

**LEGEND**

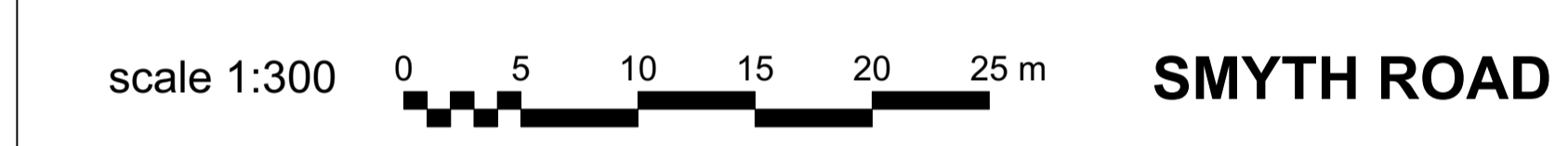
- (ID#1) EXISTING TREE ID #
- EXISTING TREE TO REMAIN
- EXISTING TREE TO BE REMOVED
- TREE PROTECTION FENCE
- PROPOSED TREES & ID
- 1-AsGM

**SYMBOL LEGEND:**

- EXHYD EXISTING FIRE HYDRANT
- FP FLAG POLE
- EXLS EXISTING LIGHT STANDARD
- R-EXLS EXISTING LIGHT STANDARD
- LS RELOCATED EXISTING LIGHT STANDARD
- EXCB EXISTING CATCH BASIN
- CB LIGHT STANDARD - SEE ELECTRICAL
- CBMH EXISTING CATCH BASIN
- STMH CATCH BASIN - SEE CIVIL
- EXTRNSF CATCH BASIN/MANHOLE - SEE CIVIL
- FD EXISTING FIRE HYDRANT
- FC EXISTING FIRE HYDRANT
- RENEW ENRANCE/EXIT
- RENEW TRANSFORMER
- RENEW TRANSFORMATION

**GENERAL NOTES**

- All general site information and conditions compiled from existing plans, surveys and consultant's field notes. Report all discrepancies prior to any work. No responsibility is born by the Consultant for unknown subsurface conditions.
- The location of the utilities is approximate only, and the exact location should be determined by consulting the municipal authorities and utility companies concerned. The Contractor shall provide the location of utilities and shall be responsible for adequate protection from damage.
- All dimensions shown are to be verified on site prior to any construction. No deviations are to be made from the layouts as shown on this plan without prior consultation with the Landscape Architect and Owner.
- Protect all existig trees as per City of Ottawa Tree Preservation Detail. Where construction activities threaten additional trees, the same measures are to be taken. Consult with the City of Ottawa Forestry Department for mitigation measures affecting any city owned trees prior to starting any excavation or other construction activities.
- Stake planting locations and receive approval of Landscape Architect, prior to excavation of any planting pits. No substitutions of plant material shall be made without prior approval of the Landscape Architect.
- Where clay is encountered proper drainage must be ensured in tree/shrub pits, prior to planting. have method approved by Landscape Architect.
- Maintain positive surface runoff through the entire construction period.
- Reinstate all areas and items damaged as a result of construction activities.



**EXISTING VEGETATION CHART (TREES WITH AFFECTED AREA)**

**IFS ASSOCIATES**  
URBAN FORESTRY & FOREST MANAGEMENT CONSULTING

P.O. Box 13593, STN. KANATA, OTTAWA, ON K2K 1X6  
TELEPHONE: (613) 838-5717  
WEBSITE: WWW.IFSASSOCIATES.CA

**RE: TREE CONSERVATION INVENTORY FOR 745 SMYTH ROAD (VINCENT MASSEY PS)**

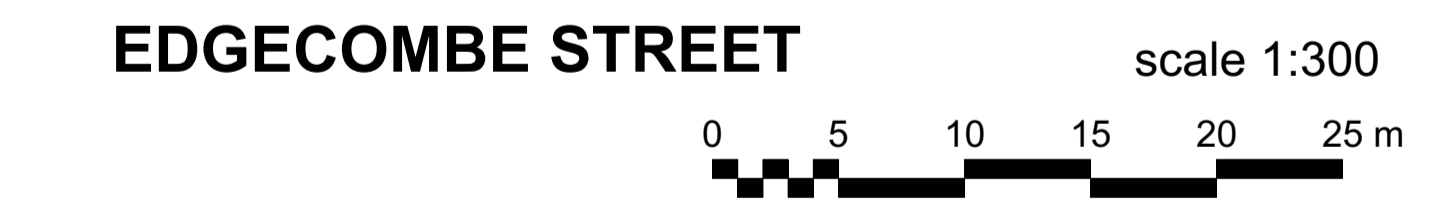
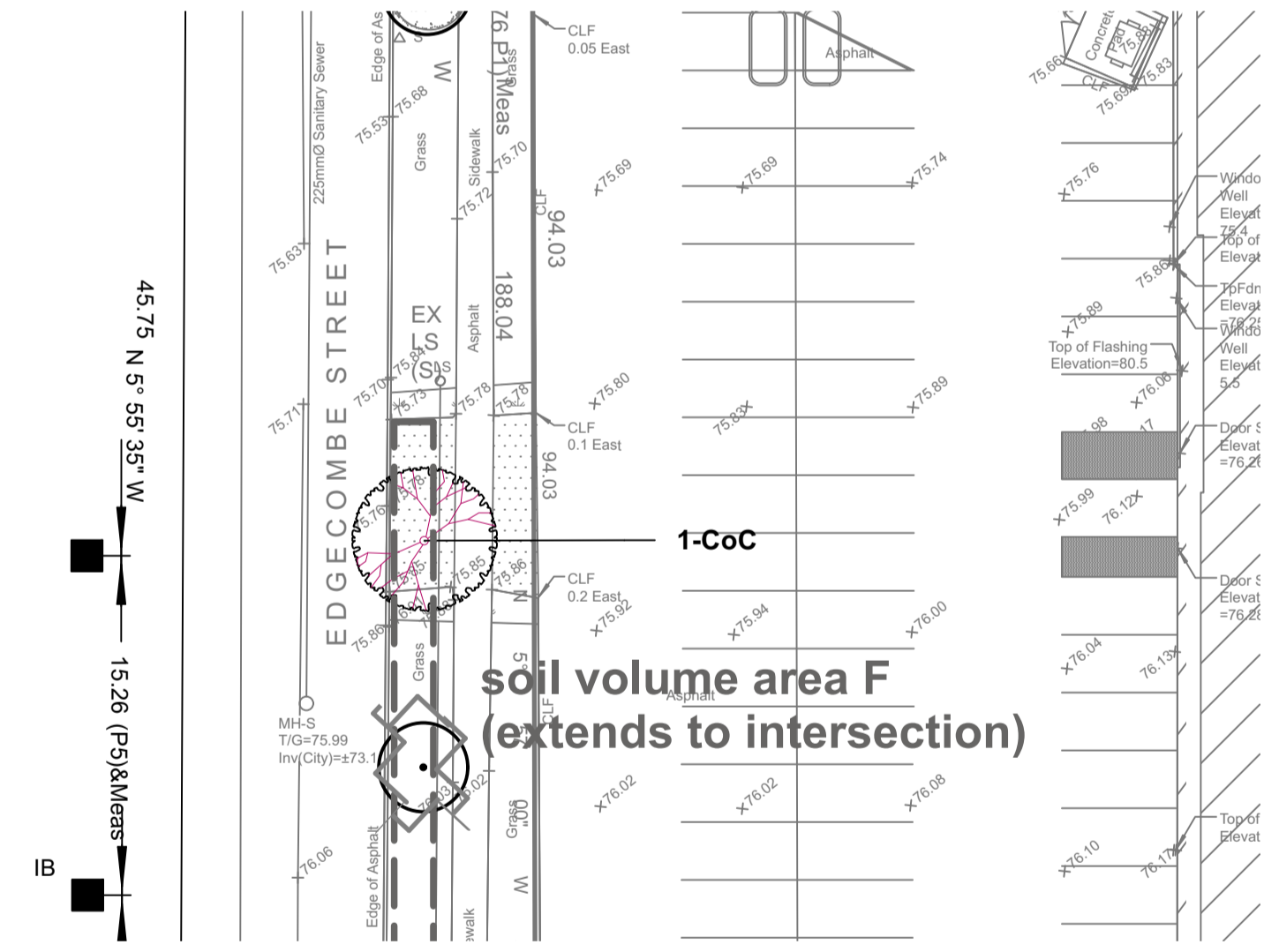
Species, ownership, diameter, condition and status of trees at 745 Smyth Road

Tree No.	Tree species	Ownership <sup>1</sup>	DBH <sup>2</sup> (cm)	Tree Condition; Age Class; Condition Notes; Species Origin & Preservation Status (to be removed or preserved and protected)
1	Red oak ( <i>Quercus rubra</i> )	City	6	Poor; juvenile; entire crown heavily impacted by salt spray; within moderately restricted rooting area; native species; <b>to be removed and replaced</b>
2	Red oak ( <i>Quercus rubra</i> )	City	10	Fair; maturing; central stem with competing laterals at 2.5m on northwest and 3.5m on north; lower crown salt spray impacted; within moderately restricted rooting area; native species; <b>to be removed (conflicts with bus loop construction)</b>
3	Norway maple ( <i>Acer platanoides</i> )	School	34	Poor; mature; central stem with suppressed lateral at 2.5m on east - weak union; divergent leaders at 4.5m; very poor vigour - in advanced decline; introduced invasive species; <b>recommended for removal (poor condition - potentially hazardous)</b>
4	Sugar maple ( <i>Acer saccharum</i> )	School	13	Good; maturing; central stem with three competing leaders at 2.75m; stem wound 0.6-1.2m on southwest healing; native species; <b>to be removed (conflicts with bus loop construction)</b>
5	Red oak ( <i>Quercus rubra</i> )	City	7	Fair; juvenile; competing leaders; salt spray impacted; within moderately restricted rooting area; native species; <b>to be removed (conflicts with bus loop construction)</b>
6	Sugar maple ( <i>Acer saccharum</i> )	School	16	Good; maturing; central stem for most of height; suppressed laterals starting at 1.5m; symmetric crown; native species; <b>to be removed (conflicts with bus loop construction)</b>
7	Sugar maple ( <i>Acer saccharum</i> )	School	12	Fair; maturing; branch clusters diminishing stem taper; poor increment (vigour); native species; <b>to be removed (conflicts with swale)</b>
8	Colorado spruce ( <i>Picea pungens</i> )	School	44	Fair; mature; good pyramidal growth form; good crown density, growth increment and needle colour; introduced species; <b>to be removed (conflicts with bus loop construction)</b>

Table 1. Con't

Tree No.	Tree species	Ownership <sup>1</sup>	DBH <sup>2</sup> (cm)	Tree Condition; Age Class; Condition Notes; Species Origin & Preservation Status (to be removed or preserved and protected)
9	Hackberry ( <i>Celtis occidentalis</i> )	City	21	Fair; mature; co-dominant stems at 3.5m; dense epicormic growth on lower bole; within moderately restricted rooting area; native species; <b>to be preserved and protected</b>
10	Red oak ( <i>Quercus rubra</i> )	City	25	Good; mature; dominant stem for most of height; lower crown salt spray impacted; within moderately restricted rooting area; native species; <b>to be preserved and protected</b>
11	Crab apple ( <i>Malus spp.</i> )	School	32	Fair; mature; main stem divergent towards northeast; 3 lower laterals previously removed; crown held high - 2.5m; poor crown density; cultivar; <b>to be removed (conflicts with bus loop construction)</b>
12	Crab apple ( <i>Malus spp.</i> )	School	25 & 25	Good; mature; co-dominant stems at 0.5m - central stem with different lateral towards northwest; good crown density (sprouts); cultivar; <b>to be removed (conflicts with bus loop construction)</b>
13	Crab apple ( <i>Malus spp.</i> )	School	24	Fair; mature; mildly divergent towards north; moderate basal sprouting; poor crown density; cultivar; <b>to be removed (conflicts with bus loop construction)</b>
14	Norway maple ( <i>Acer platanoides</i> )	School	63	Very poor; overmature; central stem in decline - with eutypella canker ( <i>Eutypella parasitica</i> ) at 2.5m on south; lateral stem now dominant; introduced invasive species; <b>recommended for removal (very poor condition - hazardous)</b>
15	Sugar maple ( <i>Acer saccharum</i> )	School	18	Fair; mature; co-dominant stems at 3m; symmetric crown; native species; <b>to be removed (conflicts with bus loop construction)</b>
16	Sugar maple ( <i>Acer saccharum</i> )	School	20	Good; maturing; dominant central stem; symmetric crown; native species; <b>to be removed (conflicts with bus loop construction)</b>
17	Sugar maple ( <i>Acer saccharum</i> )	School	16	Fair; maturing; multiple leaders at 3m; symmetric crown; native species; <b>to be removed (conflicts with bus loop construction)</b>
18	Honey-locust ( <i>Gleditsia triacanthos</i> )	City	9	Fair; juvenile; within very restricted rooting area; salt spray impacted; introduced species to Eastern Ontario; <b>to be removed (conflicts with bus loop construction)</b>
19	Honey-locust ( <i>Gleditsia triacanthos</i> )	School	+/-20	Good; maturing; co-dominant stems at 2.5m; located with fenced play area; introduced species to Eastern Ontario; <b>to be preserved and protected</b>
20	Honey-locust ( <i>Gleditsia triacanthos</i> )	City	11	Fair; juvenile; within very restricted rooting area; salt spray impacted; introduced species to Eastern Ontario; <b>to be preserved and protected</b>

<sup>1</sup>As determined from topographic survey prepared by Farley, Smith & Denis Surveying Ltd.; <sup>2</sup> Diameter at breast height, or 1.3m from grade (unless otherwise indicated). Diameters rounded to nearest centimetre.



**THIS PLAN IS ISSUED FOR SITE PLAN CONTROL SUBMISSION ONLY.**

**ADDITIONAL DETAILING AND SPECIFICATIONS ARE REQUIRED PRIOR TO TENDERING AND CONSTRUCTION.**

2	RE-ISSUED FOR SITE PLAN CONTROL	2023/11/06
1	ISSUED FOR SITE PLAN CONTROL	2022/12/16
no.	revision	date

**Ruhland & Associates Ltd**  
landscape architecture • urban design • site planning  
Ph 613-224-4744 • Fx 613-224-1331 • info@rala.ca www.rala.ca

project  
**VINCENT MASSEY PS BUS LOOP**

745 SMYTH ROAD  
OTTAWA, ON, K1G 1N9

TRUE NORTH

drawing title <b>EXISTING VEGETATION AND LANDSCAPE PLAN</b>	
scale AS NOTED	drawn by T. FROST
date DEC. 2022	checked by M. RUHLAND
project number 22-1705	drawing number <b>L-01</b>
CONTRACTOR TO VERIFY ALL DIMENSIONS AND NOTIFY THE ARCHITECT OF ANY DISCREPANCIES BEFORE WORK COMMENCES. DO NOT SCALE DRAWINGS.	
revision <b>R1</b>	

## Plant List

ID	Qty	Botanical Name	Common Name	Scheduled Size	Remarks
<b>TREES</b>					
AcB	4	Amelanchier canadensis 'Ballerina'	Ballerina Serviceberry (tree form)	50mm dia.	WB Staked
Ar'AS'	2	Acer rubrum 'Autumn Spire'	Red Maple	70mm caliper	WB, Staked
AsGM	2	Acer saccharum 'Green Mountain'	Green Mountain(R) Sugar Maple	60mm caliper	WB Staked
CoC	6	Celtis occidentalis 'Chicagoland'	Chicagoland Hackberry	60mm dia.	WB Staked
GtS	2	Gleditsia triacanthos 'Shademaster'	Shademaster Honey Locust	60mm caliper	WB Staked
Pp	4	Picea pungens	Colorado Spruce	200 cm ht	WB Staked
UF	2	Ulmus minor x parvifolia 'Frontier'	Frontier Elm	60mm caliper	WB Staked

Vincent Massey Bus Loop				
Soil Volume Area, Tree Quantity and Size	Tree Quantity	OTTAWA Target Soil Volume (m <sup>3</sup> )	Design Soil Volume	Soil Adequacy percentage
<b>AREA A - 2 ornamental trees, 2 medium trees, 3 large trees</b> plant bed (363 sq m x 0.4 ave metre deep)	7	102.0	145.2	142.35%
<b>AREA B - 2 large trees (typical)</b> plant bed (124 sq m x 0.4 ave metre deep)	2	36.0	49.6	137.78%
<b>AREA C - 1 ornamental, 2 conifer trees</b> plant bed (291 sq m x 0.4 ave metre deep)	3	39.0	116.4	298.46%
<b>AREA D - 1 ornamental, 2 conifer, 1 medium trees</b> plant bed (357 sq m x 0.4 ave metre deep)	4	54.0	142.8	264.44%
<b>AREA E1 - 2 proposed large trees, 1 existing large tree</b> plant bed (126 sq m x 0.4 ave metre deep)	3	54.0	50.4	93.33%
<b>AREA E2 - 2 large trees</b> plant bed (91 sq m x 0.4 ave metre deep)	2	36.0	36.4	101.11%
<b>AREA F - 1 Proposed large tree, 3 existing large trees</b> plant bed (78 sq m x 0.9 ave metre deep)	4	72.0	70.2	97.50%

\* Small ornamental trees with growth to 8-15cm DBH, large shrubs, and columnar conifers calculated using 'How much soil to grow a big tree' by DeepRoot as a guide

AREAS WHERE SITE CONSTRAINTS (such as parking lot islands, adjacent hard surface areas):  
0.9 TO 1.2 METRE DEPTH IMPORTED TOPSOIL (average depth of 1000mm).

AREAS WITHIN OR ADJACENT TO LARGER SOFT LANDSCAPE AREAS (such as wide boulevards, lawns, etc):  
0.4 METRE AVERAGE DEPTH OF IMPORTED TOPSOIL OVER APPROVED EXISTING SUBSOIL.

ADDITIONAL IMPORTED TOPSOIL OR APPROVED SUBSOIL TO BE ADDED WHERE SUBGRADE BELOW THE 400mm IMPORTED TOPSOIL IS NOT CONDUSIVE TO PLANT GROWTH.

**TREE PROTECTION REQUIREMENTS:**

- PRIOR TO ANY WORK ACTIVITY WITHIN THE CRITICAL ROOT ZONE (CRZ = 10 X DIAMETER) OF A TREE, TREE PROTECTION FENCING MUST BE INSTALLED SURROUNDING THE CRITICAL ROOT ZONE, AND REMAIN IN PLACE UNTIL THE WORK IS COMPLETE.
- UNLESS PLANS ARE APPROVED BY CITY FORESTRY STAFF, FOR WORK WITHIN THE CRZ:
  - DO NOT PLACE ANY MATERIAL OR EQUIPMENT - INCLUDING OUTHOUSES;
  - DO NOT ATTACH ANY SIGNS, NOTICES OR POSTERS TO ANY TREE;
  - DO NOT RAISE OR LOWER THE EXISTING GRADE;
  - TUNNEL OR BORE WHEN DIGGING;
  - DO NOT DAMAGE THE ROOT SYSTEM, TRUNK, OR BRANCHES OF ANY TREE;
  - ENSURE THAT EXHAUST FUMES FROM ALL EQUIPMENT ARE NOT DIRECTED TOWARD ANY TREE CANOPY;
  - DO NOT EXTEND HARD SURFACE OR SIGNIFICANTLY CHANGE LANDSCAPING.
- TREE PROTECTION FENCING MUST BE AT LEAST 1.2M IN HEIGHT, AND CONSTRUCTED OF RIGID OR FRAMED MATERIALS (E.G. MODULOC - STEEL, PLYWOOD HOARDING, OR SNOW FENCE ON A 2"X4" WOOD FRAME) WITH POSTS 2.4M APART, SUCH THAT THE FENCE LOCATION CANNOT BE ALTERED. ALL SUPPORTS AND BRACING MUST BE PLACED OUTSIDE OF THE CRZ, AND INSTALLATION MUST MINIMIZE DAMAGE TO EXISTING ROOTS. (SEE DETAILS).
- THE LOCATION OF THE TREE PROTECTION FENCING MUST BE DETERMINED BY AN ARBORIST AND DETAILED ON ANY ASSOCIATED PLANS FOR THE SITE (E.G. TREE CONSERVATION REPORT, TREE DISCLOSURE REPORT, ETC). THE PLAN AND CONSTRUCTED FENCING MUST BE APPROVED BY CITY FORESTRY STAFF PRIOR TO THE COMMENCEMENT OF WORK.
- IF THE FENCED TREE PROTECTION AREA MUST BE REDUCED TO FACILITATE CONSTRUCTION, MITIGATION MEASURES MUST BE PRESCRIBED BY AN ARBORIST AND APPROVED BY CITY FORESTRY STAFF. THESE MAY INCLUDE THE PLACEMENT OF PLYWOOD, WOOD CHIPS, OR STEEL PLATING OVER THE ROOTS FOR PROTECTION OR THE PROPER PRUNING AND CARE OF ROOTS WHERE ENCOUNTERED.

**BY-LAWS**  
ALL CITY-OWNED TREES ARE PROTECTED UNDER THE MUNICIPAL TREES AND NATURAL AREAS PROTECTION BY-LAW (2006-279). WITHIN THE URBAN AREA, PRIVATELY-OWNED TREES GREATER THAN 100CM DIAMETER ON LOTS 1HA IN SIZE OR LESS, AND TREES GREATER THAN 100CM DIAMETER ON LOTS >1HA, ARE PROTECTED UNDER THE URBAN TREE CONSERVATION BY-LAW (2009-200).

ACCESSIBLE FORMATS AND COMMUNICATION SUPPORTS ARE AVAILABLE, UPON REQUEST

**TREE PROTECTION SPECIFICATION**

TO BE IMPLEMENTED FOR RETAINED TREES, BOTH ON SITE AND ON ADJACENT SITES, PRIOR TO ANY TREE REMOVAL OR SITE WORKS AND MAINTAINED FOR THE DURATION OF WORK ACTIVITIES ON SITE.

SCALE: NTS

DATE: MAY 2019

DRAWING NO.: 1 of 1

Additional notes for L1 and L2:

TREE SOIL VOLUME REQUIREMENTS: STANDARD TREE SOIL VOLUMES QUANTITIES INCLUDE THE TOP 900-1000mm OF SOIL/EXISTING SUBSOIL LAYER TO CALCULATE TOTAL SOIL VOLUMES REQUIRED BY CITY OF OTTAWA FOR SUSTAINABLE TREE GROWTH. WHERE LARGER SOFT AREAS ARE AVAILABLE, THE TOP 400-500mm LAYER IS USED TO CALCULATE SOIL VOLUMES (AS PER CITY DETAL L1).

WHERE EXISTING MATERIAL BELOW THE SPECIFIED TOPSOIL IS NOT CONDUCIVE TO TREE GROWTH, AN ADDITIONAL LAYER OF PLANTING MEDIUM IS TO BE INSTALLED BELOW SPECIFIED TOPSOIL DEPTH TO OBTAIN THE SOIL VOLUME DEPTH REQUIRED.

REFER TO SOIL VOLUME CHART AND PLANS FOR AREA WHERE TREE SOIL VOLUMES ARE REQUIRED.

**NOTES:**

- ALL MEASUREMENTS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED
- CUT AND REMOVE BURLAP AND WIRE BASKET FROM TOP 2/3 OF ROOT BALL WITHOUT DISTURBING ROOTS
- LOCATION AS SPECIFIED ON THE CONTRACT DRAWINGS

	TITLE:	DATE: MAY 2001
	<b>PLANTING TRENCH WELL DRAINED SOILS</b>	REV: JAN 2017
		DWG No: L1

**NOTES:**

- ALL MEASUREMENTS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED
- LOCATION AS SPECIFIED ON THE CONTRACT DRAWINGS

	TITLE:	DATE: MAY 2001
	<b>PLANTING TRENCH WELL DRAINED SOILS (LOTS)</b>	REV: JAN 2017
		DWG No: L2

2	RE-ISSUED FOR SITE PLAN CONTROL	2023/11/06
1	ISSUED FOR SITE PLAN CONTROL	2022/12/16
no.	revision	date

**Ruhland & Associates Ltd**  
landscape architecture • urban design • site planning  
Ph 613-224-4744 Fx 613-224-1131 info@rala.ca www.rala.ca

project  
**VINCENT MASSEY PS BUS LOOP**

745 SMYTH ROAD  
OTTAWA, ON, K1G 1N9

project north

drawing title  
**LANDSCAPE DETAILS**

scale AS NOTED	drawn by <b>T. FROST</b>
date DEC. 2022	checked by <b>M. RUHLAND</b>
project number 22-1705	drawing number <b>L-02</b>
CONTRACTOR TO VERIFY ALL DIMENSIONS AND NOTIFY THE ARCHITECT OF ANY DISCREPANCIES BEFORE WORK COMMENCES. DO NOT SCALE DRAWINGS.	
revision <b>R1</b>	