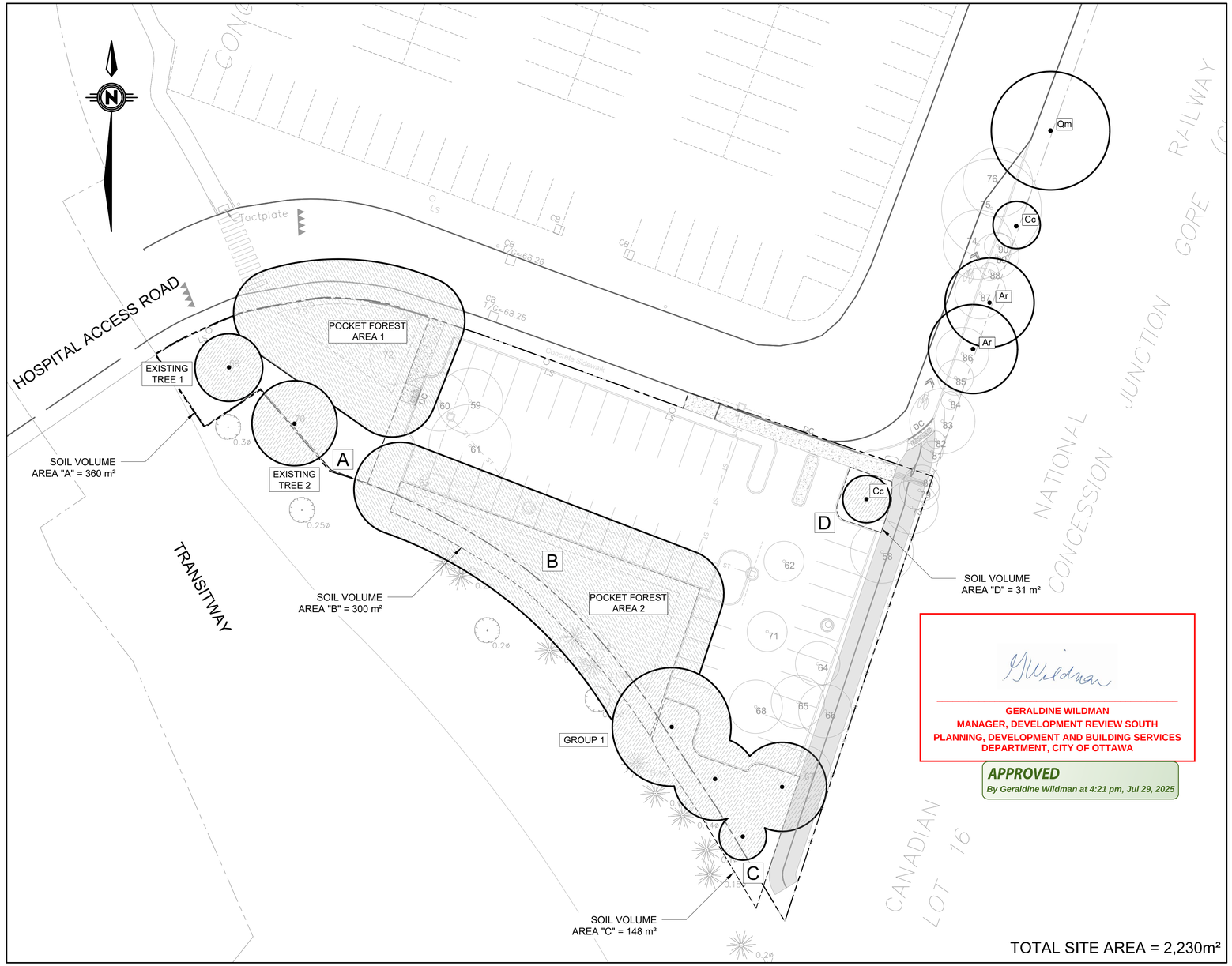

GERALDINE WILDMAN
MANAGER, DEVELOPMENT REVIEW SOUTH
PLANNING, DEVELOPMENT AND BUILDING SERVICES DEPARTMENT, CITY OF OTTAWA

APPROVED
By Geraldine Wildman at 4:21 pm, Jul 29, 2025

LEGEND:

- SITE AREA BOUNDARY
- Xx — APPROXIMATE TREE CANOPY AT 40-YEAR GROWTH
- APPROXIMATE TREE CANOPY IN SITE AREA AT 40-YEAR GROWTH
- # — EXISTING TREE (REFER TO TCR)
- B — SOIL VOLUME AREA AND IDENTIFIER

40-YEAR CANOPY CALCULATION METHODOLOGY:

TO ACHIEVE THE 40-YEAR CANOPY PROJECTION, A METHODOLOGY WAS ADAPTED FROM THE NEW CIVIC HOSPITAL CANOPY COVER PLAN:

1. FIRST, PROPOSED TREES WERE PLACED ON THE GROUND PLANE, GIVING EACH TREE CIRCLE WITH A DIAMETER THAT EQUATES TO 2/3 MATURITY BASED ON THE DATA IN THE SOURCE NOTED IN THE CHART.

2. TO FIND THE AREA OF THE TREE CANOPY, A POLYLINE WAS DRAWN AROUND THE PERIMETER OF EACH TREE, OR GROUPINGS OF TREES WITH OVERLAPPING CANOPIES SO AS NOT TO COUNT THE OVERLAP.

3. THE AREAS OF THESE POLYGONS WERE ADDED TOGETHER TO GIVE THE TOTAL CANOPY COVERAGE AREA, WHICH WAS THEN USED TO CALCULATE THE TOTAL PERCENTAGE OF THE SITE THAT IS COVERED BY CANOPY.

POCKET FOREST SOIL VOLUME NOTES:

*VOLUMES CALCULATED USING AN ESTIMATED 80% SURVIVAL RATE OF PLANTED SPECIMENS AT 15m³ TARGET SOIL VOLUME PER TREE. SURVIVAL RATE IS AN ESTIMATE BASED ON GREEN COMMUNITIES CANADA MINI FOREST CURRICULUM GUIDE: https://green-communities-canada.thinkific.com/courses/take/mini-forest-training/pdfs/52179616-mini-forest-curriculum

**POCKET FOREST PLANTING IS AN EXPERIMENTAL PLANTING TECHNIQUE THAT RELIES ON NATURAL COMPETITION AMONGST PLANTED SPECIES. LOW SOIL ADEQUACY PERCENTAGES FOR POCKET FOREST AREAS ARE REFLECTANT ONLY OF TRADITIONAL STANDARDS FOR INDIVIDUAL TREE PLANTINGS AND DO NOT INHERENTLY IMPLY IMPROPER CONDITIONS FOR THIS PLANTING STRATEGY.

POCKET FOREST CANOPY NOTES:

-POCKET FOREST CANOPY AREA CALCULATIONS BASED ON PROJECTED CANOPY DIAMETERS OF CANOPY TREES WITHIN THE POCKET FOREST PLANTING AREAS, USING PROJECTED MATURE CANOPY DIAMETER VALUES SOURCED FROM: https://www.ville.quebec.qc.ca/publications/docs_ville/repertoire_ess_arboricoles.pdf

-PLANTINGS WERE TREATED AS ONE SINGLE ENTITY FOR THE PURPOSES OF CANOPY CALCULATIONS DUE TO THE HIGH VOLUME OF SPECIES WITHIN THE PLANTING AREA. THE POLYGON REPRESENTING THE CANOPY PERIMETER IS BASED ON THE AGGREGATED ACROSS THE POCKET FOREST AREA AND MEASURED FROM EDGES OF THE PLANTING AREAS.

-THE AGGREGATED CANOPY IS REPRESENTED BY A POLYGON OFFSET AT A RADIUS OF 5.00m BEYOND THE PLANTING AREA, WHICH IS EQUIVALENT TO 50% OF THE PROJECTED MATURE CANOPY SPREAD OF *Quercus macrocarpa*, THE WIDEST-SPREADING SPECIES PLANTED WITHIN THE POCKET FORESTS. THIS REDUCED SPREAD IS INTENDED TO ACCOUNT FOR THE INCREASED COMPETITION WITHIN THE POCKET FORESTS, WHICH COULD PROMOTE UPWARDS INSTEAD OF OUTWARDS GROWTH AMONGST SPECIES.

-OVERLAP OF EXISTING AND PROPOSED TREES NOT WITHIN THE POCKET FOREST CANOPY WAS SUBTRACTED FROM THE TOTAL POCKET FOREST CANOPY AREA CALCULATIONS.

-POCKET FOREST PLANTING IS AN EXPERIMENTAL PLANTING TECHNIQUE THAT RELIES ON NATURAL COMPETITION AMONGST PLANTED SPECIES. DUE TO THIS EXPERIMENTAL NATURE, RESULTS MAY DIFFER FROM PROJECTIONS.

LOT C PROJECTED 40 YEAR TREE CANOPY

KEY	BOTANICAL NAME	PROJECTED MATURE CANOPY DIAMETER (m)	40 YEAR PROJECTED CANOPY DIA. (m) (2/3 MATURE DIA.)	PROJECTED CANOPY AREA (m2)	TOTAL COVERAGE AREA (m2)
AREA "D"					**22.34**
Cc	1 x Sorbus decora	8	5.33	22.34	
AREA "A"					**475.00**
Existing Tree 1	*See TCR*			45.00	
Existing Tree 2	*See TCR*			71.00	
Pocket Forest Area 1				359.00	
AREA "B"					**565.00**
Pocket Forest Area 2				565.00	
AREA "C"					**277.00**
Group 1	4 Trees Total			277.00	
AREA "D"					**22.34**
Cc	1 x Sorbus decora	8	5.33	22.34	
*Projected Mature Canopy Diameter values sourced from: https://www.ville.quebec.qc.ca/publications/docs_ville/repertoire_ess_arboricoles.pdf		TOTAL SITE AREA			2,230.00 m2
		TOTAL CANOPY COVERGE			1361.68 m2
		% OF SITE CANOPY COVERAGE			**61%**

SOIL VOLUME CALCULATIONS -Tree Quantity and Size -Soil Volume Area and Depth	TREE QUANTITY	CITY OF OTTAWA TARGET SOIL VOLUME (m³)	DESIGN SOIL VOLUME (m³)	SOIL ADEQUACY PERCENTAGE
Area A - 148 Tree Saplings, 110 Shrubs				
Plant Bed (360m² x 1.00m depth)	148	1,770*	360	20.33%**
Area B - 273 Tree Saplings, 192 Shrubs				
Plant Bed (300m² x 1.00m depth)	273	3,270*	300	9.17%**
Area C - 3 Large Trees, 1 Small Tree				
Plant Bed (148m² x 1.00m depth)	4	115	148	128%
Area D - 1 Large Tree				
Plant Bed (31m² x 1.00m depth)	1	30	31	103%

SOIL VOLUME NOTES:

-CITY OF OTTAWA TARGET SOIL VOLUMES BASED ON MINIMUM 30m³ FOR LARGE AND MEDIUM TREES, 25m³ FOR SMALL TREES, AND 18m³ FOR CONIFERS.

-SOIL ADEQUACY PERCENTAGE CALCULATED BASED ON DESIGN SOIL VOLUME AS A PERCENTAGE OF THE CITY OF OTTAWA TARGET SOIL VOLUME.

KEY PLAN

NOT TO SCALE

Surveyor

ANNIS, O'SULLIVAN, VOLLEBEKK LTD.
14 CONCOURSE GATE, SUITE 500
NEPEAN, ONTARIO, K2E 7S6

TOPOGRAPHIC INFORMATION & BENCHMARK

SURVEY COMPLETED BY ANNIS, O'SULLIVAN, VOLLEBEKK LTD. ON MARCH 21, 2024. ELEVATIONS SHOWN ARE GEODETIC AND ARE REFERRED TO THE CGVD28 GEODETIC DATUM, DERIVED FROM CONTROL MONUMENT NO. 019680274 HAVING AN ELEVATION OF 66.322m.

BOUNDARY INFORMATION WAS COMPILED FROM PLANS 4R-19213, 4R-35573 AND 4R-36051

JOB BENCHMARK

CUT CROSS ON SIDEWALK NEAR OVERPASS
ELEVATION = 68.53m

Client

The Ottawa Hospital | L'Hôpital d'Ottawa

RIVERSIDE CAMPUS
1967 RIVERSIDE DRIVE,
OTTAWA, ONTARIO, K1H 7W9

PARSONS

studioRed landscape architecture

ONTARIO ASSOCIATION OF LANDSCAPE ARCHITECTS — K CERVENY — OALA — MEMBER

No.	Revision	By	Date (yy/mm/dd)
7	ISSUED FOR REVIEW	KC	2025/05/21
6	ISSUED FOR REVIEW	KC	2025/04/03
4	ISSUED FOR REVIEW	KC	2025/03/18
3	ISSUED FOR REVIEW	KC	2025/01/23
2	ISSUED FOR REVIEW	KC	2024/10/31
1	ISSUED FOR REVIEW	KC	2024/10/17

Scale

5m 0 5 10m

SCALE: 1:250

Project Title

THE OTTAWA HOSPITAL
RIVERSIDE CAMPUS
1967 RIVERSIDE DR., OTTAWA

PARKING LOT C

Drawing Title

PARKING LOT C
40 YEAR CANOPY
PROJECTION + SOIL VOLUME

Designed by:	KC	Datum
Drawn by:	CS	
Approved by:	--	
Project No. 479008		Drawing No. L-2

D07-12-25-0006

#19228