



PROJECT:

**LIB KANATA
KANATA AVENUE AND MARITIME WAY
CITY OF OTTAWA, ONTARIO**

PROJECT NO:

600401

DATE:

2023-03-16



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**LIB KANATA - KANATA AVENUE AND MARITIME WAY
PROJET 600401 - PLANS ÉMIS FOR SITE PLAN APPLICATION REVISION 9, LE 2023-03-16**

007-12-21-0153

TECHNICAL AND GENERAL SPECIFICATIONS

1.0 GENERAL SPECIFICATIONS

All work shall conform with Ontario building code, latest edition as well as local regulation and bylaws.

Contractor to verify all dimensions and report any discrepancies to the engineer immediately to get design confirmation before proceeding with construction.

Refer to the City of Ottawa for regulations and standards (supersedes provincial standards).

Refer to Ontario Provincial Standards for Roads and Public Works - Volume 3 for details.

Ontario provincial standards for roads and public works must also be respected.

Work to be performed in accordance with the Occupational Health and Safety Act and Regulations for Construction Projects.

All materials shall meet all current applicable standards set by the American Water Works Association ("AWWA"), Canadian Standards Association ("CSA"), the American National Standards Institute ("ANSI") safety criteria standards, American Society for Testing and Materials (ASTM), NSF/14, NSF/60 and NSF/61.

The Contractor will get approval for all materials selection from the Civil Engineer prior to delivery to the site.

BUILDING OWNER: EMD BATIMO

CONSULTING CIVIL ENGINEER: ÉQUIPE LAURENCE INC.

2.0 GENERAL INFORMATIONS

2.1 UNDERGROUND SERVICES

The plans show certain underground installations for the sole purpose to highlight the existence of cables, pipelines and underground structures. In the sectors where work must be performed, the contractor is responsible to verify himself with the competent authorities the existence and actual location of all cables, pipelines and existing underground structures that may affect the works.

Before beginning excavations, the contractor must thus contact the Ontario One Call (www.onecall.com), the municipal authorities and all other stake holders in order to identify on the field all existing underground structures whether they are shown on the plans or not.

He is responsible for damages to cables, pipelines and underground structures. No cost variation resulting from underground structures not shown or poorly located on the plans can be claimed against the building owner. Following the review of the plans and specifications, the contractor must notify the engineer of any error, omission or discrepancy noted by him before starting work.

2.2 EXISTING WATERMAIN AND SEWER CONDUITS

The location of the watermain and sewer pipes is approximate. The contractor must verify and validate the position and depth of the pipes by the means of meticulous excavations. Should discrepancies be observed, they must be provided to the engineer without delay in order that the required modifications are made to the construction plans. The contractor will have to coordinate with the city, the connecting works to the existing networks (watermain and sewers). No service interruption shall take place without the building owner's authorization or the relevant authorities.

2.3 PROTECTION AGAINST EROSION

As per "Erosion and sediment control guideline for urban construction"
In all areas of the building site where there is a risk of erosion, the ground must be stabilized. Runoff water must be intercepted and routed to stabilized areas and this, throughout the construction period. The contractor must use the recognized methods to prevent the transport of sediments.

- Sediment barrier
- Mud mat
- Sedimentation pond
- Filtering berm and sediment trap
- Straw bale filter

Any intervention on the building site which may cause the transfer of sediments must be simultaneously accompanied by sediment capture measures.

2.4 DRAINING OF THE EXCAVATIONS

The contractor shall take all necessary precautions to prevent the penetration of surface waters and to evacuate surface, underground or sewer waters. Waste waters must be directed towards a combined sewer or a sanitary sewer and the surface and underground waters towards a storm sewer, a combined sewer or a ditch. In all cases, the diversion site must be submitted for approval.
The contractor must assume all required pumping and cleaning costs.

2.5 PAVEMENT PROTECTION

At all times, the movement of machinery and metal tracked vehicles is prohibited on paved surfaces unless plywood sheets with a 20mm normal thickness or rubber with a 12.5mm thickness are used in order to avoid damaging pavement. All repairs or complete replacements of pavement is the contractor's responsibility, who will have to pay all the costs.

2.6 CLEANING OF SITE

At the end of the construction works and as often as requested by the project superintendent, the contractor must clean and eliminate all construction generated debris and restore all construction affected areas. The cleaning of the construction site is included in the global market unit prices.

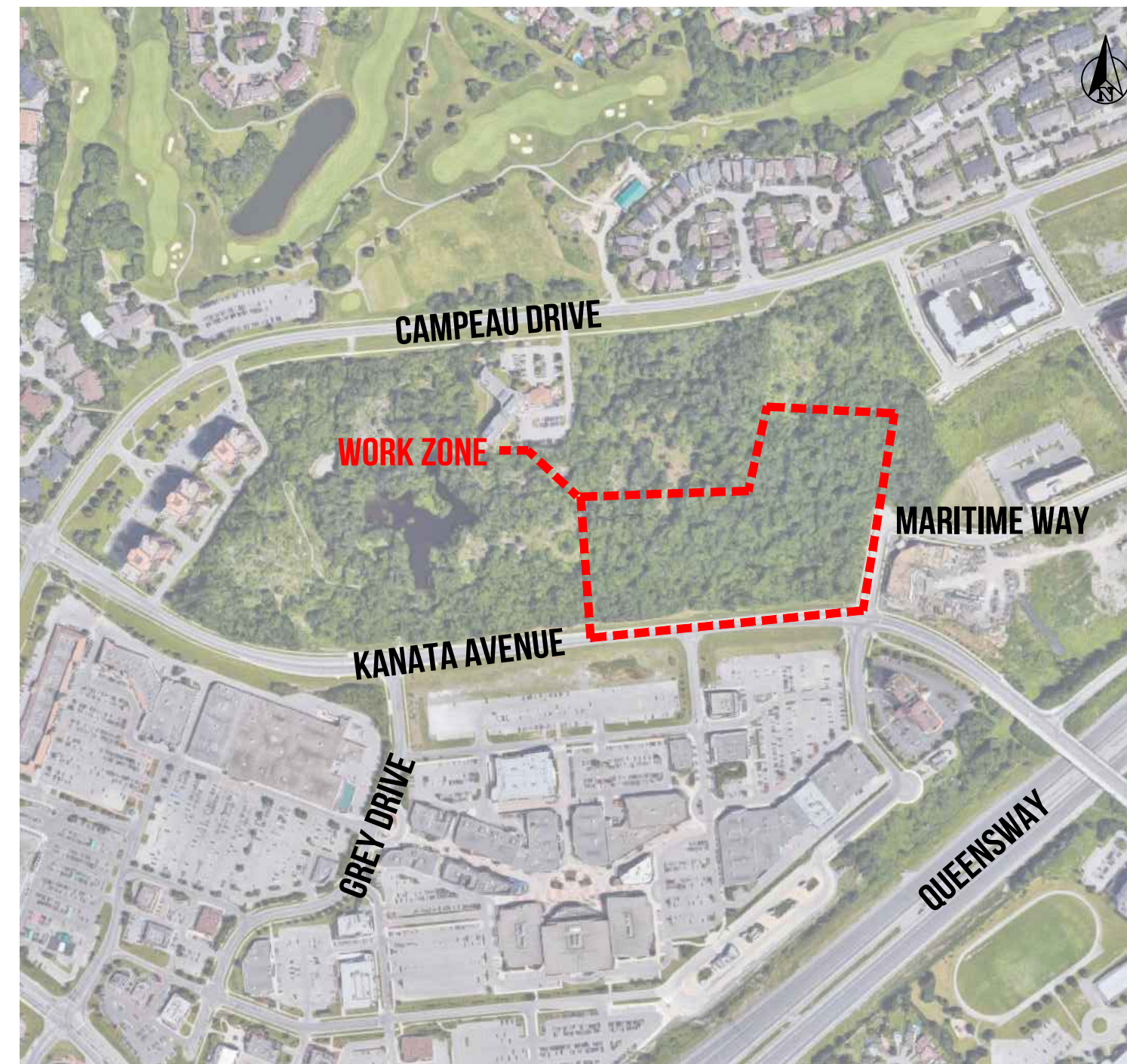
3.0 SITE GRADING

Surface topsoil layer stripping required.
Low-lying areas may be filled by utilising soil cut from higher areas and by importing suitable fill materials.

The approved subgrade may be raised to design subgrade level with approved compactable on-site soil, providing it is placed in maximum 300 mm thick lifts and each lift is compacted to at least 95% of the material's SPMDD. As an alternative to subexcavation, a woven geotextile separator, such as Terratrack 24-15, Amoco 2002, Mirafi 500XL or equivalent, may be placed over spongy areas prior to placing the Granular 'B' sub-base layer.

4.0 CONCRETE WORKS

All weather exposed concrete shall have 5 to 8% air entrainment or as otherwise specified in Tables 2 and 4 of CSA A23.1.
Concrete sidewalk as per OPSD 310.010. Foundation consist of 150 mm minimum of granular 'A' material. Sidewalk concrete thickness shall be 200 mm.
Concrete barrier curb as per OPSD 600.110. Foundation consist of 150 mm minimum of granular 'A' material.



PROJECT LOCATION
NO SCALE

CIVIL ENGINEERING LEGEND

	EXISTING BUILDING
	PROPOSED BUILDING
	BOTTOM OF EMBANKMENT
	TOP OF EMBANKMENT
	DITCH CENTER
	DITCH TO BE REMOVED
	DITCH CENTER WITH ROCK FILL PROTECTION
	EXISTING FENCE
	FENCE TO BE REMOVED
	PROPOSED FENCE
	SILT FENCE BARRIER
	ISOLATED WETLAND
	EXISTING TREE
	WOODED AREA
	WOODED AREA TO BE REMOVED
	OVERLAND FLOW ROUTE
	GUARDRAIL
	STONE RETAINING WALL
	EXISTING FIRE HYDRANT
	PROPOSED FIRE HYDRANT
	EXISTING WATER SERVICE VALVE
	PROPOSED WATER SERVICE VALVE
	EXISTING WATER PIPE
	EXISTING WATER PIPE TO BE REMOVED
	PROPOSED WATER PIPE
	EXISTING DRINKING WATER SERVICE CONNECTION
	PROPOSED DRINKING WATER SERVICE CONNECTION
	EXISTING SANITARY SEWER AND MANHOLE
	PROPOSED SANITARY SEWER AND MANHOLE
	SANITARY SEWER AND MANHOLE TO BE REMOVED
	EXISTING STORM SEWER PIPE AND MANHOLE
	PROPOSED STORM SEWER PIPE AND MANHOLE
	STORM SEWER AND MANHOLE TO BE REMOVED
	CULVERT
	EXISTING CATCH BASIN OR MANHOLE-CATCH BASIN
	PROPOSED CATCH BASIN OR MANHOLE-CATCH BASIN
	EXISTING STORM SEWER MANHOLE
	PROPOSED STORM SEWER MANHOLE
	EXISTING SANITARY SEWER MANHOLE
	PROPOSED SANITARY SEWER MANHOLE
	LIGHTNING UNIT
	OVERHEAD WIRING AND GUY WIRE
	EXISTING GAS PIPELINE
	BELL CANADA UNDERGROUND CABLE
	UNDERGROUND ELECTRICAL WIRE
	PROPOSED ASPHALT SURFACE
	PROPOSED CONCRETE SIDEWALK/SLAB
	PAVER SIDEWALK
	PROPOSED GRASS SURFACE
	GRANULAR SURFACE
	PROPOSED TEMPORARY MUD MAT
	PROPOSED STONES SURFACE
	PROPOSED GRANITE STONES
	EXISTING ASPHALT SURFACE TO BE REMOVED
	EXISTING SURFACE TO BE REMOVED
	PROPOSED ELEVATION
	PROPOSED ELEVATION OF CONCRETE CURB
	PROPOSED ELEVATION OF CONCRETE SLAB
	PROPOSED TOP ELEVATION OF GRASS
	PROPOSED TOP ELEVATION OF SIDEWALK
	PROPOSED TOP ELEVATION OF RETAINING WALL
	PROPOSED BOTTOM ELEVATION OF RETAINING WALL
	EXISTING ELEVATION OF SURFACE
	GRADING SLOPES
	NORTH

LIST OF PLANS

C-201	TECHNICAL AND GENERAL SPECIFICATIONS, LEGEND AND NOTES LOCATION
C-202	PLAN VIEW EXISTING ITEMS, DEMOLITION AND EROSION AND SEDIMENT CONTROL PLAN
C-203A	SITE GRADING AND DRAINAGE PLAN PHASE 1
C-203B	SITE GRADING AND DRAINAGE PLAN PHASE 1 AND 2
C-204	SITE SERVICING PLAN AND DRAINAGE AREA
C-205	STANDARD SECTIONS AND DETAILS I
C-206	STANDARD SECTIONS AND DETAILS II
C-207	FIRE HYDRANT COVERAGE MAP

J	FOR SITE PLAN APPLICATION REVISION 9	B.B.	2023-03-16
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B	FOR SITE PLAN APPLICATION REVISION 1	A.L.	2021-09-24
A	FOR SITE PLAN APPLICATION	A.L.	2021-09-17
REV	DESCRIPTION	BY	DATE



CLIENT:
LIB KANATA
KANATA AVENUE AND MARITIME WAY
CITY OF OTTAWA, ONTARIO



TITLE:
TECHNICAL AND GENERAL SPECIFICATIONS, LEGEND AND NOTES LOCATION

SCALE: NO SCALE

B. BRAY, ing. P. Eng / F. Lacroix CPI	C-201.dwg
J.QUESNEL	DRAWING 2021-09-15
B. BRAY, ing. P. Eng.	DATE 600401
	PROJECT NO C-201
	PLAN NO

EROSION AND SEDIMENT CONTROL

PRE-CONSTRUCTION

- PRIOR TO ANY REMOVAL OF SOIL AND CONSTRUCTION.
- INSTALL SILT FENCE (GEOTEXTILE) AS NOTED
- INSTALL PROTECTIVE INSERT OVER ALL EXISTING MANHOLES, CATCHBASINS ADJACENT AND IN CONSTRUCTION ZONE AS SILK SACK FROM TERRAQUAVIE OR EQUIVALENT. SEE DETAIL
- CONTROL MEASURES TO BE INSPECTED ONCE INSTALLED.
- CONSTRUCTION OF MUD MATS, SEE CONTRACTOR FOR LOCATION.

CONSTRUCTION

- MINIMIZE THE EXTENT OF DISTURBED AREAS.
- PROTECT DISTURBED AREAS OF RUNOFF.
- PROVIDE COVER (I.E. MULCH) IF DISTURBED AREAS WILL NOT BE REINSTATED WITHIN A REASONABLE PERIOD OF TIME.
- INSPECT SILT FENCE REGULARLY DURING CONSTRUCTION. CLEAN AND REPAIR, AS REQUIRED.
- CONTROL DUST DURING CONSTRUCTION.

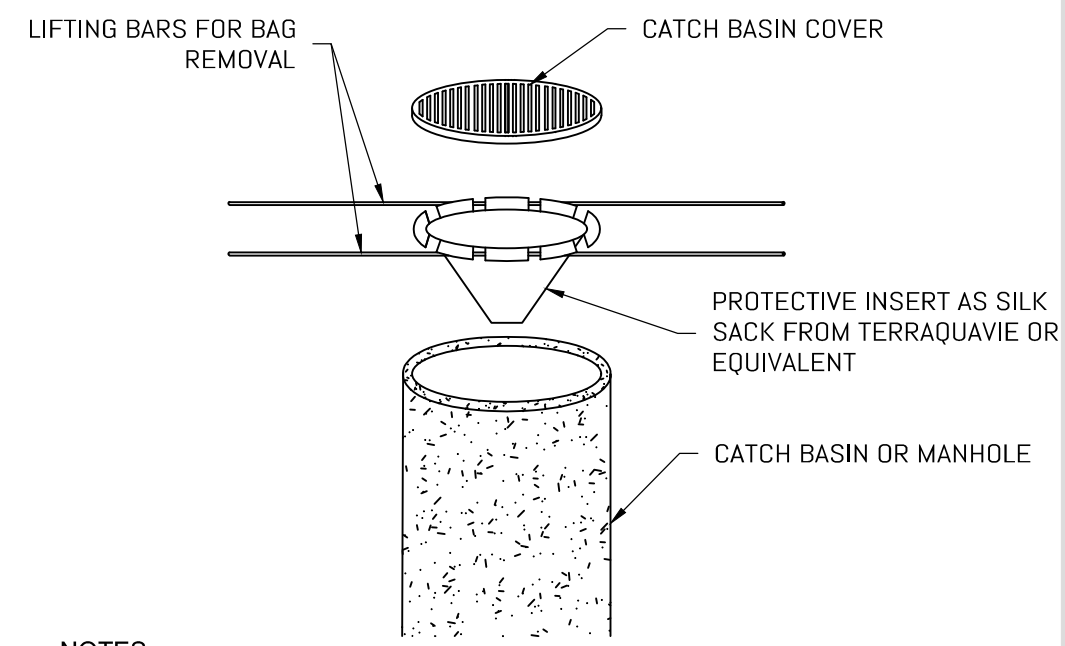
AFTER CONSTRUCTION

- PROVIDE PERMANENT COVER TO DISTURBED AREAS (I.E. TOPSOIL AND SEED)
- REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROL ITEMS (SILT FENCE AND FILTER CLOTHS) ONCE DISTURBED AREAS HAVE BEEN REINSTATED.

INSPECTIONS

- EROSION AND SEDIMENT CONTROL MEASURES WILL BE INSPECTED UPON COMPLETION.
- CONTROL MEASURES ARE TO BE INSPECTED WEEKLY.

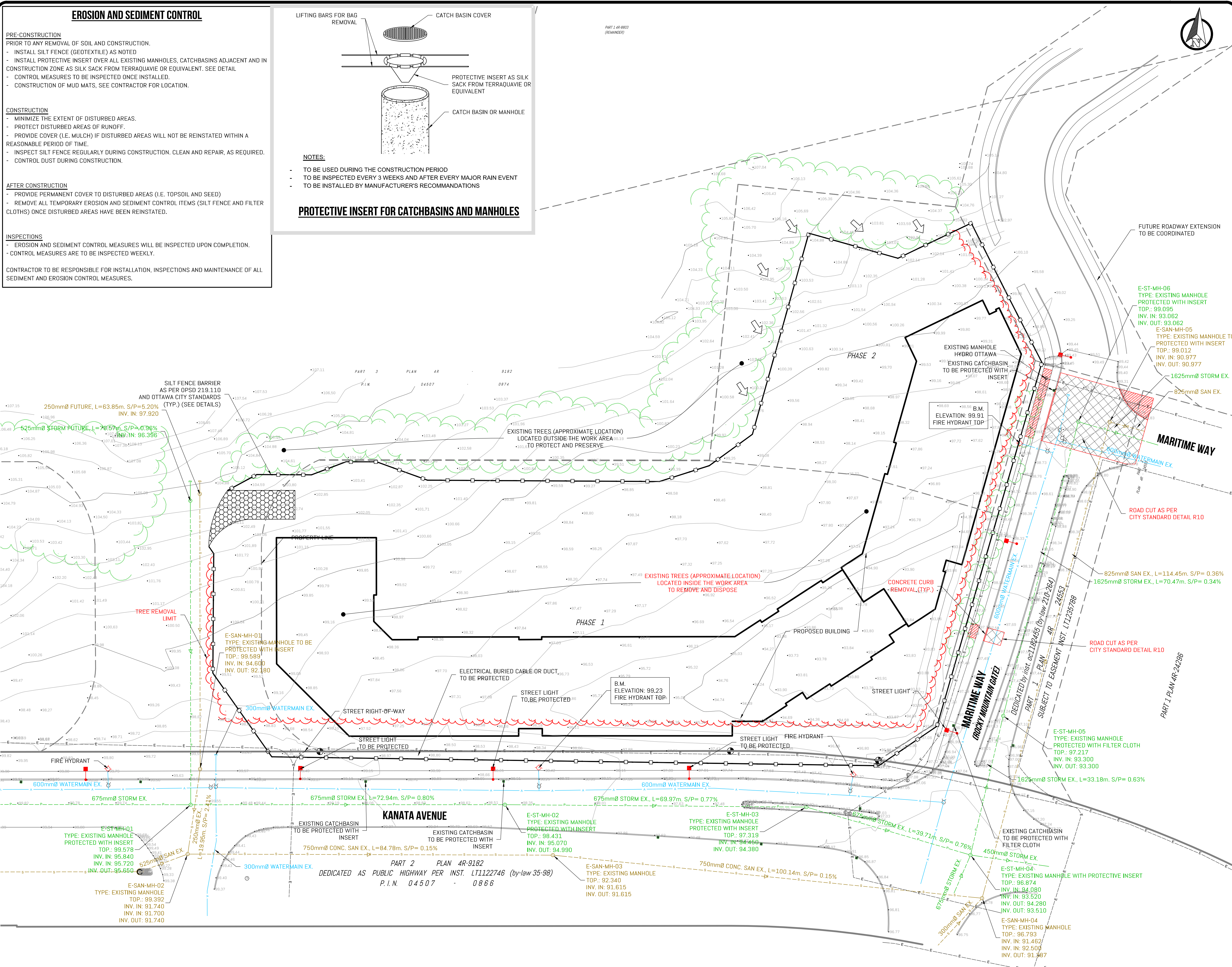
CONTRACTOR TO BE RESPONSIBLE FOR INSTALLATION, INSPECTIONS AND MAINTENANCE OF ALL SEDIMENT AND EROSION CONTROL MEASURES.



NOTES:

- TO BE USED DURING THE CONSTRUCTION PERIOD
- TO BE INSPECTED EVERY 3 WEEKS AND AFTER EVERY MAJOR RAIN EVENT
- TO BE INSTALLED BY MANUFACTURER'S RECOMMENDATIONS

PROTECTIVE INSERT FOR CATCHBASINS AND MANHOLES



NOTE:

THE EXISTING AND PROPOSED SUBDIVISION WILL HAVE TO BE VALIDATED BY THE SURVEYOR-GEOMETER ON FILE.

SURVEY AND LOTS INFORMATION PROVIDED BY FARLEY, SMITH & DENIS SURVEYING LTD. DATE: SEPTEMBER 13 2021 FILE NO.: 139-21 PLANIMETRIC REFERENCE SYSTEM: MTM NAD 83 ZONE 9 ALTIMETRIC REFERENCE SYSTEM: CGVD28 HT2.0

SITE PLAN PREPARED BY ROSSMANN ARCHITECTURE DATE: SEPTEMBER 15 2022 PROJECT: 21019

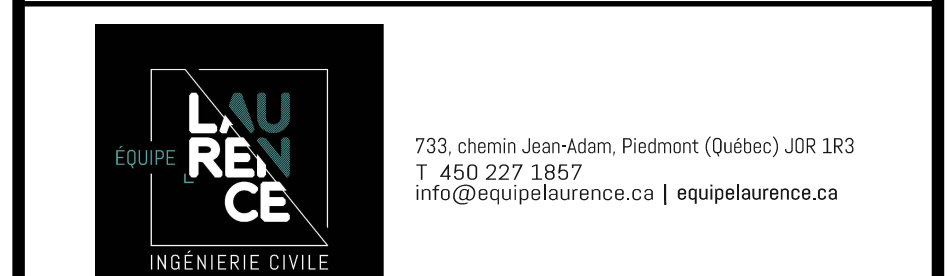
EXISTING POWER DUCT BANK, WATERMAIN, STORM SEWER AND SANITARY SEWER FROM OTTAWA COORDINATING COMMITTEE CENTRAL REGISTRY AND CITY OF KANATA DEPARTMENT OF ENGINEERING

THE CONTRACTOR MUST NOTIFY ÉQUIPE LAURENCE, THE CONSULTANT, IF HE NOTICES ANY DISCREPANCIES BETWEEN THE INFORMATION PRESENTED ON THE PLANS AND THE MEASUREMENTS TAKEN ON SITE SO THAT ADJUSTMENTS CAN BE MADE. WHEN APPLICABLE, HE MUST ALSO VERIFY THE ELEVATIONS OF EXISTING SEWERS BEFORE STARTING CONSTRUCTION AND MUST PROVIDE THE INFORMATION TO THE CONSULTANT.

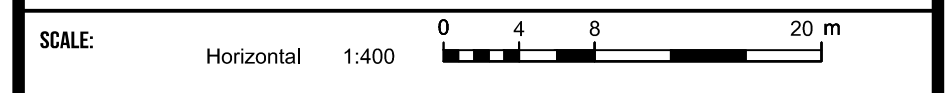
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PROJECT: LIB KANATA KANATA AVENUE AND MARITIME WAY CITY OF OTTAWA, ONTARIO



TITLE: PLAN VIEW EXISTING ITEMS, DEMOLITION AND EROSION AND SEDIMENT CONTROL PLAN

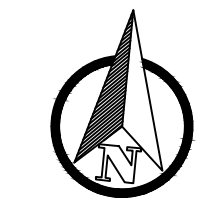


B. BRAY, ing. P. Eng / F. Lacroix CPI	C-202.dwg
J.QUESNEL	2021-09-15
B. BRAY, ing. P. Eng.	600401
APPROVED	PROJECT NO
	C-202
	PLAN NO

EXISTING POWER DUCT BANK, WATERMAIN, STORM SEWER AND SANITARY SEWER FROM OTTAWA COORDINATING COMMITTEE CENTRAL REGISTRY AND CITY OF KANATA DEPARTMENT OF ENGINEERING

SURVEY AND LOTS INFORMATION PROVIDED BY FARLEY, SMITH & DENIS SURVEYING LTD. DATE: SEPTEMBER 13 2021 FILE NO.: 139-21 PLANIMETRIC REFERENCE SYSTEM: MTM NAD 83 ZONE 9 ALTIMETRIC REFERENCE SYSTEM: CGVD28 HT2.0

SITE PLAN PREPARED BY ROSSMANN ARCHITECTURE DATE: FEBRUARY 16 2023 PROJECT: 21019



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UNLESS OTHERWISE STATED, ALL PROPOSED ELEVATIONS SHOWN ON PLAN REPRESENT THE ELEVATION OF THE PAVEMENT SURFACE /PROJECTED TERRAIN. ADD 0.15m TO SEE THE ELEVATION OF THE SIDEWALK OR ADJACENT

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ADDITIONAL LEGEND

- 26.300 X PROPOSED ELEVATION
- CB: 26.450 X PROPOSED ELEVATION OF CONCRETE CURB
- C: 26.450 X PROPOSED ELEVATION OF CONCRETE SLAB
- G: 26.650 X PROPOSED TOP ELEVATION OF GRASS
- TW: 26.450 X PROPOSED TOP ELEVATION OF SIDEWALK
- BW: 26.450 X PROPOSED TOP ELEVATION OF RETAINING WALL
- PROPOSED BOTTOM ELEVATION OF RETAINING WALL
- EXISTING ELEVATION OF SURFACE
- ELEVATION OF FUTURE ROADWAY BY OTHER GRADING SLOPES

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CLIENT: **emo batimo** CONSTRUCTION PROMOTEUR DE GESTIONNAIRE IMMOBILIER

PROJECT: **LIB KANATA KANATA AVENUE AND MARITIME WAY CITY OF OTTAWA, ONTARIO**

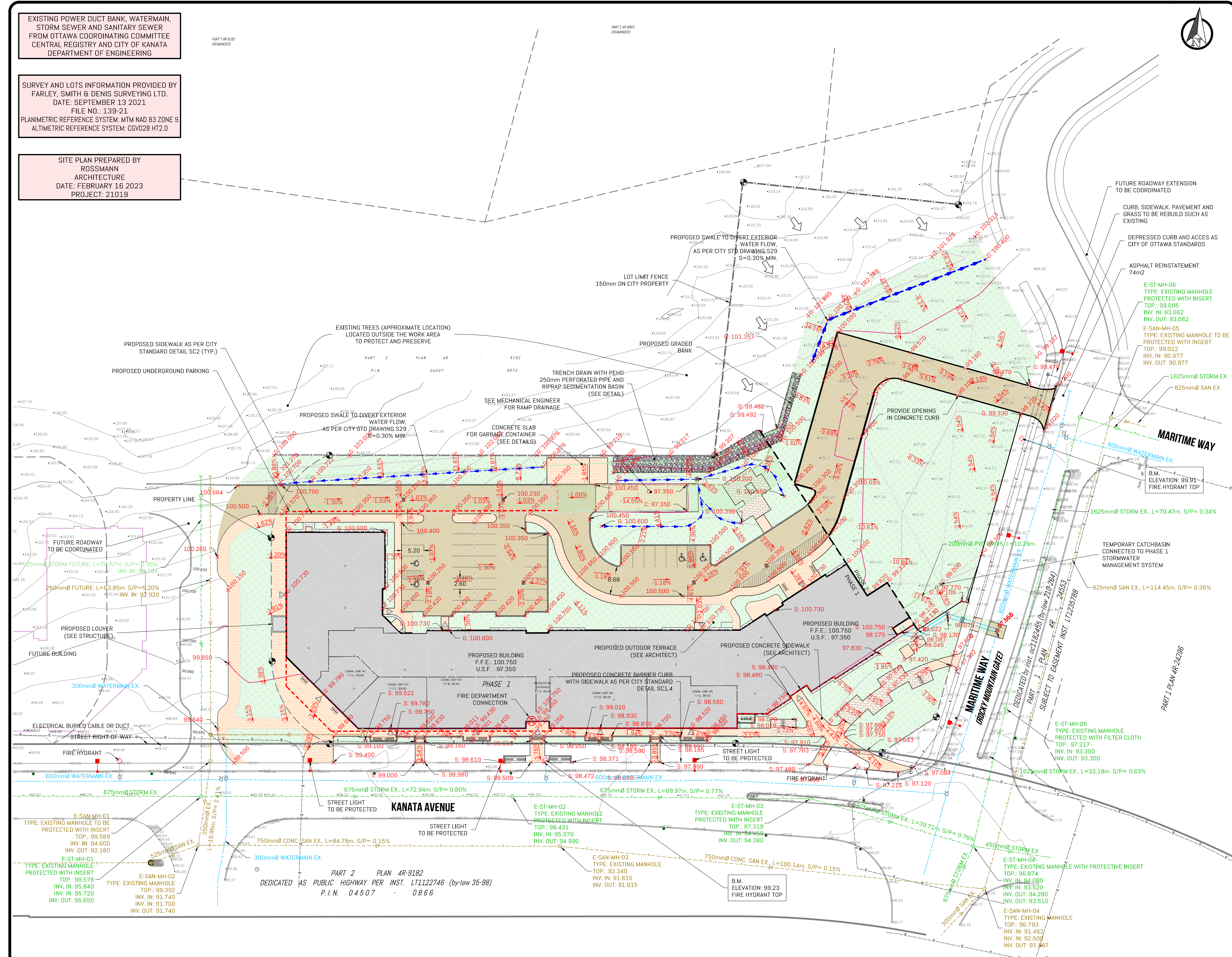
LAURENCE ÉQUIPE INGENIERIE CIVILE
733, chemin Jean-Jacques, Piedmont (Desserte) J0R 1R3
T 450 227 1857
info@equipe-laurence.ca | equipe-laurence.ca



TITLE: **SITE GRADING AND DRAINAGE PLAN PHASE 1**

SCALE: Horizontal 1:400

DESIGN	J.QUESNEL	DRAWING	C-203A.dwg
DRAWN	B. BRAY, ing. P. Eng.	DATE	2021-09-15
APPROVED	B. BRAY, ing. P. Eng.	PROJECT NO	600401
		PLAN NO	C-203A



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EXISTING POWER DUCT BANK, WATERMAIN, STORM SEWER AND SANITARY SEWER FROM OTTAWA COORDINATING COMMITTEE CENTRAL REGISTRY AND CITY OF KANATA DEPARTMENT OF ENGINEERING

SURVEY AND LOTS INFORMATION PROVIDED BY FARLEY, SMITH & DENIS SURVEYING LTD. DATE: SEPTEMBER 13 2021 FILE NO.: 139-21 PLANIMETRIC REFERENCE SYSTEM: MTM NAD 83 ZONE 9 ALTIMETRIC REFERENCE SYSTEM: CGVD28 HT2.0

SITE PLAN PREPARED BY ROSSMANN ARCHITECTURE DATE: FEBRUARY 16 2023 PROJECT: 21019

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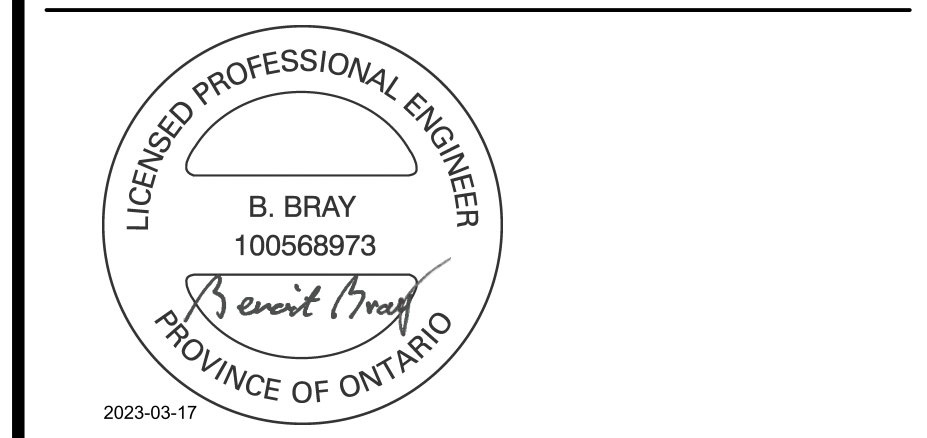
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- BW: 26.450 X PROPOSED TOP ELEVATION OF RETAINING WALL
- 25.30 EXISTING ELEVATION OF SURFACE
- X25.30 ELEVATION OF FUTURE ROADWAY BY OTHER GRADING SLOPES
- 3.00% NORTH

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CLIENT: **emo batimo** CONSTRUCTION FROM/TEUR BY GESTIONNAIRE IMMOBILIER

PROJECT: **LIB KANATA KANATA AVENUE AND MARITIME WAY CITY OF OTTAWA, ONTARIO**

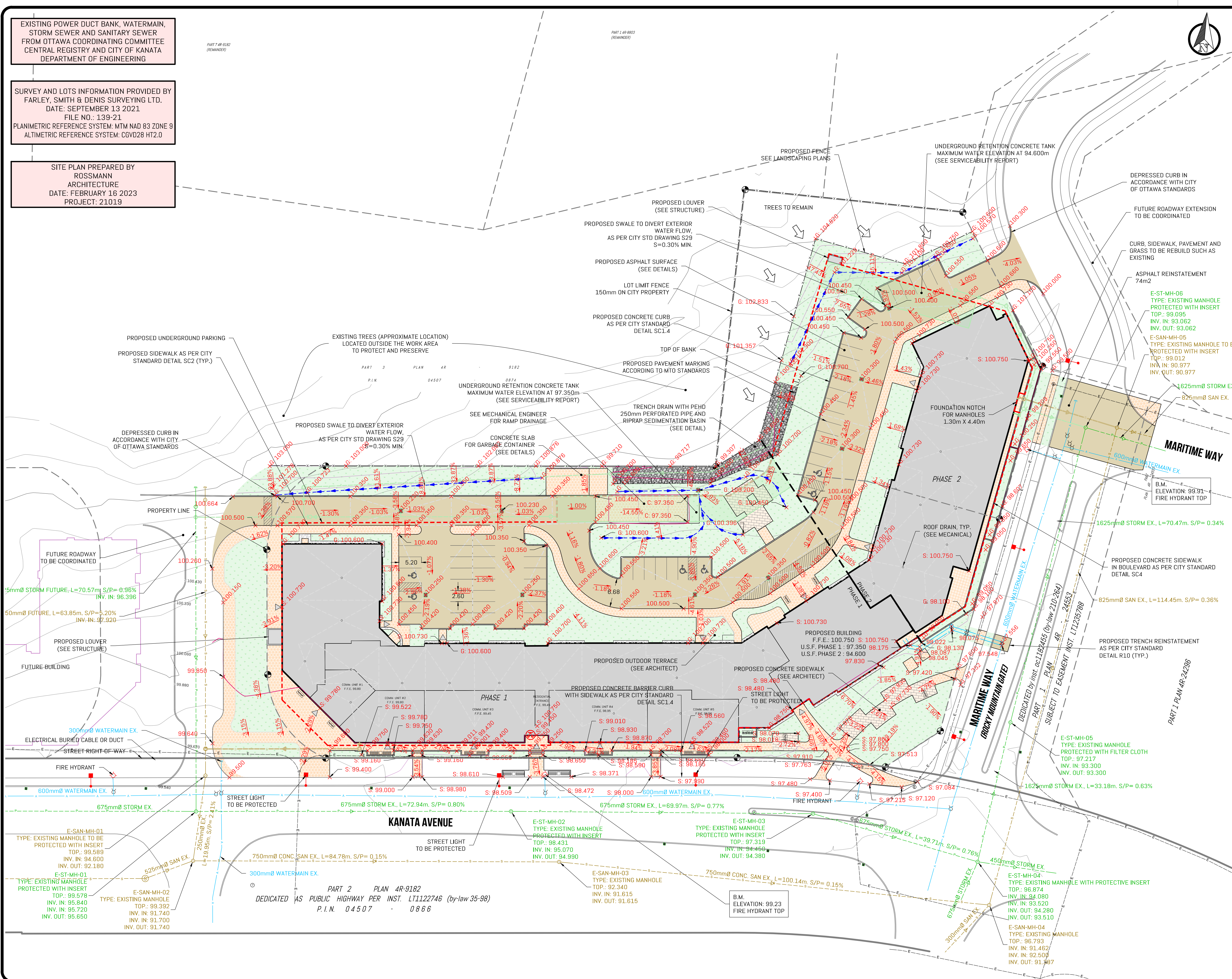
LAURENCE 733, chemin Jean-Adam, Piedmont (Doubec) J0R 1R3 T 450 227 1857 info@equipe-laurence.ca | equipe-laurence.ca



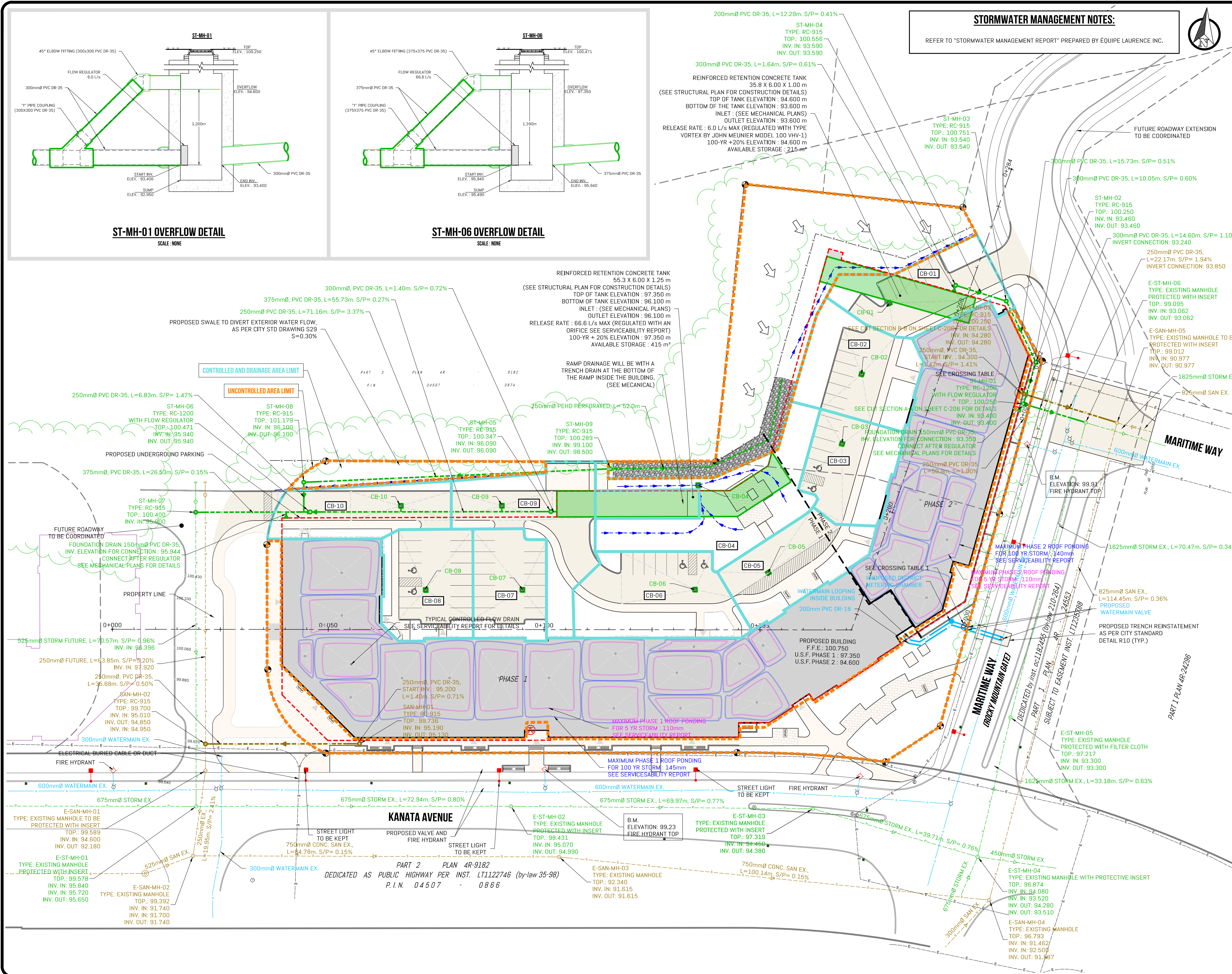
TITLE: **SITE GRADING AND DRAINAGE PLAN PHASE 1 AND 2**

SCALE: Horizontal 1:400

B. BRAY, ing. P. Eng / F. Lacroix CPI	C-203B.dwg
J. QUESNEL	2021-09-15
B. BRAY, ing. P. Eng.	600401
	C-203B



D07-12-21-0153



STORMWATER MANAGEMENT NOTES:
 REFER TO "STORMWATER MANAGEMENT REPORT" PREPARED BY ÉQUIPE LAURENCE INC.

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SURVEY AND LOTS INFORMATION PROVIDED BY FARLEY, SMITH & DENIS SURVEYING LTD.
 DATE: SEPTEMBER 13 2021
 FILE NO.: 139-21
 PLANIMETRIC REFERENCE SYSTEM: MTM NAD 83 ZONE 9
 ALTIMETRIC REFERENCE SYSTEM: CGVD28 HT2.0

SITE PLAN PREPARED BY ROSSMANN ARCHITECTURE
 DATE: FEBRUARY 16 2023
 PROJECT: 21019

EXISTING POWER DUCT BANK, WATERMAIN, STORM SEWER AND SANITARY SEWER FROM OTTAWA COORDINATING COMMITTEE CENTRAL REGISTRY AND CITY OF KANATA DEPARTMENT OF ENGINEERING

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CLIENT: **emo batimo**
 CONSTRUCTION PROMOTEUR DE GESTIONNAIRE IMMOBILIER

PROJECT: **LIB KANATA**
 KANATA AVENUE AND MARITIME WAY
 CITY OF OTTAWA, ONTARIO



TITLE: **SITE SERVICING PLAN AND DRAINAGE AREA**

SCALE: Horizontal 1:400

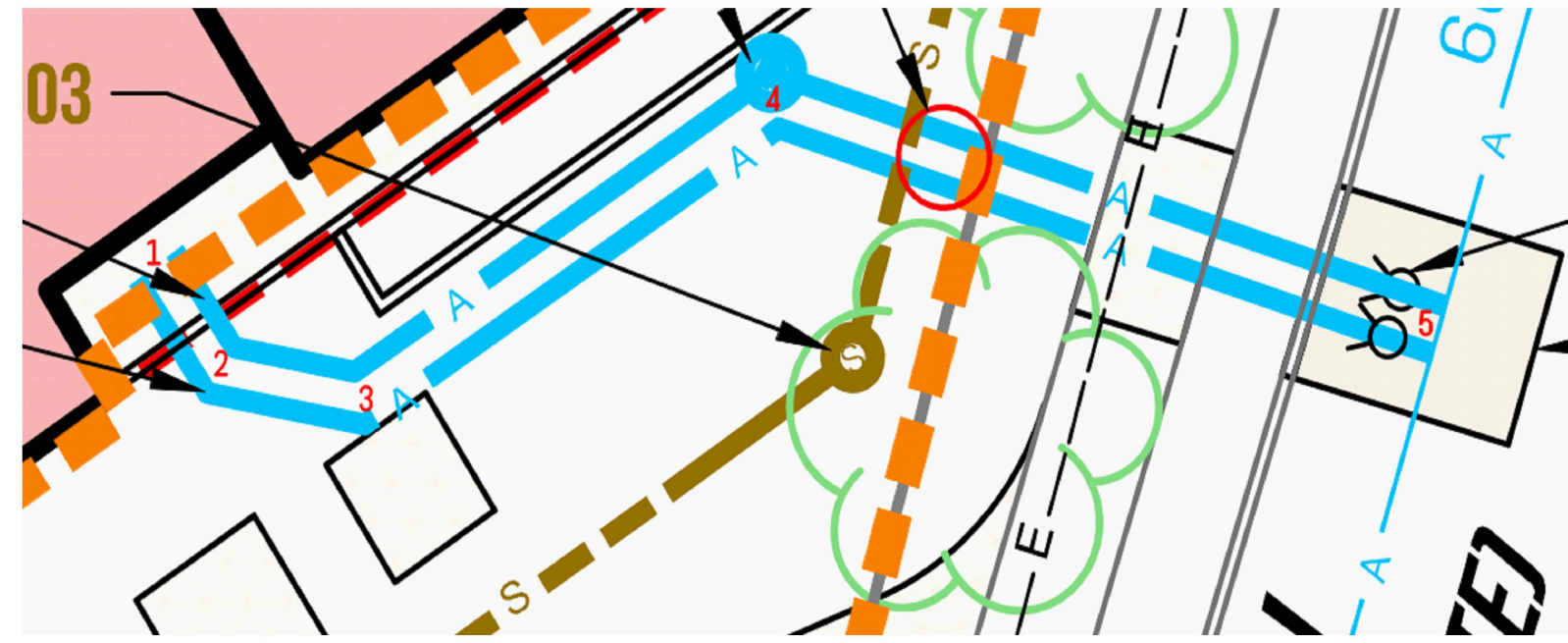
DESIGN: B. BRAY, ing. P. Eng / F. Lacroix CPI
 DRAWING: C-204.dwg
 DATE: 2021-09-15

DRAWN: J. QUESNEL
 DATE: 600401
 PROJECT NO: C-204

APPROVED: B. BRAY, ing. P. Eng
 PLAN NO

WATERMAIN PIPE ANALYSIS

Location	Station Number (m)	Size (mm)	Type	obvert (m)	Ground Elevation (m)	soil cover (m)	type of fitting
1	0	200	PVC DR-18	96.200	100.750	4.550	angle
2	2.25	200	PVC DR-18	95.773	98.173	2.4	angle
3	5.12	200	PVC DR-18	95.700	98.100	2.4	angle
4	13.84	200	PVC DR-18	95.570	97.970	2.4	Metering chamber
5	25.93	200	PVC DR-18	95.152	97.552	2.4	Valves



STRUCTURE TABLE - SANITARY SEWER

NAME	DETAILS	ELEVATIONS/INVERTS
SAN-MH-01	915mm	INV.IN: 95.190 INV. OUT: 95.130
SAN-MH-02	915mm	INV.IN: 95.010 INV. OUT: 94.950
SAN-MH-03	915mm	INV.IN: 94.280 INV. OUT: 94.280

*Provide Benching as per OSDG 6.2.12

STRUCTURE TABLE - STORM SEWER

NAME	DETAILS	ELEVATIONS/INVERTS
ST-MH-01	1200mm FLOWRATE REGULATOR	INV.IN: 93.400 INV. OUT: 93.400 SUMP: 92.950
ST-MH-02	915mm	INV.IN: 93.460 INV. OUT: 93.460 SUMP: 93.460
ST-MH-03	915mm	INV.IN: 93.540 INV. OUT: 93.540 SUMP: 93.540
ST-MH-04	915mm	INV.IN: 93.590 INV. OUT: 93.590 SUMP: 93.590
ST-MH-05	915mm	INV.IN: 96.090 INV. OUT: 96.090 SUMP: 96.090
ST-MH-06	1200mm FLOWRATE REGULATOR	INV.IN: 95.940 INV. OUT: 95.940 SUMP: 94.950
ST-MH-07	915mm	INV.IN: 95.900 INV. OUT: 95.900 SUMP: 95.900
ST-MH-08	915mm	INV.IN: 96.100 INV. OUT: 96.100 SUMP: 96.100
ST-MH-09	915mm	INV.IN: 99.100 INV. OUT: 98.500 SUMP: 98.500

STRUCTURE TABLE - STORM SEWER

NAME	DETAILS	ELEVATIONS/INVERTS	AREA (ha)	5-YR COEFFICIENT	100-YR COEFFICIENT
CB-01	SEE MECHANICAL	TOP: 100.400	0.0555	0.900	1.000
CB-02	SEE MECHANICAL	TOP: 100.300	0.0592	0.900	1.000
CB-03	SEE MECHANICAL	TOP: 100.300	0.0565	0.900	1.000
CB-04	Catch Basin 600mm	INVERT: 96.150 SUMP: 95.850	0.0734	0.799	0.893
CB-05	SEE MECHANICAL	TOP: 100.350	0.0567	0.900	1.000
CB-06	SEE MECHANICAL	TOP: 100.350	0.0635	0.900	1.000
CB-07	SEE MECHANICAL	TOP: 100.250	0.0430	0.900	1.000
CB-08	SEE MECHANICAL	TOP: 100.250	0.0533	0.900	1.000
CB-09	Catch Basin 600mm	TOP: 100.230 INVERT: 96.070 SUMP: 95.760	0.0674	0.827	0.922
CB-10	Catch Basin 600mm	TOP: 100.230 INVERT: 96.010 SUMP: 95.710	0.0462	0.823	0.918

SANITARY PIPE ANALYSIS

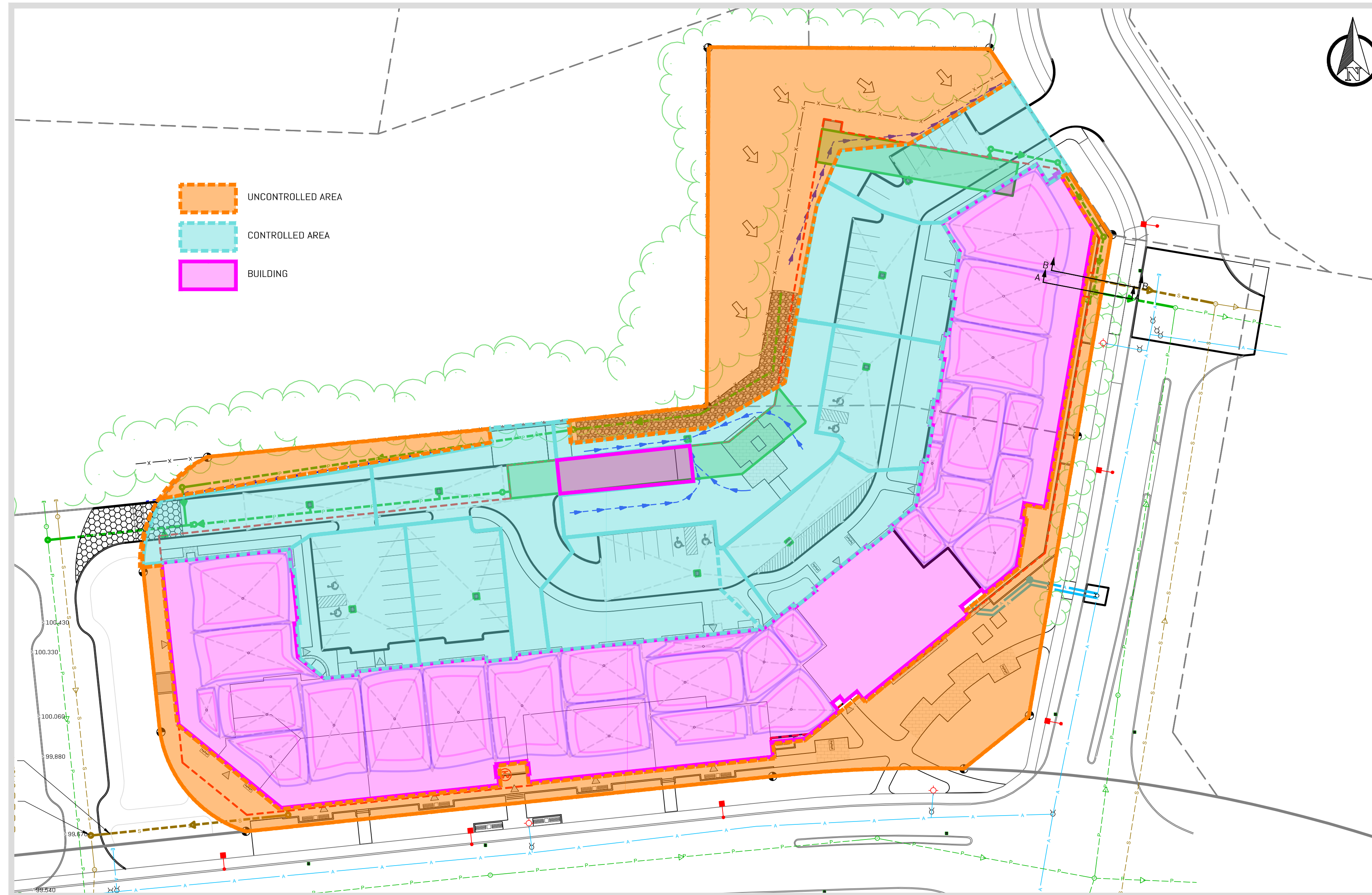
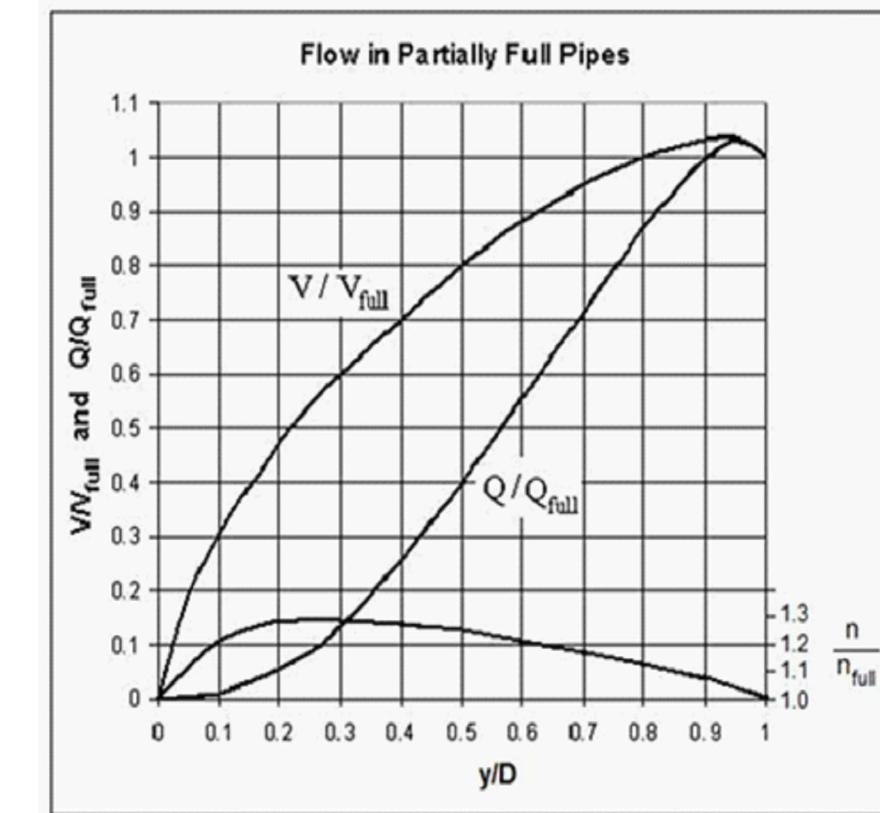
Upstream Location	Downstream Location	Diameter (d)	Type	Upstream Invert	Downstream Invert	Length (m)	Slope (%)	Capacity (Qf) (L/s)	Velocity full (Vf) (m/s)	Flowrate (Q) (L/s)	Q/Qf	y/D	Velocity (m/s)
Building - Phase 1	SAN-MH-01	250	PVC DR-35	95.200	95.190	1.00	1.00	59.47	1.21	5.85	0.10	0.30	0.73
SAN-MH-01	SAN-MH-02	250	PVC DR-35	95.130	95.010	35.90	0.33	34.38	0.70	5.85	0.17	0.35	0.46
Building - Phase 2	SAN-MH-03	250	PVC DR-35	94.300	94.290	1.00	1.00	59.47	1.21	3.99	0.07	0.22	0.61
SAN-MH-03	E-SAN-MH-05	200	PVC DR-35	94.290	93.850	21.90	2.01	46.49	1.48	3.99	0.09	0.18	0.65

STORMWATER PIPE ANALYSIS

Upstream Location	Downstream Location	Diameter (d)	Type	Upstream Invert	Downstream Invert	Length (m)	Slope (%)	Capacity (Qf) (L/s)	Flowrate (Q) (L/s)	Q/Qf
Building Phase 1	ST-MH-05	375	PVC	96.100	96.090	1.1	0.91	167.17	66.6	0.40
ST-MH-05	ST-MH-06	375	PVC	96.090	95.935	59.13	0.26	89.77	66.6	0.74
ST-MH-06	ST-MH-07	375	PVC	95.935	95.900	18.35	0.19	76.57	66.6	0.87
Building Phase 2	ST-MH-04	300	PVC	93.600	93.590	1	1.00	96.70	6	0.06
ST-MH-04	ST-MH-03	300	PVC	93.590	93.540	11.7	0.43	63.22	6	0.09
ST-MH-03	ST-MH-02	300	PVC	93.540	93.460	14.58	0.55	71.63	6	0.08
ST-MH-02	ST-MH-01	300	PVC	93.460	93.400	11.08	0.54	71.16	6	0.08
ST-MH-01	E-ST-MH-06	300	PVC	93.400	93.243	15.72	1.00	96.70	6	0.06

CROSSING TABLE

Pipe	Type	Invert (m)	Difference (m)
Stormwater pipe	300mm PVC	93.400	0.58
Sanitary pipe	250 mm PVC	94.280	



REV	DESCRIPTION	BY	DATE
J	FOR SITE PLAN APPLICATION REVISION 9	B.B.	2023-03-16
I	FOR SITE PLAN APPLICATION REVISION 8	B.B.	2023-03-08
H	FOR SITE PLAN APPLICATION REVISION 7	B.B.	2023-02-02

CLIENT: **emo batimo**
CONSTRUCTION PROMOTEUR ET GESTIONNAIRE IMMOBILIER

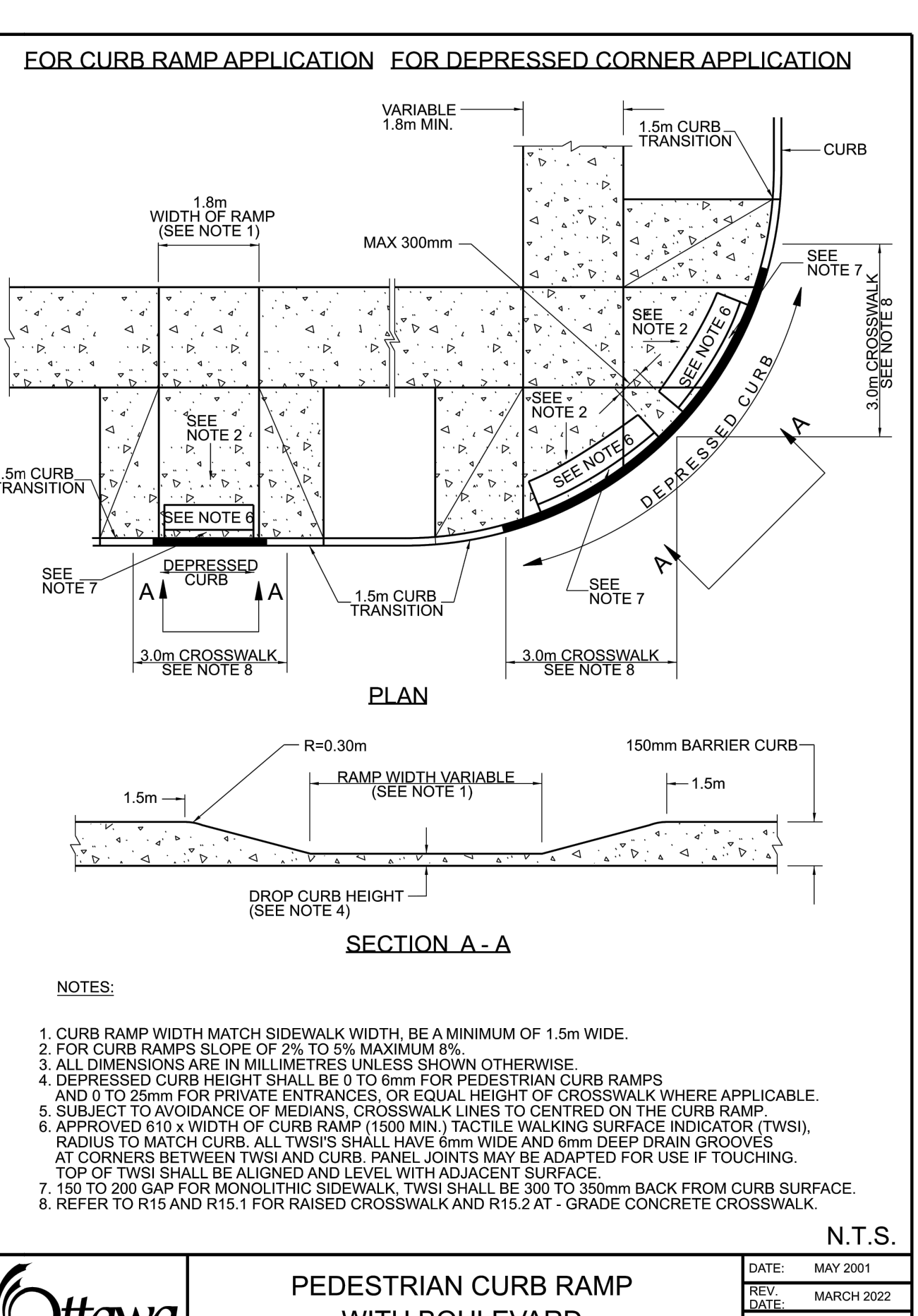
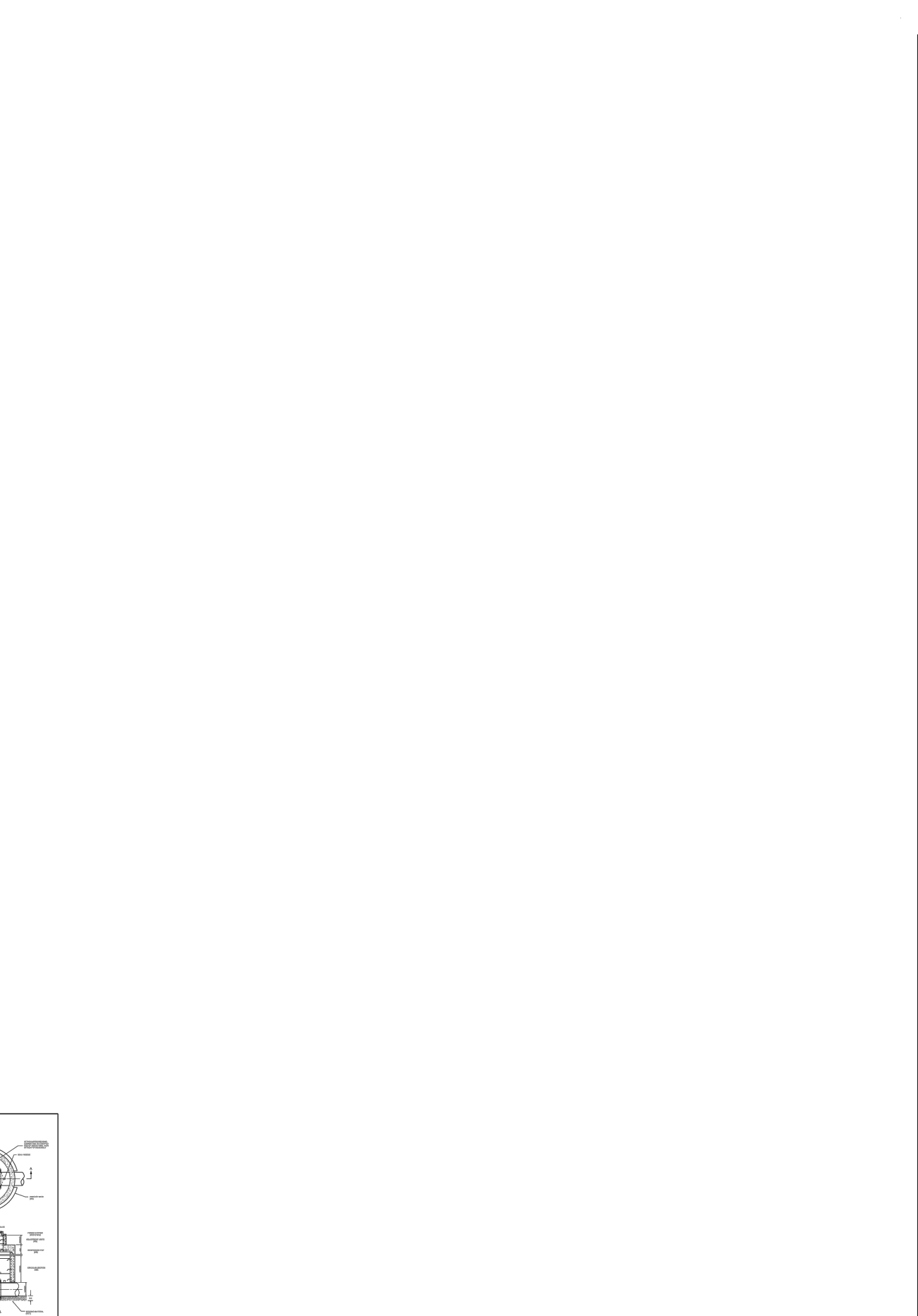
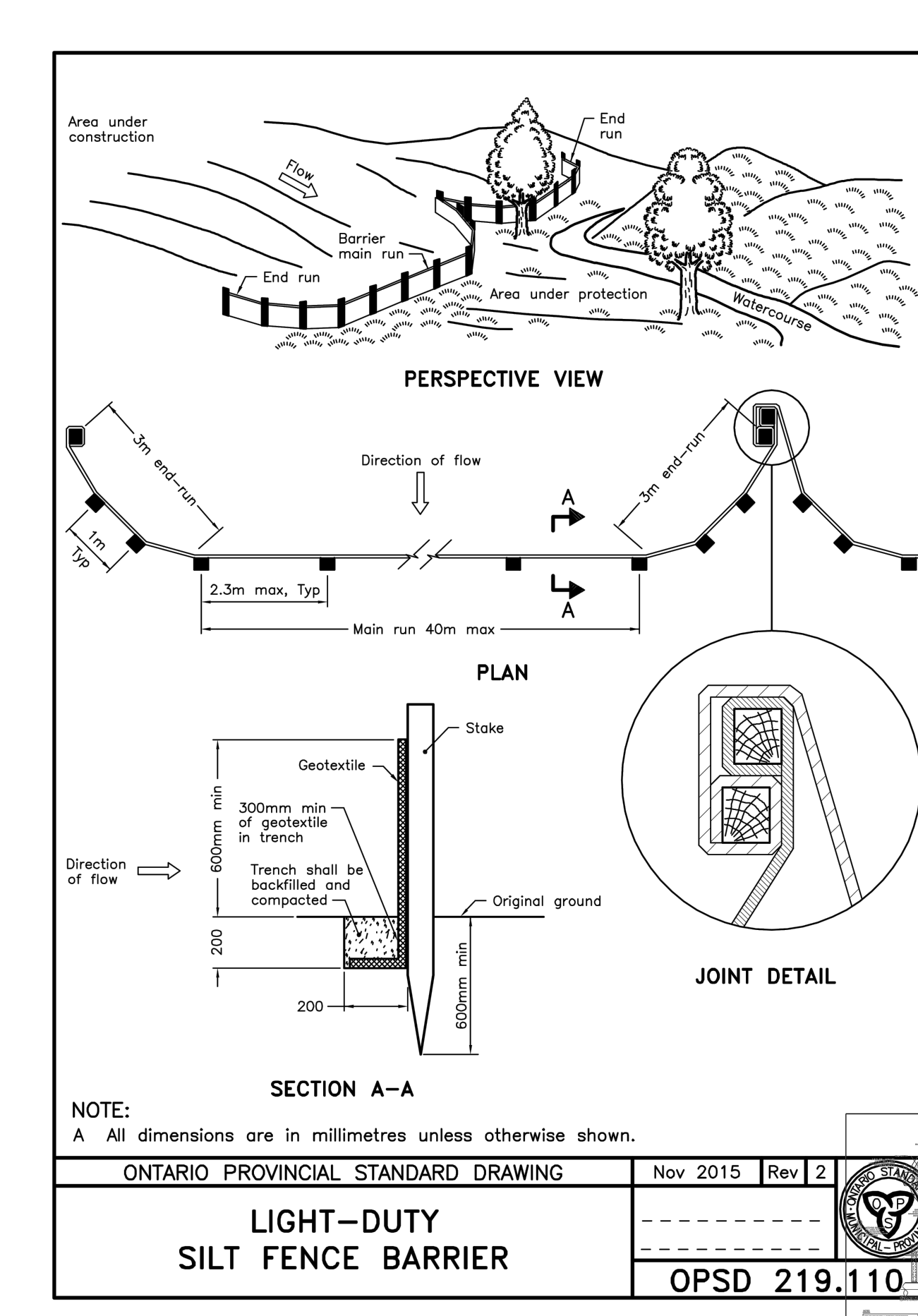
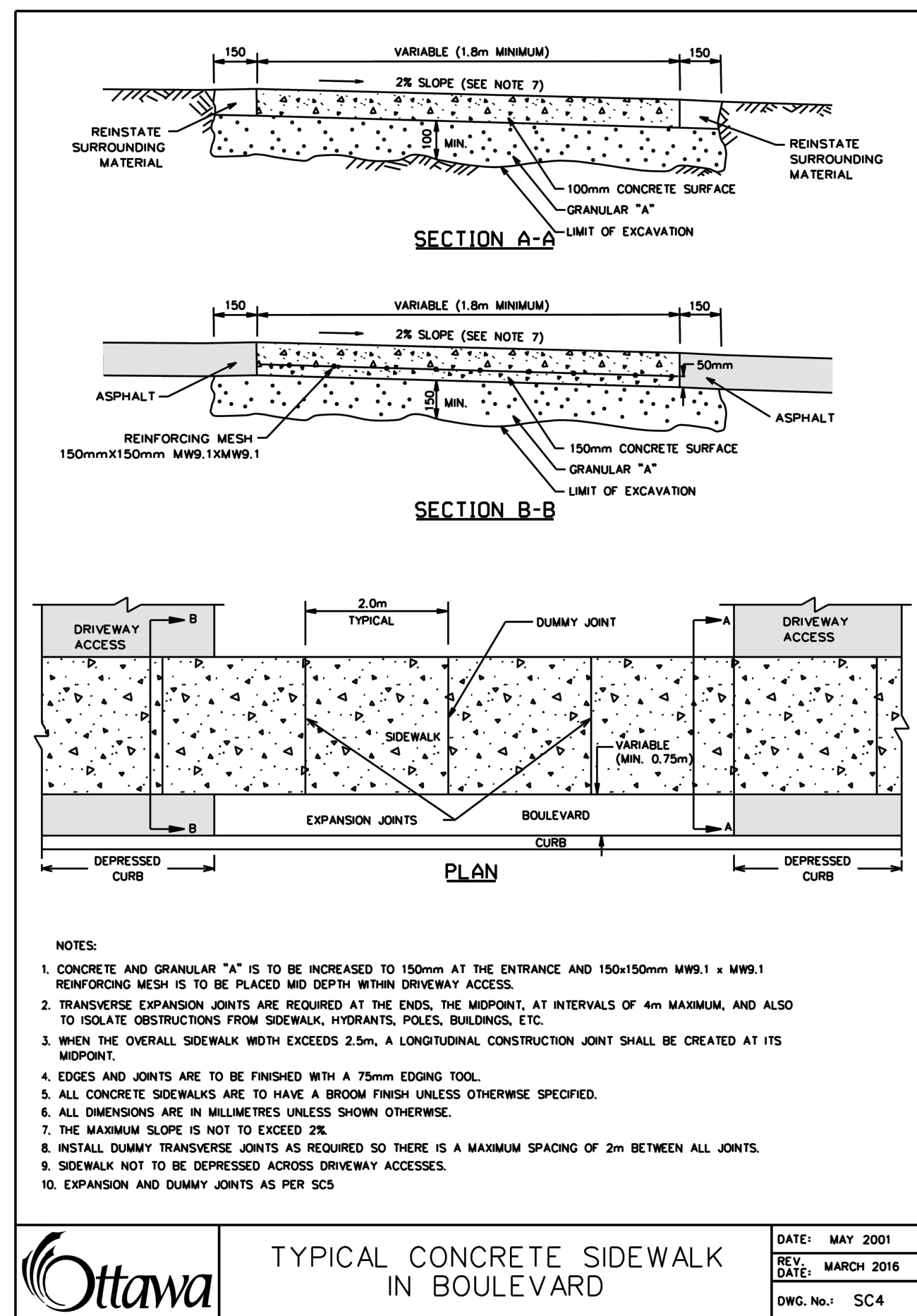
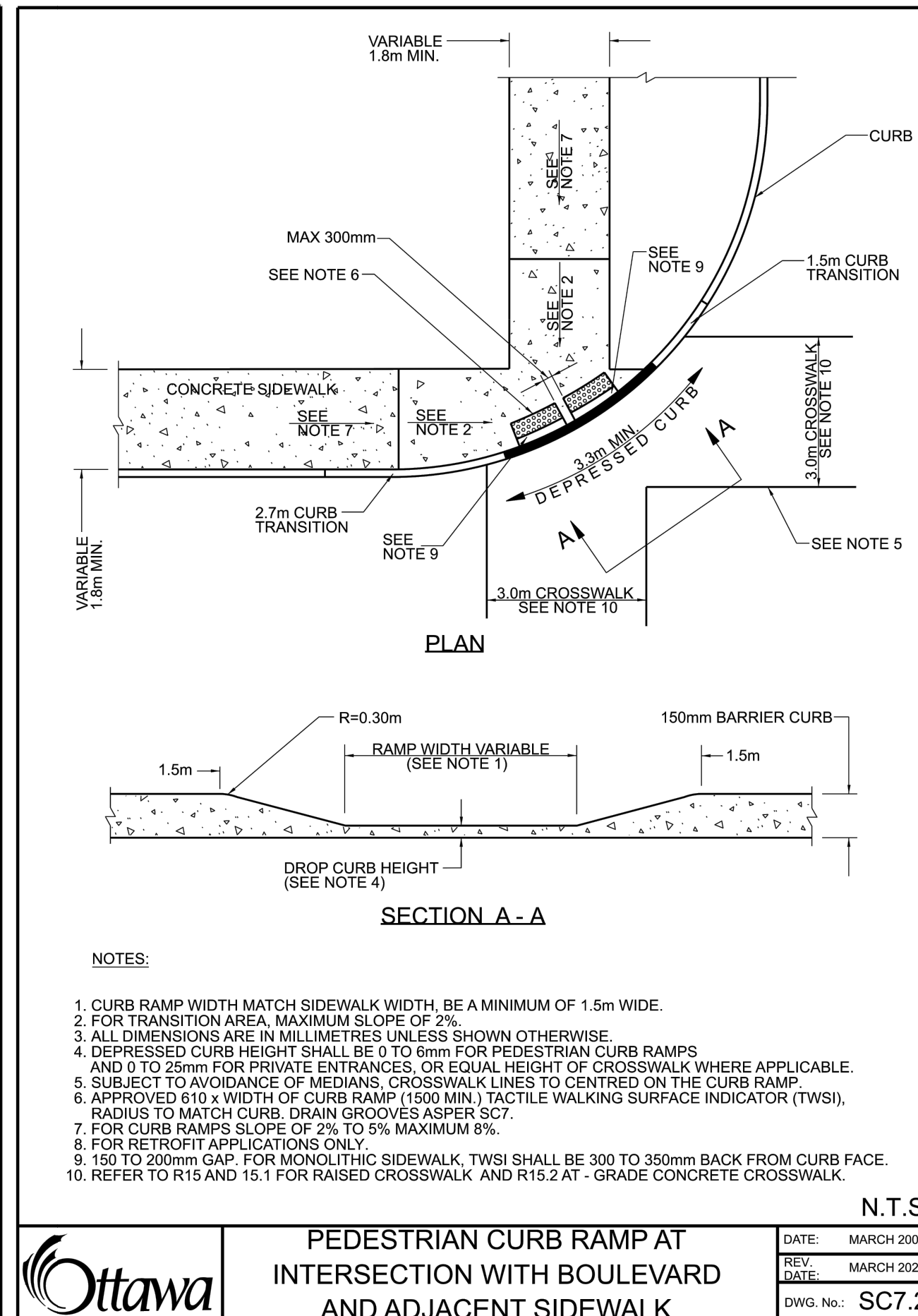
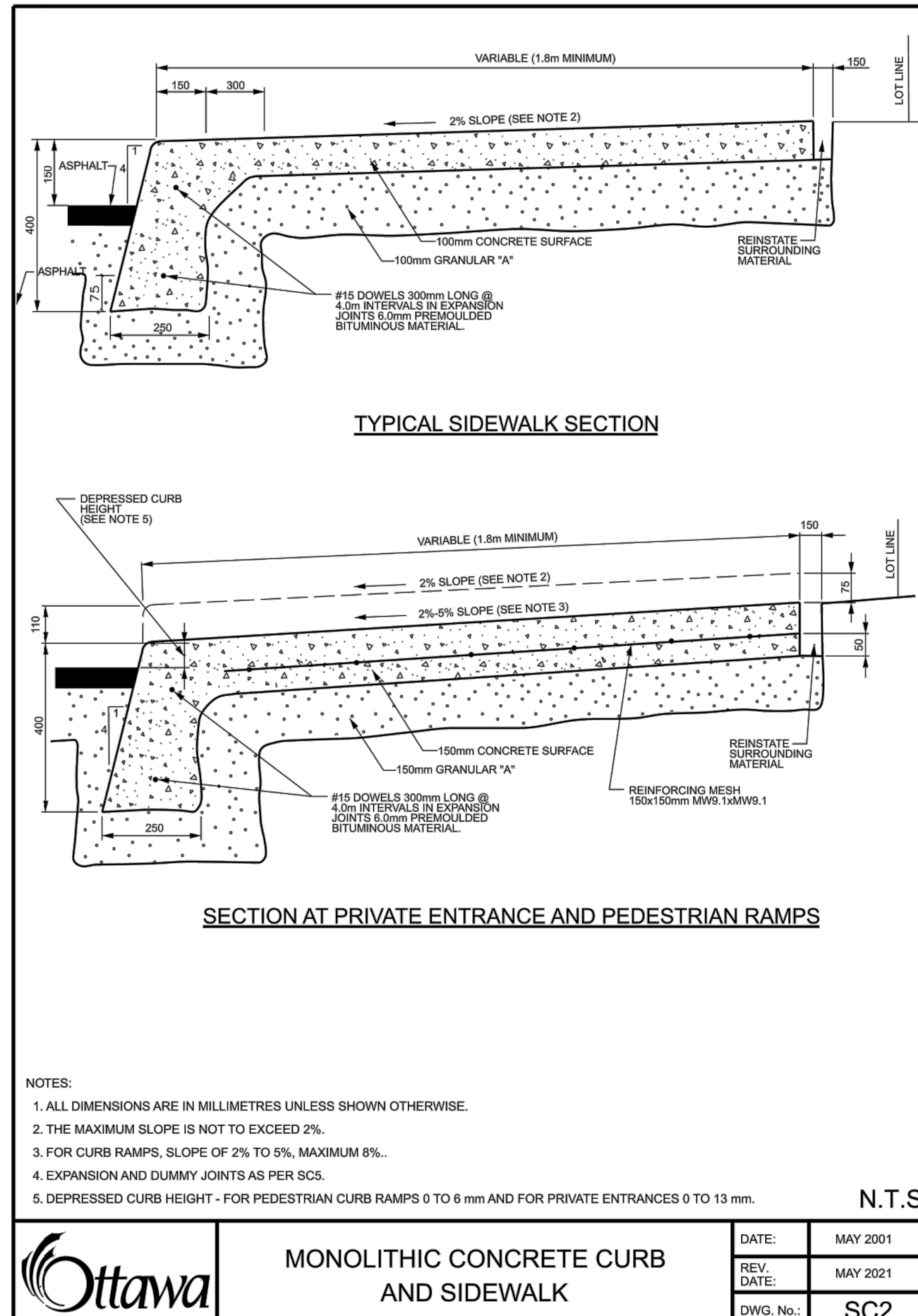
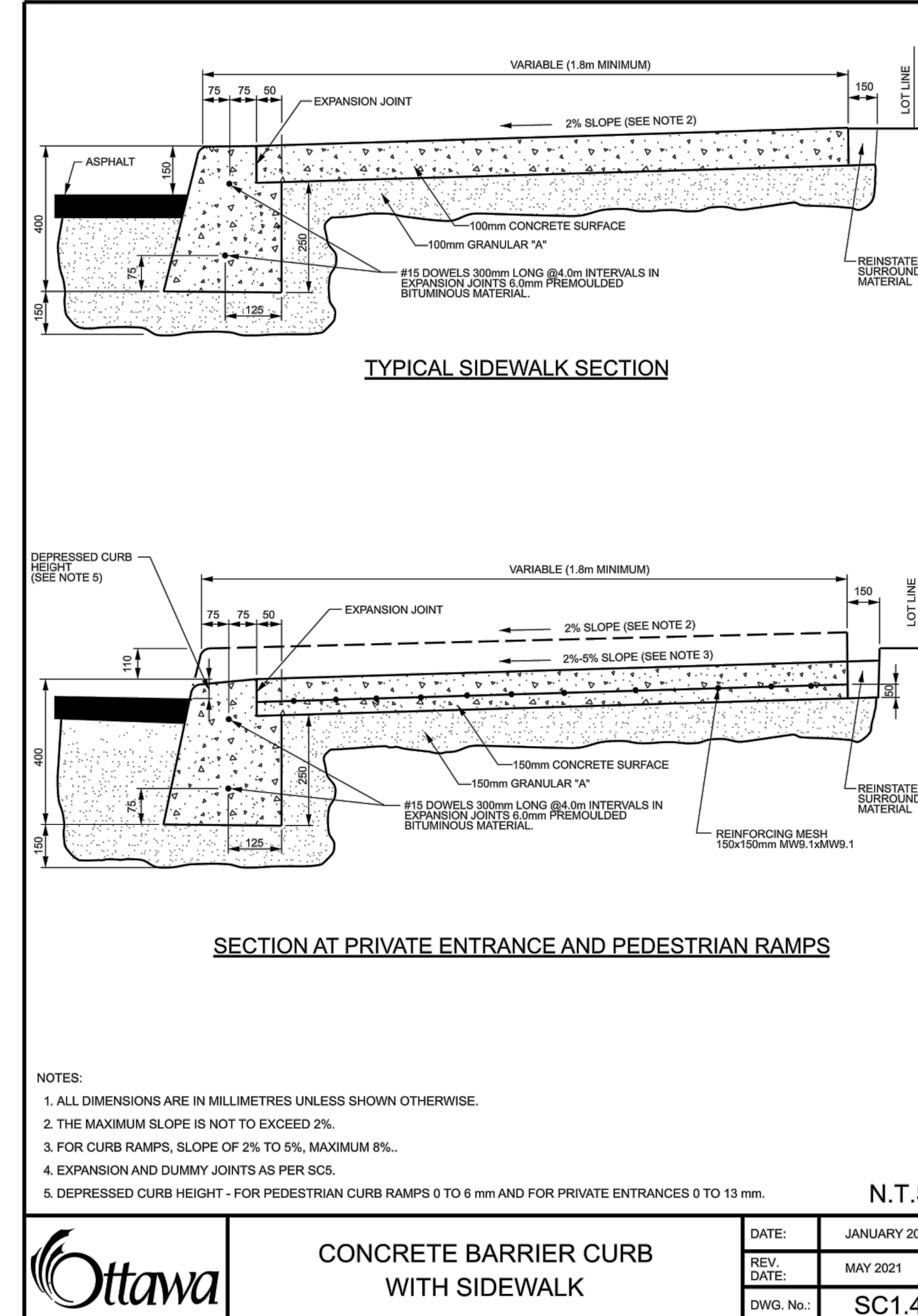
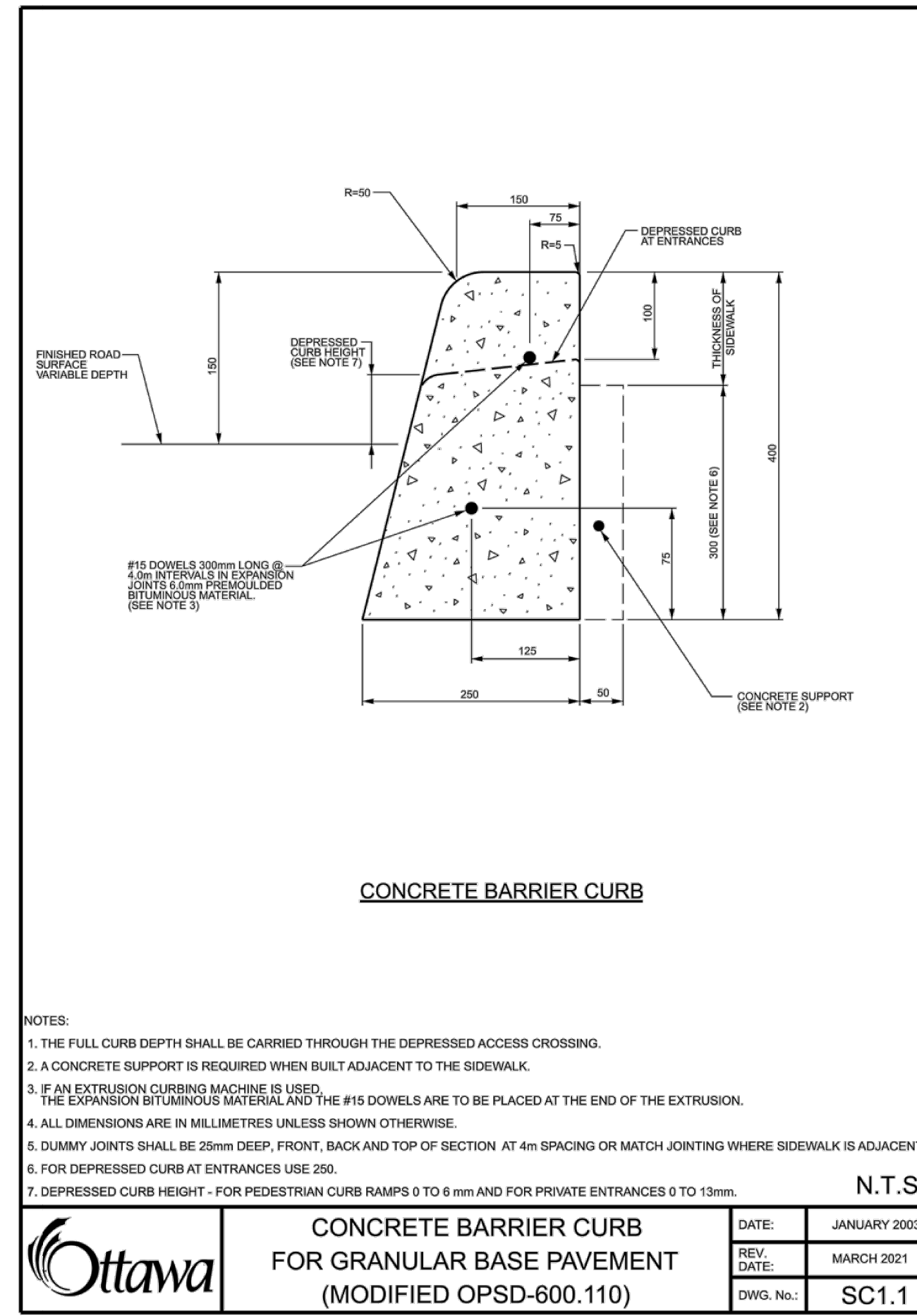
PROJECT: LIB KANATA
KANATA AVENUE AND MARITIME WAY
CITY OF OTTAWA, ONTARIO

LAURENCE
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LICENSED PROFESSIONAL ENGINEER
B. BRAY
100568973
PROVINCE OF ONTARIO
2023-03-17

TITLE: SITE SERVICING PLAN AND DRAINAGE AREA

SCALE:	DESIGN	DRAWING
B. BRAY, ing. P. Eng / F. Lacroix CPI	J.QUESNEL	C-204.dwg
B. BRAY, ing. P. Eng.	B. BRAY, ing. P. Eng.	2021-09-15
		DATE
		600401
		PROJECT NO
		C-204A
		PLAN NO



REV	DESCRIPTION	BY	DATE
J	FOR SITE PLAN APPLICATION REVISION 9	B.B.	2023-03-16
I	FOR SITE PLAN APPLICATION REVISION 8	B.B.	2023-03-08
H	FOR SITE PLAN APPLICATION REVISION 7	B.B.	2023-02-02
G	FOR SITE PLAN APPLICATION REVISION 6	A.L.	2022-09-16
F	FOR SITE PLAN APPLICATION REVISION 5	A.L.	2022-07-12
E	FOR SITE PLAN APPLICATION REVISION 4	A.L.	2022-07-07
D	FOR SITE PLAN APPLICATION REVISION 3	A.L.	2022-03-23
C	FOR SITE PLAN APPLICATION REVISION 2	A.L.	2021-10-07
B	FOR SITE PLAN APPLICATION REVISION 1	A.L.	2021-09-24
A	FOR SITE PLAN APPLICATION	A.L.	2021-09-17

CLIENT: **emo batimo**
CONSTRUCTION PROMOTEUR ET GESTIONNAIRE IMMOBILIERS

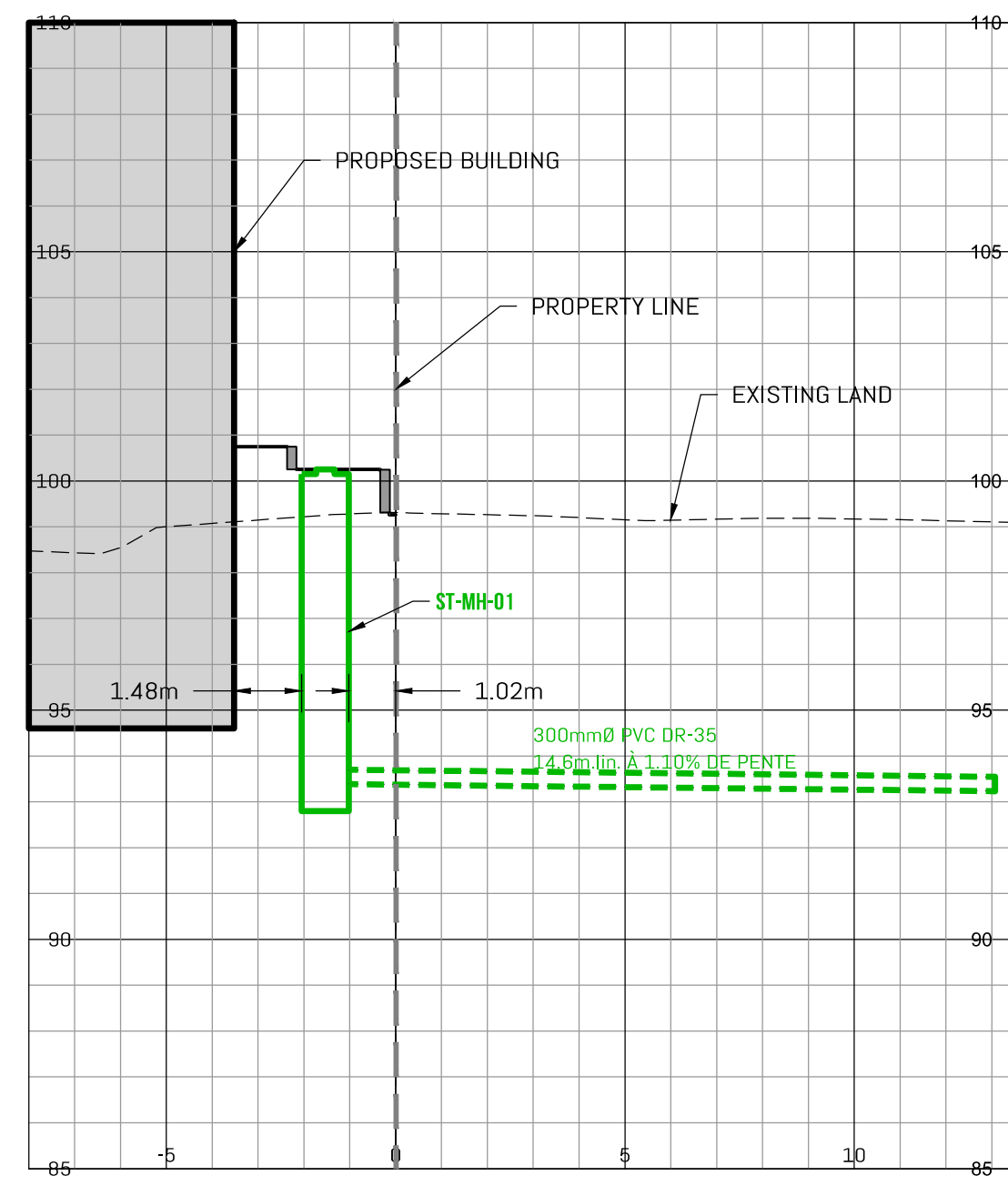
PROJECT: **LIB KANATA**
KANATA AVENUE AND MARITIME WAY
CITY OF OTTAWA, ONTARIO

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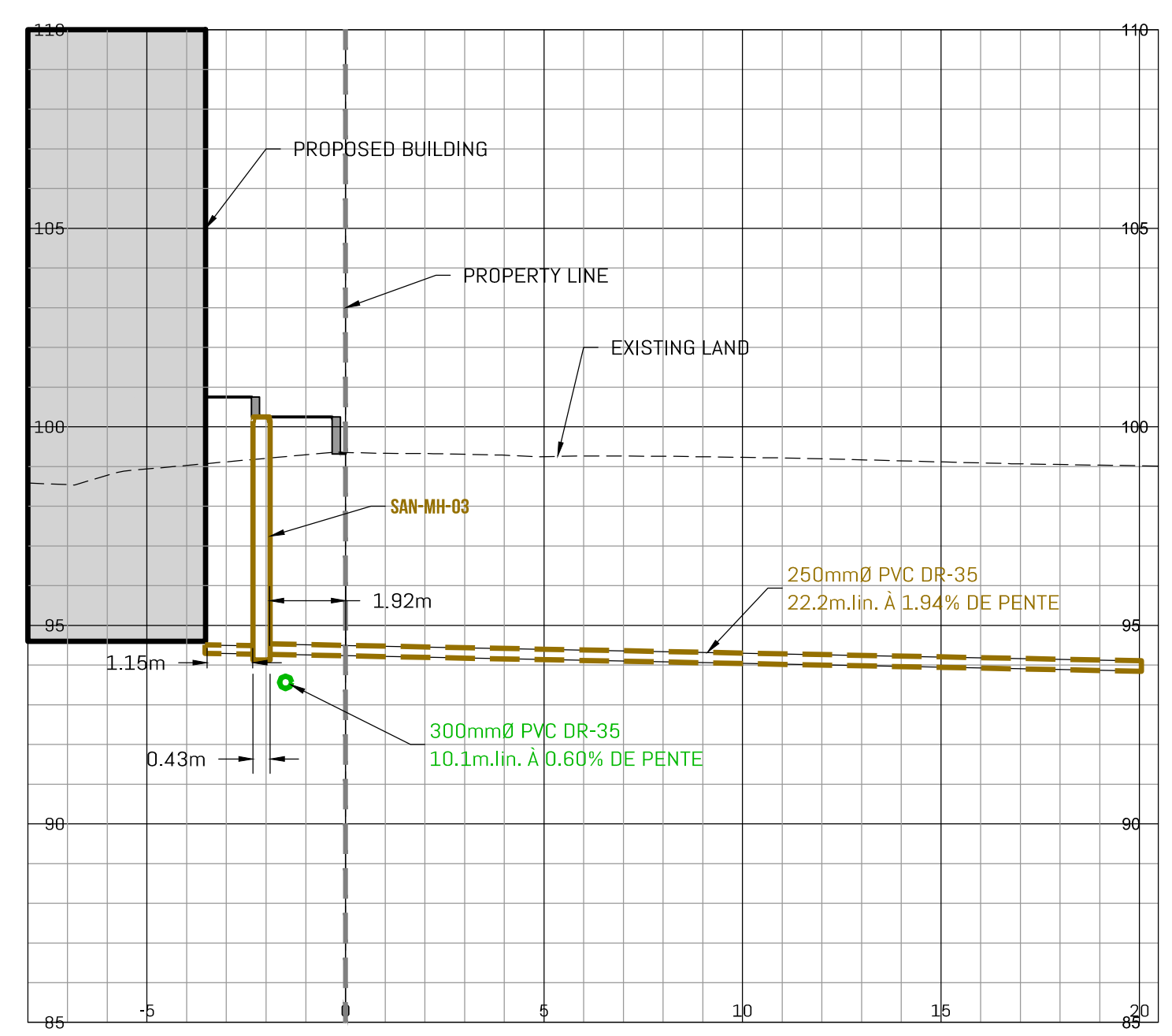
LICENSED PROFESSIONAL ENGINEER
B. BRAY
100568973
PROVINCE OF ONTARIO
2023-03-17

TITLE: **STANDARD SECTIONS AND DETAILS**

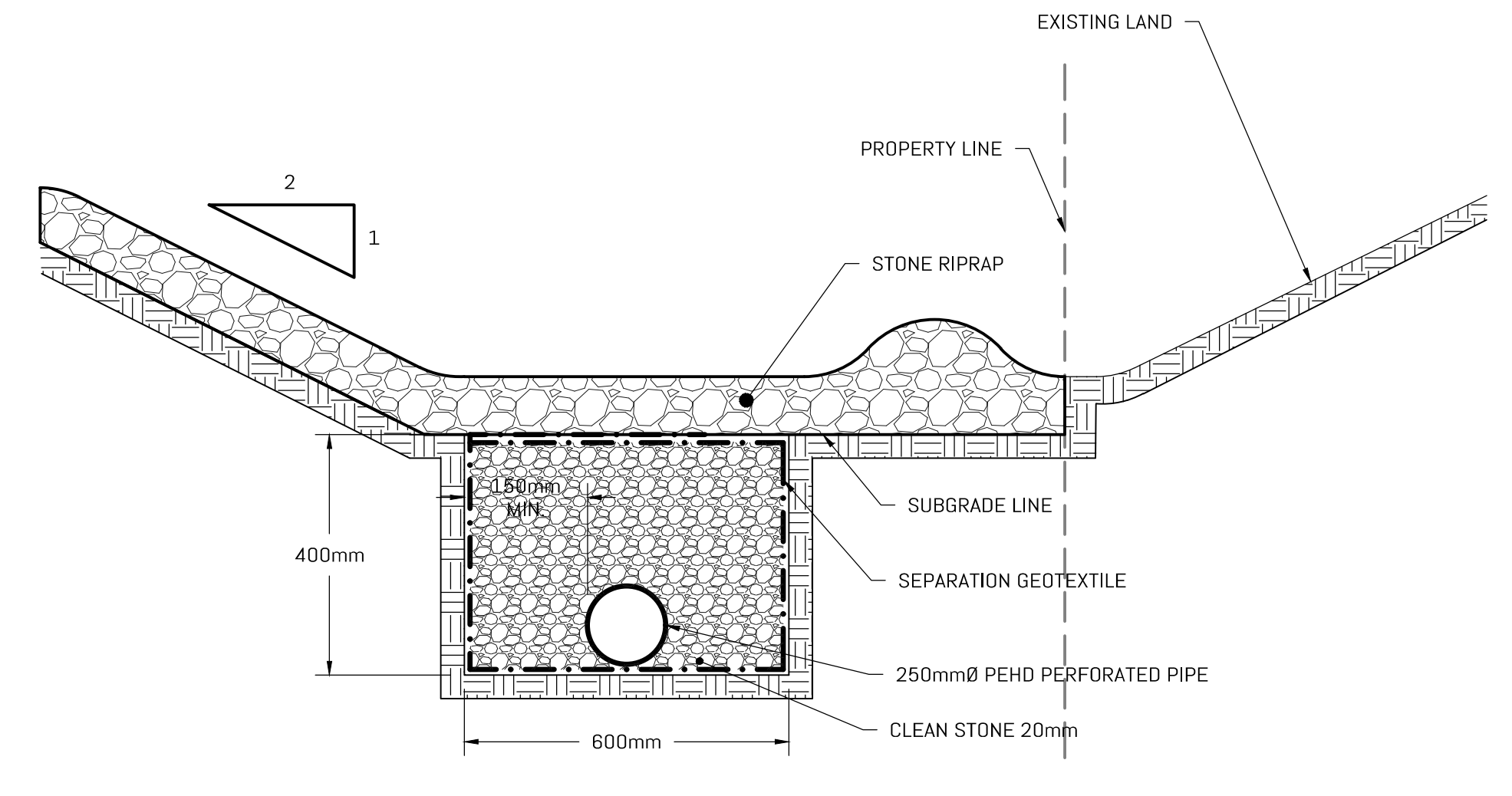
DESIGN	DRAWING
B. BRAY, ing. P. Eng / F. Lacroix CPI	C-205.dwg
J. QUESNEL	2021-09-15
B. BRAY, ing. P. Eng.	600401
APPROVED	PROJECT NO
	PLAN NO



SECTION CUT A - A

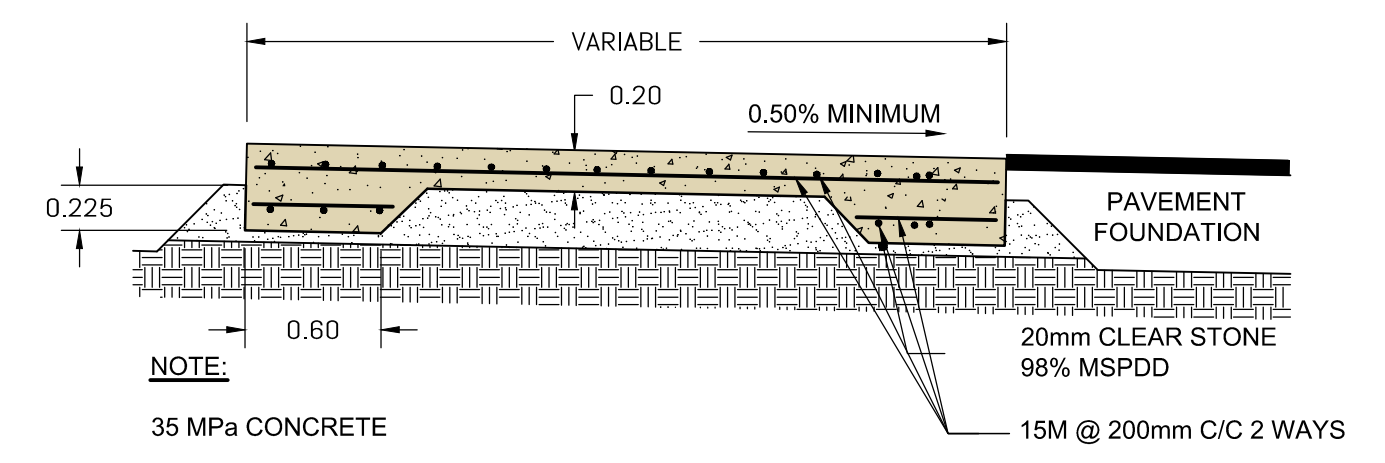


SECTION CUT B - B



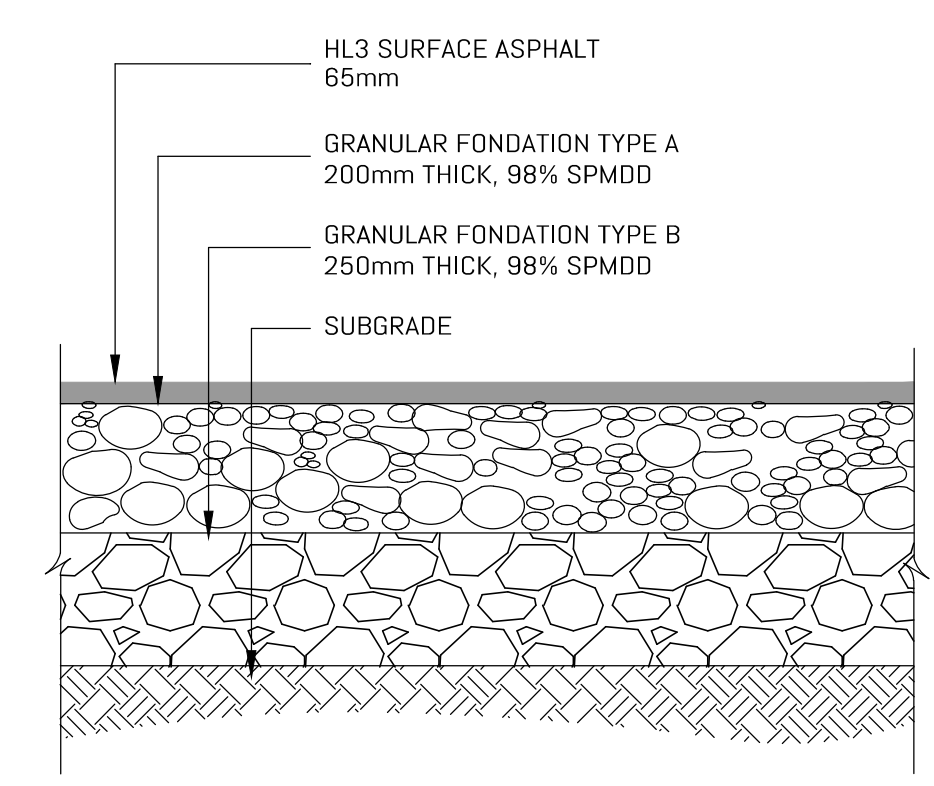
NOTES:
END OF PERFORATED PIPE MUST BE CAPPED.

TRENCH DRAIN AND SEDIMENT BARRIER

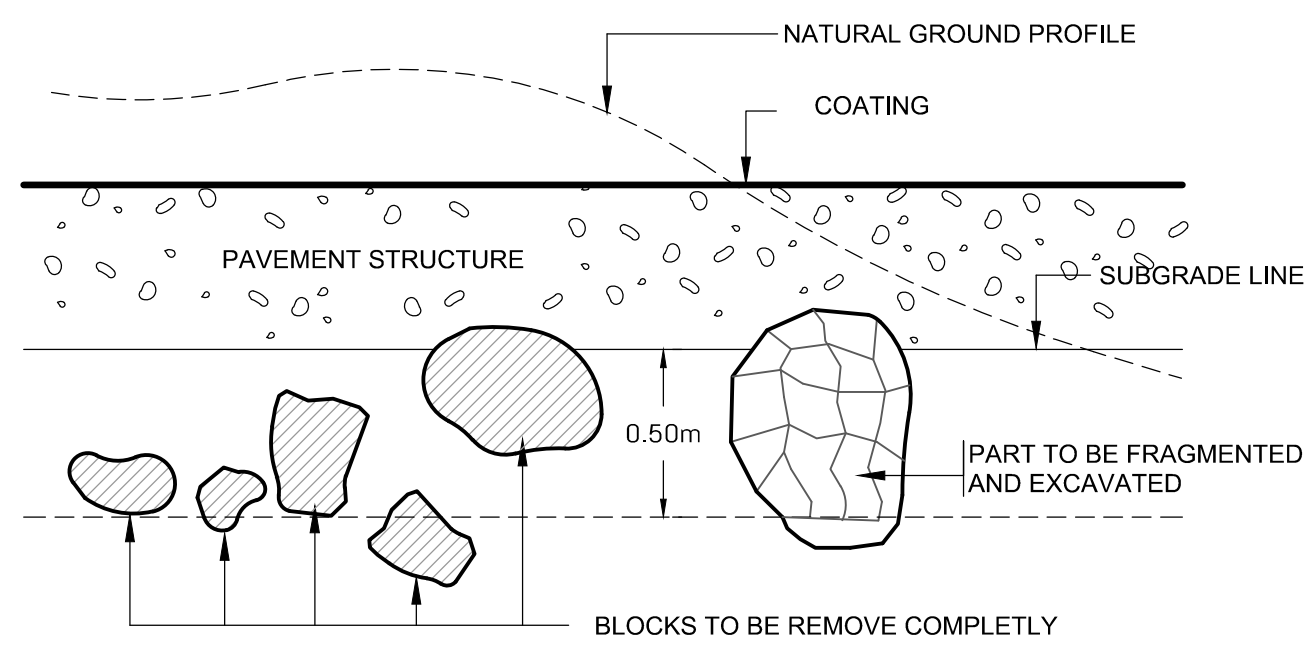


NOTE:
35 MPa CONCRETE
STATISTICAL STRENGTH TEST ANALYSIS TO CONFIRM THE STRENGTH LEVEL INCLUDING THE EXPECTED 7/28-DAY STRENGTH RATIO (AS PER CSA A23.1 CLAUSE 4.4.6.7)

REINFORCED CONCRETE SLAB FOR GARBAGE CONTAINERS



PARKING AND ACCESS
FOUNDATION ASPHALT SURFACE
(TO BE VERIFIED BY GEOTECHNICAL ENGINEER)



NOTES:
- ALL BLOCKS OVER 250mm DIAMETER PRESENT IN THE FIRST 500 mm UNDER INFRASTRUCTURE LINE MUST BE REMOVED, FRAGMENTED AND EXCAVATED TO 500 mm DEPT;
- AFTER REMOVING BLOCS, THE EXCAVATIONS HAVE TO BE RAISED TO DESIGN SUBGRADE LEVELS WITH APPROVED COMPACTABLE ON SITE SOIL.
- LIFTS OF 300mm THICK, COMPACTED AT 95% MSPDD
- AS AN ALTERNATIVE TO SUBEXCAVATION, A WOVEN GEOTEXTILE SEPARATOR, SUCH AS TERRATRACK 24-15, AMOCO 2002, MIRAFI 500XL OR EQUIVALENT, MAY BE PLACED OVER SPONGY AREAS PRIOR TO PLACING THE GRANULAR "B" SUB-BASE LAYER.

SUBGRADE PREPARATION DETAIL

STANDARD TRENCH REINSTATEMENT IN PAVED SURFACE

FULL DEPTH KEY OPTION (SEE NOTE 7) STEP KEY

300mm (MIN.) TYP. 300mm (MIN.) TYP. 300mm (MIN.) TYP.

TRENCH WIDTH

USE SEALANT TO SEAL THE JOINT (SEE NOTE 8) TREAT ALL CUT FACES WITH TACK COAT BEFORE PLACING ASPHALT USE SEALANT TO SEAL JOINT (SEE NOTE 8)

SAWCUT SAWCUT

EXISTING LIFTS OF ASPHALT

GRANULAR 'A' - REINSTATE EXISTING (150mm MIN.) UNDISTURBED GRANULAR EXISTING GRANULAR 'A'

GRANULAR 'B' TYPE 2 REINSTATE EXISTING (300mm MIN.) EXISTING GRANULAR 'B'

EXISTING SUBGRADE

PIPE BEDDING AND HAUNCHING MATERIAL TO BE GRANULAR 'A' (COMPACTED TO 98% STANDARD PROCTOR)

TRENCH

FINAL BACKFILL - APPROVED NATIVE MATERIAL OR SELECT SUBGRADE IN ACCORDANCE WITH F-2120

MATCH EXISTING ASPHALT DEPTHS LIFTS TO BE 50mm DEPTH MAXIMUM, COMPACTED AS PER F-3130 EXCAVATED TRENCH COMPACTED IN ACCORDANCE WITH D-029 TABLE 2

NOTES:
1. ALL EXISTING ASPHALT TO BE SAW CUT.
2. UNLESS SPECIFIED ELSEWHERE, SURFACE COURSE ASPHALT SUPERPAVE 12.5mm AND BASE COURSE ASPHALT SUPERPAVE 19.0mm IS TO BE USED.
3. UNLESS SPECIFIED ELSEWHERE, ASPHALT MIX SHALL BE LEVEL B (PG58-34) FOR NON-BUS LOCAL ROADS, AND LEVEL D (PG 64-34) FOR ALL OTHER ROADS.
4. UNLESS SPECIFIED ELSEWHERE, WHERE EXISTING PAVEMENT STRUCTURE EXCEEDS 150mm IN DEPTH, ASPHALT REINSTATEMENT SHALL BE 150mm AND GRANULAR 'A' FOR THE REMAINDER.
5. UNLESS SPECIFIED ELSEWHERE, WHERE AN UNDERLYING LAYER OF CONCRETE PAVEMENT EXISTS, REINSTATEMENT SHALL CONSIST OF 150mm OF SUPERPAVE 19.0mm LEVEL B (PG58-34) COMPACTED IN LIFTS.
6. UNLESS SPECIFIED ELSEWHERE, HOT MIX ASPHALT PLACEMENT AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH F-3130.
7. STEP KEY REINSTATEMENT TO BE IMPLEMENTED UNLESS FULL DEPTH KEY OPTION APPROVED BY THE CITY.
8. ALL EDGES TO BE ROUTED AND SEALED WITH A BEAD OF HOT RUBBERIZED ASPHALT JOINT SEALING COMPOUND.

DATE: MAY 2021
REV: MARCH 2022
DWG. NO.: R10

N.T.S.

J	FOR SITE PLAN APPLICATION REVISION 9	B.B.	2023-03-16
I	FOR SITE PLAN APPLICATION REVISION 8	B.B.	2023-03-08
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G	FOR SITE PLAN APPLICATION REVISION 6	A.L.	2022-09-16
F	FOR SITE PLAN APPLICATION REVISION 5	A.L.	2022-07-12
E	FOR SITE PLAN APPLICATION REVISION 4	A.L.	2022-07-07
D	FOR SITE PLAN APPLICATION REVISION 3	A.L.	2022-03-23
REV	DESCRIPTION	BY	DATE

CLIENT:

PROJECT:
LIB KANATA
KANATA AVENUE AND MARITIME WAY
CITY OF OTTAWA, ONTARIO

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INGENIERIE CIVILE

2023-03-17

TITLE:
STANDARD SECTIONS AND DETAILS II

SCALE: NO SCALE

B. BRAY, ing. P. Eng / F. Lacroix CPI	C-206.dwg
J. QUESNEL	DRAWING 2021-09-15
B. BRAY, ing. P. Eng.	DATE 600401
APPROVED	PROJECT NO C-206
	PLAN NO



FIRE FLOW DEMAND = 16,000L
 TOTAL FIRE FLOW CONTRIBUTION = 47,500L

150m FROM
 BUILDING FOOTPRINT

75m FROM
 BUILDING FOOTPRINT

BUILDING FOOTPRINT

- HYDRANTS ≤ 75m
- HYDRANTS > 75m & ≤ 150m
- HYDRANTS > 150m

J	FOR SITE PLAN APPLICATION REVISION 9	B.B.	2023-03-16
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D	FOR SITE PLAN APPLICATION REVISION 3	A.L.	2022-03-23
REV	DESCRIPTION	BY	DATE

CLIENT:



CONSTRUCTION PROMOTEUR ET GESTIONNAIRE IMMOBILIER

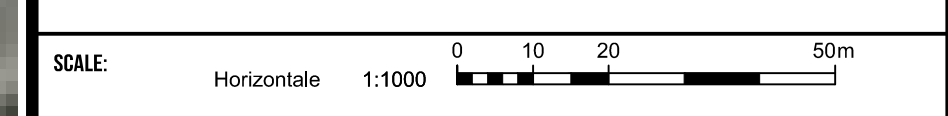
PROJECT:
 LIB KANATA
 KANATA AVENUE AND MARITIME WAY
 CITY OF OTTAWA, ONTARIO



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TITLE:
 FIRE HYDRANT COVERAGE MAP



B. BRAY, ing. P. Eng / F. Lacroix CPI	C-207.dwg
J.QUESNEL	DRAWING 2021-09-15
B. BRAY, ing. P. Eng.	DATE 600401
APPROVED	PROJECT NO 600401
	PLAN NO C-207