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LANDFORM CONSERVATION PLAN

AT

**123 Durham Regional Highway 47,
Uxbridge, ON**

PREPARED FOR:

Urbanway Development Management Inc.

Dated: Dec 11th, 2023

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1. BACKGROUND

King EPCM (the Engineer) was retained by Urbanway Development Management Inc. (the Client) to carry out various civil engineering designs, including a Landform Conservation Plan as per Oak Ridges Moraine Conservation Plan (ORMCP), for a proposed industrial sub-division at 123 Durham Regional Highway 47, Uxbridge, ON (the Site).

The purpose of this report is to provide a review of existing site conditions and current landform conservation category status, and determine how and where the proposed development best takes ORMCP conservations into design. This report takes into consideration Section 30 of Oak Ridges Moraine Conservation Plan, 2017, as well as the detailed Technical Paper Series – 4 Landform Conservation.

This report was prepared for the Client, Urbanway Development Management Inc., for the property owners, and any related site-specific engineers, designers, and contractors. This report is considered an intellectual property of King EPCM, and third party use of this report, including reliance, in-part or full, is prohibited without written consent from King EPCM.

2. SITE DESCRIPTION

2.1. SITE LOCATION

The site is located at the municipal address of 123 Durham Regional Highway 47, Uxbridge, ON.

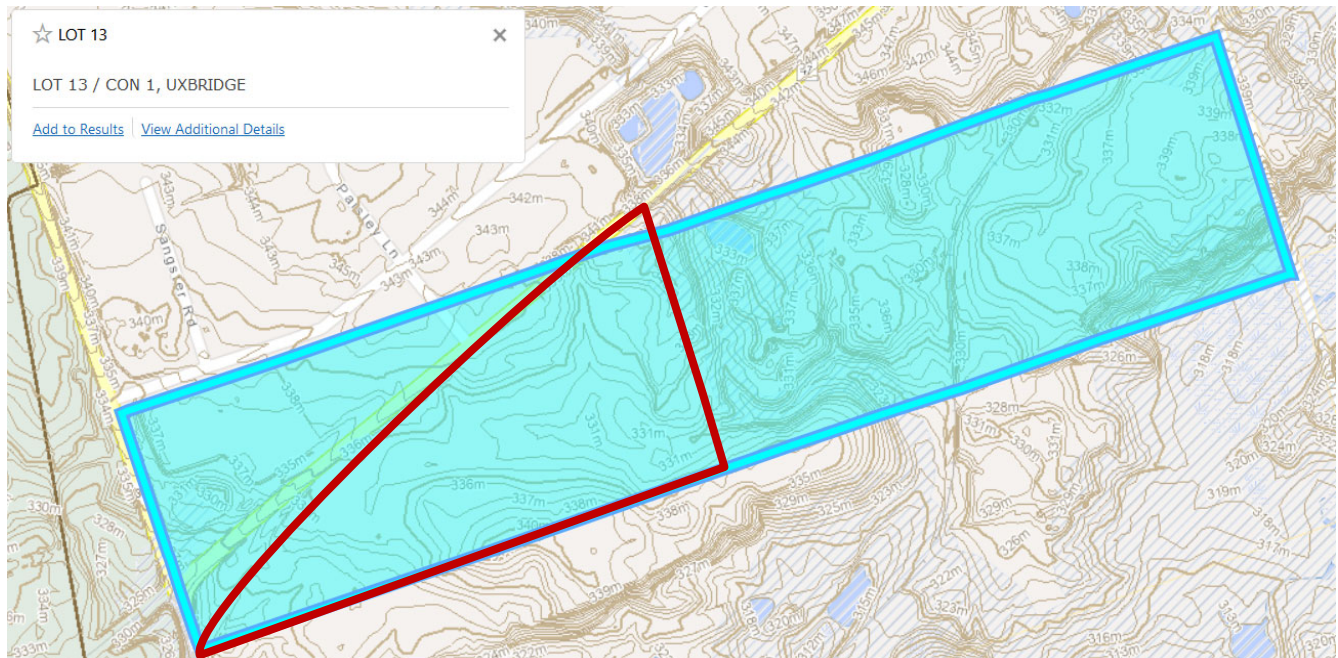


Figure 1 - Location and Topographic Elevation - 123 Hwy 47, Uxbridge

The Site property is considered triangular in shape, and is located east of the major intersection of York-Durham Line and Bloomington Rd / Durham Regional Highway 47 (Hwy 47). The site is currently an agricultural property with rolling hills and multiple driveway access along the north of the property along Hwy 47.

2.2. EXISTING ORMCP AND LANDFORM MAPPING

Based on published database by Ontario Ministry of Municipal Affairs and Housing (MMAH) Oak Ridges Moraine Conservation Plan, Landform Conservation Map Section 2 – York Region and Durham Region Area, the Site is considered a mix of Category 1 and Category 2 areas. See Figure 2 below for details.

The Site can be separate into two separate Categories:

- Category 1 – the steeply sloping forested pocket area at the east property boundary
- Category 2 – all existing agricultural fields, generally slopes at 10% grade or less, with exception to a small local rolling hill along the south property boundary at slopes between 10 ~ 25% grade

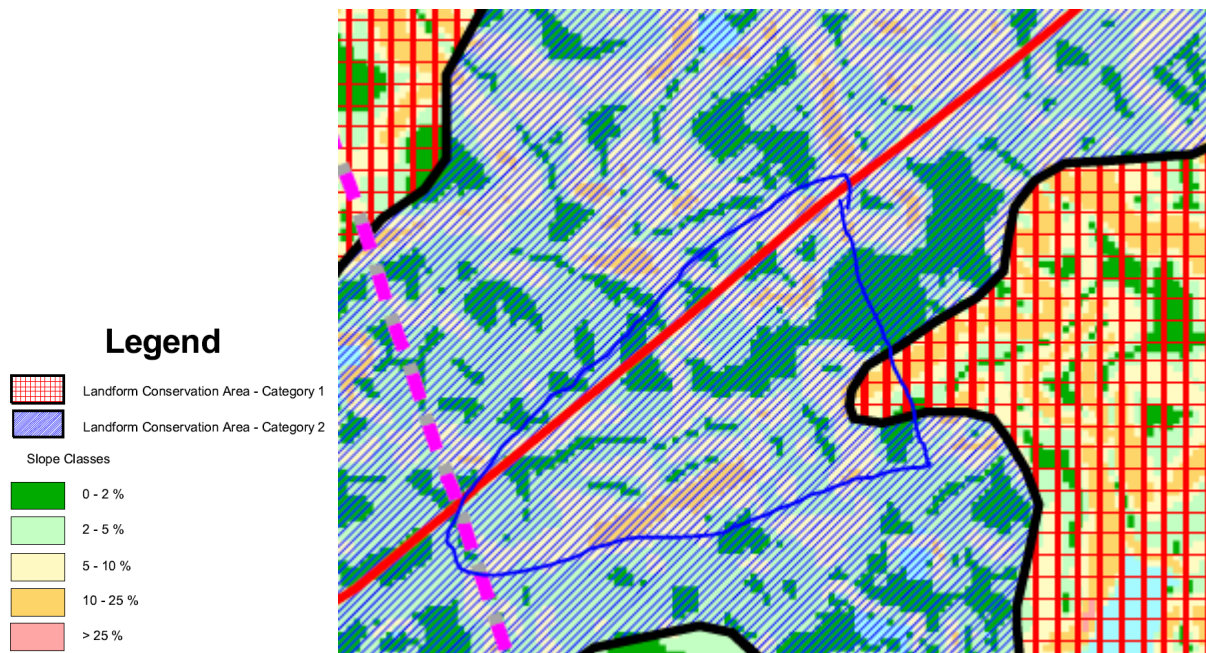


Figure 2 - Existing Landform Conservation Map - 123 Hwy 47, Uxbridge

3. STEP 1 - APPLICABILITY

Based on the proposed industrial sub-division development application, and the Figure 2 above, the Site is within Category 1 and Category 2 lands, as per Section 30 of Oak Ridges Moraine Conservation Plan, 2017. The actual development submissions package for the proposed industrial sub-division includes this report, but as per the excerpt from the actual Ontario Land Tribunal decision for the Site, Section 30 of the ORMCP does not have to be fully addressed.

Amendment:

The Durham Regional Official Plan is hereby amended by adding the following policy to Section 9B.3:

“9B.3.4 Notwithstanding any other provisions of this plan, rural employment uses, consistent with policy 9B.2.27, although the subject site may be serviced with municipal water subject to Regional approval and required supporting studies, and policy 9B.2.29, are permitted on 123 Regional Highway 47 (Part Lots 13 and 14, Concession 1, Assessment #18-29-010-002-001-00) Township of Uxbridge. Development shall only proceed by plan of subdivision and an amendment to the zoning by-law. In addition, site plan approval shall be required for each lot in the plan of subdivision to ensure that development is in conformity with the applicable policies of the Oak Ridges Moraine Conservation Plan. Development approval shall be in accordance with the following:

- a) Plans and supporting studies which address the applicable policies of Sections 20, 22, 23, 26, 43, 45, 46 and 47 the Oak Ridges Moraine Conservation Plan;*

Figure 3 - Excerpt from OLT decision PL150909, 123 Hwy 47, Uxbridge

4. STEP 2 – DETERMINE LAND USE DESIGNATION

Based on mapping published by Ontario MMAH, the Site is a combination of Oak Ridges Moraine Natural Linkage (light green) and Natural Core (dark green) areas. Landform conservation Category 1 corresponds to the Natural Core areas, while Category 2 corresponds to Natural Linkage areas.



Figure 4 - ORMCP - Land Use Designation Map, 2017

5. STEP 3 – DETERMINE TYPE OF APPLICATION

The proposed development of an industrial sub-division is considered a Major Development. However, as discussed above in Section 3, this report proposes to review the applicable detailed site review but does not fully address or meet each specific criteria of Section 30 of ORMCP.

6. STEP 4 – BACKGROUND INFORMATION

Based on Appendix I, a detailed topographic survey was completed with contour lines at 0.5m interval at 1:2000 scale. Contour slopes were separated by 0-2%, 2-5%, 5-15%, 15-25%, and < 25%. In terms of significant landform features, there were no kames or kettles within the Site, while a persistent ravine and ridge system was found along the entirety of the eastern property boundary.

7. STEP 5 – IDENTIFY PLANNING DESIGN AND CONSTRUCTION STANDARDS AND TARGETS

There are a number of significant development targets that the proposed developments aims to achieve, as well as some that are specifically not met:

- Areas which are not developed or altered includes:
 - General area of 15 ~ 30m VPZ offset from the eastern boundary forested area as a Key Natural Heritage Feature
 - VPZ is not kept consistent at 30m width, especially with respect to the proposed road at the northeast corner and the stormwater management pond along the southeast corner
- There is a single hydrologically sensitive feature near the subject area – a single water course slightly past the east property boundary, and which will be the stormwater pond discharge location
- There are no kames or kettles identified on the site, but there is a consistent ridge and ravine system at the northeast corner of the Site, between 14 ~ 16% grade
- ORMCP Section 30 (5) - Category 1 is met, as only a very minor stormwater overflow discharge channel is proposed within that area; all other areas are left undisturbed
- ORMCP Section 30 (6) – Category 2 is not met for Total Developable Area & Total Impervious

8. STEP 6 – PREPARE DEVELOPMENT STRATEGY/DETAILED DESIGN

There are no earth science ANSI's on the Site, and only a single significant landform characteristic found on site: a significant ridge and ravine system with slopes >15%, near the northeast property boundary. This ridge and ravine system is considered “valley-land” and it is regulated and protected by TRCA regulated offset from Top of Bank.

Overall, the entirety of the Category 2 site shall be fully developed while Category 1 areas shall be left undisturbed. The pre-development general drainage pattern can be described as draining into the centre of the property, and then discharges eastward into the local watercourse. Post-development, this general

drainage pattern is kept but a stormwater management pond is developed at the southeast corner of the site. It is noted that the proposed development will not be meeting the targets set forth by ORMCP Section 30 (6).

- Total Site has a combined area of 24.1Ha.
 - A total of 20.8Ha of net developable area is proposed for construction / disturbance and site alteration, 86% of the entire site shall be developed
 - 14% non-developed lands are specifically VPZs, Top of Bank offsets, and densely forested Category 1 lands
 - Out of the 20.8Ha of net developable area, 100% of the lands shall be disturbed and considered for cut and fill activities, road construction, septic and building construction, or stormwater pond construction
- Category 1 has an estimated area of 2.0Ha. This can be further broken down as:
 - Total development is designed at 660m², for a proposed stormwater management pond overflow structure.
 - This represents 3.3% site disturbance, and
 - 0% Total Impervious
- Category 2 has an estimated area of 22.1Ha. This can be further broken down as:
 - 20.7Ha of proposed development, at 94% site disturbance
 - 17.7Ha has been proposed for the creation of individual industrial Lots, 100% disturbance, and a maximum of 80% impervious was designed for each lot, a combined TIMP of 14.2 Ha
 - 2.3Ha has been proposed for a municipal road, 100% disturbance, and of which paved asphalt surface and gravel shoulder is designed at 28% of total road width, and a combined TIMP of 0.64Ha
 - 0.7Ha has been proposed for a stormwater management pond, which requires 100% disturbance and 0% impervious
 - Combined TIMP for the entire site (individual Lots and proposed road) is 14.8Ha, and for the total site area of 22.1Ha, there is a proposed combined Site of 67% TIMP for Category 2 area, or, 62% TIMP for the entirety of the Site (Category 1 and 2 combined)

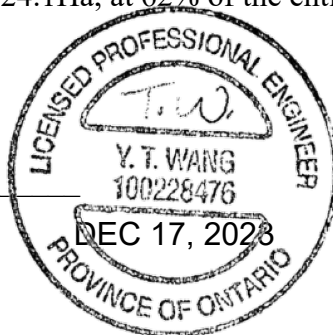
9. SUMMARY

In summary, the proposed project fully meets the Oak Ridges Moraine Conservation Plan, Section 30 (5), but does not meet several accounts of Section 30 (6). The entire Site property encompasses 24.1Ha of area, and proposed development and site alteration encompasses 20.8Ha, at 86% of the lands. Highly sensitive Category 1 land is found along the forested pocket at the east property boundary and generally not disturbed. Category 2 lands is fully developed at 94% site disturbance. Total Impervious is currently proposed at 14.8Ha out of 24.1Ha, at 62% of the entire site.

Sincerely,



Tony Wang, P. Eng
Principal Engineer



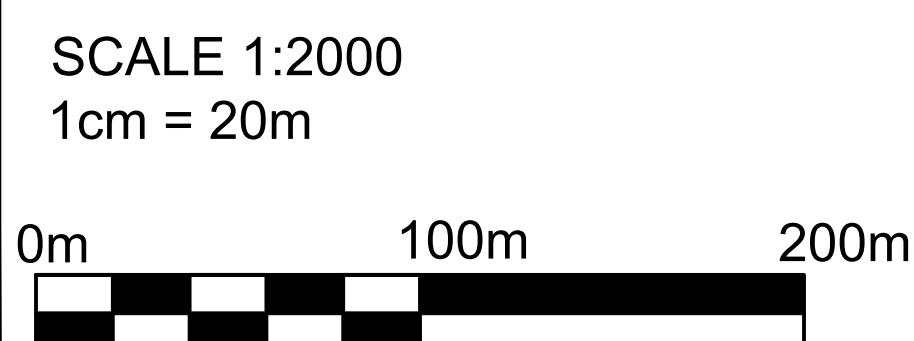
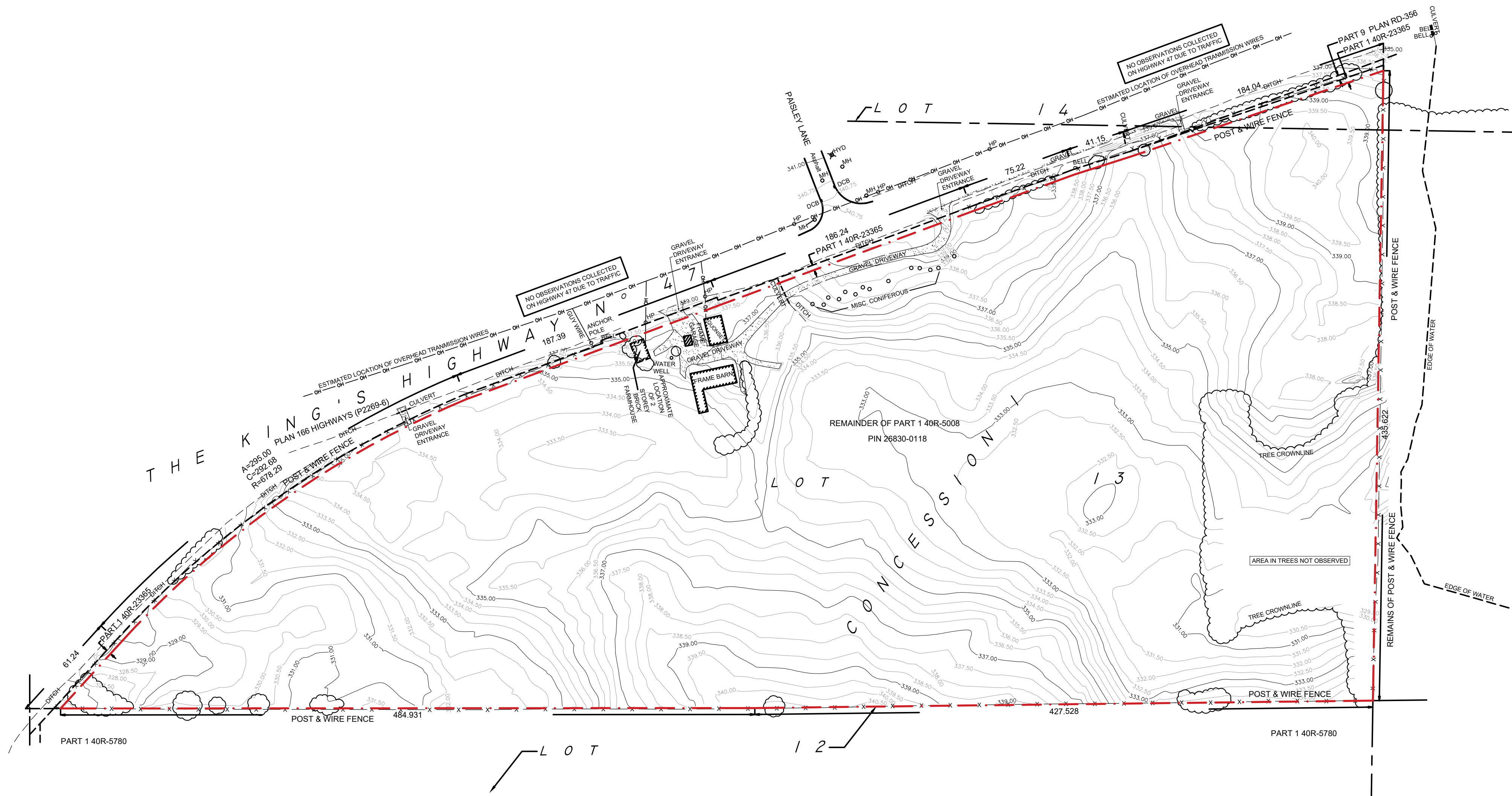
APPENDIX I - TOPOGRAPHIC SURVEY

GENERAL NOTES:

- THIS IS NOT A PLAN OF SURVEY. BOUNDARY, PLANS, AND DISTANCES SHOWN HEREON ARE COMPILED FROM REGISTRY OFFICE RECORDS AND BEST FIT TO FIELDWORK
- ELEVATION AND DISTANCES ARE IN METERS UNLESS OTHERWISE NOTED
- ELEVATIONS ARE GEODETIC HT_2(2010) AND ARE DERIVED FROM CAN-NET VRS NETWORK
- THIS DRAWING IS PREPARED IN UTM NAD 83 ZONE 17 (CSRS 2010). BOUNDARY IS APPROXIMATE AND HAS NOT BEEN CONFIRMED IN THE FIELD
- HORIZONTAL COORDINATES IN THIS DRAWING ARE IN GRID COORDINATES AND CAN BE SCALED UP TO GROUND USING A SCALE FACTOR OF 1.0002. SCALING THE DRAWING UNIFORMLY MAY CAUSE DISCREPANCIES IN ELEVATION DATA
- TREE CROWN LINEWORK DERIVED FROM YORKMAPS AERIAL IMAGERY DATED 2017
- BACKGROUND IMAGE FROM YORKMAPS AERIAL IMAGERY DATED 2017
- TRCA REGULATED LIMIT DERIVED FROM TRCA REGULATION MAPPING IMAGERY
- FIELDWORK WAS COMPLETED ON MAY 10, 2023.
- DIGITAL DRAWING IS PROVIDED AS-IS AND DOES NOT HAVE ANY GUARANTEE OR WARRANTY FROM KING EPCM

LEGEND:

	DOUBLE CATCHBASIN
	HYDRO POLE
	HYDRANT
	MANHOLE
	OVERHEAD UTILITY WIRE
	GUY ANCHOR
	LEGAL PROPERTY BOUNDARY
	TREE CROWNLINE



Municipality Notes

DRAWN	DH	STAMP	
DATE	MAY 17, 2023		



KING E P C M
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647-459-5647

CLIENT	123 HWY 47 INC.
PROJECT NAME	123 HIGHWAY 47
PROJECT LOCATION	123 HIGHWAY 47 LEGAL DESCRIPTION: PT LTS 13 & 14 CON 1 UXBRIDGE PT 1 PL 40R5008 EXCEPT PT 1 PL 40R23365; UXBRIDGE, PIN 26830-0118

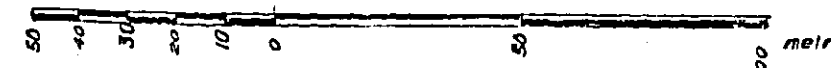
PRINT TITLE	TOPOGRAPHIC PLAN
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FILE No.	SVY 1.1
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No.	ISSUED FOR:	DATE	DRAW BY	CHECK
V1	INTERNAL REVIEW	MAY 17, 2023	DH	TW

METRIC MEASUREMENTS ON THIS PLAN ARE IN METRES AND MAY BE CONVERTED TO FEET BY DIVIDING BY 0.3048

PLAN OF SURVEY OF
PART OF LOTS 13 and 14 CONCESSION 1
TOWNSHIP UXBRIDGE, REGIONAL MUNICIPALITY OF DURHAM
formerly The County of Ontario
Scale 1:1500
M. C. PHILLIPS O.L.S. 1979



NOTE

The N 54°14'30"E astronomic of the south-east limit of King's Highway No. 47 in Lots 13 and 14, as widened by PART 9 PLAN RD-358, governs all bearings hereon.

ALL HANGING LINES HAVE BEEN VERIFIED

- C.M. denotes Concrete Monument.
- S.I.B. denotes a Standard Iron Bar (2.54 cm x 2.54 cm x 122 cm)
- I.B. denotes an Iron Bar (1.45 cm x 1.45 cm x 61 cm.)
- F.F. denotes Found.
- m. denotes measured.
- p. denotes Plan 166 Highways.

SURVEYORS CERTIFICATE

1. I HEREBY CERTIFY THAT:
1. This plan and survey are correct and in accordance with The Survey Act and The Registry Act and the regulations made thereunder.
2. The survey was completed on the 17th day of January 1979.

Malcolm C. Phillips
Malcolm C. Phillips - Ontario Land Surveyor

17th January 1979

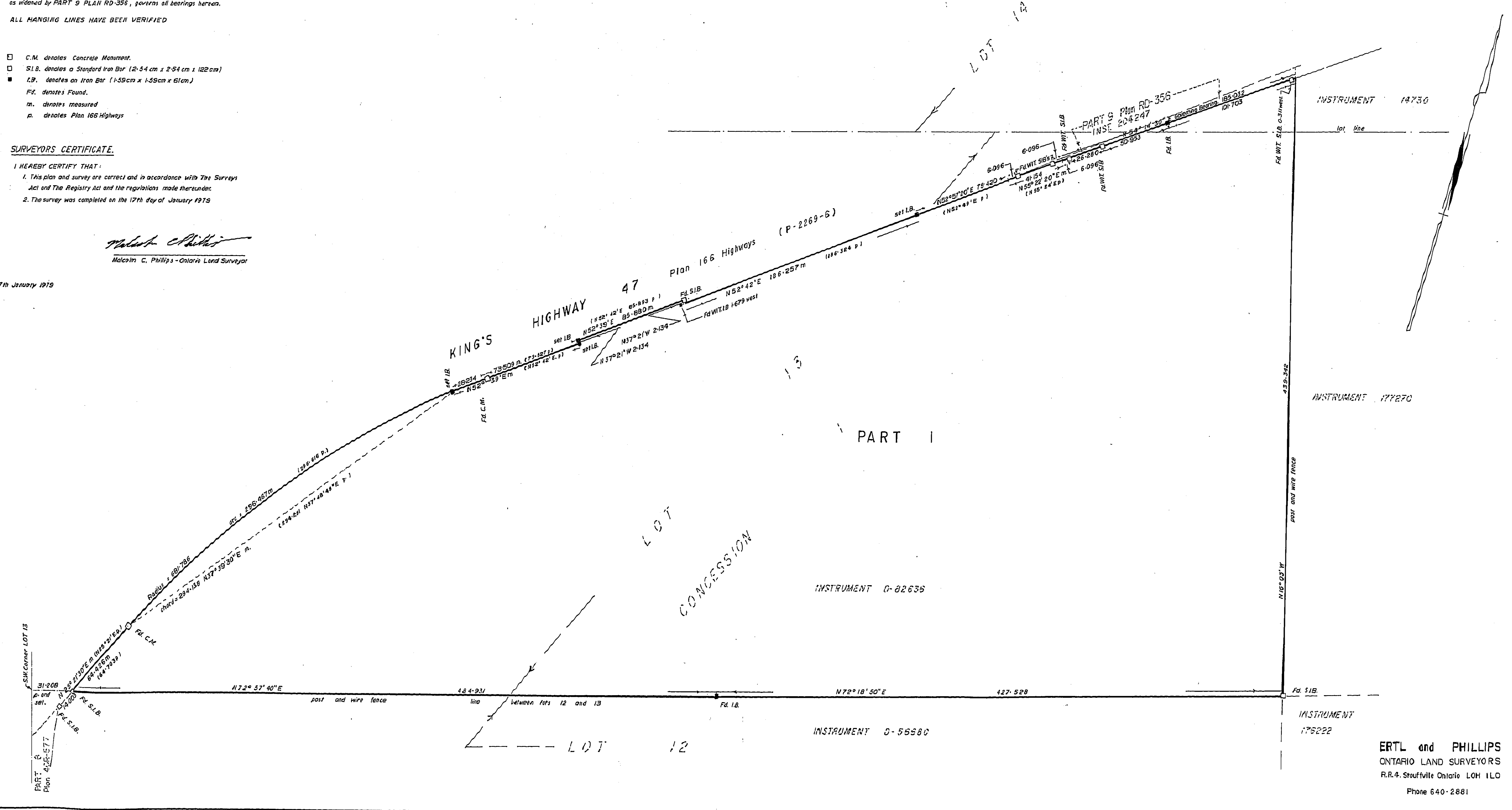
I REQUIRE THIS PLAN TO BE DEPOSITED UNDER PART II OF THE REGISTRY ACT
Date 17th January 1979

M.C. Phillips
M.C. Phillips O.L.S.

CAUTION: This plan is not a plan of subdivision within the meaning of section 29, 32 or 33 of the Planning Act

RECEIVED AND DEPOSITED AS
PLAN 40R-5008
DATE 23. MAR. 1979

K. Kaltrou Sr. Esq.
LAND REGISTRAR
FOR THE REGISTRY DIVISION OF DURHAM (No. 40)

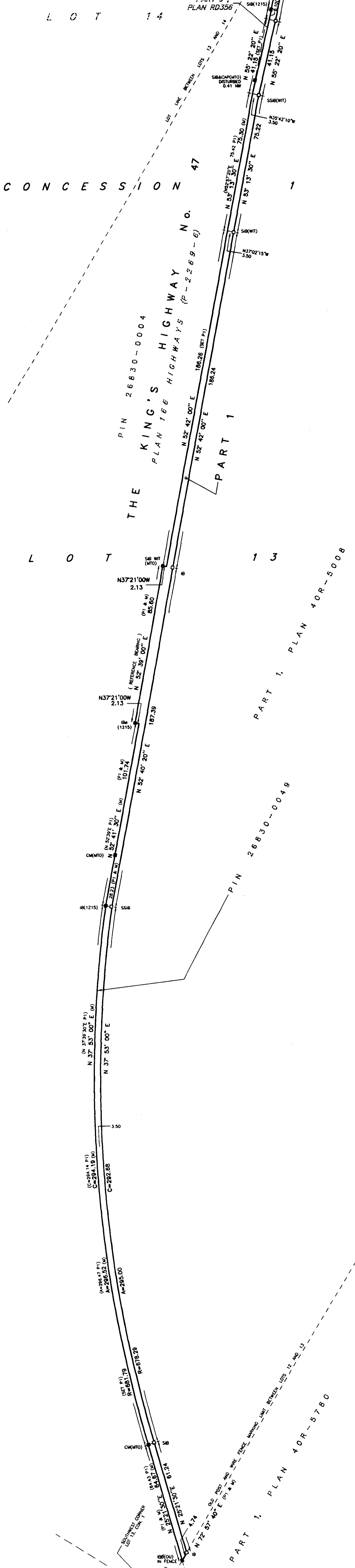
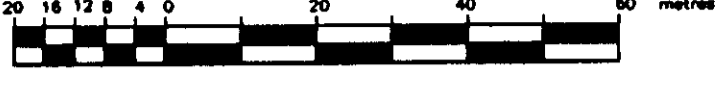


ERTL and PHILLIPS
ONTARIO LAND SURVEYORS
R.R.4. Strathville Ontario L0H 1L0
Phone 640-2881

11-38

PLAN OF SURVEY OF
PART OF LOTS 13 and 14,
CONCESSION 1
TOWNSHIP OF UXBRIDGE
REGIONAL MUNICIPALITY OF DURHAM

SCALE RATIO = 1 to 1000
IVAN B. WALLACE O.L.S. LTD.



I REQUIRE THIS PLAN TO BE DEPOSITED UNDER THE LAND TITLES ACT.

PLAN 40R 23365
RECEIVED AND DEPOSITED

DATE MARCH 11, 2005 DATE *Mar. 14, 2005*

C. Cranch
CRYSTAL CRANCH
ONTARIO LAND SURVEYOR

J. Bryant - ASST. DEP.
LAND REGISTRAR FOR THE
LAND TITLES DIVISION OF
DURHAM (No. 40)

SCHEDULE				
PART	LOT	CONCESSION	AREA	PIN
1	Part of Lots 13 & 14	Concession 1	3758.4 Sq. M.	Part of 26830-0049

NOTES
Bearings are astronomic in origin and are referred to that portion of the southerly limit of Highway No. 47, as widened, shown as N 52°39'00"E on Plan 40R-5008.
DISTANCES SHOWN HEREON ARE IN METRES AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048.

LEGEND
SSIB denotes short standard iron bar
SIB denotes standard iron bar
IB denotes iron bar
CM denotes concrete monument
R denotes round
□ denotes survey monument planted
■ denotes survey monument found
WIT denotes witness
M denotes measured
P1 denotes Plan 40R-5008
OU denotes origin unknown
MTO denotes Ministry of Transportation of Ontario
1215 denotes Ertl and Phillips, OLS

SURVEYOR'S CERTIFICATE
I CERTIFY THAT:
1. This survey and plan are correct and in accordance with the Survey Act, the Surveyors Act, the Land Titles Act and the regulations made under them.
2. The survey was completed on March 7, 2005

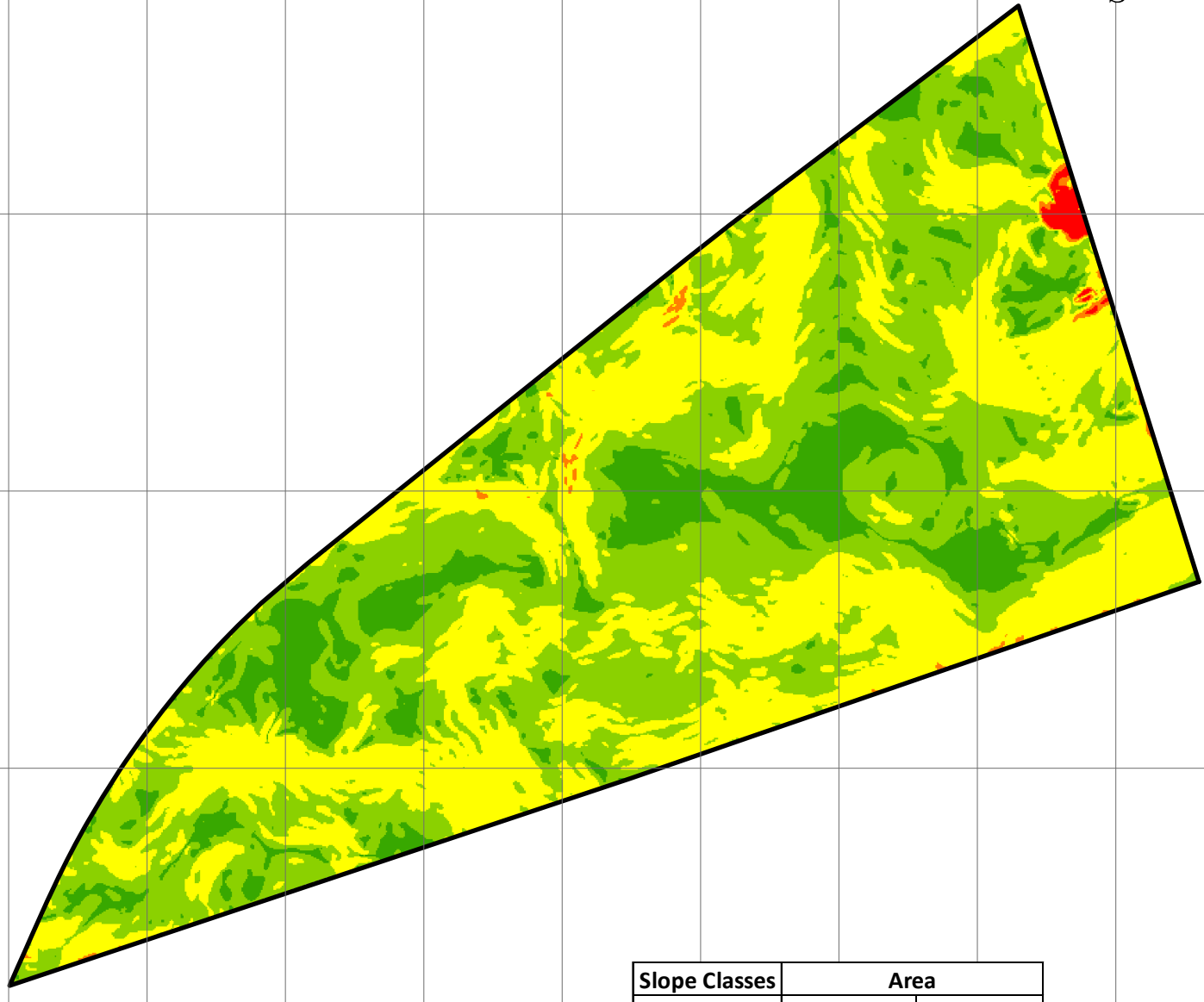
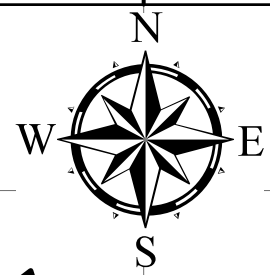
March 11, 2005 *C. Cranch*
Date Crystal Cranch
Ontario Land Surveyor

IVAN B. WALLACE
ONTARIO LAND SURVEYOR LTD.
68 KING STREET EAST
BOWMANVILLE, ONTARIO
L1C 3X2
Telephone 905-623-2205
Facsimile 905-623-0612
Whitby Direct Line 905-668-8893
Toll Free 1-800-667-0696
Project No 5-6154R







Drawn by LC Checked by CW

APPENDIX II – SLOPE CLASSIFICATION MAP

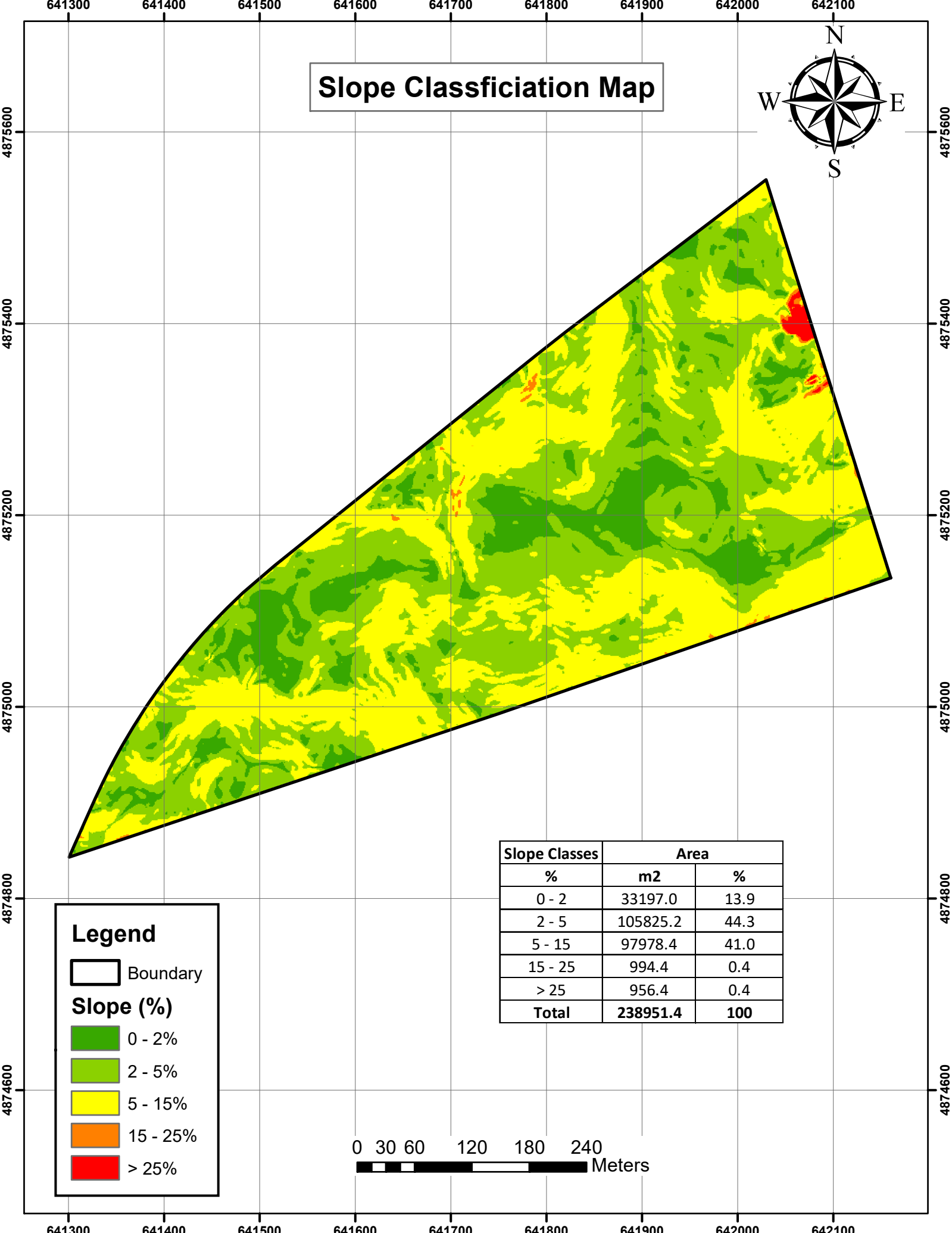
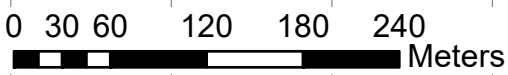
Slope Classification Map



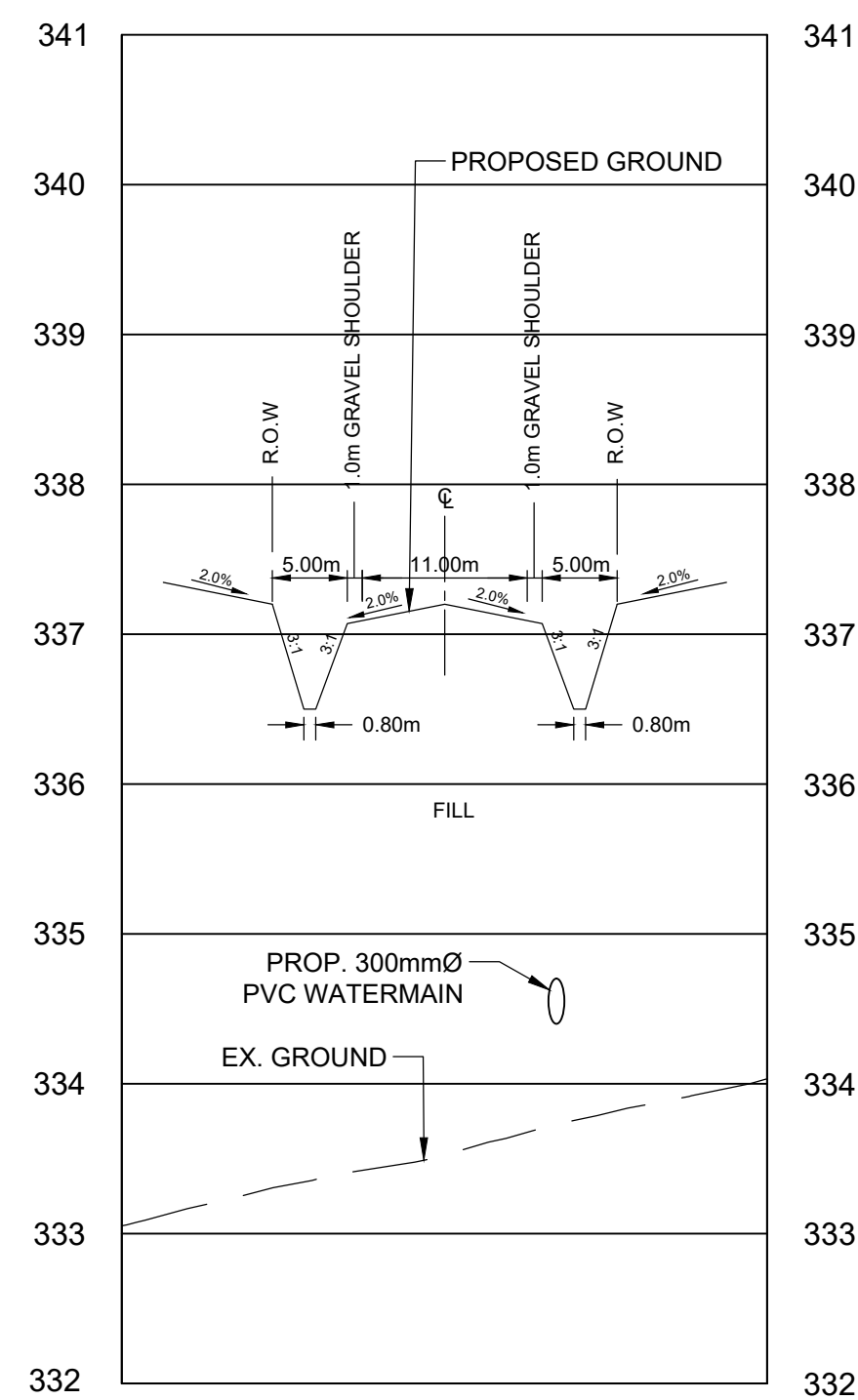
Legend

-  Boundary
- Slope (%)**
-  0 - 2%
-  2 - 5%
-  5 - 15%
-  15 - 25%
-  > 25%

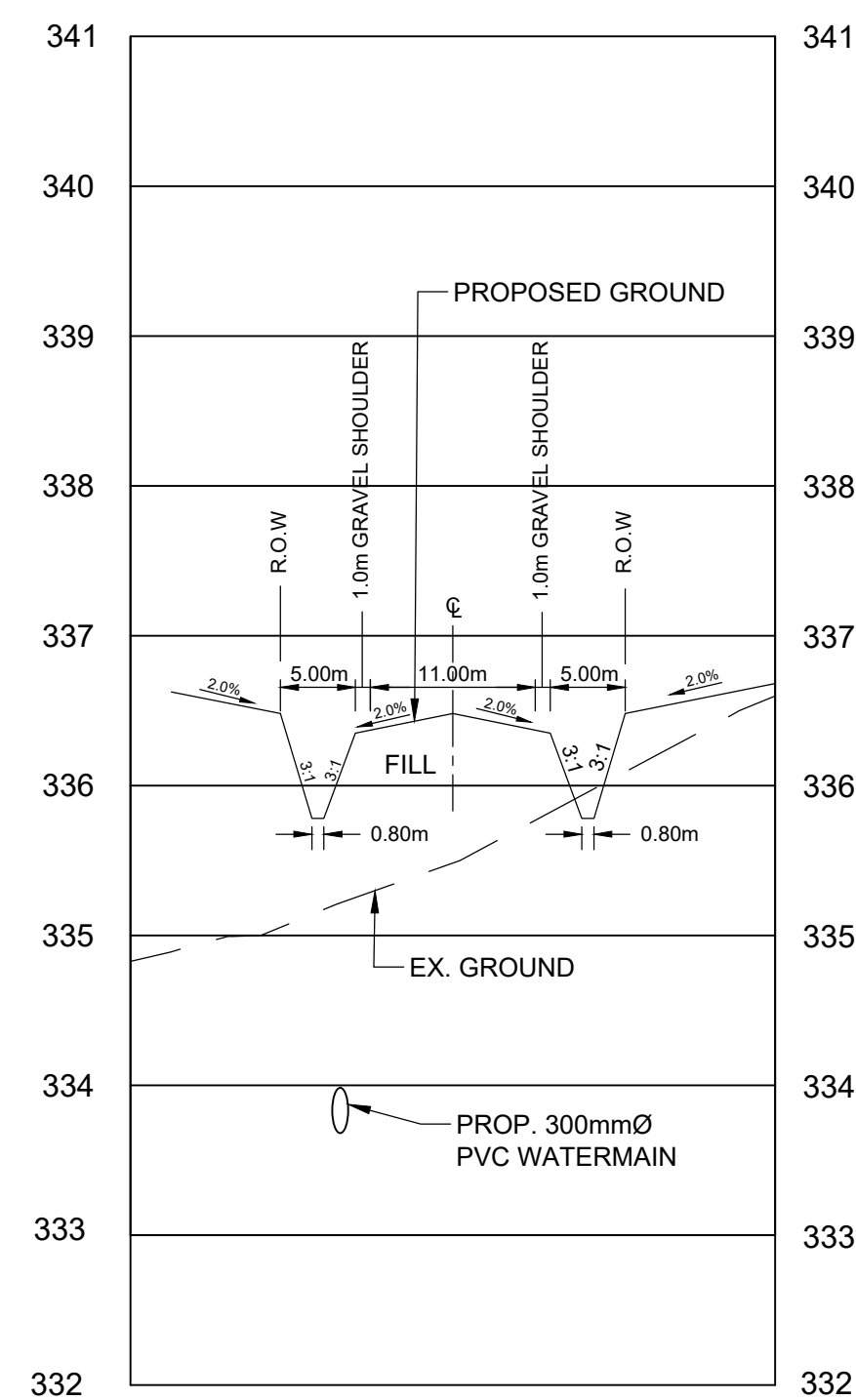
Slope Classes	Area	
	m2	%
0 - 2	33197.0	13.9
2 - 5	105825.2	44.3
5 - 15	97978.4	41.0
15 - 25	994.4	0.4
> 25	956.4	0.4
Total	238951.4	100



APPENDIX III – PROPOSED SITE PLAN



CROSS SECTION A - A
SCALE H 1: 500
V 1: 50 (TYP.)

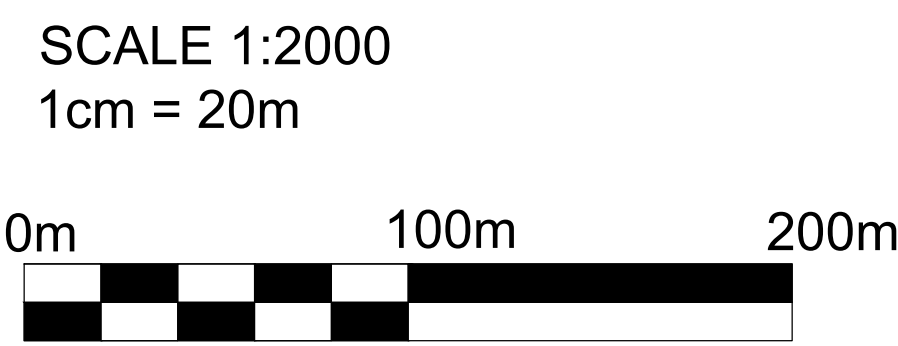
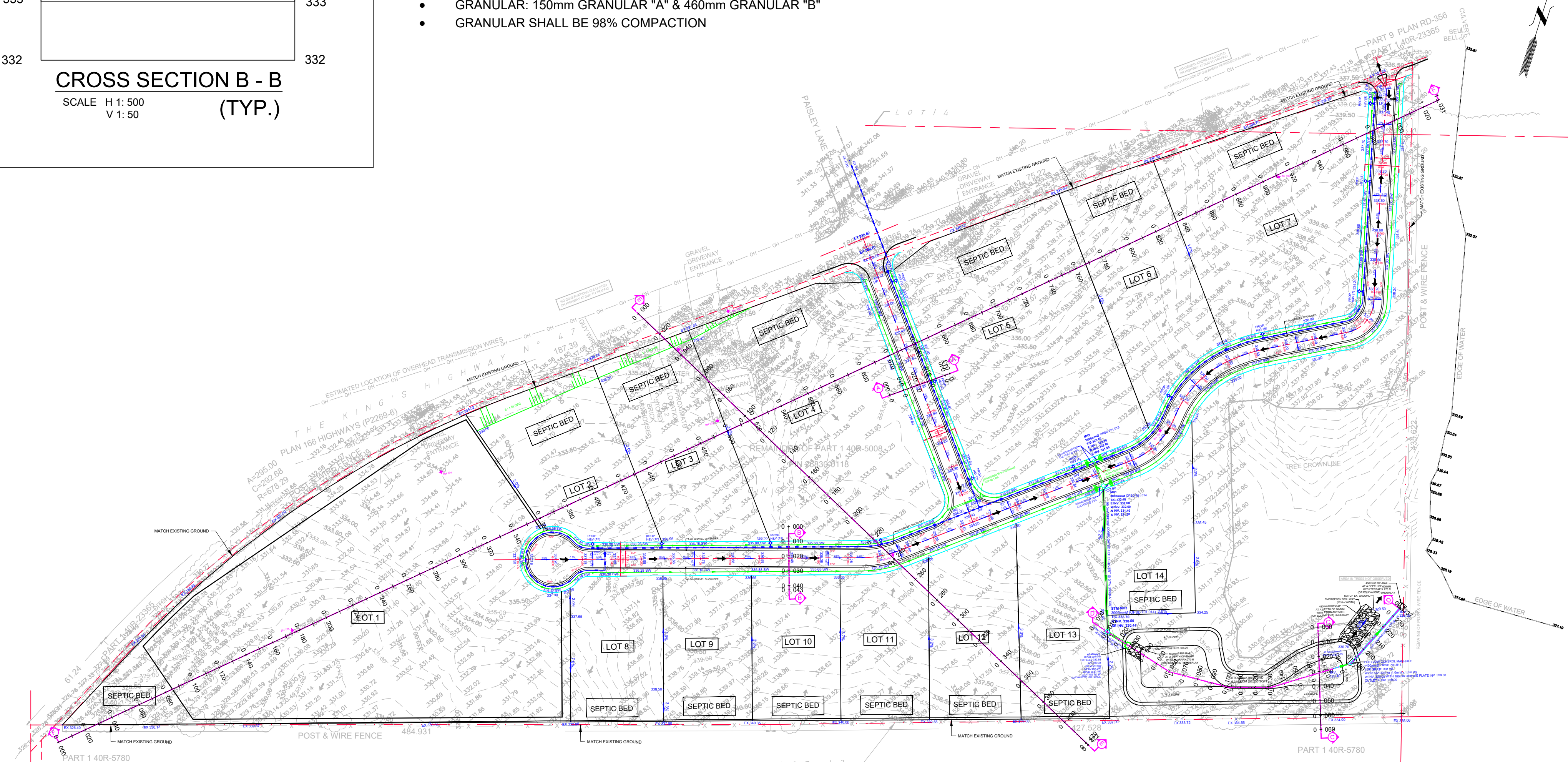


CROSS SECTION B - B
SCALE H 1: 500
V 1: 50 (TYP.)

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 - BACKGROUND IMAGE FROM YORKMAPS AERIAL IMAGERY DATED 2017
 - TRCA REGULATED LIMIT DERIVED FROM TRCA REGULATION MAPPING IMAGERY
 - DIGITAL DRAWING IS PROVIDED AS-IS AND DOES NOT HAVE ANY GUARANTEE OR WARRANTY FROM KING EPCM
 - ORIGINAL TREE CROWNLINER OBSERVED MAY 9, 2023; TRCA STAKING OBSERVED JULY 13, 2023 BY KING EPCM.
- CONTRACTOR TO BE RESPONSIBLE TO ENSURE THAT THIS LOT AND ADJOINING AREAS OF SITE ARE KEPT CLEAN AND FREE OF CONSTRUCTION DEBRIS, AND THAT ROADWAYS ARE KEPT CLEAN OF MUD AND DEBRIS
 - ALL MEASUREMENTS STATED IN METERS, PIPE SIZES IN MILLIMETERS, UNLESS OTHERWISE SPECIFIED EQUIVALENTS
 - CONTRACTOR SHALL CHECK AND VERIFY ALL GIVEN GRADE ELEVATIONS AND DRAINAGE PRIOR TO CONSTRUCTION
 - DRIVEWAY CONSTRUCTION INDUSTRIAL AND COMMERCIAL:
 - ASPHALT: 45mm HL3 SURFACE COURSE & 50mm HL8 BASE COURSE
 - GRANULAR: 150mm GRANULAR "A" & 460mm GRANULAR "B"
 - GRANULAR SHALL BE 98% COMPACTION

LEGEND:	
EX 339.20	EXISTING ELEVATION
339.20	PROPOSED ELEVATION
339.20 SW	PROPOSED CL SWALE ELEVATION
INV_339.20	PROPOSED SWALE INVERT ELEVATION
→	EXISTING SURFACE FLOW ROUTE
→	PROPOSED SURFACE FLOW ROUTE
— 339	EXISTING ELEVATION CONTOUR LINES
—	R.O.W.
→	PROPOSED CENTERLINE SWALE
— WATER	PROPOSED WATERMAIN
⊠	PROPOSED HYDRANT
⊕	PROPOSED GATE VALVE
● BH 106	BOREHOLE
□ DICB	DITCH INLET CATCHBASIN
▣ DCB	DOUBLE CATCHBASIN
○ HP	HYDRO POLE
○ MH	MANHOLE
— HO	OVERHEAD UTILITY WIRE
—	GUY ANCHOR
—	LEGAL PROPERTY BOUNDARY
—	TREE CROWNLINER



Municipality Notes

DRAWN	K.L.	STAMP LICENSED PROFESSIONAL ENGINEER Y. T. VAHEDI 100228476 DEC 17, 2023 PROVINCE OF ONTARIO
DATE	DEC. 15, 2023	



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D Markham, ON, L3R 9Y5
C www.KingEPCM.com
M 647-459-5647

CLIENT
123 HWY 47 INC.

PROJECT NAME
123 HIGHWAY 47

PROJECT LOCATION
123 HIGHWAY 47
LEGAL DESCRIPTION: PT LTS 13 & 14 CON 1
UXBRIDGE PT 1 PL 40R5008 EXCEPT PT 1
PL 40R23365; UXBRIDGE, PIN 26830-0118

PRINT TITLE
**SITE GRADING AND SITE
SERVICING PLAN**

FILE No.
EGR 1.1

No.	ISSUED FOR:	DATE	DRAW BY	CHECK
V16	ISSUED TO CLIENT	DEC 15, 2023	KL	TW