

2144 HURON CHURCH ROAD WINDSOR, ONTARIO

PROJECT NO. 22-072

DATE: APRIL 17, 2024



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1. INTRODUCTION

1.1 Background

Baird AE has been retained to prepare a Parking Justification Report to support Applications for Official Plan Amendment and Zoning By-law Amendment for the proposed mixed-use (commercial/residential) development on Huron Church in the City of Windsor.

The study was undertaken to ensure parking requirements at the existing Fred's Farm Fresh are met and to determine the adequacy of parking provisions in meeting the requirements of the proposed development. This study is also a supportive document for the approval of severance for Fred's Farm Fresh, to create a new lot for the proposed development.

The development will consist of one new mid-rise building, landscape open space and parking lot and is located west of Daytona Avenue and in the northeast quadrant of Huron Church Road and Northwood Street.

The site and concept plan for the proposed development are attached to this report and the location is shown in Figure 1 below.



Figure 1: Proposed Development Site



1.2 Existing Development

The overall subject land is approximately **1.28** hectares in size, which includes existing buildings, a parking lot and landscape open space.

1.3 Development Proposal

The subject property, being severed from Fred's Farm Fresh, is approximately **0.57** hectares in size, which includes a section of the adjoining property's parking lot. The proposed development will consist of one 6-storey mixed-use building, with commercial space on the first floor and residential dwelling units on the remaining 5 floors above.

Access to the development will be provided from Huron Church and Daytona Avenue.

FLOORUNITS1One Commercial Space (2,945 sq.ft.)2-418 1-BR Suites and 18 2-BR Suites (36 units total)5-68 1-BR Suites and 14 2-BR Suites (22 units total)

Table 1: Proposed Building

2. PROPOSED CONDITION

The proposed development will include a combined use building, landscape open space, and a parking lot as shown in Figure 4 below. The development will have **83 parking stalls** to serve both residents and workers/visitors to the commercial space on the first floor; 4 of these will be accessible parking spaces.

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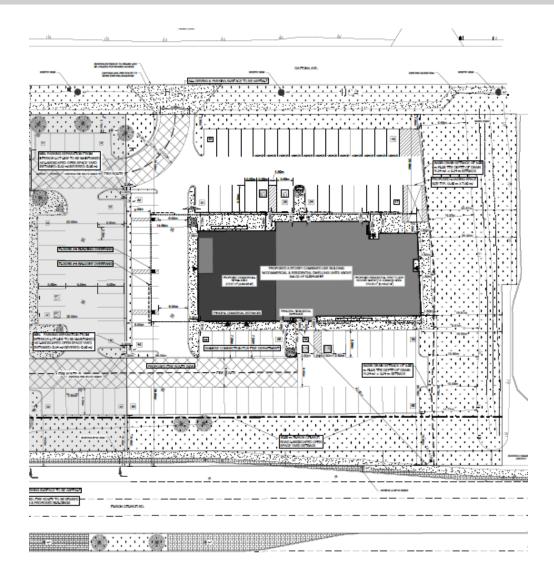


Figure 2: Proposed Development

3. PARKING REQUIREMENTS

3.1 Road Network Characteristics

The existing road network and lane configuration are described in Table 2. To avoid confusion in the road network direction, it is assumed that Huron Church Road runs north-south.

3



Table 2: Road Network Characteristics

Component	Huron Church Road	Daytona Avenue
Direction	North-South	North-south
Speed limits	60 km/h	50 km/h
Cycling Facilities	No	No
On-Street Parking	No	No

The subject development is located along Huron Church Rd., which is one of the busiest roads in the city. The nearest bus route is a 6-minute walk away at the intersection of Ambassador Drive and Industrial Drive, as shown in Figure 2 below.

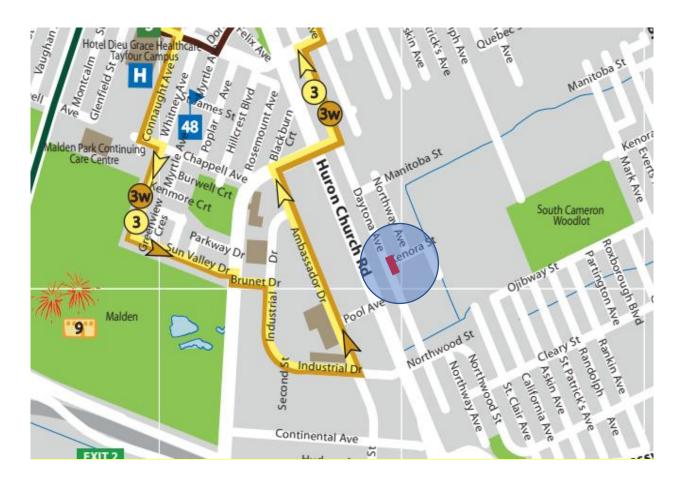


Figure 3: Transit Map Around Subject Development



3.2 Existing Parking Areas

The parking area currently has **98** parking stalls, which is significantly more than the minimum parking requirement of 76 stalls, as laid out in Table 5 below.

As shown in Figure 3, **31** parking stalls will be lost due to the lot creation for the proposed new development. Huron Church Road and Daytona Avenue cannot be used to provide additional parking, as both roads do not allow on-street parking.



Figure 4: Existing Parking Spaces to be Lost to Severance

3.3 Proposed Development's Parking Demand Based on City of Windsor Zoning By-law Section 8600

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To facilitate the proposed development, a Zoning By-law Amendment is required.



Table 3: Parking Demand - City of Windsor By-law 8600

Land Use	Units/Sq. m	Min. Parking Rate	Parking Required	Parking Provided	Deficit (-) / Surplus (+)
1 st Floor Commercial Space	273.57 sq. m.	1/22.5 sq. m.	12		
2 nd -6 th Floor Residential Dwelling Units	58 units	1.25/unit	72	83	-1

3.4 Proposed Development's Parking Demand Based on ITE Parking Generation Manual

The proposed development is investigated using the Institution of Transportation Engineering (ITE) Parking Generation, 5th Edition. The number of parking spots required for the proposed development is calculated using the following ITE Manual land uses: Multifamily Housing -Mid-Rise (ITE 221) and Retail Store – (ITE 851).

Table 4: Parking Demand – ITE Parking Generation

Land Use	Units/Sq. m	Avg. Parking Rate	Parking Required	Parking Provided	Deficit (-) / Surplus (+)
1 st Floor Commercial Space (851)	2944.68 sq. ft.	5.44/1000 sq. ft.	16	83	-9
2 nd -6 th Floor Suites (221)	58 units	1.31/unit	76		



3.5 Retained Parcel's Parking Demand Based on City of Windsor Zoning By-law Section 8600

To facilitate the proposed development, a Zoning By-law Amendment is required.

Min. Parking **Parking Parking** Deficit (-) / **Land Use** Units/Sq. m Required Provided Surplus (+) Rate Commercial 1,107.34 Retail 49 1/22.5 sq. m. sq. m. Building -9 67 Existing 628.28 sq. Garden 27 1/22.5 sq. m. m. Centre

Table 5: Parking Demand - City of Windsor By-law 8600

3.6 Retained Parcel Parking Demand Based on ITE Parking Generation Manual

The existing development is investigated using the Institution of Transportation Engineering (ITE) Parking Generation, 5th Edition. The number of parking spots required for the existing development was calculated by comparing the rates for ITE 820 (Shopping Centre) and ITE 850 (Retail Store) and selecting the larger of the two.

Land Use	Units/Sq. m	Avg. Parking Rate	Parking Required	Parking Provided	Deficit (-) / Surplus (+)
Commercial Retail Building (850)	11,602 sq. ft.	2.93/1000 sq. ft.	32	67	+22
Garden Centre (820)	6,762 sq. ft.	1.95/1000 sq. ft.	13		

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Table 6: Parking Demand – ITE Parking Generation



In comparison with ITE parking analysis of existing and proposed development, the deficit of 9 parking stall (see Table 4) will be adjusted in the Fred's farms parking. Hence, no additional parking is needed for existing and proposed development. Further justification related to demand of stall are explained in the section below.

4. PARKING JUSTIFICATION

Tables 3 and 5 above suggest parking provisions may not be sufficient to support both the existing Fred's Farm Fresh and the proposed mixed-use development. However, a thorough consideration of the following factors will indicate otherwise:

4.1 Shared Parking Between Residential and Commercial Establishments

It is reasonable to assume that a significant number of residential parking stalls will be unoccupied between 8am and 5pm on weekdays as residents are away at work. Coincidentally, this is the time of the highest weekday parking demand for the adjacent commercial establishment. According to Statistics Canada, 22% of employees work from home. Assuming all vehicle owners are employed, 78% of residential parking stalls, i.e., 64 parking stalls will be available for commercial use during weekday working hours. This will lead to a total of 131 parking stalls available for commercial use during the weekdays. Considering the parking demand for the commercial establishment is 74 stalls, this eliminates the need to provide additional commercial parking for Fred's Farm Fresh on weekdays.

According to information obtained from Statistics Canada, an average of 11% of Canadian employees work weekends. 78% of the 11% will not work from home, thus 8.5% of residential parking stalls will be available for commercial use during working hours on weekends. This will provide **7** additional parking stalls for commercial use, which is the number of parking stalls required to meet the parking demand.

It is worthwhile to note that this practice of reducing the need for excess parking complies with the principles of Low Impact Development purveyed by the Ministry of Environment, Conservation and Parks in the Ontario Water Resources Act, R.S.O. 1990. The provision of additional parking stalls will increase the impervious area of the development, which will consequently increase stormwater runoff.

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% of total employment 50 45 40 35 30 25 20 15 10 5 Aug. Sept. 2020 2020 2020 2020 2020 2020 2020 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 Canada - · - Canada men ---- Canada women United States - · - U.S. men ----U.S. women

Chart 1 Percentage of employees working from home, Canada and the United States

Sources: Statistics Canada, Labour Force Survey special tabulation; and U.S. Bureau of Labor Statistics.

Figure 5: Percentage of Employees Working from Home

4.2 Overly Conservative Parking Demand by Windsor By-Law 8600

A review of the average parking rates prescribed by comparable municipalities, Guelph and London, reveals that Windsor parking rates are overly conservative. Table 7 below shows the rates prescribed for garden centers in all 3 cities. Should other standards be applied, the number of parking spaces provided will more than suffice for the projected parking demand. We believe that the parking provisions depicted in the design drawings and enumerated in Tables 3 and 5 above will be sufficient for Fred's Farm Fresh and the proposed development.

City	Parking Rate	Parking Required	Parking Provided
Windsor	1/22.5 sq. m.	74	
Guelph	1.5/100 sq. m.	11	67
London	1/50 sq. m.	34	

Table 7: Parking Rates (Garden Center) for Comparable Cities

To further support the parking relief, a pedestrian connection from the building allows for access to the adjacent existing public sidewalks on the adjacent rights-of-way

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and bicycle parking will be provided with the proposed new development, to promote alternative modes of transportation.

5. CONCLUSION

In conclusion, we believe the proposed parking provisions are sufficient to meet the parking demand of Fred's Farm Fresh commercial establishment and the proposed development. Justification for this assertion includes the consideration of the following factors, both of which are explained in the preceding sections of this report:

- 1. Shared Parking Between Residential and Commercial Establishments.
- 2. Overly Conservative Parking Demand by Windsor Zoning By-Law 8600.

We, therefore, anticipate that no further changes to parking spaces will be required.

We trust the foregoing is a satisfactory justification for the parking provisions made for existing and proposed developments. However, should you have questions, please contact the undersigned.

All of which is respectfully submitted.

BAIRD AE INC. 700-1350 PROVINCIAL ROAD, WINDSOR, ONTARIO N8W 5W1

Reviewed By:

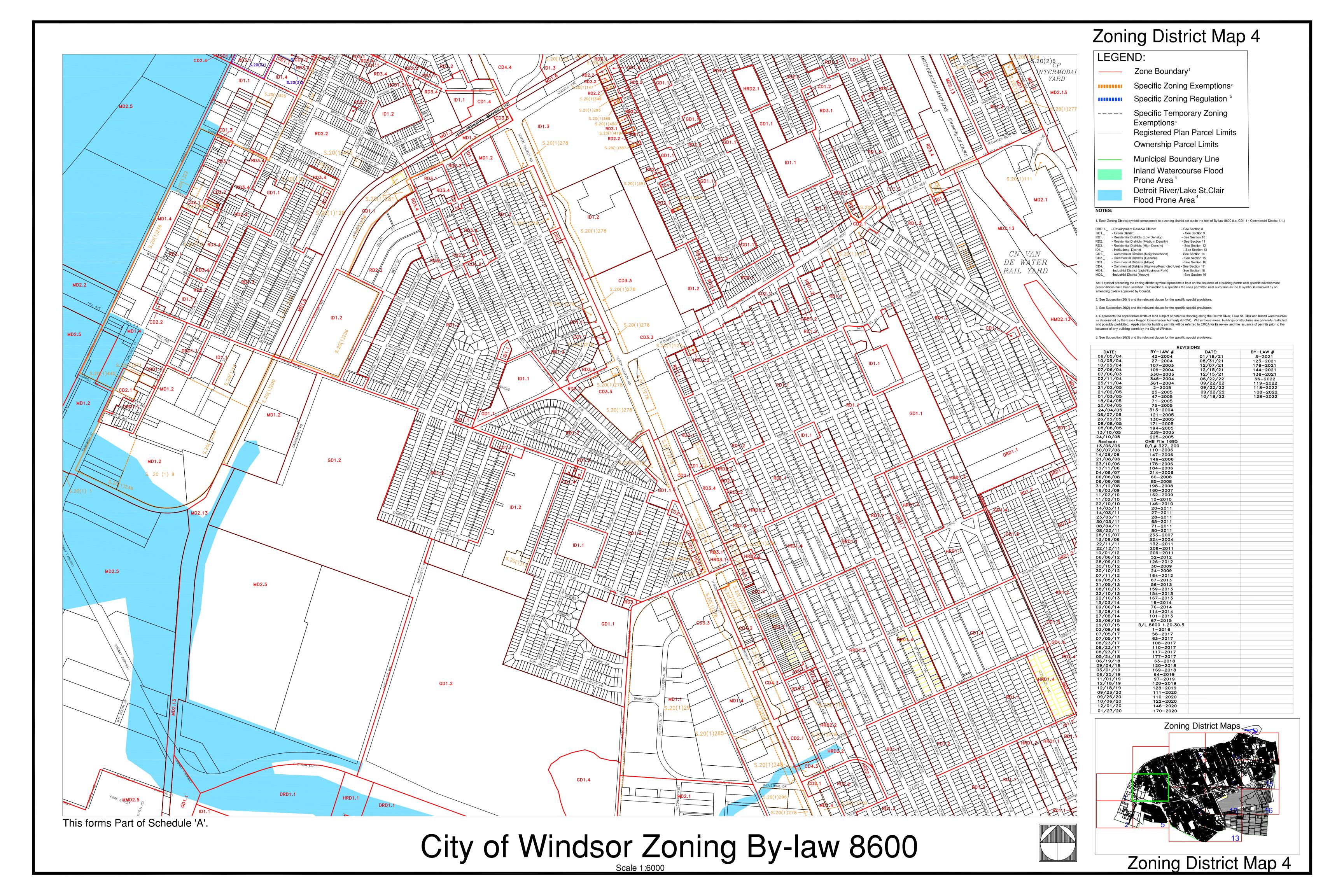
Prepared By:

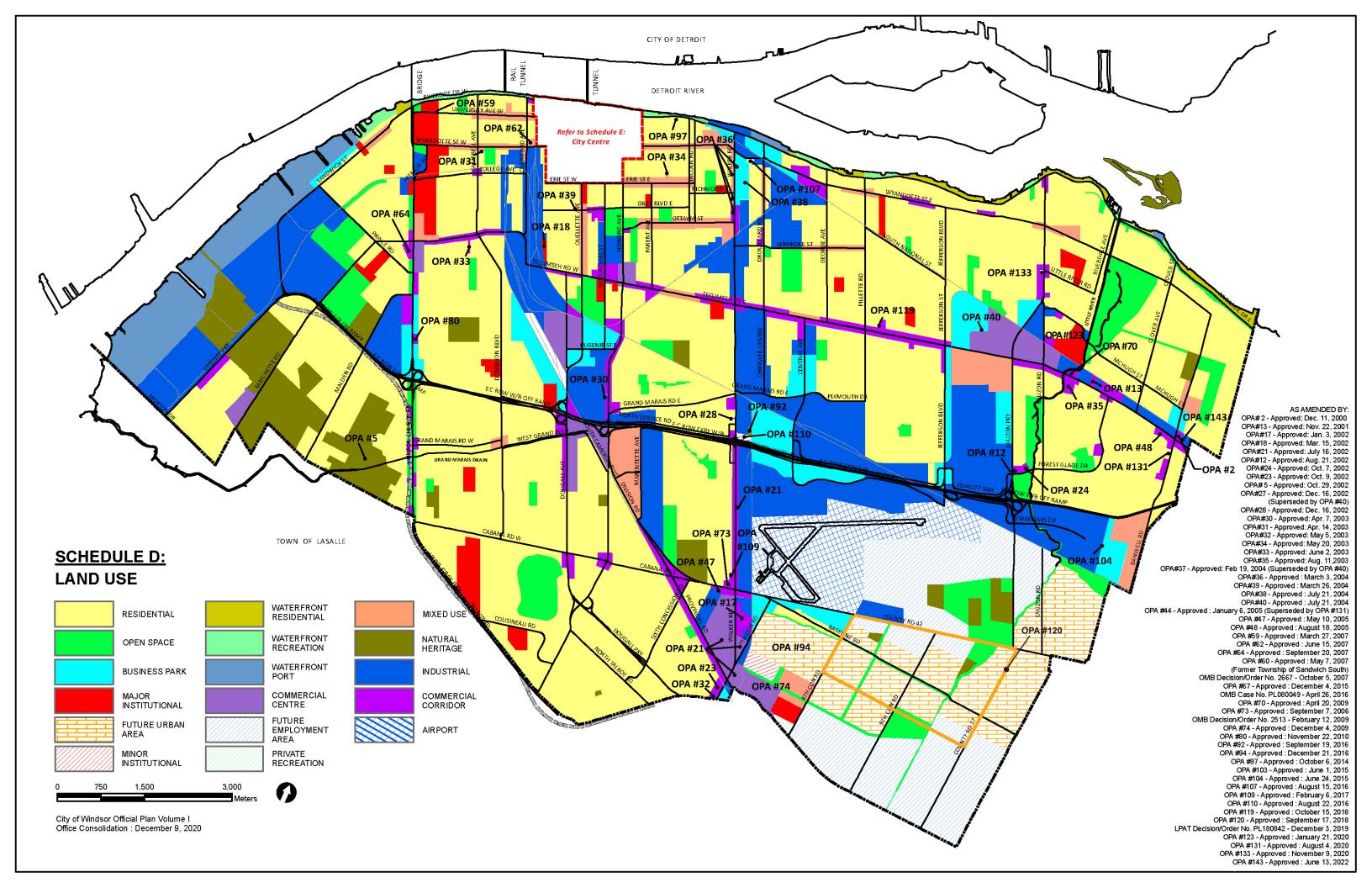


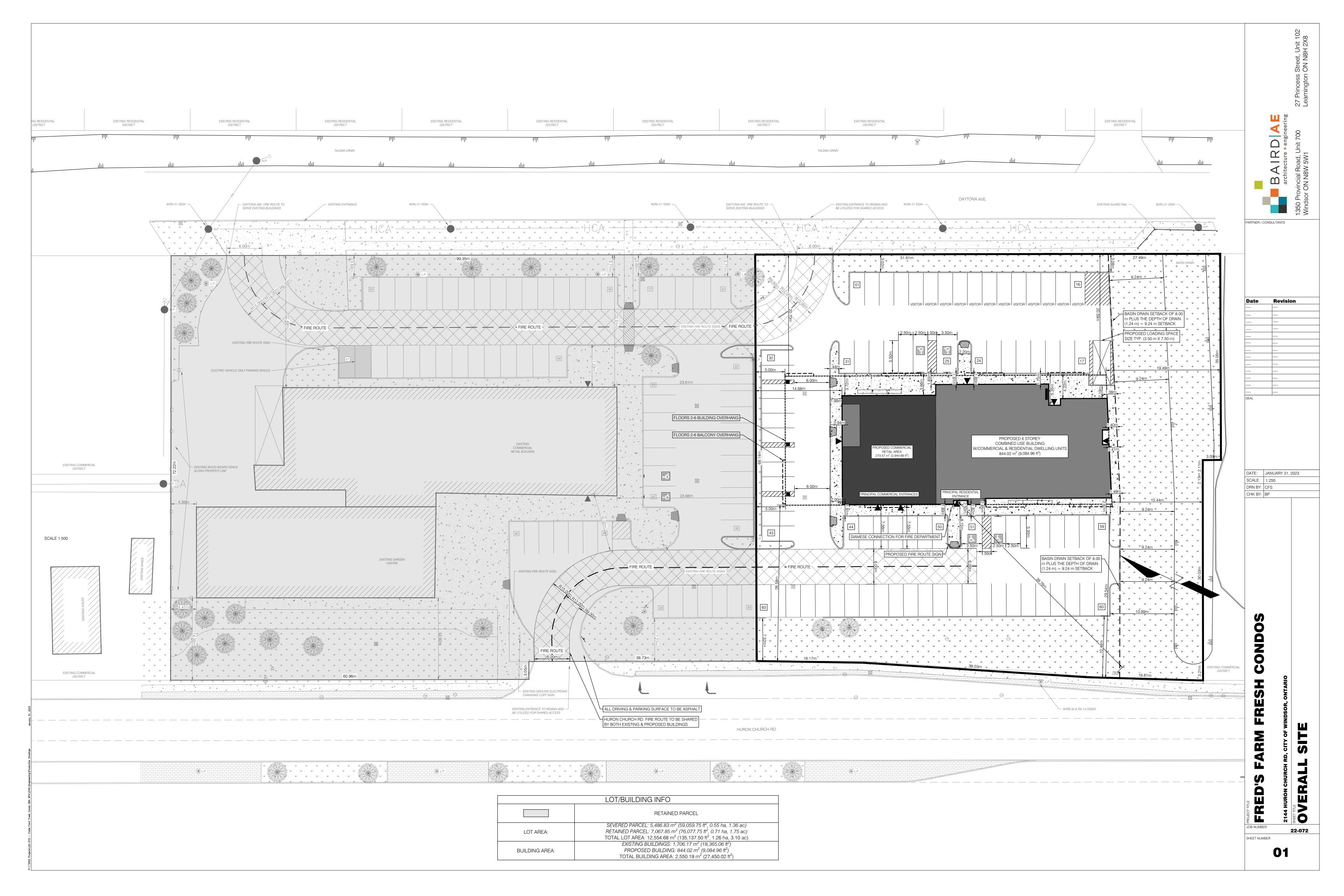
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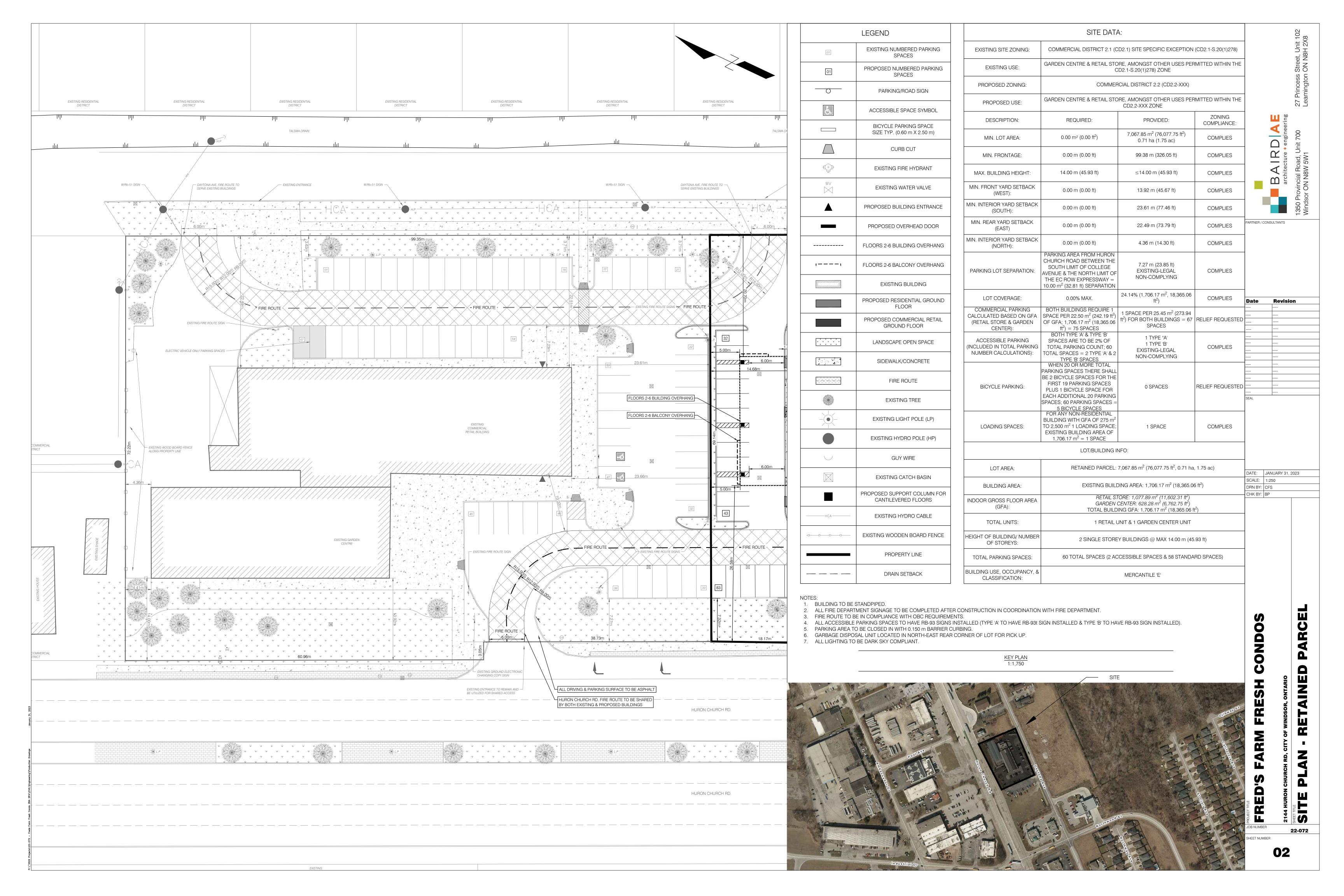


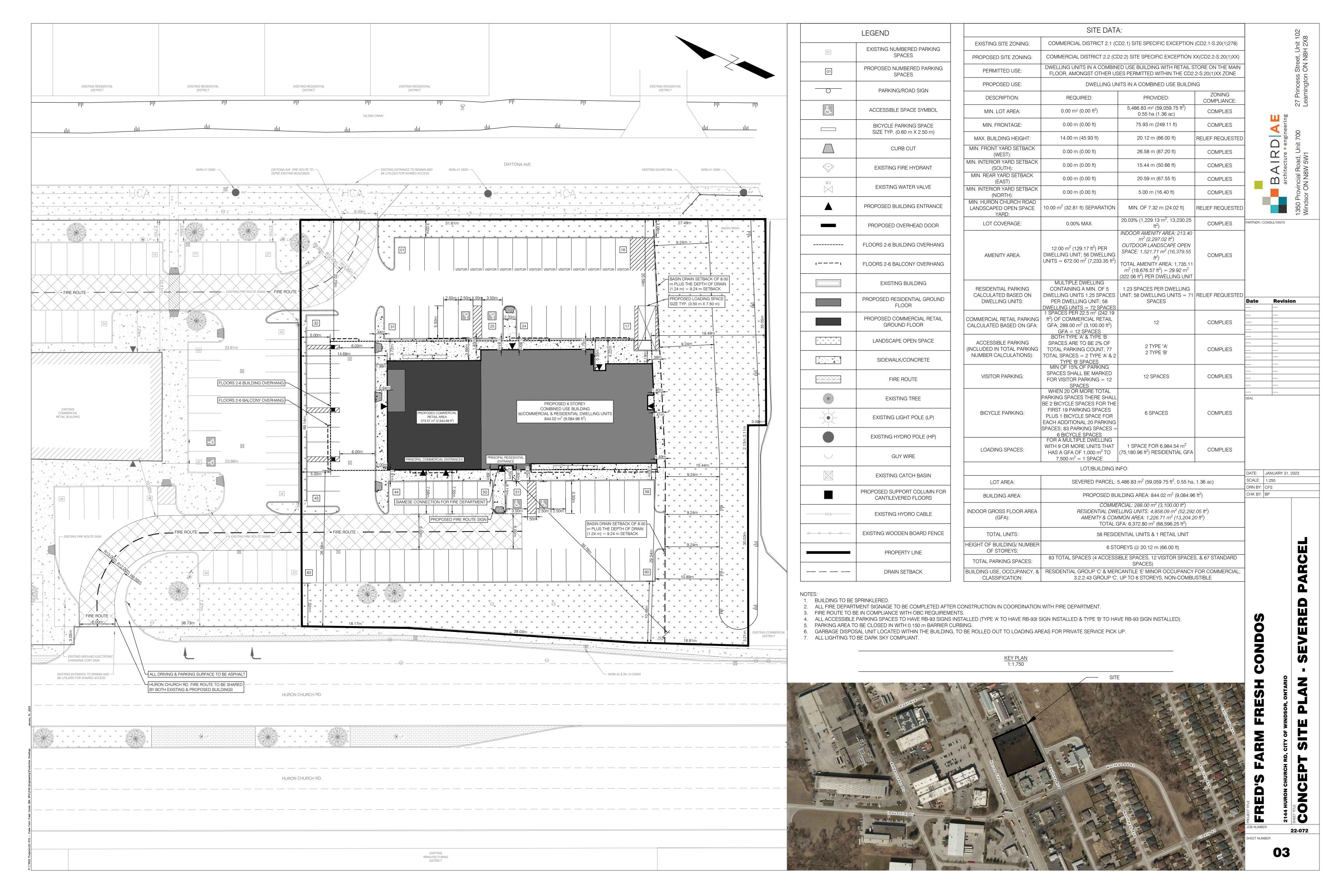
ALKERVILLE VILLAGE DEVELOPMENT	PARKING JUSTIFICATION STUDY
Appendix A	
Appelluix A	





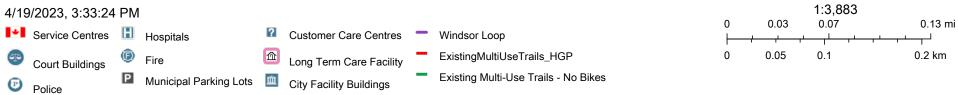






Fred's Farm Fresh Residential Development







2144 HURON CHURCH DEVELOPMENT	PARKING JUSTIFICATION STUDY
Appendix B	
BY-LAW AND ITE PARKING GENER	RATION

	T
Art Gallery	1 for each 45 m ² GFA
Automatic Car Wash	0
Automobile Repair Garage	1 for each 45 m ² GFA
Automobile Sales Lot	1 for each 45 m ² GFA
Bake Shop	1 for each 22.5 m ² GFA
Bakery	1 for each 45m ² GFA for the first 2,700 m ² GFA and 1 for each additional 180 m ²
Billiard Hall	1 for each 22.5 m ² GFA
Bingo Hall	1 for each 22.5 m ² GFA
Bowling Alley	4 per alley
Building Material Recycling Centre	1 for each 45 m ² GFA
Business Office	1 for each 45 m ² GFA
Church (including a Church Hall)	1 for each 5.5 m ² GFA uses as a church, chapel or sanctuary AND 1 for each 36 m ² GFA not used as a church, chapel or sanctuary
Club	1 for each 22.5 m ² GFA
Coin Operated Car Wash	0
College Student Residence	1 for each 4 beds
Collision Shop	1 for each 45 m ² GFA
Combined Use Building – Dwelling Units	1.25 for each dwelling unit
Commercial School	2.5 for each classroom or teaching area AND 1 for each 22.5 m ² of GFA of cafeteria, auditorium, gymnasium and other area of assembly
Confectionary	1 for each 45 m ² GFA for the first 2,700 m ² GFA AND 1 for each additional 180 m ²
Confectioner's Shop	1 for each 22.5 m ² GFA
Contractor's Office	1 for each 45 m ² GFA used as a business office AND 1 for each 200 m ² GFA used as a warehouse
Convenience Store	1 for each 22.5 m ² GFA
Convent or Monastery	1 for each 4 beds
Correctional Facility	1 for each 2 beds
Day Nursery	1.5 for each classroom or teaching area
Double-duplex Dwelling	4
Drive-through Food Outlet	1 for each 22.5 m ² GFA
Drive-through Restaurant	1 for each 7.5 m ² GFA
Duplex Dwelling	2
	REQUIRED PARKING SPACES
USE	PARKING RATE - MINIMUM
Elementary School	1.5 for each classroom or teaching area
Entertainment Lounge	1 for each 7.5 m ² GFA

Exhibition Hall	1 for each 36 m ² GFA
Financial Office	1 for each 45 m ² GFA
Food Convenience Store	1 for each 22.5 m ² GFA
Fraternity or Sorority House	1 for each 4 beds
Funeral Home	1 for each 5.5 m ² GFA used for a chapel, sanctuary or reposing room
Games Arcade	1 for each 22.5 m ² GFA
Garden Centre	1 for each 22.5 m ² GFA
Gas Bar	1 for each 45 m ² GFA
General Salvage Operation	1 for each 45 m ² GFA for the first 2,700 m ² GFA AND 1 for each additional 180 m ²
Group Home	1
Health Studio	1 for each 36 m ² GFA
Heavy Repair Shop	1 for each 45 m ² GFA for the first 2,700 m ² GFA AND 1 for each additional 180 m ²
Hospital	1 for each bed
Hotel	1 for each guest room AND 1 for each 22.5 m ² GFA used for a restaurant, convention hall, meeting room and other places of assembly.
Library	1 for each 45 m ² GFA
Light Repair Shop	1 for each 45 m ² GFA
Lodging House	1 for each 6 beds
Major Commercial Centre (exclusive of a hotel or motel)	1 for each 22.5 m ² GFA
Marina	0.5 for each 1 boat docking space AND 1 for each 1 boar anchorage space
Material Transfer Centre	1 for each 45 m ² GFA for the first 2,700 m ² GFA AND 1 for each additional 180 m ²
Medical Office	1 for each 13.5 m ² GFA
Micro-brewery	1 for each 45 m ² GFA
Minor Commercial Centre	1 for each 22.5 m ² GFA and when the combined GFA of all restaurants and entertainment lounges Exceeds 30% of the GFA of the Centre, 1 for each 7.5 m ² GFA of all restaurants and entertainment lounges in excess thereof
1	Todalges in excess thereof
Mobile Home	1
	1
TABLE 24.20.5.1 - I	1 REQUIRED PARKING SPACES

Motor Vehicle Salvage Operation	1 for each 45 m ² GFA for the first 2,700 m ² GFA AND 1 for each additional 180 m ²	
Multiple Dwelling containing a maximum of 4 Dwelling units	1 for each dwelling unit	
Multiple Dwelling containing a minimum of 5 Dwelling units	1.25 for each dwelling unit	
Museum	1 for each 45 m ² GFA	
Outdoor Market	0	
Pawnshop	1 for each 22.5 m ² GFA	
Personal Service Shop	1 for each 22.5 m ² GFA	
Pharmacy	1 for each 22.5 m ² GFA	
Place of Entertainment and Recreation	1 for each 36 m ² GFA	
Power Generation Plant	1 for each 200 m ² GFA	
Professional Studio	1 for each 45 m ² GFA	
Public Hall	1 for each 7.5 m ² GFA	
Residential Care Facility	1 for each 4 beds	
Restaurant	1 for each 7.5 m ² GFA	
Retail Store	1 for each 22.5 m ² GFA	
Secondary School	1.5 for each classroom or teaching area AND 1 For each 22.5 m² of GFA of cafeteria, auditorium, gymnasium and other area of assembly	
Self-storage Facility	2	
Semi-Detached Dwelling	1 for each dwelling unit	
Service Station	1 for each 45 m ² GFA	
Shelter	1 for each 6 beds	
Single –unit Dwelling	1	
Stacked Dwelling Unit	1 for each dwelling unit	
Take-Out Food Outlet	1 for each 22.5 m ² GFA	
Temporary Outdoor Vendor's Site	0	
Theatre	1 for each 6 seats	
Tourist Home	1 for each guest room AND 1 for each 22.5 m ² GFA used for a restaurant, convention hall, meeting room and other places of assembly	
TABLE 24.20.5.1 - F	REQUIRED PARKING SPACES	
USE	PARKING RATE - MINIMUM	
Townhome Dwelling having an attached garage or carport	1 for each dwelling unit	
Townhome Dwelling without an attached garage or carport	1 1.25 for each dwelling unit	

Multifamily Housing (Mid-Rise) (221)

Peak Period Parking Demand vs: **Dwelling Units**

> On a: Weekday (Monday - Friday)

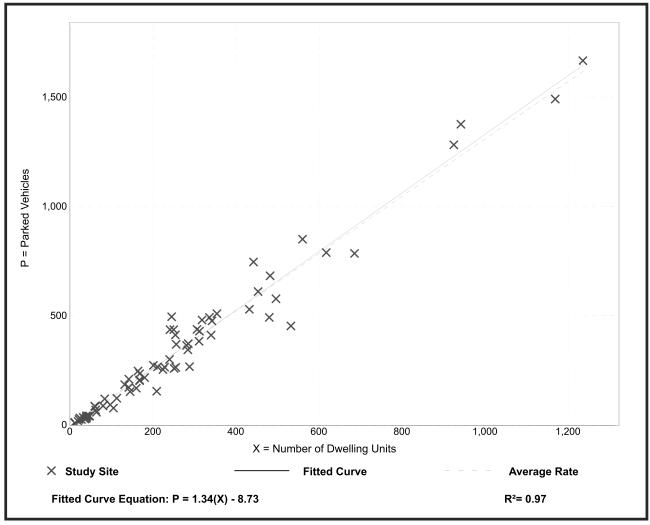
Setting/Location: General Urban/Suburban (no nearby rail transit)

Peak Period of Parking Demand: 10:00 p.m. - 5:00 a.m.

Number of Studies: 73 Avg. Num. of Dwelling Units: 261

Peak Period Parking Demand per Dwelling Unit

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
1.31	0.75 - 2.03	1.13 / 1.47	1.26 - 1.36	0.22 (17%)



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Shopping Center - Non-December (820)

Peak Period Parking Demand vs: 1000 Sq. Ft. GLA

On a: Weekday (Monday - Thursday)

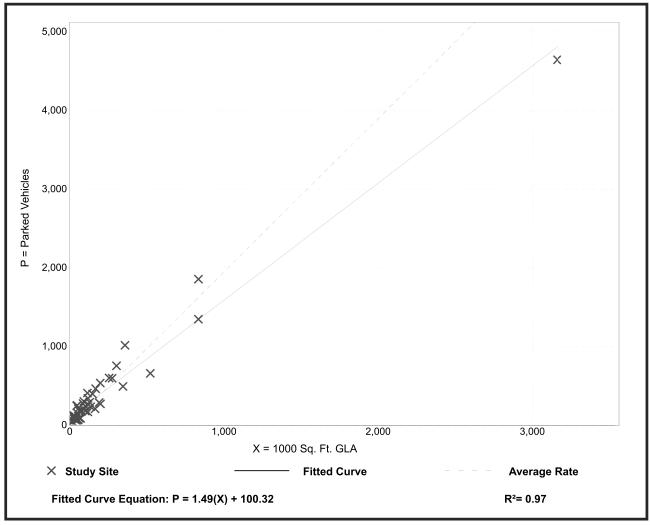
Setting/Location: General Urban/Suburban

Peak Period of Parking Demand: 12:00 - 6:00 p.m.

Number of Studies: 46 Avg. 1000 Sq. Ft. GLA: 218

Peak Period Parking Demand per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)	
1.95	1.27 - 7.98	1.99 / 3.68	1.73 - 2.17	0.75 (38%)	ı



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Variety Store - Non-December

(814)

Peak Period Parking Demand vs: 1000 Sq. Ft. GFA

On a: Weekday (Monday - Friday)

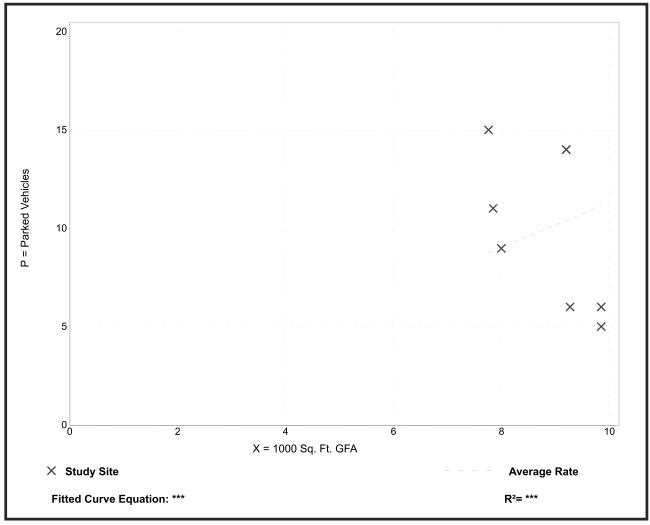
Setting/Location: General Urban/Suburban

Peak Period of Parking Demand: 5:00 - 7:00 p.m.

Number of Studies: 8 Avg. 1000 Sq. Ft. GFA: 8.8

Peak Period Parking Demand per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)	
1.13	0.51 - 1.93	0.65 / 1.79	***	0.52 (46%)	ı



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Supermarket (850)

Peak Period Parking Demand vs: 1000 Sq. Ft. GFA

On a: Weekday (Monday - Thursday)

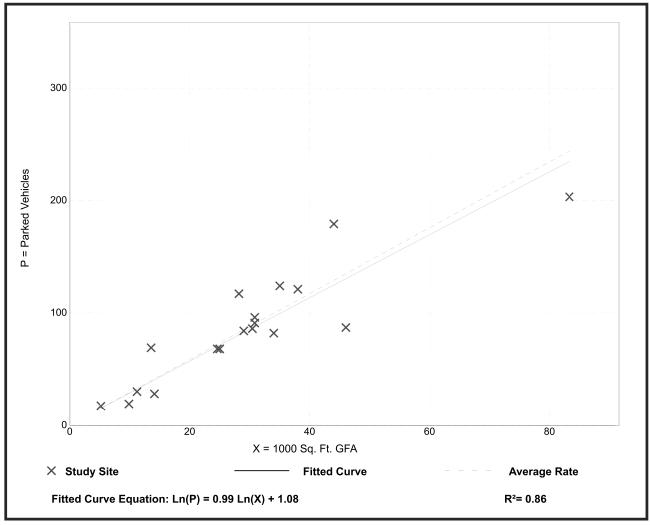
Setting/Location: General Urban/Suburban

Peak Period of Parking Demand: 12:00 - 6:00 p.m.

Number of Studies: 19 Avg. 1000 Sq. Ft. GFA: 29

Peak Period Parking Demand per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
2.93	1.89 - 5.08	2.70 / 4.07	***	0.73 (25%)



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Convenience Market

(851)

Peak Period Parking Demand vs: 1000 Sq. Ft. GFA

On a: Weekday (Monday - Friday)

Setting/Location: General Urban/Suburban

Peak Period of Parking Demand: Not Available

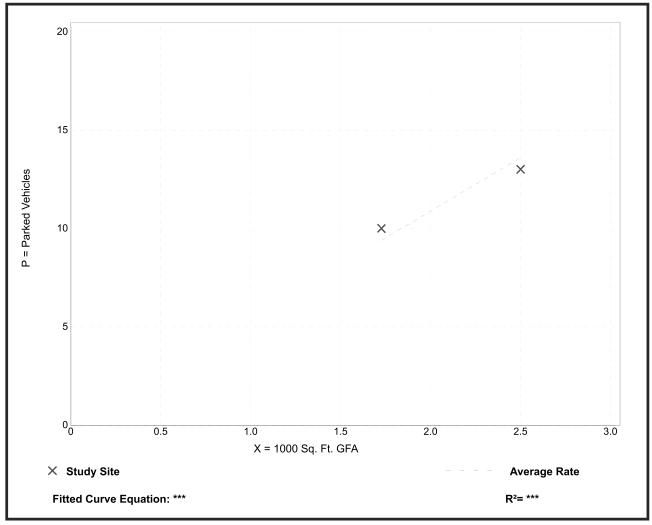
Number of Studies: 2 Avg. 1000 Sq. Ft. GFA: 2.1

Peak Period Parking Demand per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)	
5.44	5.20 - 5.79	*** / ***	***	***	Ì

Data Plot and Equation

Caution - Small Sample Size



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2144 HURON CHURCH DEVELOPMENT	PARKING JUSTIFICATION STUDY



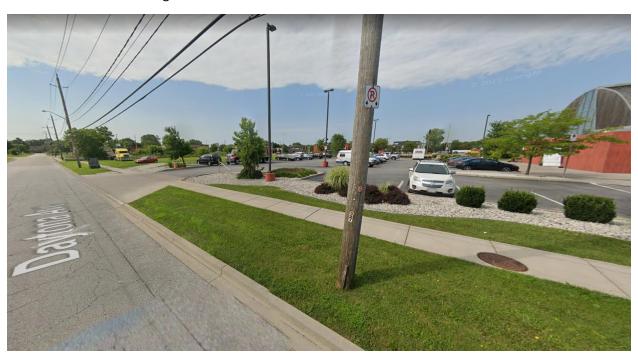
Looking north from Huron Church Road toward Fred's Farm Fresh



Looking north from Daytona Ave toward Fred's Farm Fresh



Looking south from Huron Church Road toward Fred's Farm Fresh



Looking southwest from Daytona Ave toward Fred's Farm Fresh parking lot