



TRANSPORTATION CONSIDERATIONS MEMORANDUM

TO:

David Bannerman, Director, Development & Operations
Rose Acquisition Corporation

FROM:

Timothy J. Arnott MCIP, RPP
Principal

Kyle Cory Jong, P.Eng.
Transportation Engineer

PROJECT:

6931-03
420 South Service Road – former GE Lands

DATE:

May 15, 2024

RE: FOLLOW-UP INFORMATION ON REVIEW OF THE TRANSPORTATION CONSIDERATIONS OF AN TEMPORARY OUTDOOR STORAGE USE AT 420 SOUTH SERVICE ROAD, MID-TOWN, TOWN OF OAKVILLE

1.0 INTRODUCTION

BA Group is retained by The Rose Acquisition Corporation (herein referred to as the “Applicant”) to review the transportation considerations of a proposed temporary land use condition on lands known as 420 South Service Road (the “Site”), located in the Mid-town area of the Town of Oakville. The lands are also known as the former “GE Lands”.

Following a meeting with Town of Oakville staff on May 6th, 2024, where a request was made for additional clarification on the operating characteristics and traffic generation associated with the proposed Temporary Outdoor Storage uses proposed for the 420 South Service Road Site, we provide the following information in response.

This should be read in conjunction with BA Group’s February 28th, 2024, Transportation Considerations Memorandum.

2.0 TEMPORARY USE AND SITE CONFIGURATION DESCRIPTION

The Applicant proposes to adopt a temporary land use condition that incorporates an outdoor storage use. A **Concept Plan** prepared by MHBC is illustrated in **Appendix A**. This outdoor storage would be segregated into **three basic areas** as highlighted in the Concept Plan, in **Appendix A**:

- An area dedicated to the deployment of **prefabricated metal shipping containers** (2.5 m wide by 6.1 m long) placed side-by-side and back-to-back to **form individual outdoor storage units**, forming double sided rows.
- An area that would accommodate the outdoor storage of passenger-sized vehicles.
- An area that would accommodate the outdoor storage of larger vehicles such as Recreational Vehicles (RV’s), single unit trucks, personal trailers such as boats trailers or general-purpose trailers.

Access to the Site for the temporary uses would occur via three driveways:

- Two (2) driveways would be situated along South Service Road at existing driveway locations to the Site, generally located at the west and east sides of the planned temporary uses to occur on the Site.
- An Emergency Access driveway – that would be gated shut during everyday conditions – is also proposed at the east end of Davis Road, where Davis Road terminates at the western Site boundary limits. This would not change the circumstances along Davis Road.

There would also be a small passenger vehicle parking area (15 Customer Parking spaces that meet the Town of Oakville’s Zoning Bylaw dimensions) available upon entry via the western Site access driveway on South Service Road.

All areas used for the Temporary Uses that would accommodate the movement of vehicles would be appropriated “hardscaped” per the Town of Oakville Zoning Bylaw requirements. The general storage area is an existing hard surfaced area on the site with no specific operations assigned to it. Access to the Site would be provided 24 hours a day via the gate-controlled entry points.

3.0 FORECAST OPERATING CONDITIONS INTERNALLY AND EXTERNAL TRAFFIC VOLUME FORECAST

BA Group has considered the operating characteristics of the various “areas” proposed as part of the temporary uses.

From a practical perspective, the Storage Container Area will function in a manner that will have the customer who has rented an individual storage container unit drive up to the specific container unit, park adjacent to it, either load or unload materials/items from the container and when finished, will exit the Site.

Similarly, a customer arriving to store a vehicle in the outdoor parking spaces would arrive, park, or collect their vehicle in/from the outdoor space and depart the Site. These trips are generally short in duration and may involve a second vehicle associated with the trip to facilitate the pick-up or drop-off activity.

3.1 Forecast Site Traffic Volumes

In BA Group’s February 28th, 2024, memorandum, Table 1 summarized the trip generation rates associated with the proposed storage facilities in general and noted that the rate of use is extremely low. This was evidenced by the nature of vehicular trip generation observations documented by both industry standard rates (ITE Trip Generation Manual 11th Edition) and by those that BA Group itself has collected.

Table 1 documented surveys conducted by BA Group at various storage facilities within the GTA (e.g., four such studies in the City of Toronto at similarly configured facilities) and compared these to trip generation rates that have been published in the ITE Trip Generation Manual (11th Ed.).

In order to apply the trip rates to the proposed “areas” within the Site (noted in Section 2.0 above), the trip rates were expressed in two ways:

- per 100 square metres of “GFA” so they could be applied to the equivalent total GFA area associated with all of the shipping containers to be placed on the Site and used for storage purposes; and,
- per outdoor storage position (i.e., a parking space for either passenger car sized vehicles or a parking space for larger vehicles such as Recreational Vehicles (RV’s), single unit trucks, personal trailers).

The ITE Trip Generation Manual 11 edition trip rates were expressed as a per 100 square metres of GFA. The trip rates from BA Group’s proxy site were area expressed as a per 100 square metres of GFA.

One of the proxy sites that BA Group conducted observations at (the 1 Laird Drive facility) included both indoor storage units and outdoor storage containers and parking spaces. This enabled a trip rate to be established on a “per outdoor storage position” basis (i.e., a parking space for either passenger car sized vehicles or a parking space for larger vehicles such as Recreational Vehicles (RV’s), single unit trucks, personal trailers).

Since all of the trip rates sources compared very favourably to one another, the trip forecasts were broken into two components reflecting the total Shipping Container unit’s GFA and the total number of outdoor storage positions for parking vehicles of various sizes. This was summarized in the bottom portion of Table 1 in the February 28th, 2024, Memorandum. That portion of Table 1 is replicated in **Table A**, below, for ease of reference.

Application of the selected trip rates per 100 square metres of GFA to the “cumulative floor area” represented within the 502 Storage Container units (each storage container has approximately 15.25 m² of internal floor area for a total GFA of 7,656 m²) proposed on the Site has yielded an estimated 9 two-way vehicle trips during the weekday morning peak hour, 13 two-way vehicle trips during the weekday afternoon peak hour, and 14 two-way vehicle trips during the Saturday mid-day peak hour.

Similarly, application of the selected trip rates per storage parking position to the “cumulative number of parking positions throughout the Site” (i.e., 64 passenger vehicle parking positions and 312 larger vehicle parking positions for a total of 376 parking positions overall) has yielded an estimated 5 two-way vehicle trips during the weekday morning peak hour, 6 two-way vehicle trips during the weekday afternoon peak hour, and 6 two-way vehicle trips during the Saturday mid-day peak hour.

TABLE A SITE TRAFFIC GENERATION FORECAST

Use	Weekday AM Peak Hour			Weekday PM Peak Hour			Saturday Mid-day Peak Hour		
	In	Out	2-Way	In	Out	2-Way			
Site Traffic Generation Forecast									
Selected Rates ¹									
Trips / 100 m ² GFA	0.07	0.04	0.11	0.09	0.07	0.16	0.09	0.09	0.18
Trips / Storage position	0.007	0.004	0.011	0.009	0.007	0.16	0.009	0.009	0.018
Total Site Traffic 502 Storage Container Area (equivalent to 7,656 m ² GFA)	6	3	9	7	6	13	7	7	14
<u>376 Storage Pkg positions</u>	<u>3</u>	<u>2</u>	<u>5</u>	<u>3</u>	<u>3</u>	<u>6</u>	<u>3</u>	<u>3</u>	<u>6</u>
Total Site Veh. Trips	9	5	14	10	9	19	10	10	20

Notes:

1. Trip rates reflect the data from the 1 Laird Drive facility that BA Group surveyed. These compare favourably to rates from the ITE *Trip Generation Manual* 11th Edition as well as from the other 3 proxy sites that BA Group surveyed itself in the GTA.

The total forecast vehicle trips to and from the Site during the typical peak hours of the weekday and Saturday design conditions amounts to an estimated 14 two-way vehicle trips during the weekday morning peak hour, 19 two-way vehicle trips during the weekday afternoon peak hour, and 20 two-way vehicle trips during the Saturday mid-day peak hour.

Once distributed across the various directions of approach and departure available to customers of the Site (i.e., west along South Service Road and then further along Trafalgar Road north and south or east along South Service Road to Chartwell and to Cornwall, or further east along South Service Road to Royal Windsor Drive, east or west), this would amount to traffic impacts of 5 vehicles or less on the various individual turning movements at area intersections.

This impact is less than the typical daily variation in traffic on the respective turning movements and would represent a negligible impact across the public street network.

Appendix B, herein, presents a summary of the component elements of the temporary use Site Plan and application of the selected trip rates to the Storage Container segment of the Site (per 100 m² of total GFA of all shipping containers) and the Parking segments of the Site (per storage position or parking space for the total number of parking spaces). It also presents the calculation of total GFA of all shipping containers and the sum of all storage positions (i.e., parking spaces) on the Site.

3.2 Construction / Temporary Traffic Control Management Plan

As there will be no “construction” occurring on-Site, a “Construction / Temporary Traffic Control Management Plan” has not been prepared.

3.3 Sustainability Perspective

BA Group has been involved with many storage facility projects across the GTA and elsewhere. The incidence of pedestrian or cycling activity to or from these facilities is negligible, within the context of daily arrivals and departures. These modes do not make up any meaningful component of the mobility characteristics of these facilities.

This is due mainly to the nature of the Site and the arrival and departure of larger amounts of goods and or vehicles as the objects of what is being “stored” at the Site.

As such, the explicit provision of exclusive pedestrian or cycling facilities is not considered necessary. This is particularly true when the “temporary” nature of the uses proposed are considered.

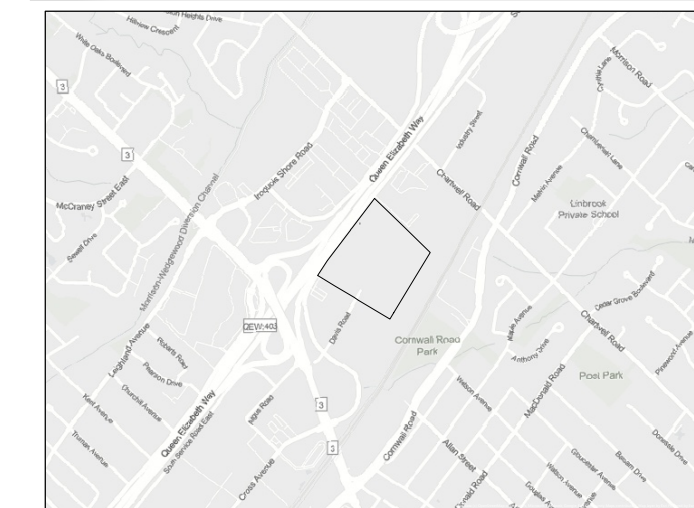
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We trust that the foregoing is sufficient at this time. Please feel free to contact us directly should you require any additional clarification or information.

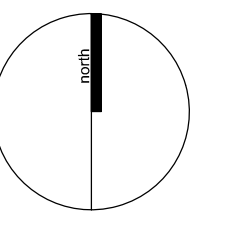
Appendix A:
Temporary Use Concept Plan, MHBC, May 10, 2024

CONCEPT PLAN

420-468 South Service Road,
Oakville, ON



Subject Lands



SCALE: 1:10,000

SITE STATISTICS

	HA	AC
Total Site Area	11.049	27.302
Existing Building	0.041	0.100
Small Vehicle Parking	0.173	0.428
Shipping Containers for Public Storage	1.660	4.101
Large Vehicle & Trailer Parking	2.100	5.189
General Storage	0.459	1.135
Ungraded Area	4.443	10.980
Snow Storage	0.361	0.892
45° Lose Stone Slope	0.452	1.117

STORAGE STATISTICS

Small Vehicle Parking	64
Shipping Containers for Public Storage	502
Large Vehicle & Trailer Parking	312

PARKING STATISTICS

	No. of Spots
Customer Parking Area (north)	15

LIGHT POLE (all lighting to be dark sky friendly)

10M BUFFER

VEGETATION COMMUNITY BOUNDARY

NOTE:

NO DEVELOPMENT CONSTRUCTION INCLUDING THE PLACEMENT OF ANY GRAVEL OR CLEAR STONE TO OCCUR WITHIN THE 10M BUFFER OR WESTERLY UNGRADED AREA.

NOTES:

- Total site area determined via site survey
- Delineated site areas are rough approximations only

No.	Date	Issue/Revision	By
5	2024-05-09	Add jersey barrier and light poles	RM
4	2024-05-08	Reduce small car storage area	RM
3	2024-04-10	Revise customer parking; Revise container storage layout	RM
2	2024-04-08	Issued for submission	HH
1	2024-02-23	Revise north customer parking sizes for by-law conformity	RM

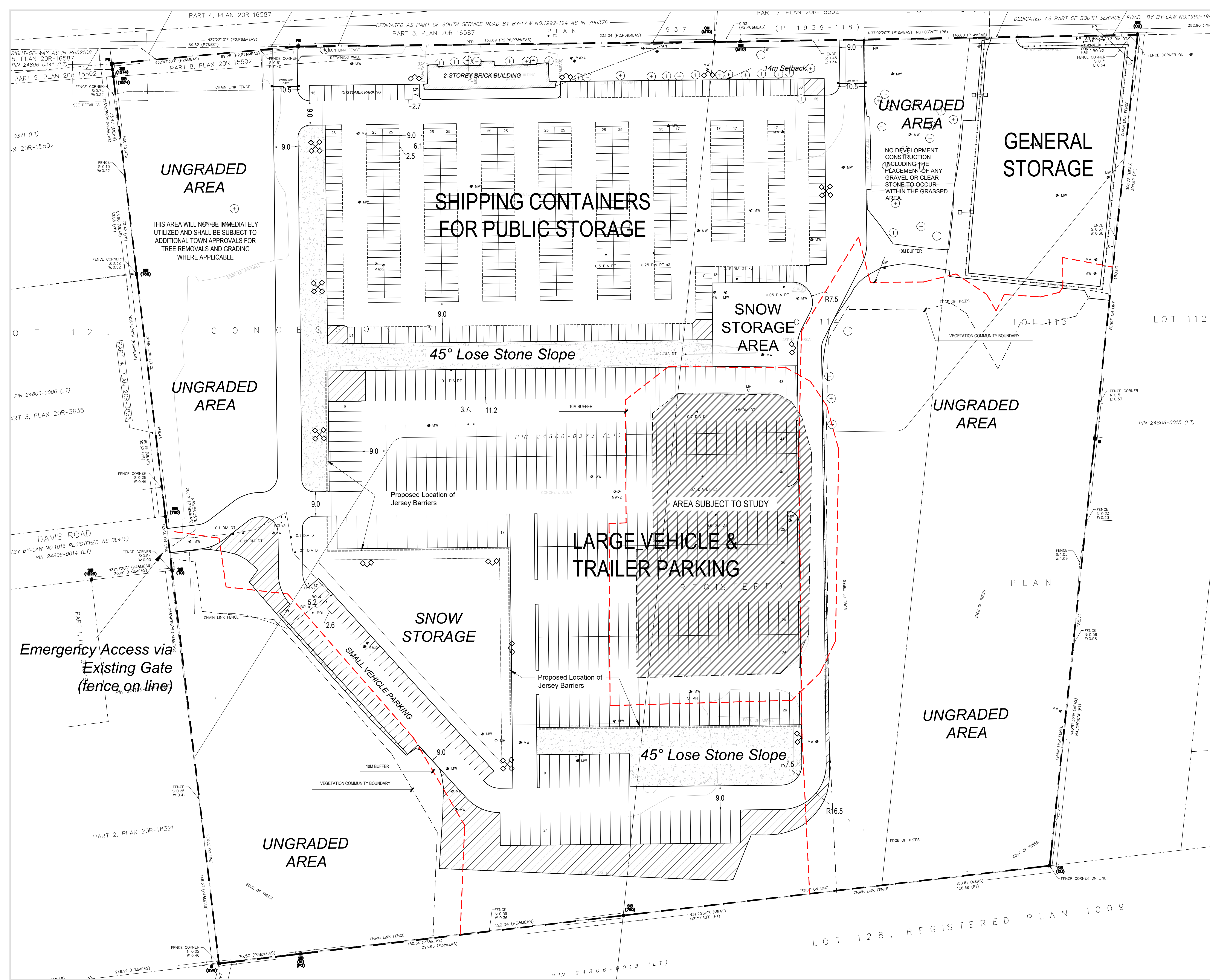
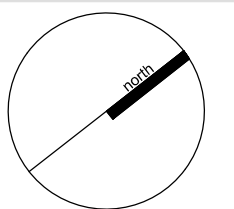
PLANNING URBAN DESIGN & LANDSCAPE ARCHITECTURE
MHBC
 204-442 BRANT STREET, BURLINGTON, ON, L7R 2G4 | P: 905.639.8886 | WWW.MHBCPLAN.COM

Date: Friday, May 10, 2024

File No.: 1677 - X Drawn By: P.B. / R.M.

Plan Scale: 1:600 Checked By: initials

Project: Part of Lot 12, Concession 3
Trafalgar, Town of Oakville
Region of Halton



Appendix B:
**Summary of Trip Generation Calculations for Temporary Outdoor
Storage Uses - BA Group, May 15, 2024**

Component elements within Interim Site Plan / Site Traffic Generation Calc.

As of: May 15 2024

	Passenger Veh Parking	Truck/RV/Trailer Pkg	Ind. Storage Containers
Totals =	64	312	502

Area / Storage Container = 15.25 sq. metres
 Total GFA for all Storage Containers = 7,656 square metres
 82,403 square feet

Total "Parking positions" for Passenger vehicles and RV's, Trucks, trailers = 376 storage positions

Trip gen estimates

Storage Container Segment 502 storage containers = 7,656 m²

Weekday a.m.			Weekday p.m.			Saturday mid-day		
in	out	2-way	in	out	2-way	in	out	2-way
0.072	0.043	0.116	0.087	0.072	0.159	0.087	0.087	0.174
6	3	9	7	6	13	7	7	14

rates / 100 s.m.

Parking segments 64 312 376 Storage positions (parking spaces)

Weekday a.m.			Weekday p.m.			Saturday mid-day		
in	out	2-way	in	out	2-way	in	out	2-way
0.0071	0.0043	0.0114	0.0086	0.0071	0.0157	0.0086	0.0086	0.0171
3	2	5	3	3	6	3	3	6

rates per storage position

Total Site Vehicular Traffic Generation Estimate

Weekday a.m.			Weekday p.m.			Saturday mid-day		
in	out	2-way	in	out	2-way	in	out	2-way
9	5	14	10	9	19	10	10	20

Source:

1 Laird Drive XYZ Storage Facility; also checked against storage facility in City of Toronto and ITE Mimi-Warehouse LU 151