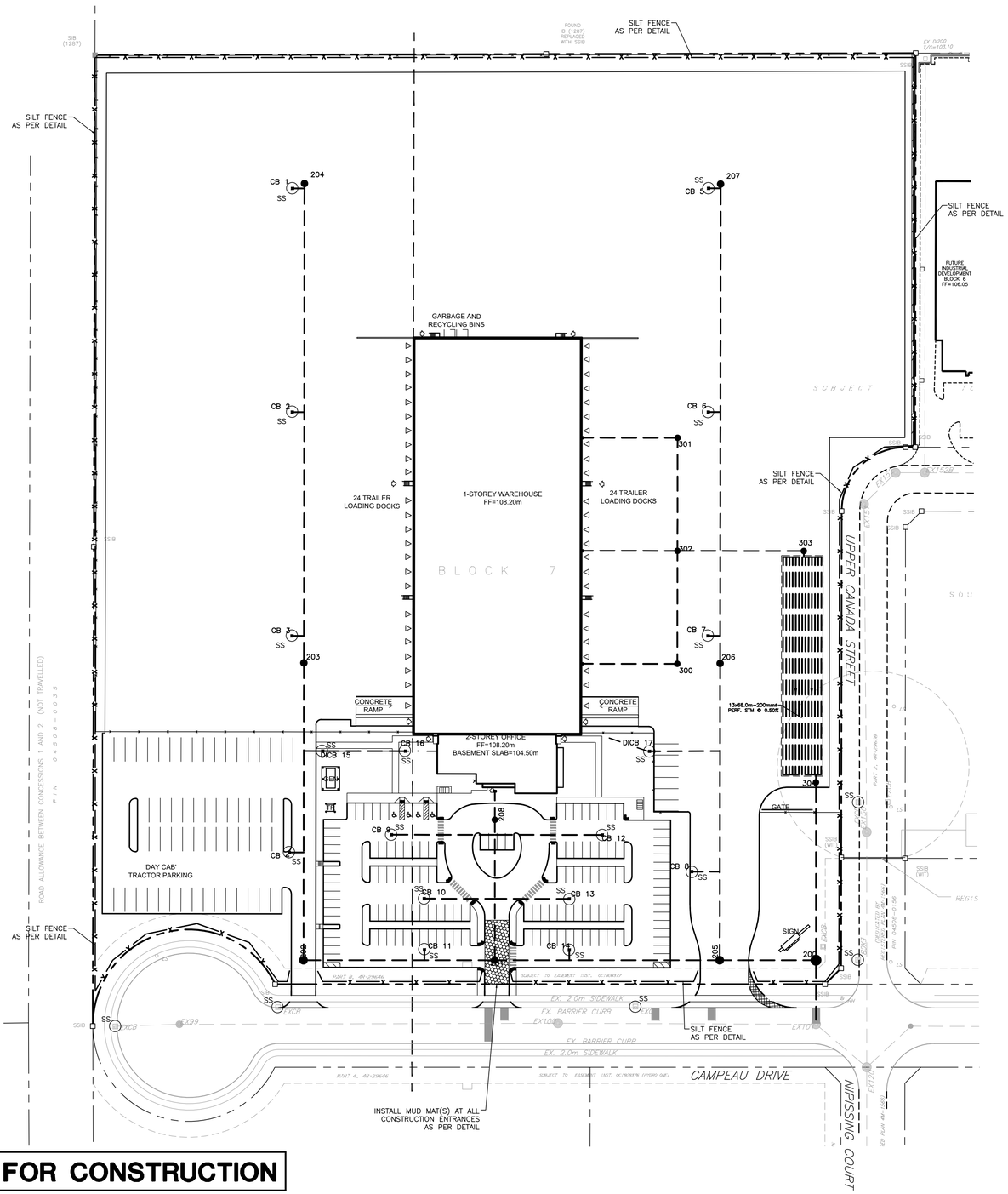
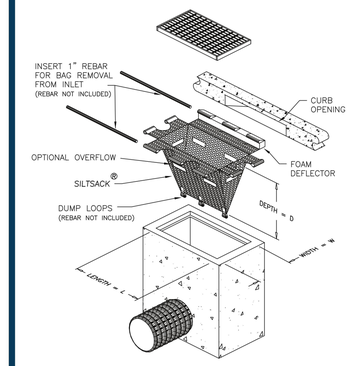
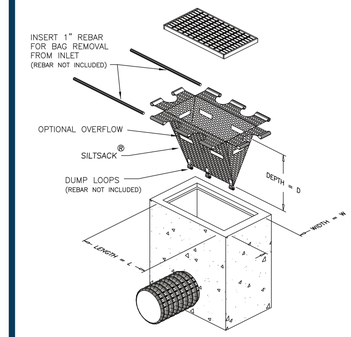


Typical Siltsack® Construction - Type A

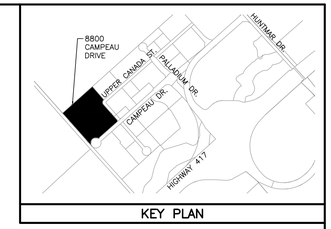


Typical Siltsack® Construction - Type B



INFILTRATION GALLERY NOTES:

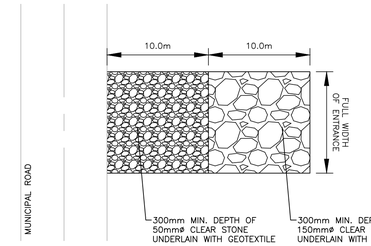
1. INFILTRATION GALLERY SHALL BE CONSTRUCTED TOWARDS THE END OF THE DEVELOPMENT CONSTRUCTION PERIOD IN ORDER TO NOT CONTAMINATE THE PRACTICE.
2. SMEARING OF THE NATIVE MATERIAL AT THE INTERFACE WITH THE GALLERY FLOOR MUST BE AVOIDED AND/OR CORRECTED BY RAKING OR ROTO-TILLING.
3. COMPACTION OF THE GALLERY BOTTOM MUST BE MINIMIZED.



KEY PLAN

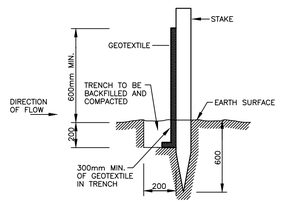
LEGEND

- PROPERTY BOUNDARY
- CATCH BASIN
- EXISTING CATCH BASIN
- STORM SEWER & MANHOLE
- EXISTING STORM SEWER & MANHOLE
- 100m NO-BUILD SETBACK
- SILT FENCE
- SS — SILT SACK UNDER FRAME AND COVER

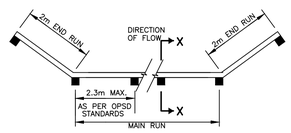


NOTES:
1. MUD MAT TO BE UNDERLAIN WITH A GEOTEXTILE FABRIC.
2. SEDIMENT SHALL BE CLEANED FROM MUNICIPAL RIGHT-OF-WAYS AS REQUIRED.
3. STORM INLETS IN CLOSE VICINITY TO MUD MAT SHALL BE PROTECTED WITH INLET CONTROL MEASURES.

MUD MAT DETAIL
N.T.S.



SECTION X-X
N.T.S.



SILT FENCE BARRIER DETAIL
N.T.S.

NOTES:

1. THE CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES TO PROVIDE FOR PROTECTION OF THE AREA DRAINAGE SYSTEM AND THE ULTIMATE RECEIVING WATERCOURSE DURING CONSTRUCTION ACTIVITIES. THE CONTRACTOR ACKNOWLEDGES THAT FAILURE TO IMPLEMENT APPROPRIATE EROSION AND SEDIMENT CONTROL MEASURES MAY BE SUBJECT TO PENALTIES IMPOSED BY ANY APPLICABLE REGULATORY AGENCY.
2. LIMIT THE EXTENT OF EXPOSED SOILS AT ANY GIVEN TIME.
3. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED UNTIL VEGETATION HAS BEEN RE-ESTABLISHED IN ALL DISTURBED AREAS. RE-VEGETATE DISTURBED AREAS IN ACCORDANCE WITH APPROVED LANDSCAPE PLAN AS SOON AS POSSIBLE.
4. STOCKPILE SOIL AWAY (15 METRES OR GREATER) FROM WATERCOURSES, DRAINAGE FEATURES AND TOP OF STEEP SLOPES.
5. SILT SACKS ARE TO BE PLACED UNDERNEATH THE FRAME AND COVER OF ALL PROPOSED AND EXISTING CATCH BASINS AND OPEN COVER STORM MANHOLES UNTIL CONSTRUCTION IS COMPLETED.
6. A SILT FENCE BARRIER SHALL BE INSTALLED AS PER OPSD 219.1100 WHERE INDICATED AND MAINTAINED AS REQUIRED.
7. DURING ACTIVE CONSTRUCTION PERIODS, VISUAL INSPECTIONS SHALL BE UNDERTAKEN ON A WEEKLY BASIS AND AFTER MAJOR STORM EVENTS (>25mm RAIN IN 24 HOUR PERIOD) ON SEDIMENT CONTROL BARRIERS AND ANY DAMAGE REPAIRED IMMEDIATELY.
8. EROSION AND SEDIMENT CONTROL BARRIERS SHALL ALSO BE ASSESSED (AND REPAIRED AS REQUIRED) FOLLOWING SIGNIFICANT SNOWMELT EVENTS.
9. VISUAL INSPECTIONS SHALL ALSO BE UNDERTAKEN IN ANTICIPATION OF LARGE STORM EVENTS (OR A SERIES OF RAINFALL AND/OR SNOWMELT DAYS) THAT COULD POTENTIALLY YIELD SIGNIFICANT RUNOFF VOLUMES.
10. CARE SHALL BE TAKEN TO PREVENT DAMAGE TO EROSION AND SEDIMENT CONTROLS DURING CONSTRUCTION OPERATIONS.
11. IN SOME CASES, BARRIERS MAY BE REMOVED TEMPORARILY TO ACCOMMODATE THE CONSTRUCTION OPERATIONS. THE AFFECTED BARRIERS SHALL BE REINSTATED IMMEDIATELY AFTER CONSTRUCTION OPERATIONS ARE COMPLETED.
12. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE ADJUSTED AS REQUIRED AS THE SITE BECOMES DEVELOPED.
13. SEDIMENT CONTROL DEVICES SHALL BE CLEANED OF ACCUMULATED SEDIMENTATION AS REQUIRED AND REPLACED AS NECESSARY.
14. DURING THE COURSE OF CONSTRUCTION, IF THE ENGINEER BELIEVES THAT ADDITIONAL PREVENTION METHODS ARE REQUIRED TO CONTROL EROSION AND SEDIMENTATION, THE CONTRACTOR SHALL IMPLEMENT ADDITIONAL MEASURES, AS REQUIRED, TO THE SATISFACTION OF THE ENGINEER.
15. CONSTRUCTION AND MAINTENANCE REQUIREMENTS FOR EROSION AND SEDIMENT CONTROLS ARE TO COMPLY WITH OPSS 805.
16. MUD MATS SHALL BE INSTALLED AT ALL CONSTRUCTION ENTRANCES.

NOT FOR CONSTRUCTION

NOTES

THE POSITION OF ALL POLE LINES, CONDUITS, WATERMAINS, SEWERS AND OTHER UNDERGROUND AND OVERGROUND UTILITIES AND STRUCTURES IS NOT NECESSARILY SHOWN ON THE CONTRACT DRAWINGS, AND WHERE SHOWN, THE ACCURACY OF THE POSITION OF SUCH UTILITIES AND STRUCTURES IS NOT GUARANTEED. BEFORE STARTING WORK, DETERMINE THE EXACT LOCATION OF ALL SUCH UTILITIES AND STRUCTURES AND ASSUME ALL LIABILITY FOR DAMAGE TO THEM.

NO.	REVISION DESCRIPTION	DATE	BY
3	REVISED PER COMMENTS	28/05/21	SMC
2	ISSUED FOR PROGRESS REVIEW	22/03/21	SMC
1	ISSUED FOR SITE PLAN APPLICATION	02/12/20	SMC

SCALE
0 5m 10m 30m
HORIZONTAL 1:750

LICENSED PROFESSIONAL ENGINEER S. M. CZAMARYSKI MAY 28 2021 PROVINCE OF ONTARIO

Robinson Land Development
350 Palladium Drive
Ottawa, ON K2V 1A8
(613) 592-6060 rcii.com

DESIGN	BLM
CHECKED	SMC
DRAWN	BLM
CHECKED	SMC
APPROVED	SMC

MARITIME-ONTARIO FREIGHT LINES LIMITED

KANATA WEST BUSINESS PARK
8800 CAMPEAU DRIVE, OTTAWA, ON

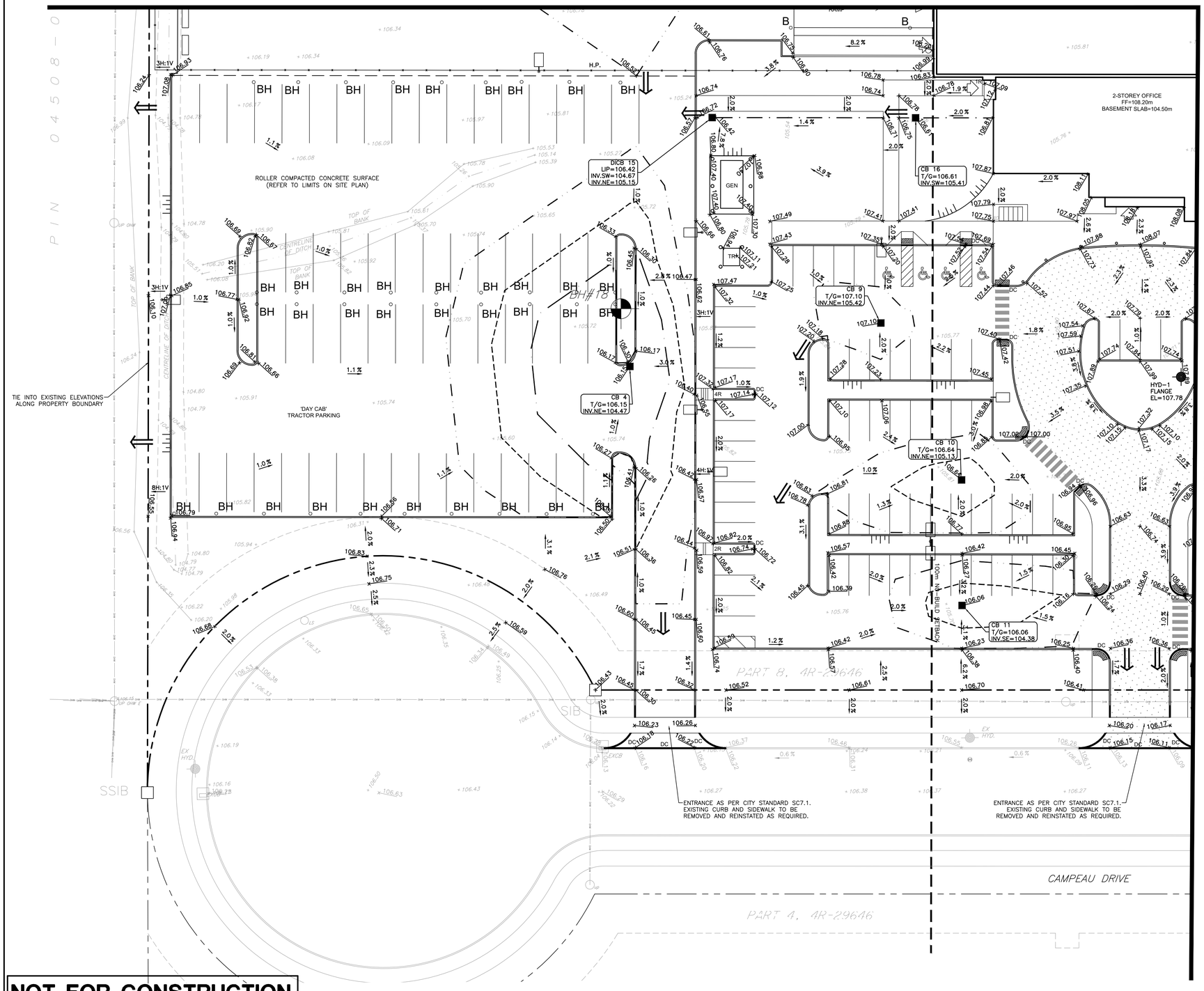
EROSION AND SEDIMENT CONTROL PLAN

PROJECT No.	20027
SURVEY	STANTEC
DATED	MAY 2021
DWG. No:	20027-ESC1

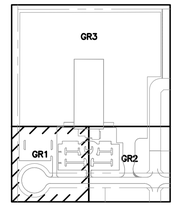
D07-12-20-0189

#18376

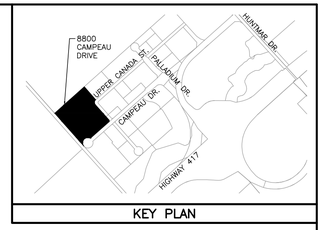
MATCHLINE
REFER TO DWG. 20027-GR3



MATCHLINE
REFER TO DWG. 20027-GR2



DRAWING KEY PLAN



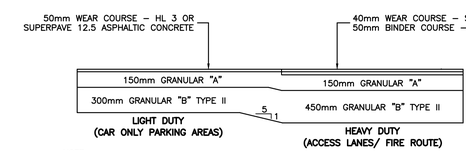
KEY PLAN

LEGEND

× 106.00	EXISTING ELEVATION
× 107.00	PROPOSED GRADE
2.0%	PROPOSED DRAINAGE SLOPE AND DIRECTION
× 107.00	IBI GROUP DESIGN GRADE
	PROPERTY BOUNDARY
	CATCH BASIN
	EXISTING CATCH BASIN
	EXISTING HYDRANT
	SWALE
H.P.	HIGH POINT
DC	DEPRESSED CURB
	TERRACING (3H:1V MAX.)
	100m NO-BUILD SETBACK
	2 YEAR PONDING LIMIT
	5 YEAR PONDING LIMIT
	100 YEAR PONDING LIMIT
	BOREHOLE
	BUILDING ENTRANCE (REFER TO SITE PLAN)
∘B	BOLLARD (REFER TO SITE PLAN)
∘BH	BLOCK HEATER POST (REFER TO SITE PLAN)
	LIGHT STANDARD (REFER TO SITE PLAN)
	TWSI (REFER TO SITE PLAN)
	MAJOR OVERLAND FLOW ROUTE
	HEAVY DUTY ASPHALT LIMITS

NOTE:
1. REFER TO GEOTECHNICAL INVESTIGATION PREPARED BY PATERSON GROUP, REPORT PG5618-1, DATED APRIL 9, 2021.
2. REFER TO LIMITS OF INSTALLATION ON SITE PLAN.

ROLLER COMPACTED CONCRETE PAVEMENT STRUCTURE DETAIL
N.T.S.



NOTE:
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2. REFER TO LIMITS OF INSTALLATION ON SITE PLAN.

ASPHALT PAVEMENT STRUCTURE DETAIL
N.T.S.

LOCATION	SURFACE STORAGE AREAS								
	2 YEAR			5 YEAR			100 YEAR		
	STORAGE VOLUME (m^3)	PONDING DEPTH (m)	PONDING ELEVATION (m)	STORAGE VOLUME (m^3)	PONDING DEPTH (m)	PONDING ELEVATION (m)	STORAGE VOLUME (m^3)	PONDING DEPTH (m)	PONDING ELEVATION (m)
CB 4	15.5	0.15	106.30	30.3	30.3	0.19	109.4	0.28	106.43
CB 9	N/A	N/A	N/A	N/A	N/A	N/A	3.7	0.10	107.20
CB 10	N/A	N/A	N/A	1.8	0.09	106.73	16.6	0.19	106.83
DICB 15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CB 16	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

NOT FOR CONSTRUCTION

NOTES
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1	ISSUED FOR SITE PLAN APPLICATION	02/12/20	SMC

SCALE
0 2m 4m 10m
HORIZONTAL 1:250

LICENSED PROFESSIONAL ENGINEER
S. M. CZAMARYNSKI
MAY 28 2021
PROVINCE OF ONTARIO

Robinson Land Development
350 Palladium Drive
Ottawa, ON K2V 1A8
(613) 592-6060 rcii.com

DESIGN	BLM
CHECKED	SMC
DRAWN	BLM
CHECKED	SMC
APPROVED	SMC

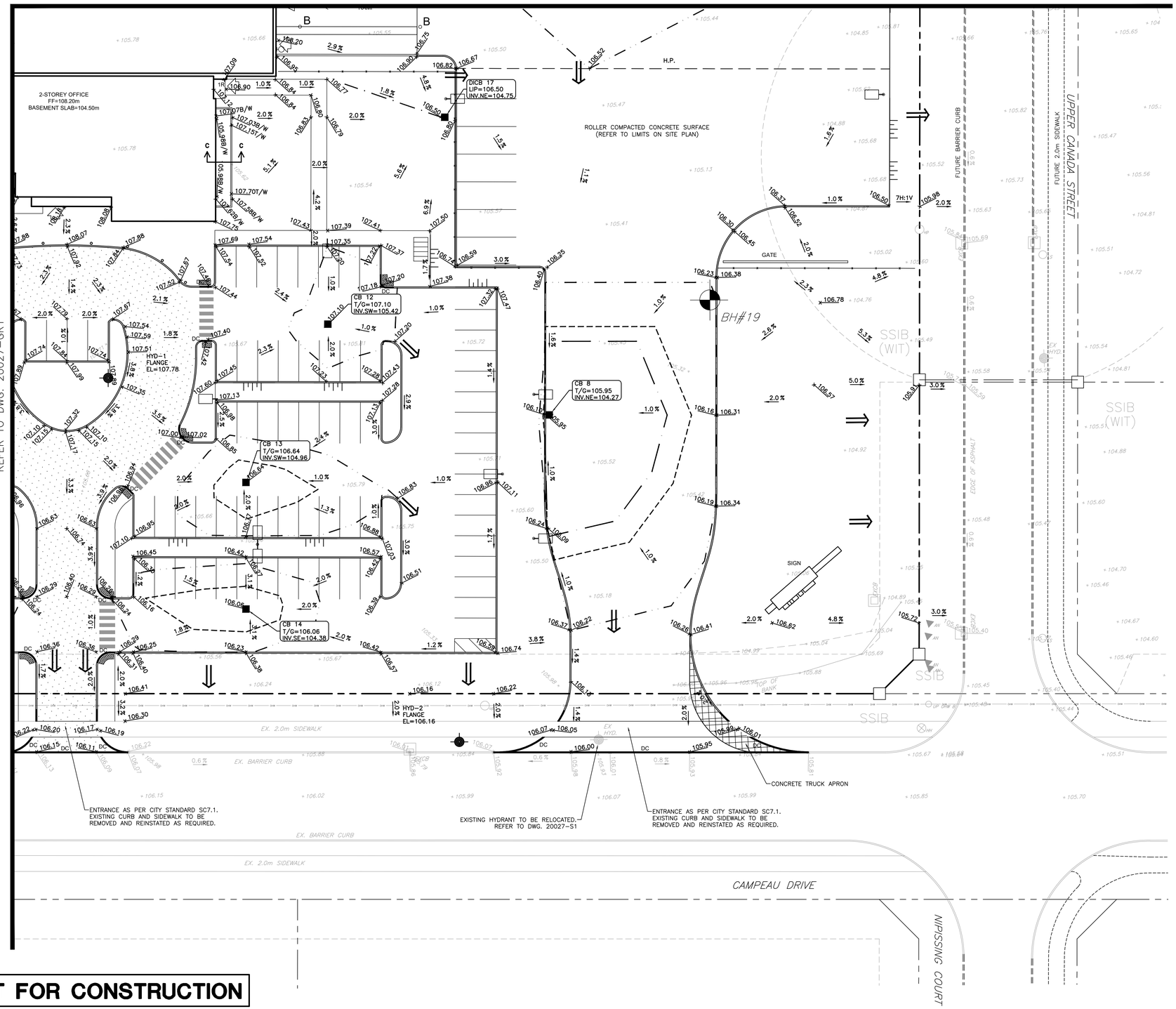
MARITIME-ONTARIO FREIGHT LINES LIMITED

KANATA WEST BUSINESS PARK
8800 CAMPEAU DRIVE, OTTAWA, ON

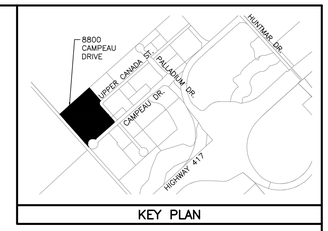
GRADING PLAN

PROJECT No.	20027
SURVEY	STANTEC
DATED	MAY 2021
DWG. No:	20027-GR1

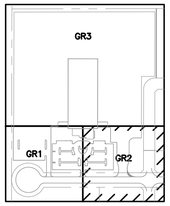
D07-12-20-0189
#18376



NOT FOR CONSTRUCTION



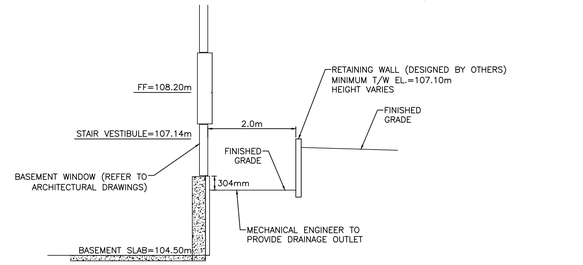
KEY PLAN



DRAWING KEY PLAN

LEGEND

- EXISTING ELEVATION
- PROPOSED GRADE
- PROPOSED DRAINAGE SLOPE AND DIRECTION
- IBI GROUP DESIGN GRADE
- PROPERTY BOUNDARY
- CATCH BASIN
- EXISTING CATCH BASIN
- EXISTING HYDRANT
- SWALE
- HIGH POINT
- DEPRESSED CURB
- TERRACING (3H:1V MAX.)
- 100m NO-BUILD SETBACK
- 2 YEAR PONDING LIMIT
- 5 YEAR PONDING LIMIT
- 100 YEAR PONDING LIMIT
- BOREHOLE
- BUILDING ENTRANCE (REFER TO SITE PLAN)
- BOLLARD (REFER TO SITE PLAN)
- BLOCK HEATER POST (REFER TO SITE PLAN)
- LIGHT STANDARD (REFER TO SITE PLAN)
- TWSI (REFER TO SITE PLAN)
- MAJOR OVERLAND FLOW ROUTE
- HEAVY DUTY ASPHALT LIMITS



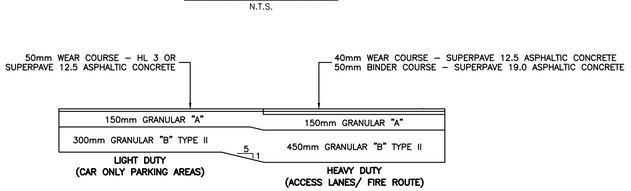
WINDOW WELL SECTION C-C
N.T.S.

200mm THICKNESS
ZERO SLUMP, NO AIR ENTRAINMENT
32 MPa AT 28 DAY STRENGTH
12 TO 13% CEMENT CONTENT

300mm GRANULAR "A"

NOTE:
1. REFER TO GEOTECHNICAL INVESTIGATION PREPARED BY PATERSON GROUP, REPORT PG5618-1, DATED APRIL 9, 2021.
2. REFER TO LIMITS OF INSTALLATION ON SITE PLAN.

ROLLER COMPACTED CONCRETE PAVEMENT STRUCTURE DETAIL
N.T.S.



NOTE:
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2. REFER TO LIMITS OF INSTALLATION ON SITE PLAN.

ASPHALT PAVEMENT STRUCTURE DETAIL
N.T.S.

LOCATION	SURFACE STORAGE AREAS								
	2 YEAR			5 YEAR			100 YEAR		
	STORAGE VOLUME (m^3)	PONDING DEPTH (m)	PONDING ELEVATION (m)	STORAGE VOLUME (m^3)	PONDING DEPTH (m)	PONDING ELEVATION (m)	STORAGE VOLUME (m^3)	PONDING DEPTH (m)	PONDING ELEVATION (m)
CB 8	15.3	0.15	106.10	26.5	0.18	106.13	86.7	0.27	106.22
CB 12	N/A	N/A	N/A	N/A	N/A	N/A	4.6	0.10	107.20
CB 13	N/A	N/A	N/A	1.8	0.09	106.73	16.6	0.19	106.83
CB 17	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

NOTES

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SCALE
0 2m 4m 10m
HORIZONTAL 1:250

LICENSED PROFESSIONAL ENGINEER
S. M. CZAMARYSKI
MAY 28 2021
PROVINCE OF ONTARIO

Robinson
Land Development
350 Palladium Drive
Ottawa, ON K2V 1A8
(613) 592-6060 rcii.com

DESIGN	BLM
CHECKED	SMC
DRAWN	BLM
CHECKED	SMC
APPROVED	SMC

MARITIME-ONTARIO
FREIGHT LINES LIMITED

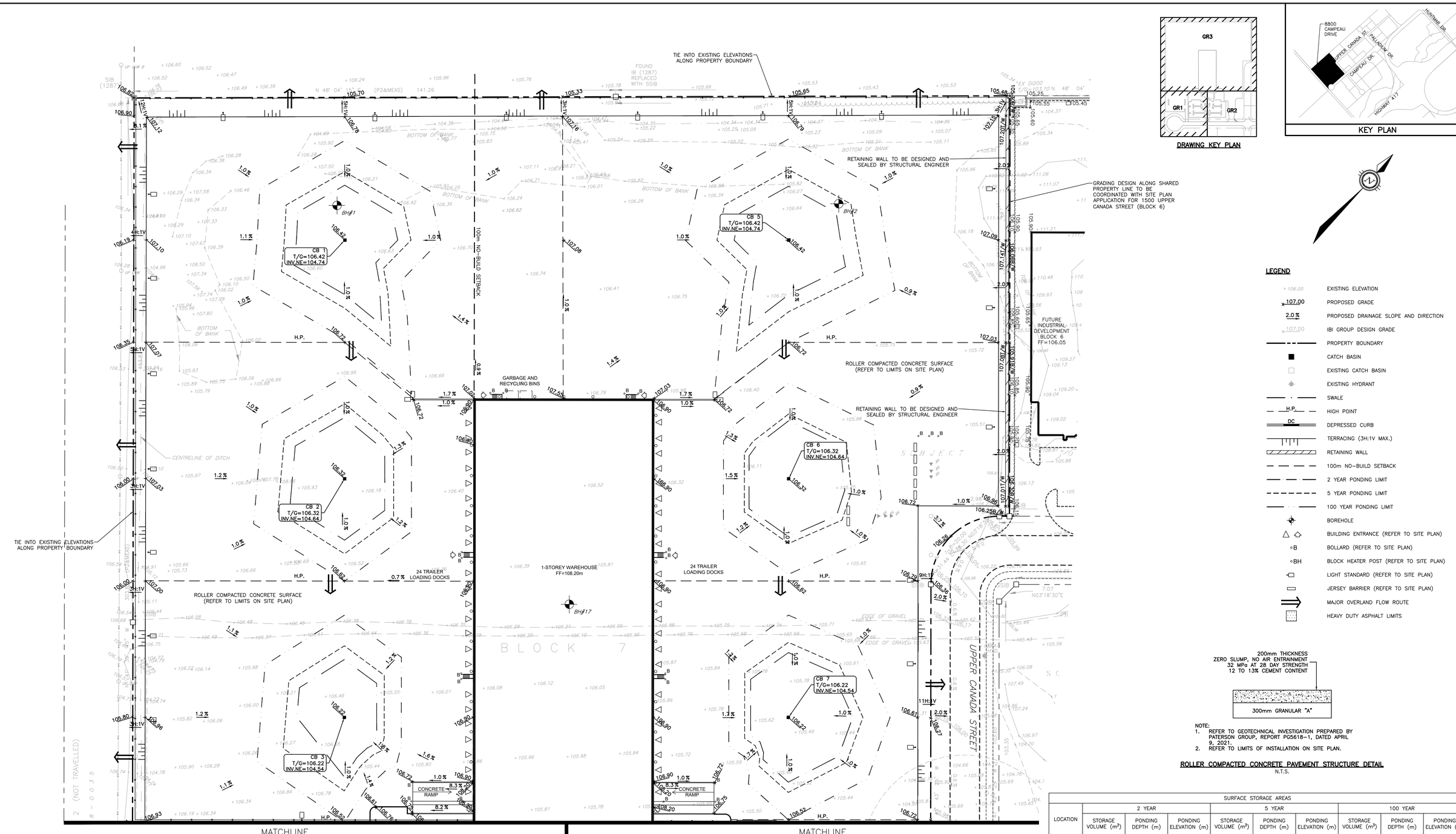
KANATA WEST BUSINESS PARK
8800 CAMPEAU DRIVE, OTTAWA, ON

GRADING PLAN

PROJECT No.	20027
SURVEY	STANTEC
DATED	MAY 2021
DWG. No:	20027-GR2

D07-12-20-0189

#18376



DRAWING KEY PLAN

KEY PLAN

LEGEND

- EXISTING ELEVATION
- PROPOSED GRADE
- PROPOSED DRAINAGE SLOPE AND DIRECTION
- IBI GROUP DESIGN GRADE
- PROPERTY BOUNDARY
- CATCH BASIN
- EXISTING CATCH BASIN
- EXISTING HYDRANT
- SWALE
- HIGH POINT
- DEPRESSED CURB
- TERRACING (3H:1V MAX.)
- RETAINING WALL
- 100m NO-BUILD SETBACK
- 2 YEAR PONDING LIMIT
- 5 YEAR PONDING LIMIT
- 100 YEAR PONDING LIMIT
- BOREHOLE
- BUILDING ENTRANCE (REFER TO SITE PLAN)
- BOLLARD (REFER TO SITE PLAN)
- BLOCK HEATER POST (REFER TO SITE PLAN)
- LIGHT STANDARD (REFER TO SITE PLAN)
- JERSEY BARRIER (REFER TO SITE PLAN)
- MAJOR OVERLAND FLOW ROUTE
- HEAVY DUTY ASPHALT LIMITS

NOTE:
1. REFER TO GEOTECHNICAL INVESTIGATION PREPARED BY PATERSON GROUP, REPORT PG5618-1, DATED APRIL 9, 2021.
2. REFER TO LIMITS OF INSTALLATION ON SITE PLAN.

ROLLER COMPACTED CONCRETE PAVEMENT STRUCTURE DETAIL
N.T.S.

SURFACE STORAGE AREAS

LOCATION	2 YEAR			5 YEAR			100 YEAR		
	STORAGE VOLUME (m^3)	PONDING DEPTH (m)	PONDING ELEVATION (m)	STORAGE VOLUME (m^3)	PONDING DEPTH (m)	PONDING ELEVATION (m)	STORAGE VOLUME (m^3)	PONDING DEPTH (m)	PONDING ELEVATION (m)
CB 1	39.1	0.16	106.58	78.6	0.20	106.62	232.6	0.29	106.71
CB 2	43.4	0.18	106.50	79.2	0.22	106.54	200.8	0.30	106.62
CB 3	29.9	0.17	106.39	63.4	0.21	106.43	184.7	0.30	106.52
CB 5	40.9	0.16	106.58	79.9	0.20	106.62	243.6	0.29	106.71
CB 6	40.3	0.17	106.49	65.2	0.19	106.51	180.2	0.28	106.60
CB 7	50.9	0.19	106.41	83.8	0.22	106.44	200.5	0.30	106.52

NOT FOR CONSTRUCTION

NOTES

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SCALE
0 5m 10m 20m
HORIZONTAL 1:500

LICENSED PROFESSIONAL ENGINEER S. M. CZANARYSKI May 28 2021 PROVINCE OF ONTARIO

Robinson Land Development
350 Palladium Drive
Ottawa, ON K2V 1A8
(613) 592-6060 rcii.com

DESIGN	BLM
CHECKED	SMC
DRAWN	BLM
CHECKED	SMC
APPROVED	SMC

MARITIME-ONTARIO FREIGHT LINES LIMITED

KANATA WEST BUSINESS PARK
8800 CAMPEAU DRIVE, OTTAWA, ON

GRADING PLAN

PROJECT No.	20027
SURVEY	STANTEC
DATED	MAY 2021
DWG. No:	20027-GR3

D07-12-20-0189

#18376

GENERAL NOTES:

1. ALL WORKS AND MATERIALS SHALL CONFORM TO THE LATEST REVISIONS OF THE STANDARDS AND SPECIFICATIONS OF THE CITY OF OTTAWA AND ONTARIO PROVINCIAL STANDARD DRAWINGS (OPSD) AND SPECIFICATIONS (OPSS), AS AMENDED BY THE CITY OF OTTAWA.
2. 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 REPAIR OR REPLACEMENT OF ANY SERVICES OR UTILITIES DISTURBED DURING CONSTRUCTION, TO THE SATISFACTION OF THE AUTHORITY HAVING JURISDICTION.
3. ALL DIMENSIONS AND ELEVATIONS 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.
4. DESIGN ELEVATIONS GIVEN ARE TO BE ADHERED TO WITH NO CHANGES WITHOUT PRIOR WRITTEN APPROVAL BY ROBINSON LAND DEVELOPMENT.
5. 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.
6. RELOCATION OF EXISTING SERVICES AND/OR UTILITIES SHALL BE AS SHOWN ON THE DRAWINGS OR AS DIRECTED BY THE ENGINEER AT THE EXPENSE OF THE CONTRACTOR.
7. 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.
8. ALL CONSTRUCTION SIGNAGE MUST CONFORM TO THE M.T.O. MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (LATEST AMENDMENT).
9. ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SPECIFIED.
10. THE SUPPORT OF ALL UTILITIES SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION.
11. THE CONTRACTOR WILL BE RESPONSIBLE FOR ADDITIONAL BEDDING OR ADDITIONAL STRENGTH PIPE IF THE MAXIMUM TRENCH WIDTH, AS SPECIFIED BY OPSD, IS EXCEEDED.
12. ALL NECESSARY CLEARING AND GRUBBING SHALL BE COMPLETED BY THE CONTRACTOR. REVIEW WITH CONTRACT ADMINISTRATOR AND THE CITY OF OTTAWA PRIOR TO AND TREE CUTTING.
13. REFER TO GEOTECHNICAL INVESTIGATION PREPARED BY PATERSON GROUP, REPORT NO. PG5618-1, DATED APRIL 9, 2021.
14. THE CONTRACTOR IS RESPONSIBLE FOR AND SHALL PROVIDE FOR DEWATERING, SUPPORT AND PROTECTION OF EXCAVATIONS AND TRENCHING AS WELL AS RELEASE OF ANY PUMPED GROUNDWATER IN A CONTROLLED AND APPROVED MANNER.
15. DO NOT CONSTRUCT USING DRAWINGS THAT ARE NOT MARKED "ISSUED FOR CONSTRUCTION".
16. CONTRACTOR IS RESPONSIBLE FOR ALL LAYOUT FOR CONSTRUCTION PURPOSES.
17. CLAY SEALS SHALL BE INSTALLED WITHIN SEWER TRENCHES IN ACCORDANCE WITH CITY STANDARD S8.

STORM SEWERS:

1. ALL REINFORCED CONCRETE STORM SEWER PIPE SHALL BE IN ACCORDANCE WITH CSA A257.2 (LATEST AMENDMENT). ALL NON-REINFORCED CONCRETE STORM SEWER PIPE SHALL BE IN ACCORDANCE WITH CSA A257.1 (LATEST AMENDMENT). PIPE SHALL BE JOINTED WITH STD. RUBBER GASKETS AS PER CSA A257.3 (LATEST AMENDMENT).
2. ALL STORM SEWER TRENCH AND BEDDING SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STD. S6 AND S7 CLASS 'B' UNLESS OTHERWISE SPECIFIED. BEDDING AND COVER MATERIAL SHALL BE SPECIFIED BY PROJECT GEOTECHNICAL ENGINEER.
3. ALL PVC STORM SEWERS ARE TO BE SDR 35 APPROVED PER C.S.A. B182.2 OR LATEST AMENDMENT, UNLESS OTHERWISE SPECIFIED.
4. STORM MANHOLE FRAME AND COVERS SHALL BE AS PER CITY OF OTTAWA STD. S24.1.
5. STORM SEWER MANHOLES SERVING SEWERS LESS THAN 900mm SHALL BE CONSTRUCTED WITH A 300mm SUMP. FOR STORM SEWERS 900mm AND OVER USE BENCHING IN ACCORDANCE WITH OPSD 701.021.
6. THE STORM SEWER CLASSES HAVE BEEN DESIGNED BASED ON BEDDING CONDITIONS SPECIFIED ABOVE. WHERE THE SPECIFIED TRENCH WIDTH IS EXCEEDED, THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE ADDITIONAL BEDDING, A DIFFERENT TYPE OF BEDDING OR A HIGHER PIPE STRENGTH AT HIS OWN EXPENSE AND SHALL ALSO BE RESPONSIBLE FOR EXTRA TEMPORARY AND/OR PERMANENT REPAIRS MADE NECESSARY BY THE WIDENED TRENCH.

SANITARY SEWERS:

1. ALL SANITARY SEWERS SHALL BE PVC SDR 35, IN ACCORDANCE WITH CITY OF OTTAWA STANDARDS.
2. SANITARY SEWER TRENCH AND BEDDING SHALL BE AS PER CITY OF OTTAWA STD. S6 AND S7, CLASS 'B' BEDDING UNLESS OTHERWISE NOTED.
3. ALL SANITARY SERVICES ARE TO BE EQUIPPED WITH APPROVED BACKWATER VALVES.
4. SANITARY MANHOLE FRAME AND COVERS SHALL BE AS PER CITY OF OTTAWA STD. S24.
5. SANITARY SEWER MANHOLES SHALL BE BENCHED AS PER OPSD 701.021.
6. SANITARY PRE-CAST MANHOLE SHALL BE CONSTRUCTED WITH A HIGHER PERCENTAGE OF SILICA FUME IN THE CONCRETE TO MAKE IT MORE DENSE AND LESS SUSCEPTIBLE TO CORROSION OR PINHOLE LEAKS.
7. FOR SANITARY MANHOLES, DEPENDING ON THE ELEVATION OF THE GROUNDWATER TABLE, AND BASED ON THE RECOMMENDATION OF THE PROJECT GEOTECHNICAL CONSULTANT, CRETEX SEALS, OR A SIMILAR PRODUCT, SHALL BE INSTALLED IN THE PRE-CAST MANHOLE SECTION TO JUST BELOW THE MANHOLE FRAME TO PREVENT INFILTRATION.
8. CONTRACTOR SHALL PERFORM LEAKAGE TESTING, IN THE PRESENCE OF THE CONSULTANT, FOR SANITARY SEWERS IN ACCORDANCE WITH OPSS 410 AND OPSS 407. CONTRACTOR SHALL PERFORM VIDEO INSPECTION OF ALL STORM AND SANITARY SEWERS. A COPY OF THE VIDEO AND INSPECTION REPORT SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW.
9. IN ACCORDANCE WITH CITY OF OTTAWA STANDARD S11, SANITARY SERVICE CONNECTION REQUIRES APPROVED CONTROLLED SETTLEMENT JOINT.

WATER SUPPLY:

1. ALL PVC WATERMAINS SHALL BE EQUAL TO AWWA C-900 CLASS 150, SDR 18, OR APPROVED EQUAL.
2. WATERMAIN TRENCH AND BEDDING SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STANDARD W17, UNLESS OTHERWISE SPECIFIED. BEDDING AND COVER MATERIAL SHALL BE SPECIFIED BY PROJECT GEOTECHNICAL ENGINEER.
3. ALL PVC WATERMAINS SHALL BE INSTALLED WITH A 10 GAUGE STRANDED COPPER TWU OR RWU TRACER WIRE IN ACCORDANCE WITH CITY OF OTTAWA STD. W36.
4. CATHODIC PROTECTION IS REQUIRED ON ALL METALLIC FITTINGS AS PER CITY OF OTTAWA STD. W40 AND W42.
5. CONTRACTOR TO SUPPLY HYDRANT EXTENSION TO ADJUST THE LENGTH OF HYDRANT BARREL IF REQUIRED.
6. FIRE HYDRANTS SHALL BE INSTALLED AS PER CITY OF OTTAWA STD. W19, AND LOCATED AS PER CITY STD. W18.
7. VALVE IN BOXES SHALL BE INSTALLED AS PER CITY OF OTTAWA STD. W24.
8. WATERMAIN IN FILL AREAS TO BE INSTALLED WITH RESTRAINED JOINTS AS PER CITY OF OTTAWA STD. W25.5 AND W25.6.
9. THRUST BLOCKING OF WATERMAIN TO BE INSTALLED AS PER CITY OF OTTAWA STD. W25.3 AND W25.4.
10. THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY CAPS, PLUGS AND BLOW-OFFS AND NOZZLES REQUIRED FOR TESTING AND DISINFECTION OF THE WATERMAIN.
11. INSULATION FOR WATERMAIN CROSSING OVER AND BELOW SEWER SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STD. W25.2 AND W25, RESPECTIVELY. WHERE WATERMAIN COVER IS LESS THAN 2.4m.
12. AS PER CITY GUIDELINE, THE MINIMUM VERTICAL CLEARANCE BETWEEN WATERMAIN AND SEWER / UTILITY IS 0.25m FOR CROSSING OVER THE SEWER, AS PER CITY STD. W25.2. FOR CROSSING UNDER SEWER, ADEQUATE STRUCTURAL SUPPORT FOR THE SEWERS IS REQUIRED TO PREVENT EXCESSIVE DEFLECTION OF JOINTS AND SETTLING. THE LENGTH OF 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 AS PER CITY STD. W25.
13. CONNECTION TO EXISTING WATERMAIN TO BE PERFORMED BY CITY FORCES. CONTRACTOR TO PROVIDE LABOUR, EQUIPMENT AND MATERIAL REQUIRED FOR EXCAVATION, BEDDING AND REINSTATEMENT.
14. SWABBING, DISINFECTION, AND HYDROSTATIC TESTING TO BE CONDUCTED AS PER CITY OF OTTAWA STANDARDS IN THE PRESENCE OF A CITY INSPECTOR AND/OR CONSULTANT.

ROADWORK SPECIFICATIONS:

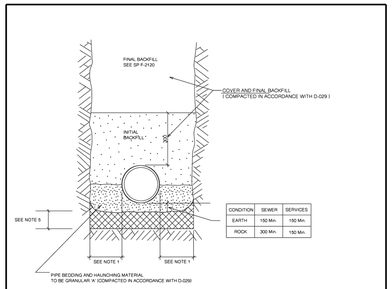
1. CONCRETE CURB SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STD. SC1.1 (BARRIER CURB). PROVISION SHALL BE MADE FOR CURB DEPRESSIONS AT SIDEWALKS AND DRIVEWAYS.
2. ALL BARRIER CURB TO BE 150mm ABOVE FINISHED ASPHALT GRADE UNLESS OTHERWISE NOTED.
3. CONCRETE SIDEWALK SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STD. SC3 AND SC1.4.
4. TWSIs SHALL BE INSTALLED IN ACCORDANCE WITH CITY OF OTTAWA STD. SC7.3.
5. PAVEMENT REINSTATEMENT FOR SERVICE AND UTILITY CUTS SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STD. R10 AND OPSD 509.010, OPSS 310.
6. GRANULAR "A" SHALL BE PLACED TO A MINIMUM THICKNESS OF 300mm AROUND ALL STRUCTURES WITHIN PAVEMENT AREA.
7. ALL GRANULAR FOR ROADS SHALL BE COMPACTED TO A MINIMUM OF 98% STANDARD PROCTOR DENSITY.
8. ASPHALT WEAR COURSE SHALL NOT BE PLACED UNTIL THE VIDEO INSPECTION OF SEWERS & NECESSARY REPAIRS HAVE BEEN CARRIED OUT TO THE SATISFACTION OF THE ENGINEER.
9. SUB-EXCAVATE SOFT AREAS AND FILL WITH GRANULAR 'B' COMPACTED IN MAXIMUM 300mm LIFTS.
10. PEDESTRIAN CURB RAMP WITH BOULEVARD SHALL BE ACCORDANCE WITH CITY OF OTTAWA STD. SC7.
11. ALL EDGES OF DISTURBED PAVEMENT SHALL BE SAW-CUT TO FORM A NEAT AND STRAIGHT LINE PRIOR TO PLACING NEW ASPHALT.
12. PAVEMENT DESIGN AS PER GEOTECHNICAL RECOMMENDATIONS:

LIGHT DUTY (CAR ONLY PARKING AREAS)
- 50mm WEAR COURSE – HL-3 OR SUPERPAVE 12.5 ASPHALTIC CONCRETE
- 150mm BASE – OPSS GRANULAR "A" CRUSHED STONE
- 300mm SUBBASE – OPSS GRANULAR "B" TYPE II
- SUBGRADE – EITHER FILL, IN SITU SOIL OR OPSS GRANULAR "B" TYPE I OR II MATERIAL PLACED OVER IN SITU SOIL OR FILL

HEAVY DUTY (ACCESS LANES AND HEAVY TRUCK PARKING AREAS)
- 40mm WEAR COURSE – SUPERPAVE 12.5 ASPHALTIC CONCRETE
- 50mm BINDER COURSE – SUPERPAVE 19.0 ASPHALTIC CONCRETE
- 150mm BASE – OPSS GRANULAR "A" CRUSHED STONE
- 450mm SUBBASE – OPSS GRANULAR "B" TYPE II
- SUBGRADE – EITHER FILL, IN SITU SOIL OR OPSS GRANULAR "B" TYPE I OR II MATERIAL PLACED OVER IN SITU SOIL OR FILL

ROLLER COMPACTED CONCRETE (AS PER SITE PLAN)
- 200mm THICKNESS, ZERO SLUMP, NO AIR ENTRAINMENT, 32 MPa AT 28 DAY STRENGTH, 12 TO 13% CEMENT CONTENT
- 300mm BASE – OPSS GRANULAR "A" CRUSHED STONE

NOT FOR CONSTRUCTION



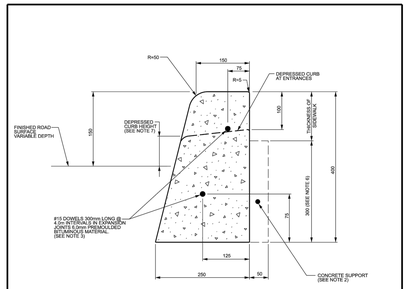
NOTES:

1.

PIPE INSIDE DIAMETER (mm)	CLEARANCE (mm)
900 OR LESS	CONC 450 PVC 450
OVER 900	500

2. FINAL BACKFILL - APPROVED NATIVE MATERIAL OR SELECT SUBGRADE IN ACCORDANCE WITH F-2120
3. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.
4. INITIAL BACKFILL MATERIAL: CONCRETE PIPE - GRANULAR 'A' OR GRANULAR 'B' MATERIAL WITH 100% PASSING THE 37.5mm SIEVE - PVC PIPE - GRANULAR 'A'
5. WHEN APPROVED BY THE CONTRACT ADMINISTRATOR, POOR SOILS SHALL BE EXCAVATED TO CREATE A FOUNDATION THAT SHALL BE FILLED TO THE BOTTOM OF THE BEDDING WITH GRANULAR 'B'.

Ottawa	SINGLE TRENCH (SEWER & SEWER SERVICES)	DATE: MAY 2001 REV. DATE: MARCH 2019 DWG. No: S6



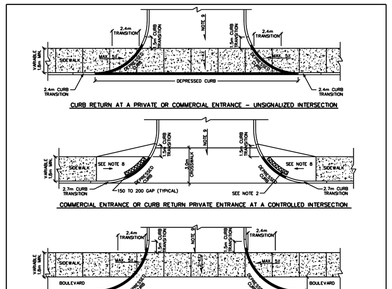
CONCRETE BARRIER CURB

NOTES:

1. THE FULL CURB DEPTH SHALL BE CARRIED THROUGH THE DEPRESSED ACCESS CROSSING.
2. A CONCRETE SUPPORT IS REQUIRED WHEN BUILT ADJACENT TO THE SIDEWALK.
3. IF AN EXTRUSION CURBING MACHINE IS USED, THE EXPANSION BITUMINOUS MATERIAL AND THE #15 DOWELS ARE TO BE PLACED AT THE END OF THE EXTRUSION.
4. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.
5. DUMMY JOINTS SHALL BE 25mm DEEP, FRONT, BACK AND TOP OF SECTION AT 4m SPACING OR MATCH JOINTING WHERE SIDEWALK IS ADJACENT.
6. FOR DEPRESSED CURB AT ENTRANCES USE 250.
7. DEPRESSED CURB HEIGHT - FOR PEDESTRIAN CURB RAMPS 0 TO 6 mm AND FOR PRIVATE ENTRANCES 0 TO 25mm.

N.T.S.

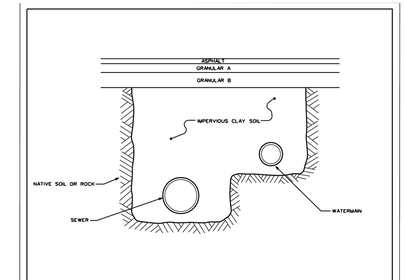
Ottawa	CONCRETE BARRIER CURB FOR GRANULAR BASE PAVEMENT (MODIFIED OPSD-600.110)	DATE: JANUARY 2003 REV. DATE: MARCH 2019 DWG. No: SC1.1



NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.
2. APPROVED 610 X WIDTH OF CURB RAMP (150MM) TACTILE WALKING SURFACE INDICATOR, THE SURFACE SHALL HAVE TRUNCATED DOMES AS PER SC7.
3. CURB DETAILS SEE SC1.1, SC1.2 AND SC1.3.
4. SIDEWALK DETAILS SEE SC2 AND SC3.
5. CURB RAMPS AS PER SC6 AND SC7.
6. CONTROLLED MEANS SIGNALIZED OR A 4-WAY STOP INTERSECTION.
7. SUBJECT TO AVOIDANCE OF MEDIANS, CROSSWALK LINES TO BE CENTRED ON THE CURB RAMP.
8. FOR CURB RAMPS, SLOPE OF 2% TO 5%, MAXIMUM 8%.
9. MAXIMUM SLOPE VARIES, SEE PRIVATE APPROACH BYLAW

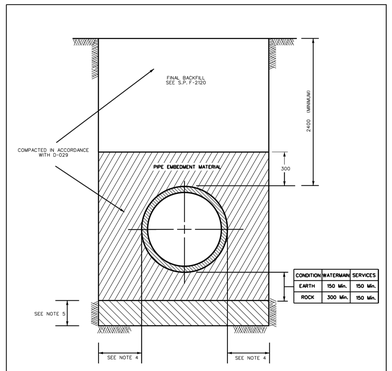
Ottawa	CURB RETURN ENTRANCES	DATE: MARCH 2007 REV. DATE: MARCH 2017 DWG. No.: SC7.1



NOTES:

1. CLAY SEAL TO EXTEND FROM BOTTOM OF TRENCH EXCAVATION TO UNDERSIDE OF ROAD STRUCTURE.
2. CLAY SEAL TO EXTEND FULL TRENCH WIDTH TO EXISTING NATIVE SOILS WITH A MINIMUM THICKNESS OF 1.0m ALONG PIPES.
3. CLAY SEAL TO BE LOCATED SO THAT NO PIPE JOINTS ARE WITHIN THE CLAY SEAL MATERIAL.

Ottawa	CLAY SEAL FOR PIPE TRENCHES	DATE: MAY 2001 REV. DATE: MARCH 2006 DWG.No.: S8



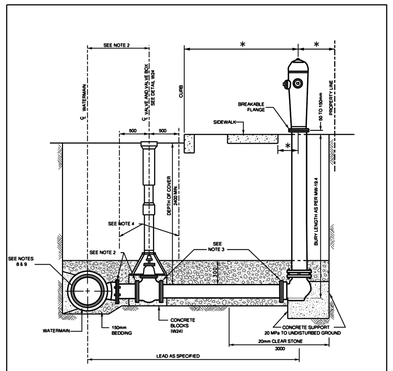
NOTES:

1. PIPE EMBEDMENT MATERIAL - GRANULAR 'A'.
2. FINAL BACKFILL - APPROVED NATIVE MATERIAL OR SELECT SUBGRADE IN ACCORDANCE WITH F-2120
3. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.
4.

PIPE OUTSIDE DIA. (mm)	CLEARANCE (mm)
900 or LESS	450
OVER 900	500

5. WHEN APPROVED BY THE CONTRACT ADMINISTRATOR, POOR SOILS SHALL BE EXCAVATED TO CREATE A FOUNDATION THAT SHALL BE FILLED TO THE BEDDING WITH GRANULAR 'B'.

Ottawa	STANDARD TRENCH DETAIL	DATE: MAY 2001 REV. DATE: DWG. No.: W17

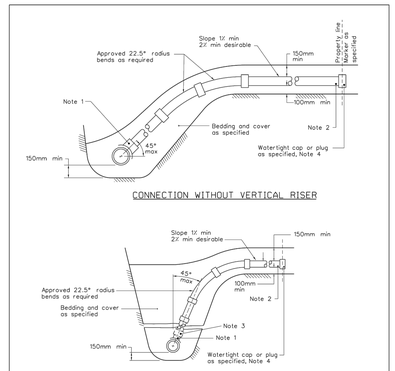


NOTES

FOR ALL WATERMAINS

1. SEE DETAIL W25 FOR HYDRANTS IN DITCH AREAS.
2. FOR WATERMAINS 400mm AND UNDER, LOCATE VALVE WITHIN 1.0m OF CENTRELINE. RETAINING/STRAINING DEVICES TO BE UTILIZED. FOR WATERMAINS 600mm AND OVER, BOLT VALVE WITH FLANGED END DIRECTLY TO FLANGED TEE
3. RETAININGSTRAINING DEVICES TO BE UTILIZED.
4. HYDRANT BREAKABLE FLANGE ELEVATION TO BE ESTABLISHED PRIOR TO INSTALLATION. REFER TO MW-19.4 AND P-4414
5. SEE SPP-2120 FOR BACKFILL REQUIREMENTS IN THIS AREA.
6. SEE F-4414 FOR HYDRANT LOCATION REQUIREMENTS.
7. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.
8. ON A TEMPORARY BASIS FOR 300mm WATERMAINS USE 300 X 300 X 150 MMM CIMT PVC TEE, 3 BOLT X SPIGOT TEES WITH 150mm SPIGOT AT ABOUT 45° ABOVE THE HORIZONTAL. CONNECTED TO AN 8mm DIST PVC 45° BEND AVAILABLE USE 300 X 300 X 150 MMM CIMT TANGENTIAL TEES WITHOUT THE NEED FOR THE 45° BEND. HYDRANT BURY LENGTH AND DEPTH TO REMAIN AS FOR NORMAL INSTALLATION TO SUIT BOTH SITUATIONS.
9. FOR ALL 400mm WATERMAINS USE 400 X 400 X 150 TANGENTIAL TEES/SPECIAL FITTINGS WITH THE 150mm OUTLET ON TOP.

Ottawa	HYDRANT INSTALLATION	DATE: MAY 2001 REV. DATE: MARCH 2019 DWG. No. W19

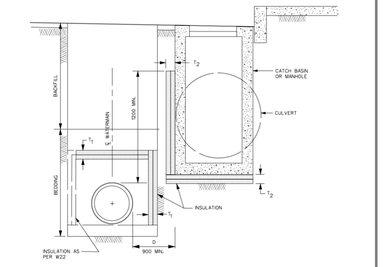


NOTES:

1. ALL DIAMETERS OF SERVICE CONNECTIONS TO FLEXIBLE MAIN SEWER SHALL BE MADE USING APPROVED TEE OR WYE FITTINGS.
2. SANITARY SERVICES TO BE 150mm AND STORM SERVICES TO BE 100mm FOR NEW RESIDENCES UNLESS SPECIFIED OTHERWISE. SERVICE PIPE AND RADIUS BENDS TO BE APPROVED CSA B182.2, SDR28 PRODUCTS UNLESS SPECIFIED OTHERWISE.
3. APPROVED CONTROLLED SETTLEMENT JOINTS OPTIONAL FOR SERVICE CONNECTIONS TO MAIN SEWERS UP TO 5m DEEP. WHERE APPROVED, CONNECTIONS TO SEWERS OVER 5m DEEP REQUIRE APPROVED CONTROLLED SETTLEMENT JOINTS.
4. CAP OR PLUG AT THE PROPERTY LINE SHALL BE ADEQUATELY BRACED TO WITHSTAND TESTING PRESSURE.
5. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN.

Ottawa	SEWER SERVICE CONNECTIONS FOR FLEXIBLE MAIN SEWER PIPE (MODIFIED OPSD-1006.020)	DATE: MARCH 2006 REV. DATE: MARCH 2013 DWG.No.: S11.1

INSULATION REFERENCE TABLE	
D DISTANCE FROM C.B. OR M.H. WALL	REQUIRED INSULATION THICKNESS T1=T2
2400 - 1800 mm.	50 mm
1800 - 1500 mm.	75 mm
1500 - 1200 mm.	100 mm
1200 - 900 mm.	125 mm



NOTES

FOR WATERMAINS & SERVICES IN PROXIMITY TO CATCHBASINS, MAINTENANCE HOLES, CULVERTS ETC.

1. INSULATION SHALL EXTEND 1000 mm. EACH WAY FROM THE ENDS OF THE STRUCTURE, PARALLELED TO THE WATERMAIN.
2. STAGGER JOINTS OF MULTIPLE SHEETS.
3. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.
4. INSULATION CAN BE AT EITHER LOCATION OR BOTH.

Ottawa	THERMAL INSULATION OF WATER-MAINS AT OPEN STRUCTURES	DATE: MAY 2001 REV. DATE: FEB 2004 DWG.No.: W23

NOTES

THE POSITION OF ALL POLE LINES, CONDUITS, WATERMAINS, SEWERS AND OTHER UNDERGROUND AND OVERGROUND UTILITIES AND STRUCTURES IS NOT NECESSARILY SHOWN ON THE CONTRACT DRAWINGS, AND WHERE SHOWN, THE ACCURACY OF THE POSITION OF SUCH UTILITIES AND STRUCTURES IS NOT GUARANTEED. BEFORE STARTING WORK, DETERMINE THE EXACT LOCATION OF ALL SUCH UTILITIES AND STRUCTURES AND ASSUME ALL LIABILITY FOR DAMAGE TO THEM.

NO.	REVISION DESCRIPTION	DATE	BY
3	REVISED PER COMMENTS	28/05/21	SMC
2	ISSUED FOR PROGRESS REVIEW	22/03/21	SMC
1	ISSUED FOR SITE PLAN APPLICATION	02/12/20	SMC

SCALE

LICENSED PROFESSIONAL ENGINEER S. M. CZAMANSKI PROVINCE OF ONTARIO
May 28 2021

Robinson Land Development
350 Palladium Drive
Ottawa, ON K2V 1A8
(613) 592-6060 rcii.com

DESIGN	BLM
CHECKED	SMC
DRAWN	BLM
CHECKED	SMC
APPROVED	SMC

MARITIME-ONTARIO FREIGHT LINES LIMITED

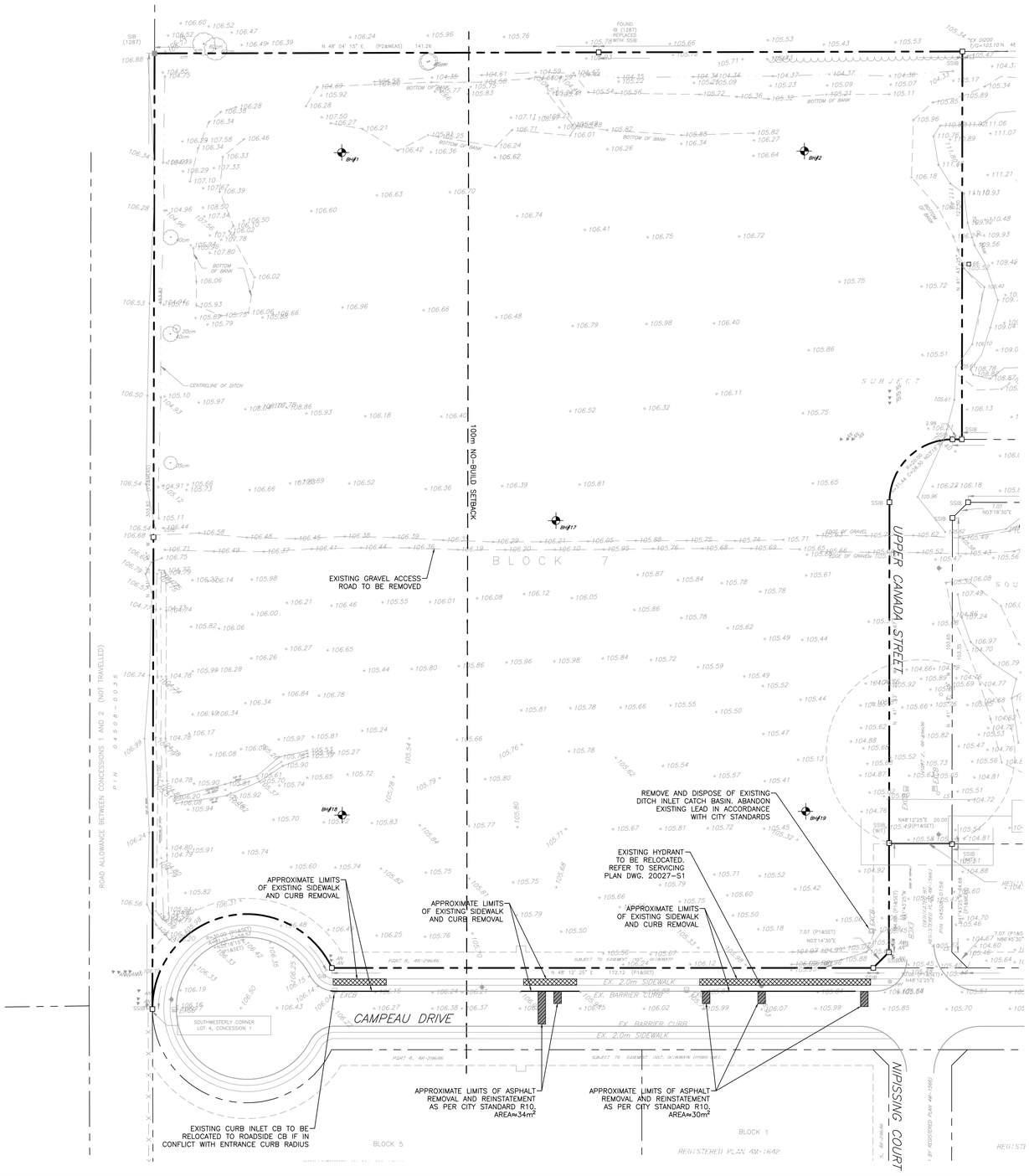
KANATA WEST BUSINESS PARK
8800 CAMPEAU DRIVE, OTTAWA, ON

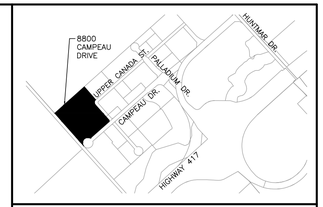
NOTES & DETAILS

PROJECT No.	20027
SURVEY	STANTEC
DATED	MAY 2021
DWG. No:	20027-N1

D07-12-20-0189

#18376





KEY PLAN

LEGEND

- PROPERTY BOUNDARY
- × 106.00 EXISTING ELEVATION
- EXISTING DITCH
- EXISTING CATCH BASIN
- EXISTING STORM SEWER & MANHOLE
- EXISTING SANITARY SEWER & MANHOLE
- EXISTING WATERMAIN
- EXISTING HYDRANT
- EXISTING VALVE & VALVE BOX
- 100m NO-BUILD SETBACK
- BOREHOLE
- EXISTING CURB REMOVAL
- EXISTING ASPHALT REMOVAL
- EXISTING SIDEWALK REMOVAL

NOTES:

1. 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 REPAIR OR REPLACEMENT OF ANY SERVICES OR UTILITIES DISTURBED DURING CONSTRUCTION, TO THE SATISFACTION OF THE AUTHORITY HAVING JURISDICTION.
2. 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.
3. RELOCATION OF EXISTING SERVICES AND/OR UTILITIES SHALL BE AS SHOWN ON THE DRAWINGS OR AS DIRECTED BY THE ENGINEER AT THE EXPENSE OF THE CONTRACTOR.
4. THE SUPPORT OF ALL UTILITIES SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION.
5. ALL NECESSARY CLEARING AND GRUBBING SHALL BE COMPLETED BY THE CONTRACTOR. REVIEW WITH CONTRACT ADMINISTRATOR AND THE CITY OF OTTAWA PRIOR TO AND TREE CUTTING.
6. REFER TO GEOTECHNICAL INVESTIGATION PREPARED BY PATERSON GROUP, REPORT NO. PG5618-1, DATED NOVEMBER 24, 2020.
7. ALL EXISTING ASPHALT TO BE SAW-CUT.
8. REINSTATE ROAD CUTS IN ACCORDANCE WITH CITY STANDARD R10.

NOT FOR CONSTRUCTION

NOTES

THE POSITION OF ALL POLE LINES, CONDUITS, WATERMAINS, SEWERS AND OTHER UNDERGROUND AND OVERGROUND UTILITIES AND STRUCTURES IS NOT NECESSARILY SHOWN ON THE CONTRACT DRAWINGS, AND WHERE SHOWN, THE ACCURACY OF THE POSITION OF SUCH UTILITIES AND STRUCTURES IS NOT GUARANTEED. BEFORE STARTING WORK, DETERMINE THE EXACT LOCATION OF ALL SUCH UTILITIES AND STRUCTURES AND ASSUME ALL LIABILITY FOR DAMAGE TO THEM.

NO.	REVISION DESCRIPTION	DATE	BY
1	REVISED PER COMMENTS	28/05/21	SMC

SCALE
0 5m 10m 30m
HORIZONTAL 1:750

LICENCED PROFESSIONAL ENGINEER
S. M. CZAJKOWSKI
May 28, 2021
PROVINCE OF ONTARIO

Robinson Land Development
350 Palladium Drive
Ottawa, ON K2V 1A8
(613) 592-6060 rcii.com

DESIGN	BLM
CHECKED	SMC
DRAWN	BLM
CHECKED	SMC
APPROVED	SMC

MARITIME-ONTARIO FREIGHT LINES LIMITED

KANATA WEST BUSINESS PARK
8800 CAMPEAU DRIVE, OTTAWA, ON

EXISTING CONDITIONS AND REMOVALS PLAN

PROJECT No.	20027
SURVEY	STANTEC
DATED	MAY 2021
DWG. No:	20027-R1

D07-12-20-0189

#18376

MATCHLINE
REFER TO DWG. 20027-S2

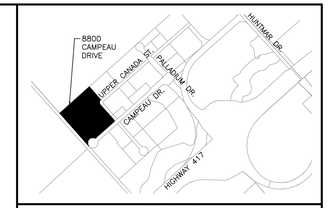
ICD DESIGN TABLE				
STRUCTURE	100 YEAR OUTFLOW (L/s)	100 YEAR HEAD (m)	ORIFICE DIAMETER (mm)	TYPE
CB 1	120	1.78	204.1	SLIDE
CB 2	60	1.79	144.1	SLIDE
CB 3	80	1.79	166.4	SLIDE
CB 4	60	1.81	143.8	SLIDE
CB 5	120	1.78	204.1	SLIDE
CB 6	60	1.77	144.5	SLIDE
CB 7	30	1.83	101.4	SLIDE
CB 8	25	1.83	92.6	SLIDE
CB 9	55	1.66	140.8	SLIDE
CB 10	30	1.58	105.3	SLIDE
CB 11	25	1.74	93.8	SLIDE
CB 12	40	1.66	120.1	SLIDE
CB 13	30	1.75	102.6	SLIDE
CB 14	25	1.74	93.8	SLIDE
DICB 15	20	1.63	85.3	SLIDE
DICB 17	20	1.63	85.3	SLIDE

WATERMAIN GRADE TABLE (200mmø)			
STATION	FINISHED GRADE (m)	TOP OF WATER (m)	DESCRIPTION
0+000	*106.17*	*103.86*	200mm OFF 250mm TEE
0+010.1	106.25	103.85	VALVE & VALVE BOX
0+020	106.36	103.96	TOP OF WATERMAIN
0+030	106.63	104.23	TOP OF WATERMAIN
0+040	107.08	104.68	TOP OF WATERMAIN
0+050	107.77	105.37	152mm OFF 250mm HYDRANT TEE
0+060	107.78	105.38	TOP OF WATERMAIN
0+066.3	107.89	105.49	11.25° BEND
0+070.8	108.08	105.50	CAP

STORM MANHOLE TABLE				
STRUCTURE	STRUCTURE SIZE	T/G ELEV	INVERT	GRATE
EX101	2400mmø	105.88	SW=101.44 E=101.41 NW=101.86	S24.1
200	2400mmø	105.88	NW=103.82 SW=102.04 SE=101.98	S24.1
201	1500mmø	106.37	SW=102.67 NW=103.24 NE=102.64	S24.1
202	1800mmø	106.43	NW=102.96 NE=102.90	S24.1
203	1500mmø	106.35	NW=103.32 SE=103.29	S24.1
204	1500mmø	106.46	SE=103.76	S24.1
205	1800mmø	106.23	NW=102.42 SW=102.34 NE=102.19	S24.1
206	1500mmø	106.33	NW=102.96 SE=102.93	S24.1
207	1500mmø	106.46	SE=103.78	S24.1
208	1200mmø	106.66	NW=105.13 SE=105.08	S24.1
300	1200mmø	106.44	NW=104.94 SW=105.00	S24.1
301	1200mmø	106.47	SE=104.94 SW=105.00	S24.1
302	1200mmø	106.55	SE=104.76 NE=104.68 NW=104.76 SW=104.76	S24.1
303	1200mmø	106.64	SW=104.56 SE=104.50	S24.1
304	1200mmø	106.48	NW=104.14 SE=104.11	S24.1
SANITARY MANHOLE TABLE				
STRUCTURE	STRUCTURE SIZE	T/G ELEV	INVERT	GRATE
100	1200mmø	106.28	NW=104.49 SE=104.46	S24
101	1200mmø	108.28	SE=104.66 NW=104.69	S24

CATCH BASIN TABLE				
STRUCTURE	STRUCTURE SIZE	T/G ELEV	INVERT	GRATE
CB 1	600x600mm	106.42	NE=104.74	S19
CB 2	600x600mm	106.32	NE=104.64	S19
CB 3	600x600mm	106.22	NE=104.54	S19
CB 4	600x600mm	106.15	NE=104.47	S19
CB 5	600x600mm	106.42	NE=104.74	S19
CB 6	600x600mm	106.32	NE=104.64	S19
CB 7	600x600mm	106.22	NE=104.54	S19
CB 8	600x600mm	105.95	NE=104.27	S19
CB 9	600x600mm	107.10	NE=105.42	S19
CB 10	600x600mm	106.64	NE=105.13	S19
CB 11	600x600mm	106.06	SE=104.38	S19
CB 12	600x600mm	107.10	SW=105.42	S19
CB 13	600x600mm	106.64	SW=104.96	S19
CB 14	600x600mm	106.06	SE=104.38	S19
CB 16	600x600mm	106.61	SW=105.41	S19
DICB 15	600x600mm	106.42	SW=104.67 NE=105.15	403.010
DICB 17	600x600mm	106.50	NE=104.75	403.010

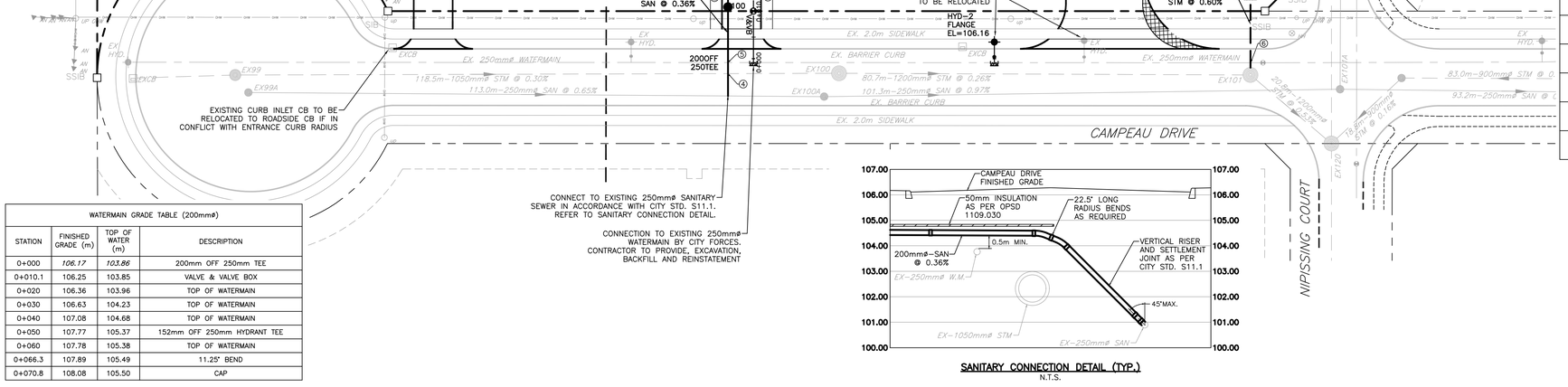
SEWER CROSSING TABLE		
CROSSING No.	INVERTS (m)	SEPARATION (m)
1	WATER INV.=103.77	0.27
	STM OBV.=103.50	
2	SAN INV.=104.51	0.96
	STM OBV.=103.55	
3	STM INV.=104.64	0.70
	STM OBV.=103.94	
4	SAN INV.=104.41	1.41
	EX STM OBV.=103.00	
5	SAN INV.=104.42	0.54
	EX WATER OBV.=103.88	
6	EX WATER INV.=103.28	0.38
	STM OBV.=102.90	



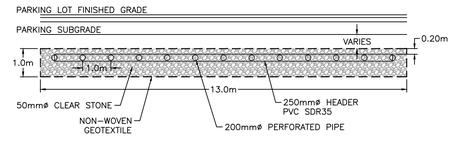
KEY PLAN

LEGEND

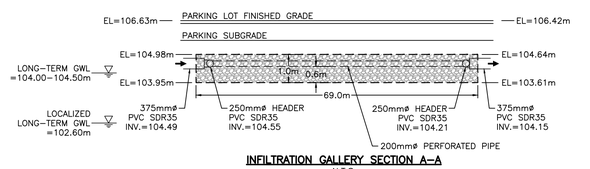
- PROPERTY BOUNDARY
- CATCH BASIN
- STORM SEWER & MANHOLE
- SANITARY SEWER & MANHOLE
- WATERMAIN
- HYDRANT
- VALVE & VALVE BOX
- SIAMESE CONNECTION
- EXISTING CATCH BASIN
- EXISTING STORM SEWER & MANHOLE
- EXISTING SANITARY SEWER & MANHOLE
- EXISTING WATERMAIN
- EXISTING HYDRANT
- EXISTING VALVE & VALVE BOX
- 100m NO-BUILD SETBACK
- CLAY SEAL
- BOREHOLE
- CROSSING NUMBER
- BUILDING ENTRANCE (REFER TO SITE PLAN)
- ◦B BOLLARD (REFER TO SITE PLAN)
- ◦BH BLOCK HEATER POST (REFER TO SITE PLAN)
- LIGHT STANDARD (REFER TO SITE PLAN)
- JERSEY BARRIER (REFER TO SITE PLAN)
- TWSI (REFER TO SITE PLAN)
- PROPOSED TREE (REFER TO LANDSCAPE PLAN)



SANITARY CONNECTION DETAIL (TYP.)
N.T.S.



INFILTRATION GALLERY SECTION B-B
N.T.S.



INFILTRATION GALLERY SECTION A-A
N.T.S.

NOT FOR CONSTRUCTION

NOTES
THE POSITION OF ALL POLE LINES, CONDUITS, WATERMAINS, SEWERS AND OTHER UNDERGROUND AND OVERGROUND UTILITIES AND STRUCTURES IS NOT NECESSARILY SHOWN ON THE CONTRACT DRAWINGS, AND WHERE SHOWN, THE ACCURACY OF THE POSITION OF SUCH UTILITIES AND STRUCTURES IS NOT GUARANTEED. BEFORE STARTING WORK, DETERMINE THE EXACT LOCATION OF ALL SUCH UTILITIES AND STRUCTURES AND ASSUME ALL LIABILITY FOR DAMAGE TO THEM.

NO.	REVISION DESCRIPTION	DATE	BY
3	REVISED PER COMMENTS	28/05/21	SMC
2	ISSUED FOR PROGRESS REVIEW	22/03/21	SMC
1	ISSUED FOR SITE PLAN APPLICATION	02/12/20	SMC

SCALE
0 5m 10m 20m
HORIZONTAL 1:500

LICENSED PROFESSIONAL ENGINEER
S. M. CZAMARYSKYJ
MAY 28 2021
PROVINCE OF ONTARIO

Robinson Land Development
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MARITIME-ONTARIO FREIGHT LINES LIMITED

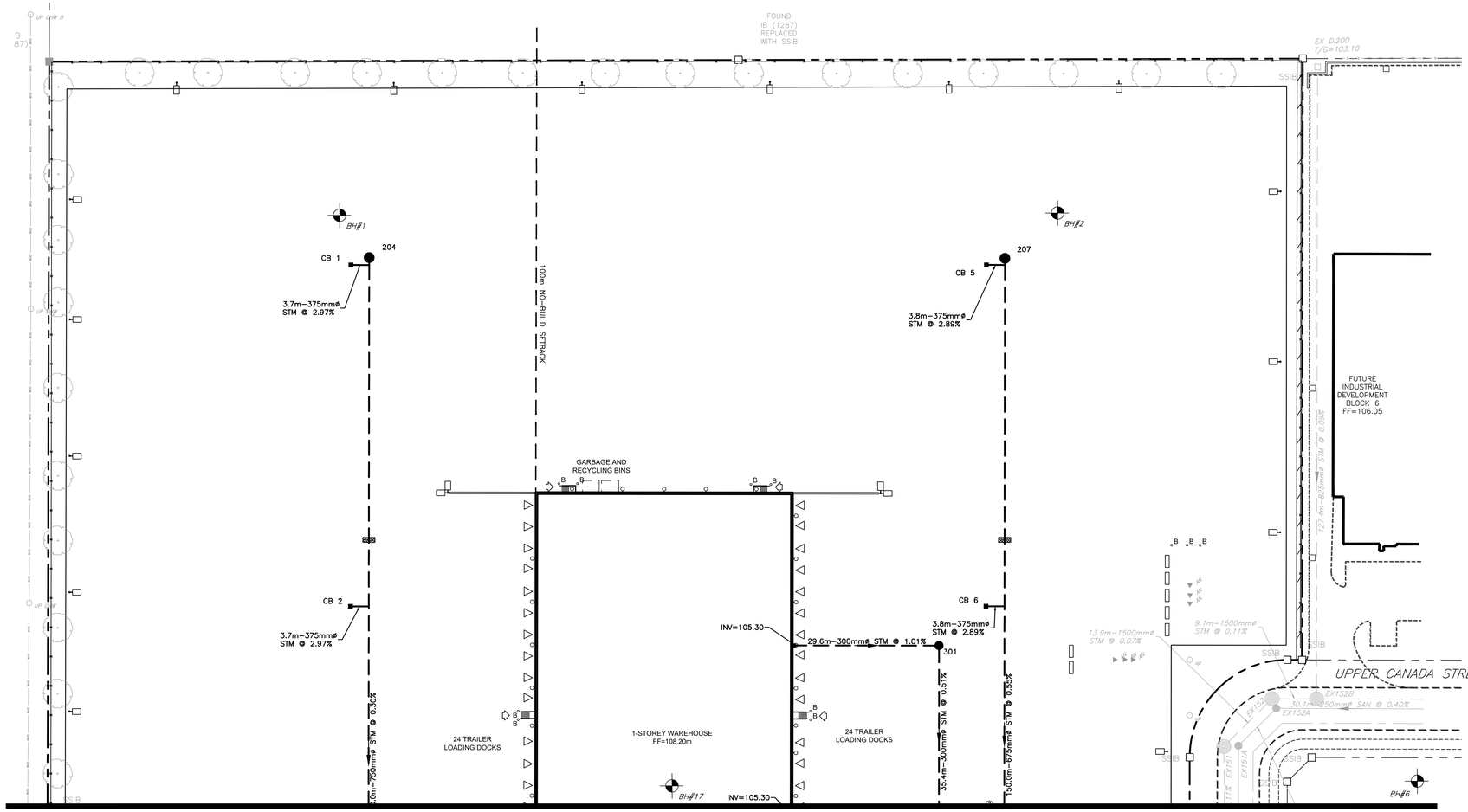
KANATA WEST BUSINESS PARK
8800 CAMPEAU DRIVE, OTTAWA, ON

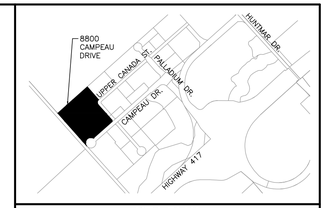
SERVICING PLAN

PROJECT No.	20027
SURVEY	STANTEC
DATED	MAY 2021
DWG. No:	20027-S1

D07-12-20-0189

#18376





KEY PLAN

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STRUCTURE	STRUCTURE SIZE	T/G ELEV	INVERT	GRATE
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ICD DESIGN TABLE				
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LEGEND

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- BOLLARD (REFER TO SITE PLAN)
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- LIGHT STANDARD (REFER TO SITE PLAN)
- JERSEY BARRIER (REFER TO SITE PLAN)
- TWSI (REFER TO SITE PLAN)
- PROPOSED TREE (REFER TO LANDSCAPE PLAN)

NOT FOR CONSTRUCTION

NOTES

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3	REVISED PER COMMENTS	28/05/21	SMC
2	ISSUED FOR PROGRESS REVIEW	22/03/21	SMC
1	ISSUED FOR SITE PLAN APPLICATION	02/12/20	SMC

SCALE

0 5m 10m 20m

HORIZONTAL 1:500

LICENCED PROFESSIONAL ENGINEER
S. M. CZAMANSKI
MAY 28 2021
PROVINCE OF ONTARIO

Robinson Land Development

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Ottawa, ON K2V 1A8
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DESIGN	BLM
CHECKED	SMC
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APPROVED	SMC

MARITIME-ONTARIO FREIGHT LINES LIMITED

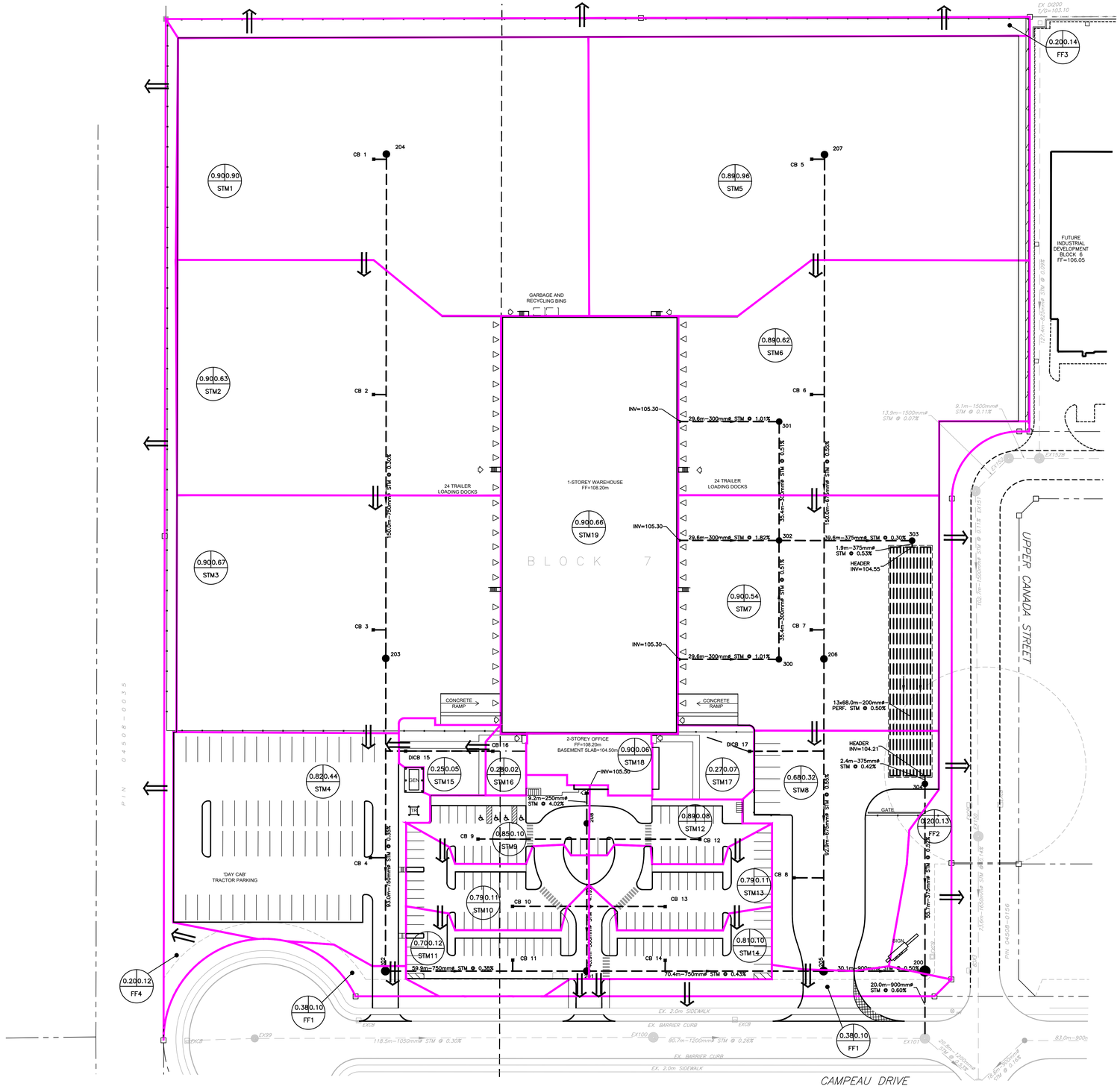
KANATA WEST BUSINESS PARK
8800 CAMPEAU DRIVE, OTTAWA, ON

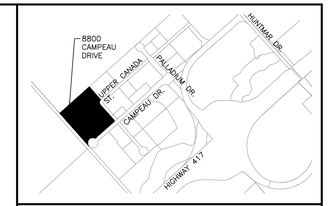
SERVICING PLAN

PROJECT No.	20027
SURVEY	STANTEC
DATED	MAY 2021
DWG. No:	20027-S2

D07-12-20-0189

#18376





KEY PLAN

LEGEND

- PROPERTY BOUNDARY
- CATCH BASIN
- EXISTING CATCH BASIN
- STORM SEWER & MANHOLE
- EXISTING STORM SEWER & MANHOLE
- 100m NO-BUILD SETBACK
- SWALE
- STORM DRAINAGE AREA BOUNDARY
- MAJOR OVERLAND FLOW ROUTE

RUNOFF COEFFICIENT
0.50 0.28 — AREA (ha)
STM1 — DRAINAGE AREA

NOT FOR CONSTRUCTION

NOTES

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2	REVISED PER COMMENTS	28/05/21	SMC
1	ISSUED FOR SITE PLAN APPLICATION	02/12/20	SMC

SCALE
0 5m 10m 30m
HORIZONTAL 1:750

LICENCED PROFESSIONAL ENGINEER
S. M. CZAMANSKI
MAY 28 2021
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MARITIME-ONTARIO FREIGHT LINES LIMITED

KANATA WEST BUSINESS PARK
8800 CAMPEAU DRIVE, OTTAWA, ON

STORM DRAINAGE AREA PLAN

PROJECT No.	20027
SURVEY	STANTEC
DATED	MAY 2021
DWG. No:	20027-STM1

D07-12-20-0189

#18376