



PARTNERS IN
ENGINEERING, PLANNING &
ENVIRONMENTAL SERVICES

September 6, 2022

Township of Selwyn
1310 Centre Line, Selwyn, ON
K9J 6X5

Attention: Robert Kelly, Manager of Building and Planning

**Re: Engineering Services for Traffic Brief - Abbeyfield House Society of
Lakefield - 93 Ermatinger St, Lakefield, ON K0L 2H0
D.M. Wills Project No. 22-4836**

D.M. Wills Associates Limited (Wills) is pleased to submit the following Traffic Brief to support the proposed senior residence that is to be located at 93 Ermatinger St, Harcourt, Ontario (Development).

1.0 Roadway Existing Conditions

The Subject Property is located on the south side of Ermatinger Street in Lakefield. The area surrounding the proposed development is mostly residential homes with some undeveloped lands. The property where the development is proposed is currently serviced by one unpaved entrance on Ermatinger Street as shown in **Figure 1**. The conceptual site plan is attached in **Appendix A**.

**Figure 1 – Approximate Location of the Proposed Development
(for illustration purposes only)**



wsib 2020

D.M. Wills Associates Limited
150 Jameson Drive, Peterborough, Ontario, Canada K9J 0B9
P. 705.742.2297 F. 705.748.9944 E. wills@dmwills.com

2.0 Existing and Planned Site Conditions

Currently, the property is undeveloped and it is planned to include a residential building within its southern portion. The residential building is planned to house 16 seniors who are 75+ years old, in addition to a building manager, one visitor/tenant, and two students (in a two-bedroom unit), which means a total of 19 units. It is anticipated that meals will be prepared and provided to residents within the building, and hence, the residents do not need to go grocery shopping. Also, other services (e.g. hairdressing, etc.) will be brought to the building, which means a limited car dependency among the residents is anticipated. The building will also have other amenities that will be used exclusively by the residents including a laundry room, library/computer room, dining room, manager's office, and a meeting room and the basement of the building will be used for storage. The proposed floor plans are attached in **Appendix A**.

3.0 Trip Generation and Anticipated Traffic Volumes

Based on our conversation with the client, it is anticipated that only about 40% of the residents will have cars. This means about 7 cars for residents. Nonetheless, it is anticipated that minimal trips will be generated during the peak hours due to the nature of the development and the characteristics of the residents. The anticipated number of trips is 6 vehicular trips during the AM peak and another 6 vehicular trips during the PM peak hour. These 6 trips are assumed to include 3 trips for two students and one visitor exiting in the AM peak and returning in the PM peak, in addition to 3 other trips generated by the residents, as a worst-case scenario.

This assumption aligns with the ITE Trip Generation Manual – 11th edition for a “Congregate Care Facility – Land Use: 253” and an “Off-Campus Student Apartment Over ½ Mile from Campus – Land Use: 225”, which have the closest description to the proposed development. For the purpose of this letter, it is assumed that the visitor/rental one-bedroom unit will have the same trip generation rate as the other senior units. The trip generation rates for these land uses in the Manual during the peak hour of the generator (i.e. proposed development) are shown in **Table 1** and the anticipated generated trips are shown in **Table 2**. It is assumed that the peak hours of the generator will coincide with the peak hours of the adjacent street as a conservative assumption. As shown in the tables, the anticipated total number of trips to be generated is about 4 and 5 vehicular trips during the AM and PM peak hours of the generator.

Table 1 – Trip Generation Rates per Dwelling Unit during AM and PM Peak Hours of Generator

Land Use	ITE Code	AM Peak			PM Peak		
		Avg. Rate	Entering	Exiting	Avg. Rate	Entering	Exiting
Congregate Care Facility	253	0.19	56%	44%	0.23	54%	46%
Off-Campus Student Apartment (Low-Rise) Over ½ Mile from Campus	225	0.20	40%	60%	0.32	52%	48%

Table 2 – The Estimated Entering and Exiting Trips during AM and PM Peak Hours of Generators

Land Use	Number of Units	AM Peak			PM Peak		
		Avg. Rate	Entering	Exiting	Avg. Rate	Entering	Exiting
Congregate Care Facility	17 (dwelling units)	3	2	1	4	2	2
Off-Campus Student Apartment (Low-Rise) Over ½ Mile from Campus	2 (Bedrooms)	1	-	1	1	1	-
Total		4	2	2	5	3	2

The anticipated generated trips are minimal and will not have any impact on the adjacent road network. This is evident when comparing those trips to close by roadways including:

- The Annual Average Daily Traffic (AADT) of Highway 28 (the closest highway to the east of the property), which is 6,300 veh/day in 2016 according to the historical provincial highways traffic volumes released by the Ministry of Transportation Ontario.
- The daily traffic volume of County Road 29 (the closest county road to the west of the property), which is 5,094 veh/day for both directions in October 2020 was acquired from the County of Peterborough for a different project that our team is working on.

4.0 Conclusions and Recommendations

This Traffic Brief reviewed the expected traffic that the proposed development located at 93 Ermatinger St, Lakefield could generate after a full build-out. The development is proposed to be a senior housing development with a building manager and two students living in the same building. The discussion in this brief indicated that, in a worst-case scenario, the development could generate about 6 veh/hr during the AM peak hour and the same number of trips during the PM peak hour. This number of vehicular trips is considered minimal and will not have any impact on the surrounding road network.

For the entrance of the development and its location with respect to Prospect Street, the client has indicated that there is an opportunity to collaborate with the owner/developer of the land to the east of the property to have a shared entrance. This shared entrance will align with Prospect Street, avoiding any potential offset between the entrance and Prospect Street. Nonetheless, the existing entrance, with the existing speed limit of 40 km/hr, low traffic volumes, and multiple driveways in the area, is not anticipated to have any potential traffic risk.

Sincerely,

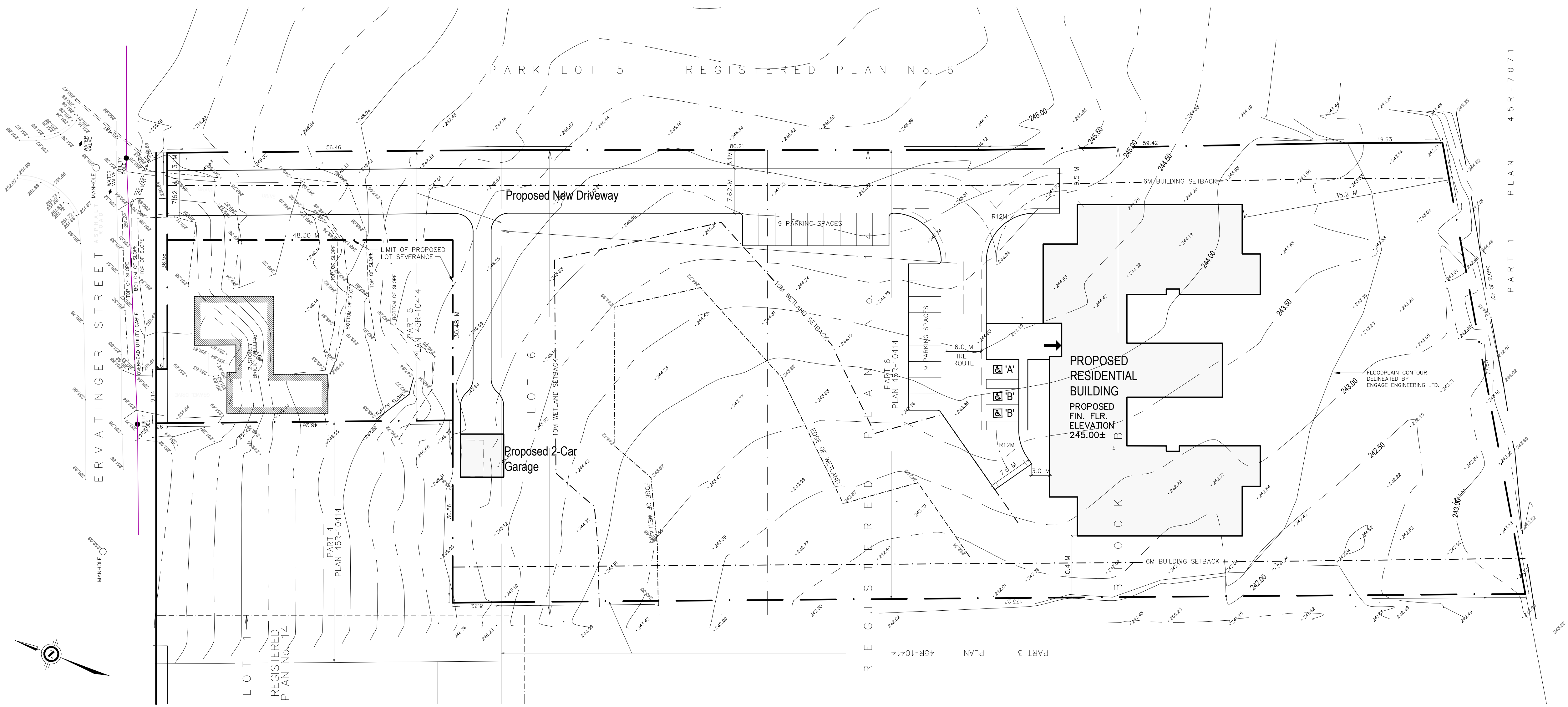


Mostafa Tawfeek Mohammed, Ph.D., P.Eng., RSP1
Traffic Engineer
D.M. Wills Associates Limited

Appendix A

Conceptual Site Plan & Floor Plan





REV. NO.	DATE	DESCRIPTION
1.	May 4/22	For Engage Engineering
2.	May 5/22	Severance Line Added.

THE GENERAL CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AND BE RESPONSIBLE FOR ANY DISCREPANCIES TO THE ORIGINAL DRAWINGS. THIS DRAWING SHALL NOT BE USED FOR CONSTRUCTION PURPOSES UNTIL SIGNED BY THE ARCHITECT.

ARCHITECT'S SIGNATURE: _____

CHRISTOPHER Z. TWORKOWSKI
 ARCHITECT
 34 BRIDGE STREET, UNIT 3
 LAKEFIELD, ONT. K0L 2H0 705-652-1646

PROJECT TITLE
 ABBEYFIELD HOUSE SOCIETY OF LAKEFIELD
 93 ERMATINGER STREET, LAKEFIELD, ONTARIO
 CONCEPTUAL SITE PLAN
 SHEET TITLE

DATE ISSUED	MAY 4/22
DATE DRAWN	MAY 4/22
DRAWN BY	DRS
CHECKED BY	CZT
SCALE	1/32" = 1'-0"
PROJECT No.	2209

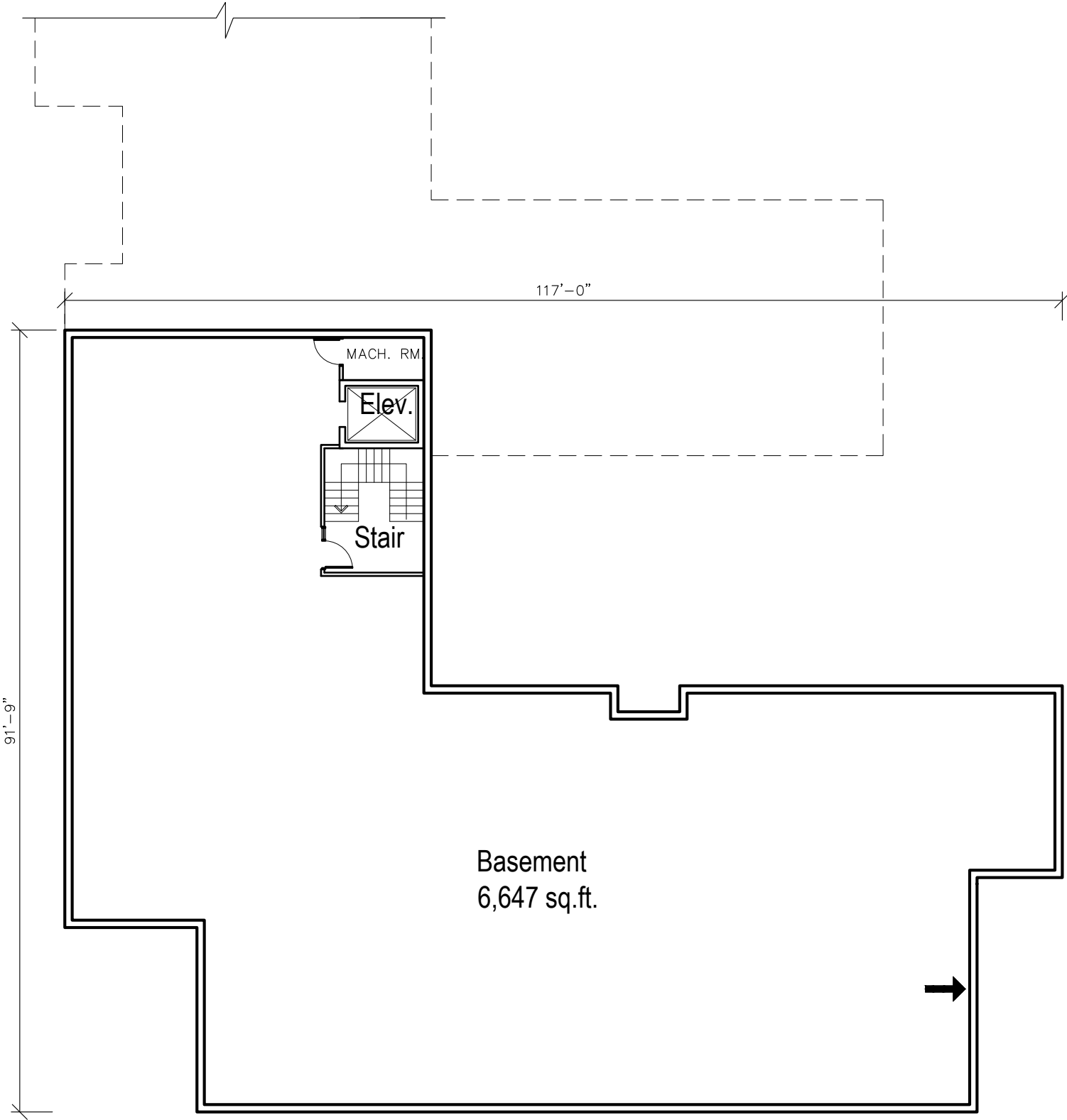
DET. NO. SHEET NO.	A-1
-----------------------	-----



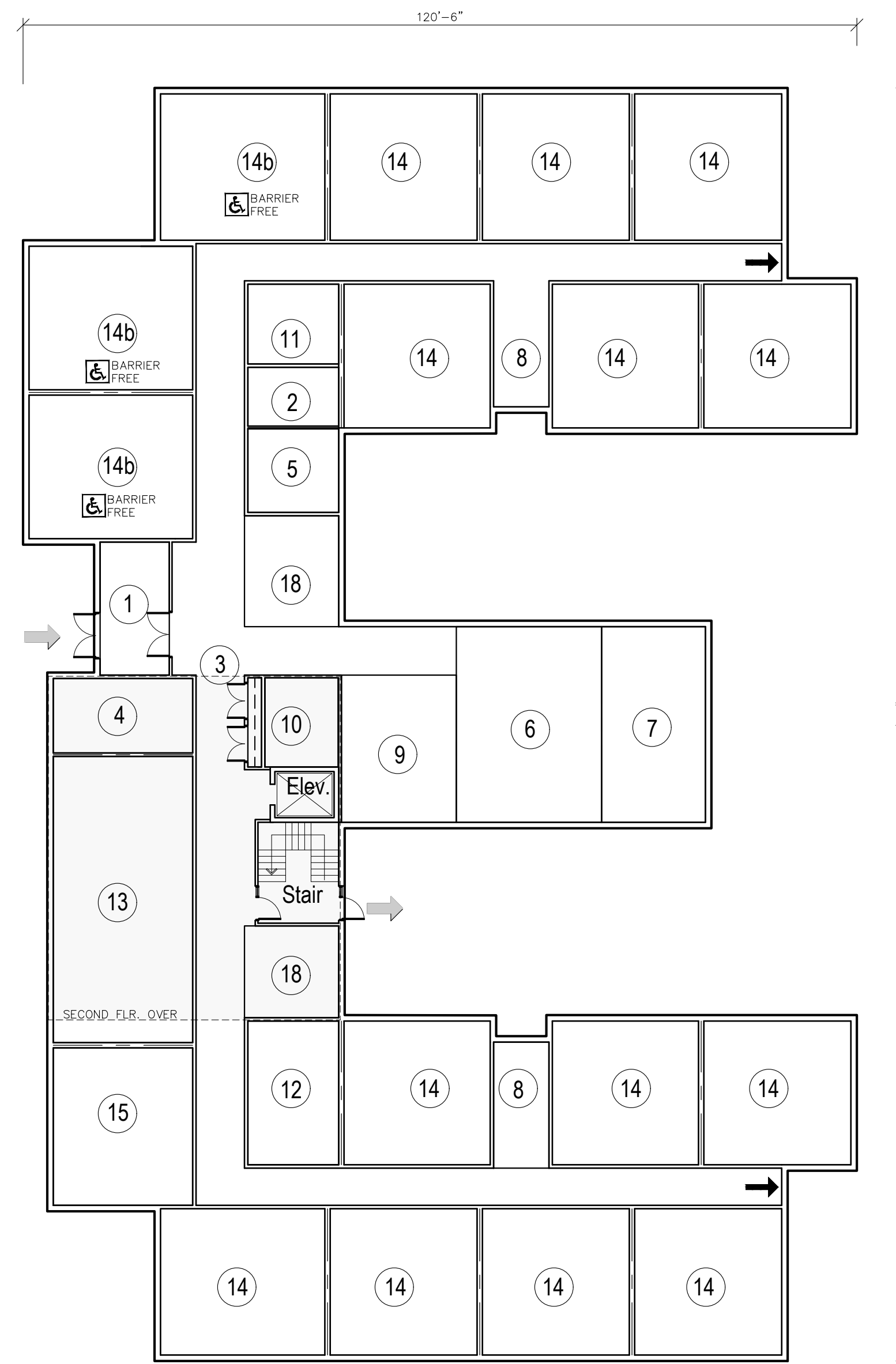
SOUTH (REAR) ELEVATION



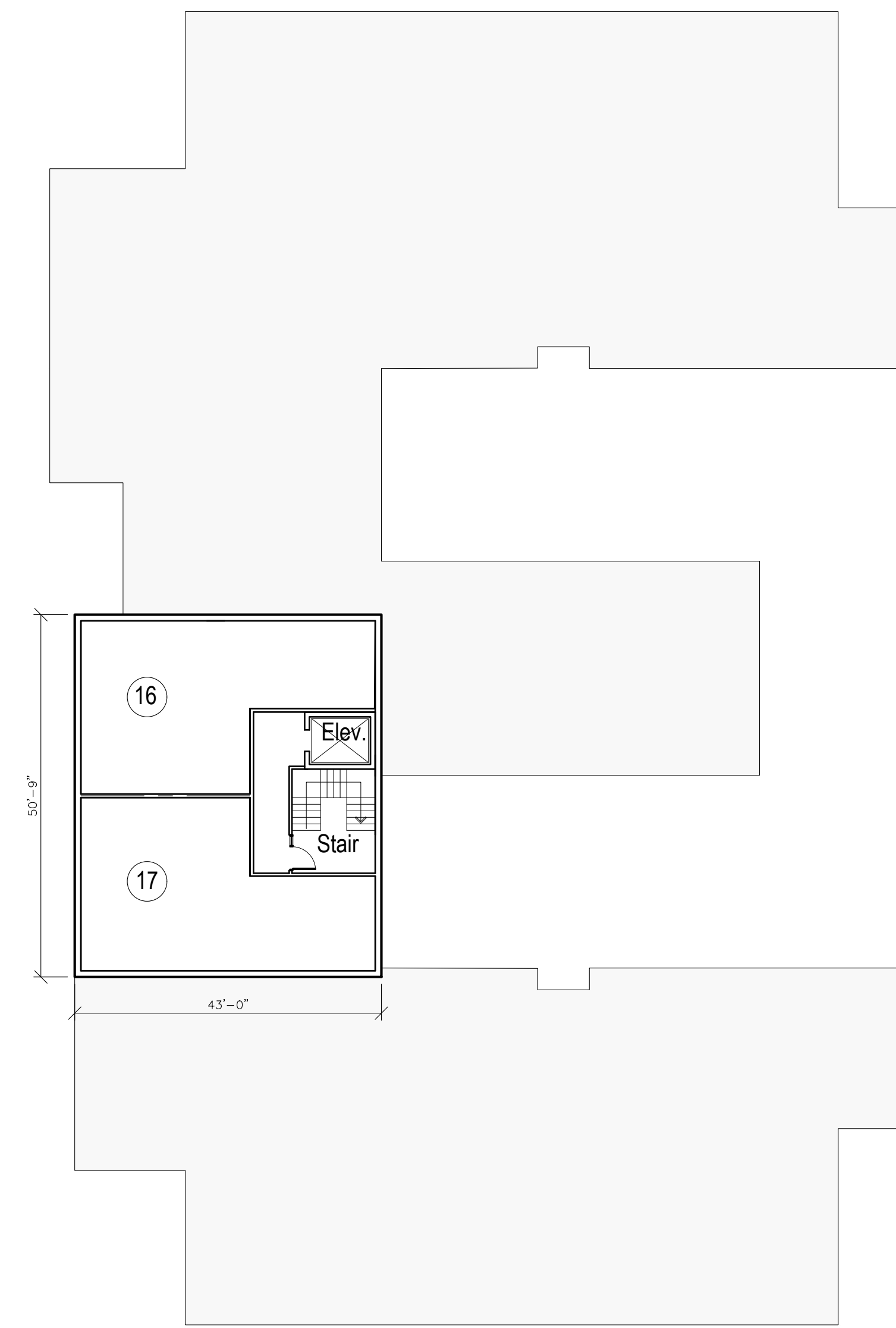
NORTH (FRONT) ELEVATION



BASEMENT FLOOR PLAN



GROUND FLOOR PLAN



SECOND FLOOR PLAN

Legend:

1. Main Entrance & Waiting (192 sq.ft.)
2. Universal Washroom (112 sq.ft.)
3. Coats (25 sq.ft.)
4. Manager's Office (217 sq.ft.)
5. Resident Service Room (160 sq.ft.)
6. Dining Room (594 sq.ft.)
7. Great Room (424 sq.ft.)
8. Small Sitting Room (146 sq.ft.)
9. Kitchen (353 sq.ft.)
10. Pantry (136 sq.ft.)
11. Laundry Room (151 sq.ft.)
12. Computer/Library (273 sq.ft.)
13. Meeting Room (833 sq.ft.)
14. Residential Home (450 sq.ft.)
- 14b. Barrier-Free Residential Home (500 sq.ft.)
15. Visitor/Rental Home (458 sq.ft.)
16. Student Second Floor (700 sq.ft.)
17. Manager's Apartment Second Floor (700 sq.ft.)
18. Sitting Areas (Approx. 200 sq. ft.)

REV. NO.	DATE	DESCRIPTION
1.	May 4/22	For Engage Engineering
2.	May 13/22	For Engage Engineering (re-issued)
3.	July 6/22	Issued for Re-Zoning

THE GENERAL CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS OF THE WORK AND REPORT TO THE ARCHITECT ANY DISCREPANCIES TO BE CORRECTED BEFORE PROCEEDING WITH THE WORK. THIS DRAWING SHALL NOT BE USED FOR ANY OTHER PURPOSES UNTIL SIGNED BY THE ARCHITECT.

CHRISTOPHER Z. TWORKOWSKI
ARCHITECT
34 BRIDGE STREET, UNIT 3
LAKEFIELD, ONT. K0L 2H0 705-652-1616

PROJECT TITLE
ABBEEFIELD HOUSE SOCIETY OF LAKEFIELD
93 ERMAINGER STREET, LAKEFIELD, ONTARIO
**SCHEMATIC FLOOR PLANS
CONCEPTUAL ELEVATIONS**

DATE ISSUED	JULY 6/22
DATE DRAWN	JULY 6/22
DRAWN BY	DRS
CHECKED BY	CZT
SCALE	1/16" = 1'-0"

PROJECT No. **2209**

DET. NO. SHEET NO. **A-1**