

PARKING STUDY

16 LISA STREET

Commercial Development

City of Brampton, Peel Region, Ontario

For:

1000989942 Ontario Inc
16 Lisa Street, Unit 1
Brampton, ON

By:

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1.0 INTRODUCTION AND DEVELOPMENT PROPOSAL

LMM Engineering Inc. was retained by 1000989942 Ontario Inc. to undertake a parking study for the proposed childcare facility located at Unit 1, 16 Lisa Street in the City of Brampton, Peel Region, Ontario. The site is within an existing, mature mixed-use plaza. The proposed site is to occupy a vacant unit that was previously occupied by a bank. The developer is proposing a 7,324 square foot childcare facility with a capacity for 100 children and 17 staff members to be operated on weekdays only. The site location map is shown in **Figure 1-1**. The site plan is shown in **Figure 1-2** as well as in **Appendix A**.

Figure 1-1 Site Location Map

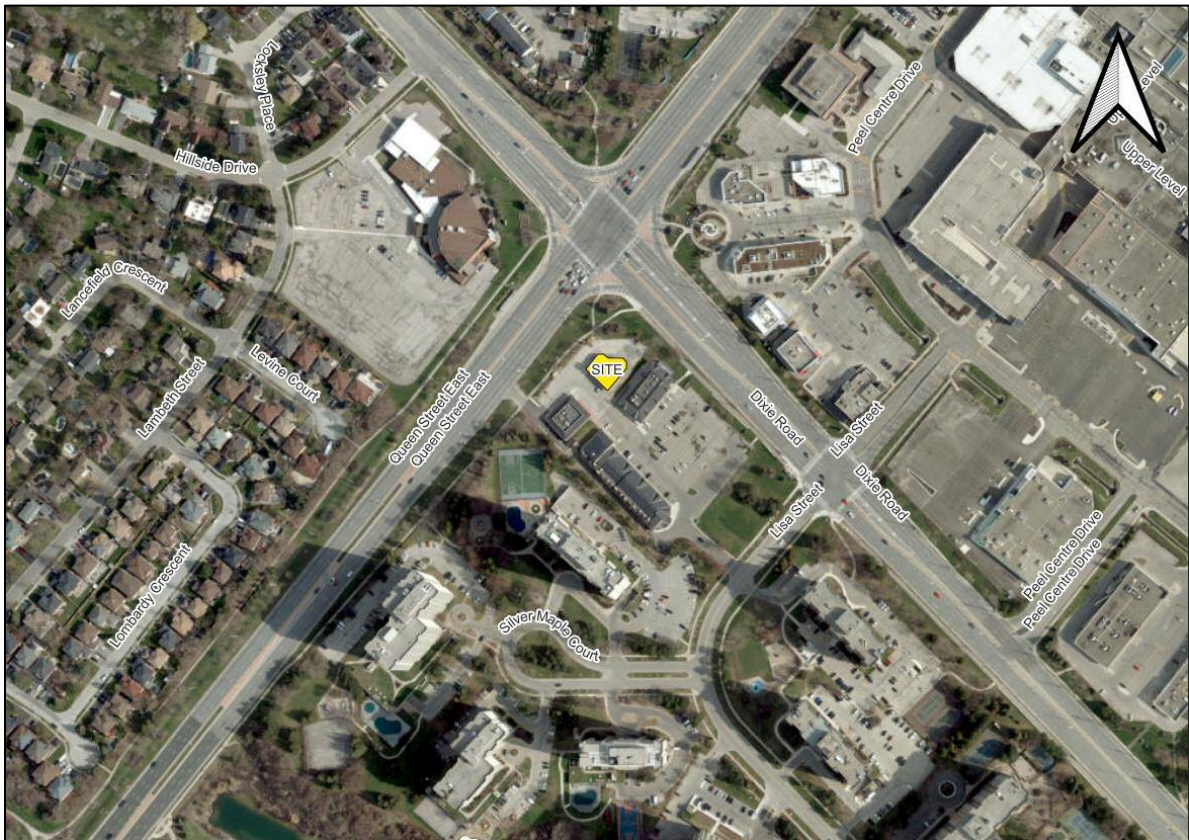
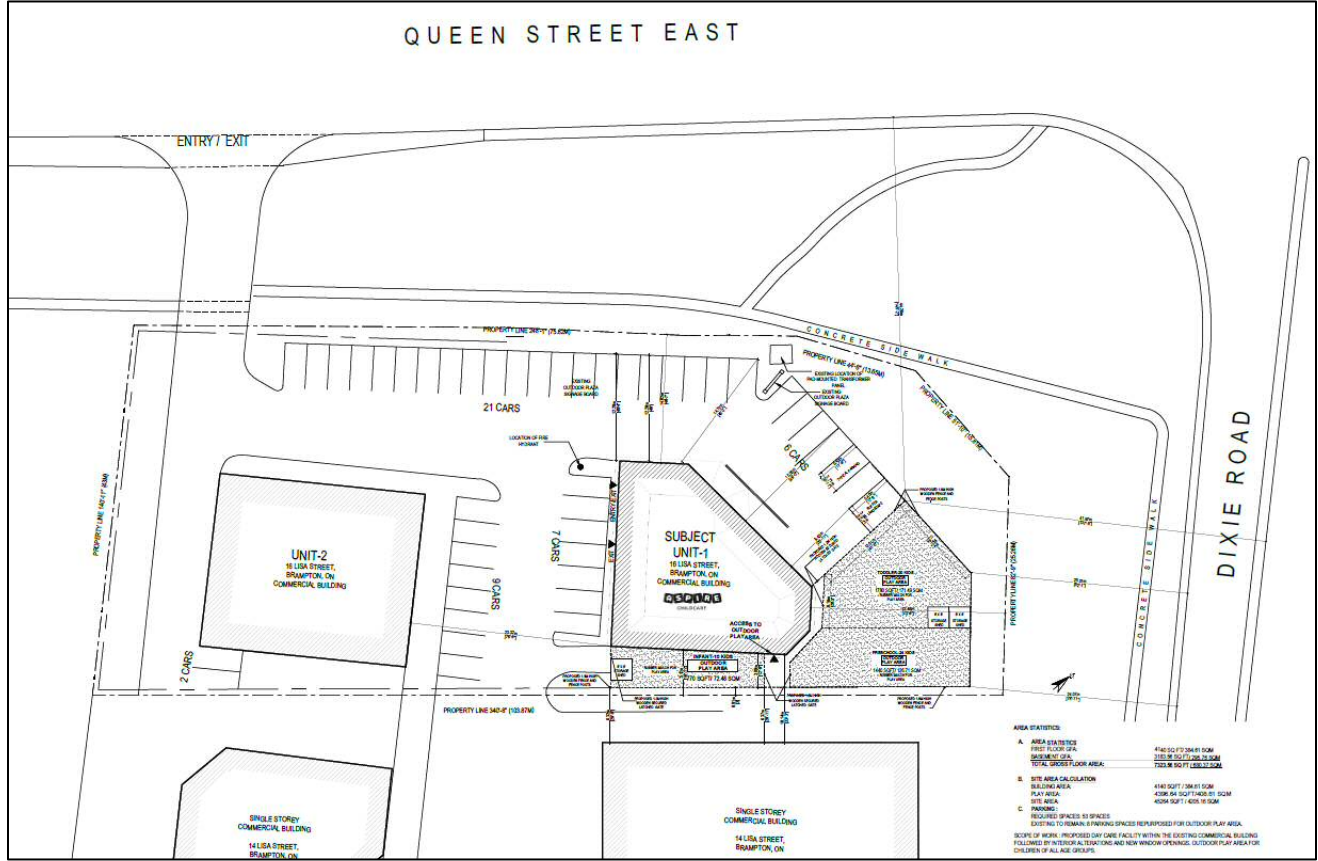


Figure 1-2 Site Plan



2.0 PARKING REVIEW

2.1 EXISTING PARKING PROVISION

There are a total of 237 existing shared parking spaces within the mixed-use commercial plaza consisting of 184 spaces at 14 Lisa Street and 53 spaces at 16 Lisa Street, connected by an internal driveway network to functionally operate as one site. A total of 8 spaces at 16 Lisa Street are proposed to be repurposed into an outdoor play area, resulting in a total proposed provision of 45 spaces at 16 Lisa Street and 229 parking spaces overall for both shared parking.

Consideration of the overall site including 14 Lisa Street is important given that the majority of businesses within the plaza open after drop-off times for the proposed daycare use, with food establishments typically opening at midday, 4-5 hours after drop-off times.

2.2 ZONING BY-LAW REVIEW

As per the City's Zoning By-law, Section 20, a Day Nursery requires the provision of "1 parking space for each employee plus 1 parking space for each 10 children capacity.". Based on this, the calculated b-law parking requirement for the proposed daycare facility would be 27 parking spaces.

2.3 EXISTING PARKING UTILIZATION

A review was conducted of existing parking provisions and utilization on the site, that currently consists of 237 parking spaces for use by tenants and customers within the existing plaza.

A parking utilization survey was carried out on Wednesday October 16th, a typical weekday, between the hours of 05:00am and 10:00pm, with half-hour intervals between each count. The survey was conducted during this time to collect parking demand data for a wide variety of land uses at the plaza. Utilization summaries are provided in **Table 2-1**.

Table 2-1: Parking Utilization Summary

Time	Number of Cars Parked			Percentage Utilization		
	14 Lisa St	16 Lisa St	Total	14 Lisa St	16 Lisa St	Total
5:00	6	0	6	3%	0%	3%
5:30	6	0	6	3%	0%	3%
6:00	10	0	10	5%	0%	4%
6:30	11	0	11	6%	0%	5%
7:00	15	0	15	8%	0%	6%
7:30	25	0	25	14%	0%	11%
8:00	34	0	34	18%	0%	15%
8:30	52	0	52	28%	0%	22%
9:00	59	0	59	32%	0%	25%
9:30	60	0	60	33%	0%	26%
10:00	74	1	75	40%	2%	32%

10:30	80	3	83	43%	6%	36%
11:00	102	3	105	55%	6%	45%
11:30	100	4	104	54%	8%	45%
12:00	98	7	105	53%	15%	45%
12:30	92	7	99	50%	15%	43%
13:00	110	8	118	60%	17%	51%
13:30	85	5	90	46%	10%	39%
14:00	74	5	79	40%	10%	34%
14:30	76	5	81	41%	10%	35%
15:00	80	6	86	43%	13%	37%
15:30	102	6	108	55%	13%	47%
16:00	84	6	90	46%	13%	39%
16:30	86	6	92	47%	13%	40%
17:00	85	7	92	46%	15%	40%
17:30	71	7	78	39%	15%	34%
18:00	95	10	105	52%	21%	45%
18:30	72	13	85	39%	27%	37%
19:00	67	14	81	36%	29%	35%
19:30	61	13	74	33%	27%	32%
20:00	48	14	62	26%	29%	27%
20:30	34	10	44	18%	21%	19%
21:00	26	7	33	14%	15%	14%
21:30	26	5	31	14%	10%	13%
22:00	25	4	29	14%	8%	13%

Based on **Table 2-1**, the peak parking demand for the 16 Lisa Street lot occurred at 7:00 pm when 14 spaces were occupied and 39 were vacant. Overall, the peak parking utilization for the existing shared spaces for the two sites was 118 stalls or 50% of total supply on a typical weekday, with 119 vacant spaces during the peak period of the plaza at 1:00 pm.

2.4 FUTURE PARKING UTILIZATION

2.4.1 ITE Parking Generation Estimates

LMM reviewed parking generation rates in the Institute of Transportation Engineers (ITE) parking generation manual (5th Edition). The following land use code was used:

- Day Care Centre (565)

An excerpt of this survey data is provided in **Appendix B**. Based on this data, the estimated parking demand as derived by the average parking generation rate is 24 parking spaces. It is anticipated that the proposed supply would be sufficient to accommodate this parking demand.

2.4.2 Site Context & Modal Split

The existing plaza is located within a 5-minute walk from a cluster of 13 high-rise residential apartment buildings that surround Norton Place Park. The plaza is a mature site, with site plans dating to February 1997, and thus has well established traffic patterns. It is submitted that the relatively low parking utilization of approximately 50% is attributable to a significant number of walking trips made from nearby high-rise residential buildings and whose residents include families that receive government issued rental subsidies.

The combination of walking distances to commercial sites and lower car ownership rates favour walking as a modal choice. The catchment area for the proposed daycare includes the residential towers in close proximity, determined during market analysis. Hence, it is anticipated that the parking demand for the proposed daycare may be up to 50% lower than the typical rates calculated using the City By-law and ITE methodologies.

This is also confirmed by the business market analysis conducted by the applicant, since the majority of the apartment buildings meet the threshold for low-income families and would be eligible to receive childcare government subsidies. The applicant's own market analysis estimates that 50% of its business will come from those low-income households that would not typically own a vehicle and would walk to drop off their children at the childcare facility to go on and take transit thereafter.

Given the above, it is our estimate that the proposed childcare would generate the need for around 12 to 14 parking spaces.

2.5 PROXY SURVEY DATA

To supplement this study, LMM reviewed proxy survey data from similar sized daycare establishments located within the City of Brampton. These sites were selected due to similar contexts being located within mixed-use commercial plazas in the City and have similar operating hours. The number of enrolled students is between 110-204 while staff to student ratios remain similar to the subject site. The proxy survey sites are summarized in Table 2-2.

Table 2-2 Proxy Site Statistics

Site	Address	Hours of Operation	Number of Children Enrolled	Number of Staff
Alder Ridge Montessori	25 Kings Cross Rd, Brampton, ON	07:30 – 18:00	204	40
First Friends Pre-School & Daycare	860 N Park Dr, Brampton, ON	06:30 – 18:00	110	20
Lullaboo Nursery & Childcare Centre	8015 Financial Dr, Brampton, ON	07:00 – 18:30	122	22

2.5.1 Eyes Alder Ridge Montessori

At this site, it was noted that 177 drop-offs and pickups occurred for the total enrolled 204 students, which were very short in duration and did not constitute parking the vehicle longer than 15 minutes. Of these, 9 drop-offs and 17 pick-ups were non-vehicular, representing 5-10% of the total. Parked vehicles throughout the day were tabulated as shown in Table 2-3.

2.5.2 First Friends Pre-School & Daycare

At this site, it was noted that 87 drop-offs and pickups occurred for the total enrolled 110 students, which were very short in duration and did not constitute parking the vehicle longer than 15 minutes. Of these, 1 drop-off and 5 pick-ups were non-vehicular, representing 1-6% of the total. Parked vehicles throughout the day were tabulated as shown in Table 2-3.

2.5.3 Lullaboo Nursery & Childcare Centre (Financial Drive)

At this site, it was noted that 118 drop-offs and pickups occurred for the total enrolled 122 students, which were very short in duration and did not constitute parking the vehicle longer than 15 minutes. Of these, 2 drop-offs and 2 pick-ups were non-vehicular, representing 2% of the total. Parked vehicles throughout the day were tabulated as shown in Table 2-3.

Table 2-3 Proxy Parking Rate Summary

Time of Day	Number of Parked Vehicles			Parking Rate			Average Parking Rate
	Proxy Site 1	Proxy Site 2	Proxy Site 3	Proxy Site 1	Proxy Site 2	Proxy Site 3	
6:00	Closed	2	Closed	-	0.02	-	-
6:30	Closed	4	1	-	0.04	0.01	0.02
7:00	2	4	3	0.01	0.04	0.02	0.02
7:30	6	7	5	0.03	0.06	0.04	0.04
8:00	8	8	6	0.04	0.07	0.05	0.05
8:30	10	5	11	0.05	0.05	0.09	0.06
9:00	12	6	10	0.06	0.05	0.08	0.07
9:30	11	6	8	0.05	0.05	0.07	0.06
10:00	11	7	7	0.05	0.06	0.06	0.06
10:30	12	8	7	0.06	0.07	0.06	0.06
11:00	14	6	16	0.07	0.05	0.13	0.08
11:30	14	7	16	0.07	0.06	0.13	0.09
12:00	12	6	12	0.06	0.05	0.10	0.07
12:30	13	6	14	0.06	0.05	0.11	0.08
13:00	12	5	13	0.06	0.05	0.11	0.07
13:30	12	6	16	0.06	0.05	0.13	0.08
14:00	12	5	16	0.06	0.05	0.13	0.08
14:30	14	6	14	0.07	0.05	0.11	0.08
15:00	14	6	11	0.07	0.05	0.09	0.07
15:30	11	8	13	0.05	0.07	0.11	0.08
16:00	12	8	13	0.06	0.07	0.11	0.08
16:30	8	8	15	0.04	0.07	0.12	0.08
17:00	14	7	18	0.07	0.06	0.15	0.09
17:30	15	6	20	0.07	0.05	0.16	0.10
18:00	12	5	21	0.06	0.05	0.17	0.09
18:30	Closed	Closed	16	-	-	-	-
19:00	Closed	Closed	Closed	-	-	-	-

As shown above, the average parking rate for the 3 proxy sites was 0.10 parking spaces per student, with the highest occupancy expected to take place at 17:30 during the afternoon peak period.

2.6 COMPARISON OF PROXY DATA TO SITE

Overall, it was found that the average proxy parking rate calculated from the 3 sites was 0.10 and is expected to take place at 5:30pm on a typical weekday. Applied to the subject site, this represents a parking demand of 10 parking spaces.

2.7 FUTURE PARKING RATE AND DEMAND

Based on the proxy site data the average peak parking rate was 0.10 spaces per student. The subject site would generate demand for 10 parking spaces, which is fewer than the by-law provision of 27 parking spaces and the ITE calculated demand of 24 parking spaces. It is noted that the ITE calculated rate is from study sites located across a variety of contexts in the USA and Canada, while the proxy sites are

local to the plaza settings within the City of Brampton. Based on proxy site data, the subject site should have sufficient parking space to accommodate a daycare use. The peak parking demand for the subject site is also expected to take place at 5:30pm, which is outside the 1:00pm peak hour of the entire plaza.

3.0 CONCLUSIONS

LMM Engineering Inc. was retained by 1000989942 Ontario Inc. to undertake a parking study for the proposed commercial development located at Unit 1, 16 Lisa Street in the City of Brampton, Peel Region, Ontario.

The site is within an existing, mature mixed-use plaza. The proposed site is to occupy a vacant unit that was previously occupied by a bank. The developer is proposing a 7,324 square feet childcare facility with a capacity of 100 children and 17 staff members to be in operation on weekdays.

There are a total of 237 shared parking spaces in the plaza consisting of 184 spaces at 14 Lisa Street and 53 spaces at 16 Lisa Street. The sites are interconnected by driveways and effectively function as one site.

A total of 8 parking spaces are to be repurposed into an outdoor play area, resulting in a future parking supply of 229 parking spaces in the plaza.

A review of the City's Zoning By-law indicates that a total of 27 parking spaces are required for a daycare development of this size. This aligns closely with the parking generation estimate of 24 spaces from the Institute of Transportation Engineering (ITE) Parking Generation Manual.

To supplement the study, proxy parking surveys were conducted at 3 daycare sites within mixed-use commercial plazas in the City of Brampton. Based on survey findings, the estimated parking rate per is a maximum of 0.10 parking spaces per student, which results in a calculated demand of 10 parking spaces at the subject site. This is lower than the ITE rates, which are calculated based on survey data across North America and may not reflect local site contexts within Brampton.

The typically vacant 119 spaces in the plaza, with 30 of them being located around the subject site at 16 Lisa Street are expected to be sufficient to accommodate the parking demand of 24-27 parking spaces. They also exceed the calculated demand using proxy site data of 10 parking spaces.

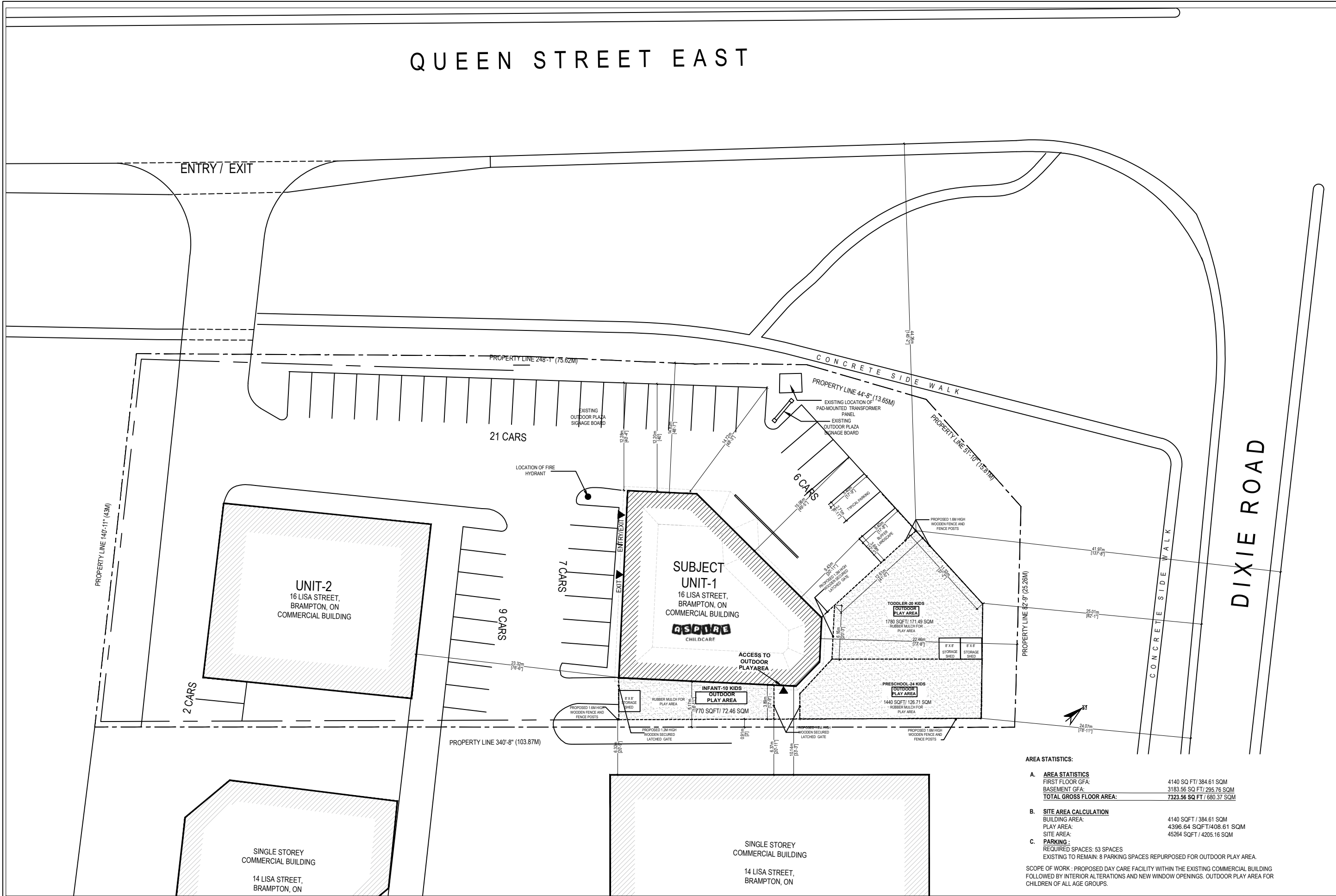
A parking utilization survey conducted on a typical weekday demonstrates that the maximum utilization for parking at the plaza is 51%, which occurs during 1:00pm. The parking utilization for spaces near the subject unit is even lower, at 29%.

The site is located in close proximity to 13 high-rise, residential towers whose residents form a significant part of the customer base. Low car ownership rates and close proximity to the site favour walking to the site and thus reduce the demand for parking spaces on the site. It is estimated that actual parking demand may be up to 50% lower than forecasted, which would be sufficiently accommodated by onsite parking supply.

Appendix A

Site Plan

QUEEN STREET EAST



AREA STATISTICS:

A. AREA STATISTICS	
FIRST FLOOR GFA:	4140 SQ FT / 384.61 SQM
BASEMENT GFA:	3183.96 SQ FT / 295.76 SQM
TOTAL GROSS FLOOR AREA:	7323.96 SQ FT / 680.37 SQM

B. SITE AREA CALCULATION	
BUILDING AREA:	4140 SQFT / 384.61 SQM
PLAY AREA:	4396.64 SQFT / 408.61 SQM
SITE AREA:	45264 SQFT / 4205.16 SQM

C. PARKING:
 REQUIRED SPACES: 63 SPACES
 EXISTING TO REMAIN: 8 PARKING SPACES REPURPOSED FOR OUTDOOR PLAY AREA.

SCOPE OF WORK: PROPOSED DAY CARE FACILITY WITHIN THE EXISTING COMMERCIAL BUILDING FOLLOWED BY INTERIOR ALTERATIONS AND NEW WINDOW OPENINGS. OUTDOOR PLAY AREA FOR CHILDREN OF ALL AGE GROUPS.

GENERAL NOTES:
 DRAWINGS ARE TO BE READ NOT SCALED.
 CONTRACTOR MUST VERIFY ALL DIMENSIONS AND BE RESPONSIBLE FOR THE SAME.
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SEAL:

NO.	DESCRIPTION	DATE
3	RE-ISSUED FOR ZONING REVIEW	NOV04/2024
2	ISSUED FOR PRELIMINARY ZONING REVIEW	SEP11/2024
1	ISSUED FOR CLIENT'S REVIEW	SEP08/2024

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 BRAMPTON, ON

SHEET TITLE:
 SITE PLAN

CHECKED: TP
 DRAWN: NY
 SCALE: 1:400
 DATE: NOV04/2024

DRAWING:
 A 0.01

Appendix B

Parking Generation Excerpt

Day Care Center (565)

Peak Period Parking Demand vs: Students

On a: Weekday (Monday - Friday)

Setting/Location: General Urban/Suburban

Number of Studies: 39

Avg. Num. of Students: 85

Peak Period Parking Demand per Student

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
0.24	0.09 - 0.51	0.19 / 0.34	0.21 - 0.27	0.10 (42%)

Data Plot and Equation

