCAL UTILITY STANDARDS AND MINISTRY OF TRANSPORTATION STANDARDS WILL APPLY WHERE REQUIRED.
- THE CONTRACTOR SHALL CONFIRM THE LOCATION OF ALL EXISTING UTILITIES WITHIN THE SITE AND ADJACENT WORK AREAS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING UTILITIES TO THE SATISFACTION OF THE AUTHORITY HAVING JURISDICTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OR REPLACEMENT OF ANY SERVICES OR UTILITIES DISTURBED DURING CONSTRUCTION, TO THE SATISFACTION OF THE AUTHORITY HAVING JURISDICTION.
- ALL DIMENSIONS SHALL BE CHECKED AND VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. ANY DISCREPANCIES SHALL BE REPORTED IMMEDIATELY TO THE ENGINEER. LOSS TIME DUE TO FAILURE OF THE CONTRACTOR TO CONFIRM UTILITY LOCATIONS AND NOTIFY ENGINEER OF POSSIBLE CONFLICTS PRIOR TO CONSTRUCTION WILL BE AT THE CONTRACTOR'S EXPENSE.
- ANY AREAS BEYOND THE LIMIT OF THE SITE DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO ORIGINAL CONDITION OR BETTER TO THE SATISFACTION OF THE AUTHORITY HAVING JURISDICTION AT THE CONTRACTOR'S EXPENSE.
- RELOCATION OF EXISTING SERVICES AND/OR UTILITIES SHALL BE AS SHOWN ON THE DRAWINGS OR DIRECTED BY THE ENGINEER AT THE EXPENSE OF THE DEVELOPER.
- ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE OCCUPATIONAL HEALTH AND SAFETY ACT AND REGULATIONS FOR CONSTRUCTION PROJECTS. THE GENERAL CONTRACTOR SHALL BE DEEMED TO BE THE "CONSTRUCTOR" AS DEFINED IN THE ACT.
- ALL CONSTRUCTION SIGNAGE MUST CONFORM TO THE MINISTRY OF TRANSPORTATION OF ONTARIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES PER LATEST AMENDMENT.
- THE CONTRACTOR IS ADVISED THAT WORK BY OTHERS MAY BE ONGOING DURING THE PERIOD OF THIS CONTRACT. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES TO PREVENT CONFLICTS.
- ALL DIMENSIONS ARE IN METRES UNLESS SPECIFIED OTHERWISE.
- THERE WILL BE NO SUBSTITUTION OF MATERIALS UNLESS PRIOR WRITTEN APPROVAL IS RECEIVED FROM THE ENGINEER.
- ALL CONSTRUCTION SHALL BE CARRIED OUT IN ACCORDANCE WITH THE RECOMMENDATIONS MADE IN THE GEOTECHNICAL REPORT.
- FOR DETAILS RELATING TO STORMWATER MANAGEMENT AND ROOF DRAINAGE REFER TO THE SITE SERVICING AND STORMWATER MANAGEMENT REPORT.
- ALL SEWERS CONSTRUCTED WITH GRADES LESS THAN 1.0% SHALL BE INSTALLED USING LASER ALIGNMENT AND CHECKED WITH LEVEL INSTRUMENT PRIOR TO BACKFILLING.
- THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED AND TO BEAR THE COST OF THE SAME.
- THE CONTRACTOR WILL BE RESPONSIBLE FOR ADDITIONAL BEDDING, OR ADDITIONAL STRENGTH PIPE IF THE MAXIMUM TRENCH WIDTH AS SPECIFIED BY OPSD IS EXCEEDED.
- ALL PIPE / CULVERT SECTION SIZES REFER TO INSIDE DIMENSIONS.
- SHOWN BURIED ARCHAEOLOGICAL REMAINS BE FOUND ON THE PROPERTY DURING CONSTRUCTION ACTIVITIES, THE HERITAGE OPERATIONS UNIT OF THE ONTARIO MINISTRY OF CULTURE MUST BE NOTIFIED IMMEDIATELY.
- ALL NECESSARY CLEARING AND GRUBBING SHALL BE COMPLETED BY THE CONTRACTOR. REVIEW WITH CONTRACT ADMINISTRATOR AND THE CITY OF OTTAWA PRIOR TO ANY TREE CUTTING / REMOVAL.
- ALL DRAWINGS SHALL BE READ IN CONJUNCTION WITH THE ARCHITECTURAL SITE PLAN.
- THE CONTRACTOR SHALL PROVIDE THE PROJECT ENGINEER ONE SET OF AS-CONSTRUCTED SITE SERVICING AND GRADING DRAWINGS.
- BENCHMARKS: IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THAT THE SITE BENCHMARK(S) HAS NOT BEEN ALTERED OR DISTURBED AND THAT ITS RELATIVE ELEVATION AND DESCRIPTION AGREES WITH THE INFORMATION DEPICTED ON THIS PLAN.

**SITE GRADING NOTES**

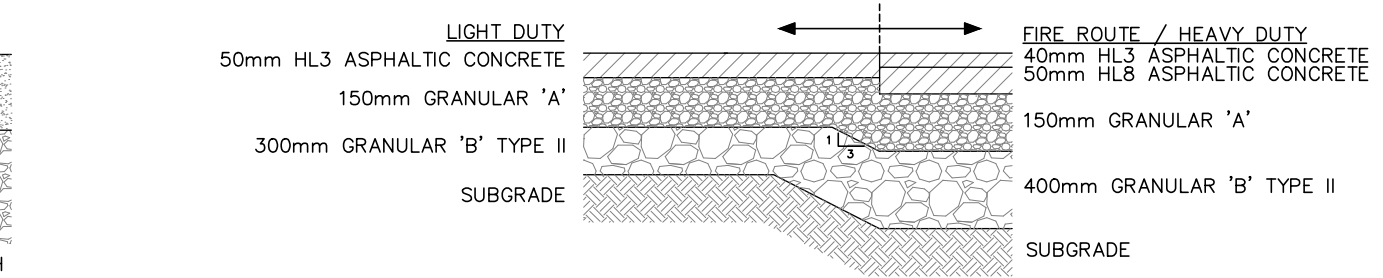
- PRIOR TO THE COMMENCEMENT OF THE SITE GRADING WORKS, ALL SILTATION CONTROL DEVICES SHALL BE INSTALLED AND OPERATIONAL PER EROSION CONTROL PLAN.
- ALL GRANULAR AND PAVEMENT FOR ROADS/PARKING AREAS SHALL BE CONSTRUCTED IN ACCORDANCE WITH GEOTECHNICAL ENGINEER'S RECOMMENDATIONS.
- ALL TOPSOIL AND ORGANIC MATERIAL SHALL BE STRIPPED WITHIN THE ROAD AND PARKING AREAS ALLOWANCE PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
- CONCRETE CURB SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STD. SC1.1. PROVISION SHALL BE MADE FOR CURB DEPRESSIONS AS INDICATED ON ARCHITECTURAL SITE PLAN. CONCRETE SIDEWALK SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STD. SC1.4. ALL CURBS, CONCRETE ISLANDS, AND SIDEWALKS SHOWN ON THIS DRAWING ARE TO BE PRICED IN THE SITEWORKS PORTION OF THE CONTRACT.
- PAVEMENT REINSTATEMENT FOR SERVICE AND UTILITY CUTS SHALL BE IN ACCORDANCE WITH THE CITY OF OTTAWA STD. RIO AND OPSD 509.010, AND OPSD 310.
- GRANULAR 'A' SHALL BE PLACED TO A MINIMUM THICKNESS OF 300mm AROUND ALL STRUCTURES WITHIN THE PAVEMENT AREA.
- SUB-EXCAVATE SOFT AREAS AND FILL WITH GRANULAR 'B' COMPACTED IN MAXIMUM 300mm LIFTS.
- ALL WORK ON THE MUNICIPAL RIGHT OF WAY AND EASEMENTS TO BE INSPECTED BY THE MUNICIPALITY PRIOR TO BACKFILLING.
- CONTRACTOR TO OBTAIN A ROAD OCCUPANCY PERMIT 48 HOURS PRIOR TO COMMENCING ANY WORK WITHIN THE MUNICIPAL ROAD ALLOWANCE, IF REQUIRED BY THE MUNICIPALITY.
- ALL PAVEMENT MARKING FEATURES AND SITE SIGNAGE SHALL BE PLACED PER ARCHITECTURAL SITE PLAN. LINE PAINTING AND DIRECTIONAL SYMBOLS SHALL BE APPLIED WITH A MINIMUM OF TWO COATS OF ORGANIC SOLVENT PAINT.
- REFER TO ARCHITECTURAL SITE PLAN FOR DIMENSIONS AND SITE DETAILS.
- STEP JOINTS ARE TO BE USED WHERE PROPOSED ASPHALT MEETS EXISTING ASPHALT. ALL JOINTS MUST BE SEALED.
- SIDEWALKS TO BE 150mm & BEVELED AT 2:1 OR 60mm WITH NO BEVEL REQUIRED BELOW THE FINISHED FLOOR SLAB ELEVATION AT ENTRANCES REQUIRED TO BE BARRIER-FREE, UNLESS OTHERWISE NOTED. ALL IN ACCORDANCE WITH OBC 38.1.3.1 OTTAWA ACCESSIBILITY DESIGN STANDARDS.
- WHERE APPLICABLE, THE CONTRACTOR IS TO SUBMIT SHOP DRAWINGS FOR RETAINING WALL (INCLUDE RAILINGS IF APPLICABLE) TO THE ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION. SHOP DRAWINGS MUST BE SITE SPECIFIC, SIGNED AND SEALED BY A LICENSED STRUCTURAL ENGINEER. THE CONTRACTOR WILL ALSO BE REQUIRED TO SUPPLY STRUCTURAL AND GEOTECHNICAL CERTIFICATION OF THE AS-CONSTRUCTED RETAINING WALL TO THE ENGINEER PRIOR TO FINAL ACCEPTANCE.

**SAW CUT & KEY DETAIL**



**APPROVED**  
By Lily Xu at 4:19 pm, Nov 04, 2019

**PAVEMENT STRUCTURE**



**NOTE:**  
HALF MOON BAY WEST PHASE 1 GRADING & SERVICING FOR WATERCOLOURS WAY & APHELION CRESCENT  
REFER TO DAVID SCHAEFFER ENGINEERING LTD.  
PROJECT No. 16-888, SUBMISSION 5 (2019-01-29)

