Kalar Road Residential

City of Niagara Falls

Parking Study for

M5V Developments

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1 Introduction

1.1 Background

M5V Developments [The Client] is proposing to develop a property located east of the Kalar Road / Mulberry Drive intersection in the City of Niagara Falls [City].

The proposed development is anticipated to include 99 residential townhouse units.

The parking requirement is 139 parking spaces, per the City's Zoning By-law 79-200 and the proposed parking supply is 120 parking spaces (99 resident parking spaces, 21 visitor parking spaces).

The Client has retained **JD Northcote Engineering Inc.** [JD Engineering] to prepare this parking study to estimate the parking demand for the proposed development and assess the suitability of the proposed parking supply for the subject site.

1.2 Study Area

Figure 1 shows the location of the proposed development in relation to the surrounding area including the adjacent parking lots within the study area. The subject site is bound by Kalar Road to the west and undeveloped lands to the north, east and south. The Site Plan by Organica Studio + Inc. is attached in **Appendix A**.

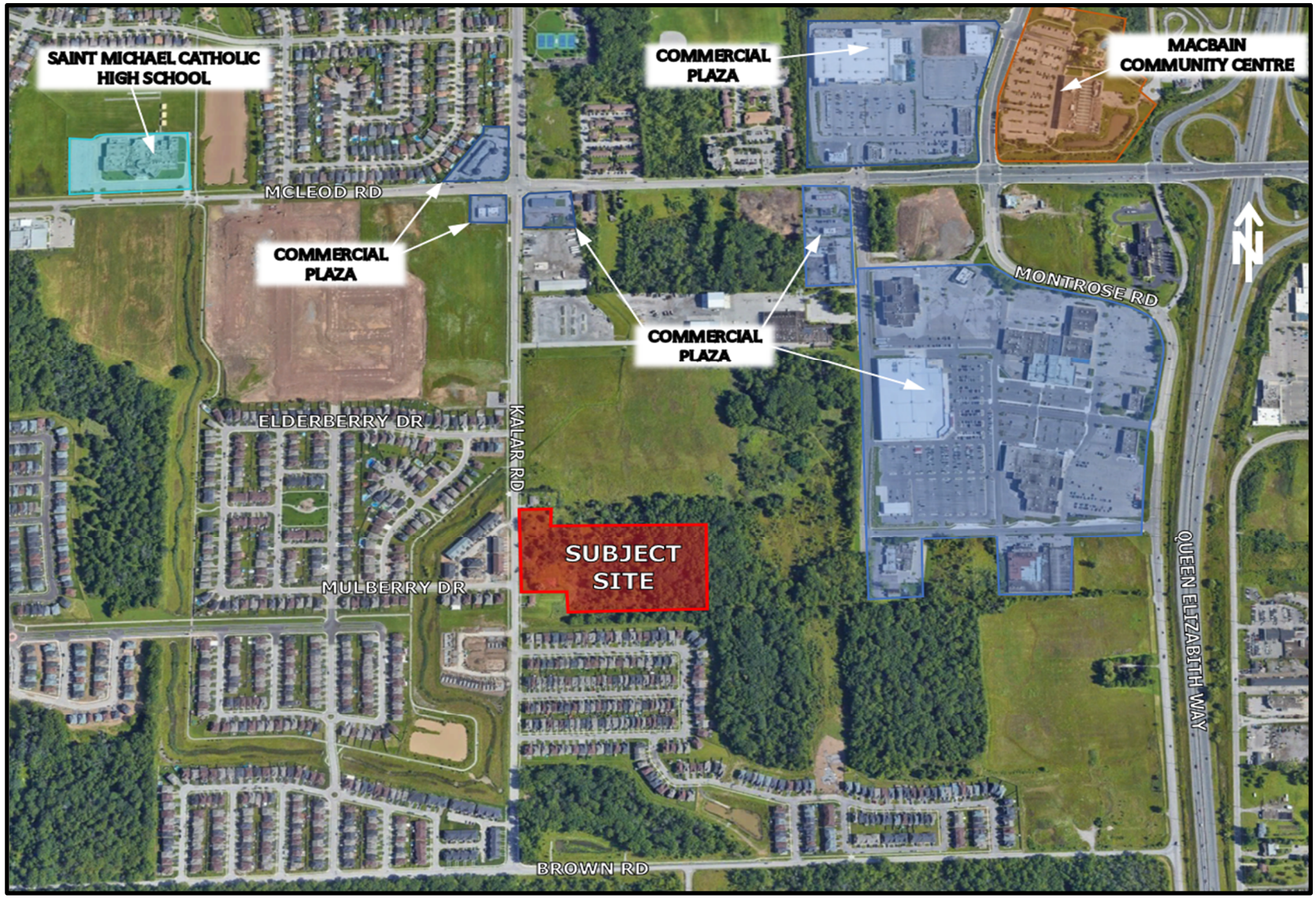
There are no existing surface parking lots within 500 metres of the subject site. The closest existing surface parking lots are private commercial lots located in the northwest, southwest and southeast corners of the intersection of Mcleod Road / Kalar Road.

On-street parking is prohibited along Kalar Road in the study area. There are no signed restrictions to on-street parking along Buckeye Crescent, Mulberry Drive and Elderberry Drive, within the study area. We have not included any of the available on-street parking supply as part of our parking analysis.

1.3 Scope

The purpose of this analysis is to estimate the parking demand and assess the suitability of the proposed parking supply for the subject site.

Figure 1 – Subject Site Location and Study Area



ENGINEERING

2 Proxy Parking Counts

2.1 Proxy Site Locations

In order to estimate the parking demand for the proposed development, we have selected the following two proxy locations:

- Townhouse complex in the southwest corner of the Coventry Road / Buckingham Drive intersection [Proxy #1]; and
- Townhouse complex in the northeast corner of the Coventry Road / Kalar Road intersection [Proxy #2].

Figure 2 shows the location of the proxy locations in relation to the subject site.

Proxy #1 is a 46-unit townhouse complex with 72 resident parking spaces and 14 visitor's parking spaces provided. Proxy #2 is a 56-unit townhouse complex with 80 resident parking spaces and 9 visitor's parking spaces provided.

The above noted proxy locations were selected as they have the most similar development characteristics to the subject site. The proxy locations and the subject site are all located adjacent to Kalar Road, they are all west of the Queen Elizabeth Way, have decentralized parking within the townhouse complex, they are all similar distances to major commercial / employment uses and they are all serviced via the same transit routes.

2.2 Parking Counts

Parking counts were completed at the proxy locations as part of our analysis in order to assist in the estimation of the future parking demands for the subject site. The parking survey period was selected to cover the Friday evening and weekend hours of parking demand at the proxy locations in 30-minute intervals, which covers the critical case for parking demand.

The parking counts completed at the proxy locations were broken down into the following three categories:

- Resident parking;
- Visitor's parking; and
- On-Street / Off-site parking.

Table 1 illustrates the survey periods at the proxy locations.

Table 1 – Parking Survey Location

Name	Count Date	Hours Counted
Proxy #1	Friday, April 29th, 2022	16:00 – 23:00
	Saturday, April 30th, 2022	10:00 – 23:00
	Sunday, May 1st, 2022	10:00 – 23:00
Proxy #2	Friday, April 29th, 2022	16:00 – 23:00
	Saturday, April 30th, 2022	10:00 – 23:00
	Sunday, May 1st, 2022	10:00 – 23:00

Table 2 illustrates the parking count data collected for the proxy locations. The peak parking demand for each category is highlighted. The detailed parking count data is provided in **Appendix B**.

Figure 2 – Proxy Parking Locations

Table 2 – Proxy Parking Count Data

Time	Proxy #1			Proxy #2		
	Resident	Visitor's	On-street / Off-site	Resident	Visitor's	On-street / Off-site
Friday, April 29th, 2022						
16:00	37	8	0	34	2	0
16:30	37	9	0	36	1	0
17:00	38	8	0	38	2	0
17:30	39	8	0	38	2	0
18:00	39	7	0	39	2	0
18:30	41	5	0	39	2	0
19:00	36	4	0	39	2	0
19:30	34	4	0	39	1	0
20:00	40	6	0	42	1	0
20:30	43	9	0	47	2	0
21:00	45	7	0	47	2	0
21:30	51	6	0	45	2	0
22:00	53	6	0	51	2	2
22:30	56	6	0	51	2	2
Saturday, April 30th, 2022						
10:00	46	3	0	42	3	0
10:30	46	2	0	41	5	1
11:00	46	3	0	41	5	1
11:30	45	4	0	42	5	0
12:00	45	4	0	41	4	0
12:30	45	5	1	42	4	0
13:00	37	5	0	40	4	0
13:30	34	5	0	41	5	0
14:00	32	5	0	40	5	1
14:30	33	5	0	40	5	0
15:00	37	7	0	42	5	0
15:30	37	9	0	40	4	0
16:00	38	8	0	41	3	0
16:30	39	9	1	41	4	0
17:00	39	10	1	43	2	0
17:30	39	10	1	43	1	0
18:00	38	10	0	44	1	0
18:30	40	10	0	43	1	0
19:00	39	8	0	44	2	0
19:30	44	8	0	47	2	0
20:00	50	8	1	47	2	1
20:30	52	8	1	52	2	0
21:00	56	8	1	55	2	0
21:30	56	7	0	54	1	0
22:00	58	7	0	54	1	0
22:30	57	7	0	54	1	0
Sunday, May 1st, 2022						
10:00	46	7	0	41	0	0
10:30	47	6	0	40	0	0
11:00	47	7	0	40	1	0
11:30	48	6	0	40	1	0
12:00	49	5	0	40	2	2
12:30	46	5	0	40	2	0
13:00	45	5	0	41	1	0
13:30	44	5	0	41	1	0
14:00	42	5	0	40	1	0
14:30	42	7	0	40	1	0
15:00	43	7	0	40	2	0
15:30	42	8	0	40	1	0
16:00	42	10	1	40	2	0
16:30	42	10	0	42	1	0

Time	Proxy #1			Proxy #2		
	Resident	Visitor's	On-street / Off-site	Resident	Visitor's	On-street / Off-site
17:00	42	11	1	43	1	0
17:30	43	10	0	44	1	0
18:00	45	10	0	46	1	0
18:30	45	7	0	46	1	0
19:00	49	6	0	46	2	0
19:30	49	6	0	47	2	0
20:00	50	6	0	49	3	1
20:30	52	7	0	49	3	0
21:00	56	8	0	51	2	0
21:30	56	8	0	50	4	0
22:00	59	8	0	46	6	0
22:30	59	8	0	48	6	0

3 Municipal By-law Parking Requirement

The City's Zoning By-law 79-200 [Zoning By-law] provides parking requirements for a variety of building types and land uses. **Table 3** illustrates the parking requirement for the proposed use, according to the Zoning By-law.

Table 3 – City Zoning By-Law Requirement

Category	Parking Standard	Size	Parking Spaces		
			Required	Provided	Net
Dwelling containing 3 or more dwelling units	1.4 spaces / unit	99 units	139	120	-19

4 Parking Analysis

4.1.1 Residential - Visitor Parking

4.1.1.1 Based on Proxy Parking Locations

In order to estimate the residential visitor's parking demand for the proposed development, we have assumed that the average of the peak visitor parking rates observed at the two proxy sites will be equivalent to the anticipated peak visitor parking rate required for the proposed development.

As illustrated in Table 2, there was on-street and off-site parking observed; however, based on the parking count data, this was a result of preference and not a result of parking capacity constraints. In order to be conservative, we have included the on-street and off-site parking observed in the visitor parking demand. **Table 4** summarizes the peak parking demand for visitor parking from the proxy sites including the on-street and off-site parking observed.

Table 4 – Site Specific Peak Parking Demand – Visitor's and On-Street/Off-Site Parking

Location	Size (units)	Peak Visitor Parking Demand	Peak On-street / Off-site Parking Use	Adjusted Visitor Parking Demand	Adjusted Visitor Parking Rate
Proxy #1	46	11 spaces	1 space	12 spaces	0.26
Proxy #2	56	6 spaces	2 spaces	8 spaces	0.15
AVERAGE					**0.21**

As illustrated in Table 4, a parking supply of 0.21 spaces per unit will accommodate the peak parking demand for visitor parking for the proposed development. It is also noted that the visitor parking spaces from the proxy locations were never at capacity, indicating that the parking demand estimated is an accurate representation of unconstrained peak visitor parking demand.

4.1.1.2 Based on Adjacent Municipality Zoning By-Laws

The Zoning By-law does not identify a specific parking requirement for residential visitors. Residential visitor parking requirements for other similar municipalities were reviewed as part of our analysis in order to confirm the findings from the analysis completed in Section 4.1.1.1. **Table 5** summarizes other municipalities' parking requirement for residential visitors with a more efficient parking rate than outlined in Section 4.1.1.1.

Table 5 – Other Municipalities' Visitor Parking Requirements

Municipality	Zoning By-law	Category	Visitor Parking Requirements
Town of Newmarket	2010-40	Dwelling, Townhouse or Stacked Townhouse (Urban Centre)	0.15 spaces per unit
Town of Oakville	2009-189	Apartment*	0.20 spaces per unit

*No specific visitor's parking requirement is identified for the townhouse category

Consequently, a visitor parking supply of 0.21 spaces / unit is consistent with the parking supply required in other similar municipalities.

4.1.2 Residential - Resident Parking

In the case of residential visitor parking, when the visitor parking demand exceeds the visitor parking supply, the additional parking demand may result in unauthorized parking in nearby parking lots or undesignated areas. Consequently, providing an appropriate visitor parking supply as outlined in Section 4.1.1, will ensure overflow visitor parking issues do not occur. Allocation of resident parking is different than visitor parking. Lowering the resident parking supply, in conjunction with clear communication during sales / rental process and ongoing parking enforcement, can increase development efficiency and provide a form of transportation demand management.

Historically, the cost to buy or rent a townhouse unit has included one or more parking spaces, which provides an incentive for private vehicle ownership.

The proposed development includes 99 residential units with one parking space available per unit. As significant development continues to occur within the City, permitting these units provides an opportunity to fill a specific housing demand (individuals or families with one vehicle), without

overwhelming the market. This reduced parking rate is also consistent with the City's Transportation Demand Management objective to improve the efficiency of the City's transportation system.

The developer is committed to providing clear messaging in the sales agreement, which will inform buyers that additional parking is not available and regular enforcement by the property manager will occur to ensure there is no misuse of parking within the site.

4.2 Recommendations

There are 120 parking spaces proposed at the subject site, including 99 resident parking spaces and 21 visitor's parking spaces.

The above-noted parking supply is adequate to support the parking demand for the proposed development.

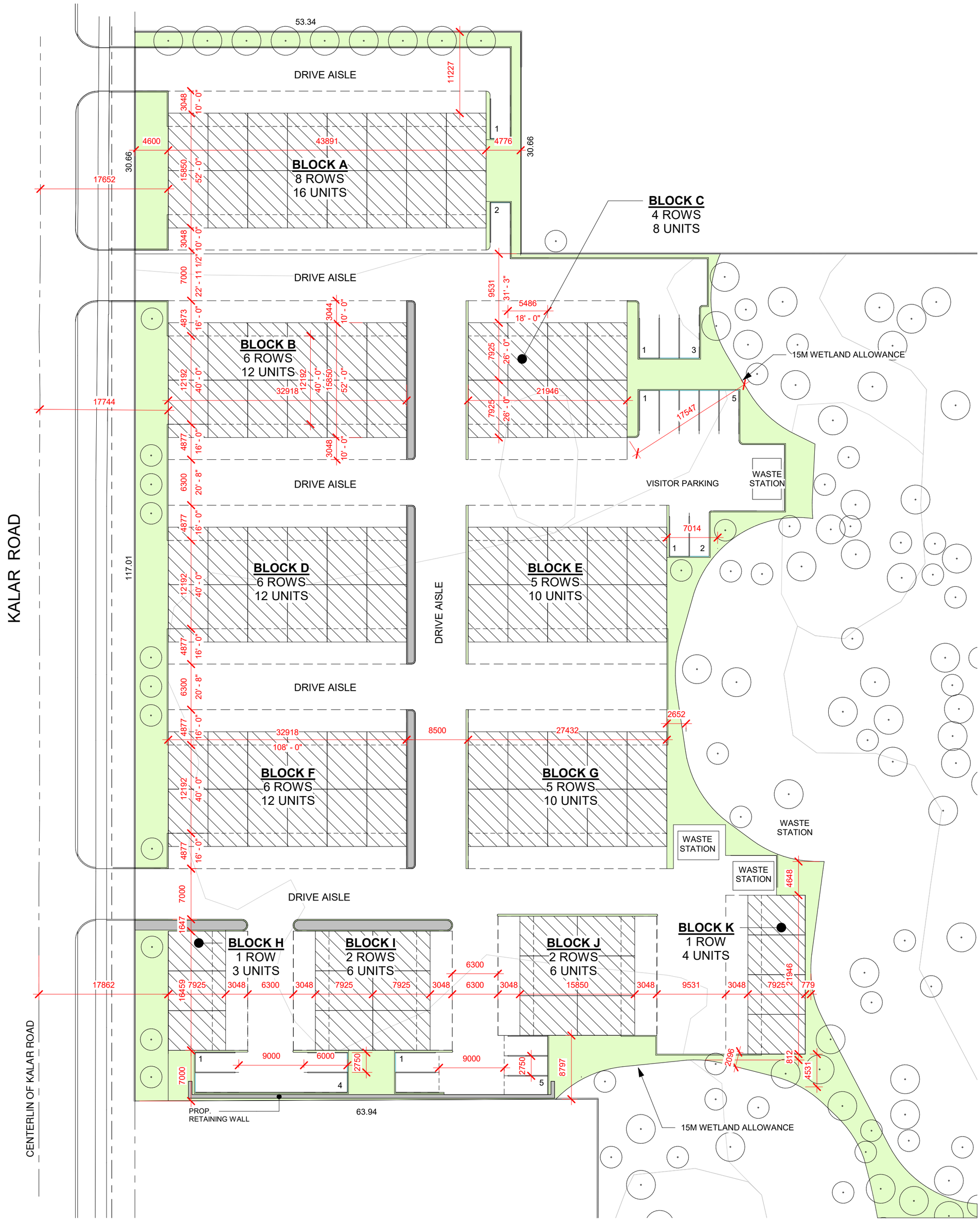
5 Summary

M5V Developments retained **JD Engineering** to prepare this parking study for the proposed development located east of the Kalar Road / Mulberry Drive intersection in the City of Niagara Falls [City]. The proposed Site Plan is shown in **Appendix A**. This chapter summarizes the conclusions and recommendations from the study.

The proposed development is anticipated to include 99 residential townhouse units. The parking requirement is 139 parking spaces, per the City's Zoning By-law 79-200.

1. The proposed development will include a total of 120 parking spaces (99 resident parking spaces, 21 visitor parking spaces).
2. Parking counts were completed at two proxy sites as part of our analysis, in order to assist in the calculation of parking demand for the subject site. The proxy survey period was selected to cover the Friday evening and weekend hours of parking demand, completed on Friday, April 29th, 2022 to Sunday, May 1st, 2022. The two proxy sites are listed below:
    - Townhouse complex in the southwest corner of the Coventry Road / Buckingham Drive intersection [Proxy #1]; and
    - Townhouse complex in the northeast corner of the Coventry Road / Kalar Road intersection [Proxy #2].
3. Using the parking count data, the peak parking demand for visitor parking was estimated using the average of the peak visitor parking rate observed at the two proxy sites. A visitor parking rate of 0.21 spaces / unit provides the necessary capacity to accommodate the peak parking demand anticipated for visitor parking for the proposed development.
4. The Developer is committed to providing clear messaging in the sales agreement, which will inform buyers that 1 resident parking space is available per unit, additional parking is not available and regular enforcement by the property manager will occur to ensure there is no misuse of parking within the site.
5. In summary, the proposed parking supply is adequate to support the parking demand for the proposed development. The proposed parking supply provides the necessary capacity to accommodate the typical peak parking demand for the proposed development.

Appendix A – Site Plan



1 Site
1 : 400

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CONCEPTUAL SITE STATISTICS

LOT AREA "A" (ENVIRONMENTAL):	41,124 SQ.M. (4.112 HECTARES)
LOT AREA "A" (BUILDABLE AREA):	8,004 SQ. M. (0.8004 HECTARES)
LOT AREA "A" (TOTAL):	49,128 SQ.M. (4.9128 HECTARES)
LOT AREA "B" (TOTAL):	1,633 SQ.M. (0.1633 HECTARES)
TOTAL COMBINED BUILDABLE AREA (A&B):	9,637 SQ. M. (0.9637 HECTARES)

TOTAL LOT COVERAGE	44.6% (4,304 SQ. M.)
LANDSCAPING	18.4% (1,782 SQ. M.)
BUILDING HEIGHT	12.5m
PROPOSED DENSITY	103 UNITS/HECTARE
PROPOSED PARKING	21 SPACES (VISITOR)
PROPOSED UNITS	99 DWELLINGS

organica studio + inc.
architecture | interiors | design | research

PROP. KALAR RESDENTIAL DEVELOPMENT - TYPICAL UNITS

KALAR ROAD, LOT 186. NIAGARA FALLS, ON

M5V DEVELOPMENTS

20071

REVISION 9 - 2022.07.12

|7-145 Birmingham Street|Toronto ON|M8V3Z8||905 832 5758|organicastudio.ca|info@organicastudio.ca|

05/17/21

FILE NAME: X:\Organica Projects\2020\20071 - Kalar Lot 186\Revit Model\2022.02.10 - Kalar - Lot 186
PLOT DATE: 7/12/2022 5:21:10 PM

Appendix B –
Parking Count Data

Ontario Traffic Inc - Parking Study

Location: Kalar Rd & Coventry Rd, Niagara Falls

Time			Friday, April 29, 2022						Saturday, April 30, 2022						Sunday, May 01, 2022					
			Area						Area						Area					
			A			B			A			B			A			B		
			Resident	Visitor	On-Street/Off-Site	Resident	Visitor	On-Street/Off-Site	Resident	Visitor	On-Street/Off-Site	Resident	Visitor	On-Street/Off-Site	Resident	Visitor	On-Street/Off-Site	Resident	Visitor	On-Street/Off-Site
10:00	to	10:30							46	3	0	42	3	0	46	7	0	41	0	0
10:30	to	11:00							46	2	0	41	5	1	47	6	0	40	0	0
11:00	to	11:30							46	3	0	41	5	1	47	7	0	40	1	0
11:30	to	12:00							45	4	0	42	5	0	48	6	0	40	1	0
12:00	to	12:30							45	4	0	41	4	0	49	5	0	40	2	2
12:30	to	13:00							45	5	1	42	4	0	46	5	0	40	2	0
13:00	to	13:30							37	5	0	40	4	0	45	5	0	41	1	0
13:30	to	14:00							34	5	0	41	5	0	44	5	0	41	1	0
14:00	to	14:30							32	5	0	40	5	1	42	5	0	40	1	0
14:30	to	15:00							33	5	0	40	5	0	42	7	0	40	1	0
15:00	to	15:30							37	7	0	42	5	0	43	7	0	40	2	0
15:30	to	16:00							37	9	0	40	4	0	42	8	0	40	1	0
16:00	to	16:30	37	8	0	34	2	0	38	8	0	41	3	0	42	10	1	40	2	0
16:30	to	17:00	37	9	0	36	1	0	39	9	1	41	4	0	42	10	0	42	1	0
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21:30	to	22:00	51	6	0	45	2	0	56	7	0	54	1	0	56	8	0	50	4	0
22:00	to	22:30	53	6	0	51	2	2	58	7	0	54	1	0	59	8	0	46	6	0
22:30	to	23:00	56	6	0	51	2	2	57	7	0	54	1	0	59	8	0	48	6	0
Available Spaces =			**73**	**14**		**80**	**9**		**73**	**14**		**80**	**9**		**73**	**14**		**80**	**9**	