19 Dundonald Street
City of Barrie

Traffic Brief for:

John & Pat Hargraves

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1 Introduction

1.1 Background

John & Pat Hargraves [the Developer] is proposing a residential development located on the east side of Dundonald Street, north of Collier Street in the City of Barrie [City]. The proposed development is anticipated to consist of a 6-storey, 50-unit condominium building.

The proposed development will include one full-movement driveway [South Access] and one right-in, right-out only driveway onto Dundonald Street [North Access].

The Developer has retained **JD Northcote Engineering Inc.** [JD Engineering] to prepare this traffic brief in support of the proposed development.

1.2 Study Area

Figure 1 illustrates the location of the subject site and study area intersections in relation to the surrounding area. The Site Plan by MCL Architects Limited is shown in **Appendix A**. The subject site is bound by vacant land to the north, south and east, and Dundonald Street to the west.

Based on our review of the City's pre-consultation comments, the following intersections are included in the Traffic Brief:

- Dundonald Street / North Access; and
- Dundonald Street / South Access.

1.3 Study Scope and Objectives

The purpose of this study is to identify the potential impacts to traffic flow at the site accesses and on the surrounding roadway network. The study analysis includes the following tasks:

- Determine existing traffic volumes and circulation patterns;
- Estimate the amount of traffic that would be generated by the proposed development and assign to the roadway network;
- Prepare diagrams summarizing the weekday morning [AM] and afternoon [PM] peak hour traffic volumes generated by the proposed development at the study area intersections;
- Assess the impact of the additional traffic on the site access and surrounding road network;
- Review the sight distance available at the proposed site access driveways on Dundonald Street;
- Review the proposed configuration of the site access driveways;
- Review the proposed parking supply in relation to City standards;
- Complete an AutoPATH swept path analysis for applicable vehicle types; and
- Document findings and recommendations in a final report.

Figure 1 – Proposed Site Location and Study Area

1.4 Analysis Periods

The weekday morning [AM] and afternoon [PM] peak hours have been selected as the analysis periods for this study.

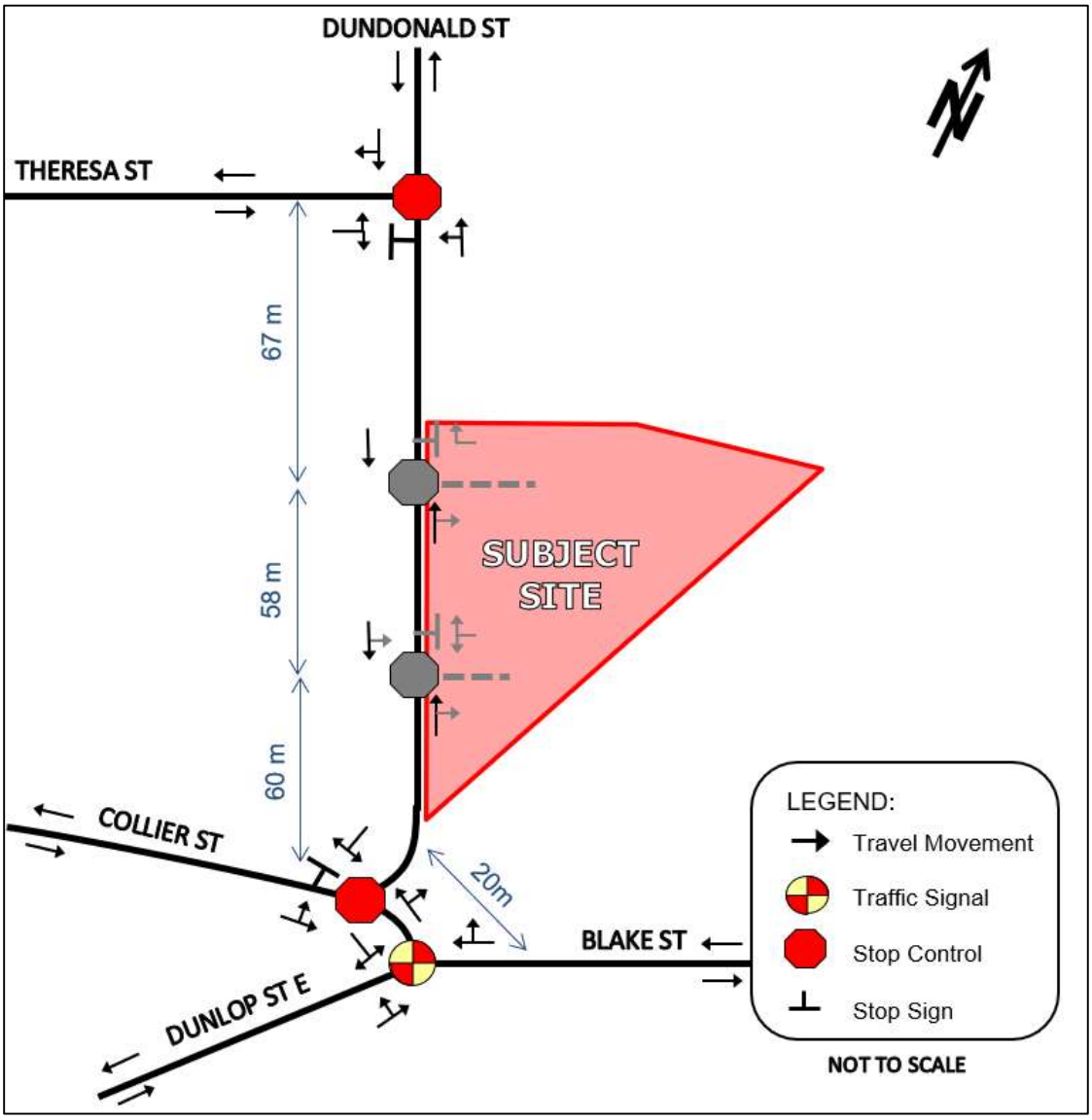
2 Information Gathering

2.1 Street and Intersection Characteristics

Dundonald Street is a local road with a semi-urban cross-section (asphalt platform with grassed ditch) through the study area. Dundonald Street has an unposted (assumed) speed limit of 50km/h and is under the jurisdiction of the City. As per the City's *Transportation Master Plan* (April 2019) [City TMP], a local road has a capacity of 400 vehicles per hour per lane (vphpl).

The existing intersection spacing and lane configuration within the study area is illustrated in **Figure 2**.

Figure 2 – Existing Lane Configuration within Study Area



2.2 Local Transportation Infrastructure Improvements

Dundonald Street is listed for road reconstruction and watermain replacement as part of the City's Wellington D2 Neighbourhood Renewal Program. It is unknown whether the reconstruction involves sidewalk improvements, however, the impact of the reconstruction is not expected to have any impact on local traffic volumes or traffic distribution. The construction schedule is noted as 2026-2027.

2.3 Transit Access

Barrie Transit provides bus service within the study area. The No. 8 bus generally travels along Anne Street, Blake Street, Johnson Street, Georgian Drive and Livingstone Street in the north end of the City and Essa Road, Mapleview Drive and Yonge Street in the south end of the City. This route connects all of the major transit hubs in the City with branching access throughout the City from each hub. The No. 8 bus route operates between 04:36 – 00:17 on weekdays with daytime service every half hour. On Saturdays, the route operates between 06:50 – 00:17 and provides daytime service every half hour. On Sunday the route operates between 08:50 – 22:17 and provides service every hour.

The No. 100 Red/Blue Express route generally travels along Blake Street, Johnson Street, Georgian Drive, Grove Street, Penetang Street, Livingstone Street and Bayfield Street in the City's north end. This route provide connection between the Downtown Terminal, Georgian College and Georgian Mall. The No.100 bus route operates between 07:08 – 22:23 on weekdays with daytime service every 22 minutes. On Saturdays, the route operates between 07:53 – 21:38 and provides daytime service every 45 minutes. On Sunday the route operates between 09:23 – 21:38 and provides service every 45 minutes.

The closest bus stop for both routes is located on Blake Street, approximately 175 metres from the subject site.

2.4 Other Developments within the Study Area

In review of the City's *Active Developments*, there are no developments in the immediate area that would have impact on local traffic volumes. Nevertheless, in developing the traffic volumes on Dundonald Street, a conservative background traffic growth rate (3%) was used to account for any potential development in the study area.

2.5 Traffic Data

Traffic volumes on Dundonald Street have been estimated based on 2017 peak hour volumes available through the City's *Open GIS Data Portal*. Detailed traffic count data can be found in **Appendix B**.

In developing the estimated peak hour volumes on Dundonald Street, the following assumptions have been made:

- Peak hour direction split of 50/50 north/south.
- Estimated growth rate of 3% per annum.

The estimated peak hour volumes for Dundonald Street are provided in **Table 1**.

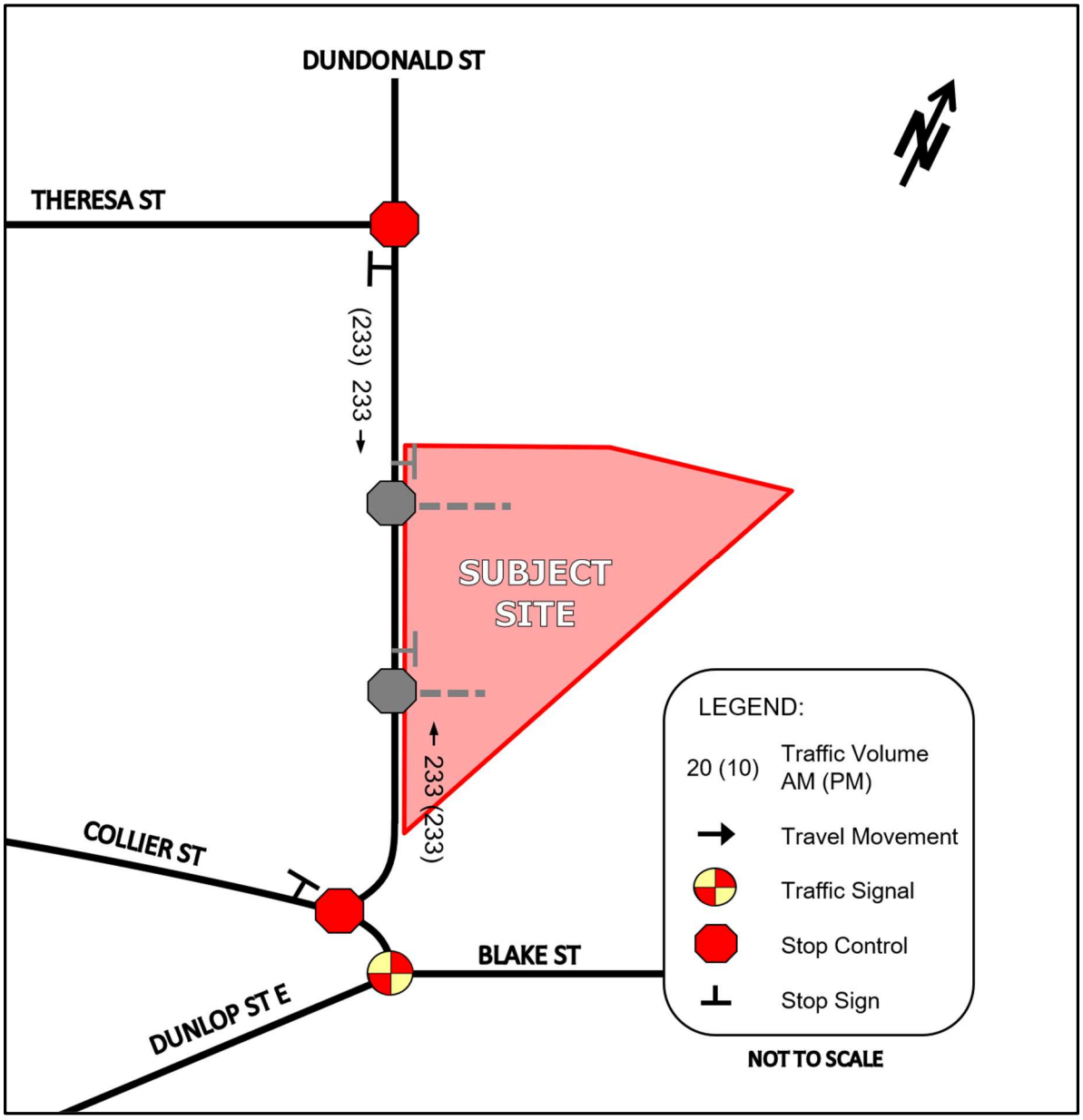
Table 1 – Estimated Peak Hour Volumes

Road	Location	Peak Hour Volume		2023 Peak Hour Directional Volumes
		2017	2023	
Dundonald Street	North of Collier Street	390	466	233N / 233S

2.6 Existing Traffic Volumes

The 2023 existing AM and PM peak hour traffic volumes through the study area are illustrated in **Figure 3**.

Figure 3 – Existing (2023) Traffic Volumes



3 Proposed Development

3.1 Traffic Generation

The traffic generation for proposed development has been estimated based the type of land use, development size and data provided in the ITE Trip Generation Manual. The following ITE land use has been applied to estimate the traffic for the proposed development:

- ITE land use 221 (Multifamily Housing (Mid-Rise)) – General Urban/Suburban Setting.

The utilized traffic rates and estimated trip generation of the proposed development is illustrated below in **Table 2**.

Table 2 – Estimated Traffic Generation of Proposed Development

Land Use	Trip Basis / Size	AM Peak Hour			PM Peak Hour		
		IN	OUT	TOTAL	IN	OUT	TOTAL
Multifamily Housing (Mid-Rise) ITE Land Use: 221	Rate (units)	0.08	0.29	0.37	0.23	0.16	0.39
Subject Site	50 units	5	15	19	12	8	20

As shown, the proposed residential development is expected to generate 19 trips and 20 trips during the AM and PM peak hours, respectively.

3.2 Traffic Assignment

For the purpose of this study, it has been assumed that all traffic generated by the proposed development will be new traffic and would not be in the study area if the development was not constructed. The distribution of traffic through the study area has been assumed based on the site's location within the City, and in relation to surrounding development and attractions.

Table 3 summarizes the trip distribution for the proposed development.

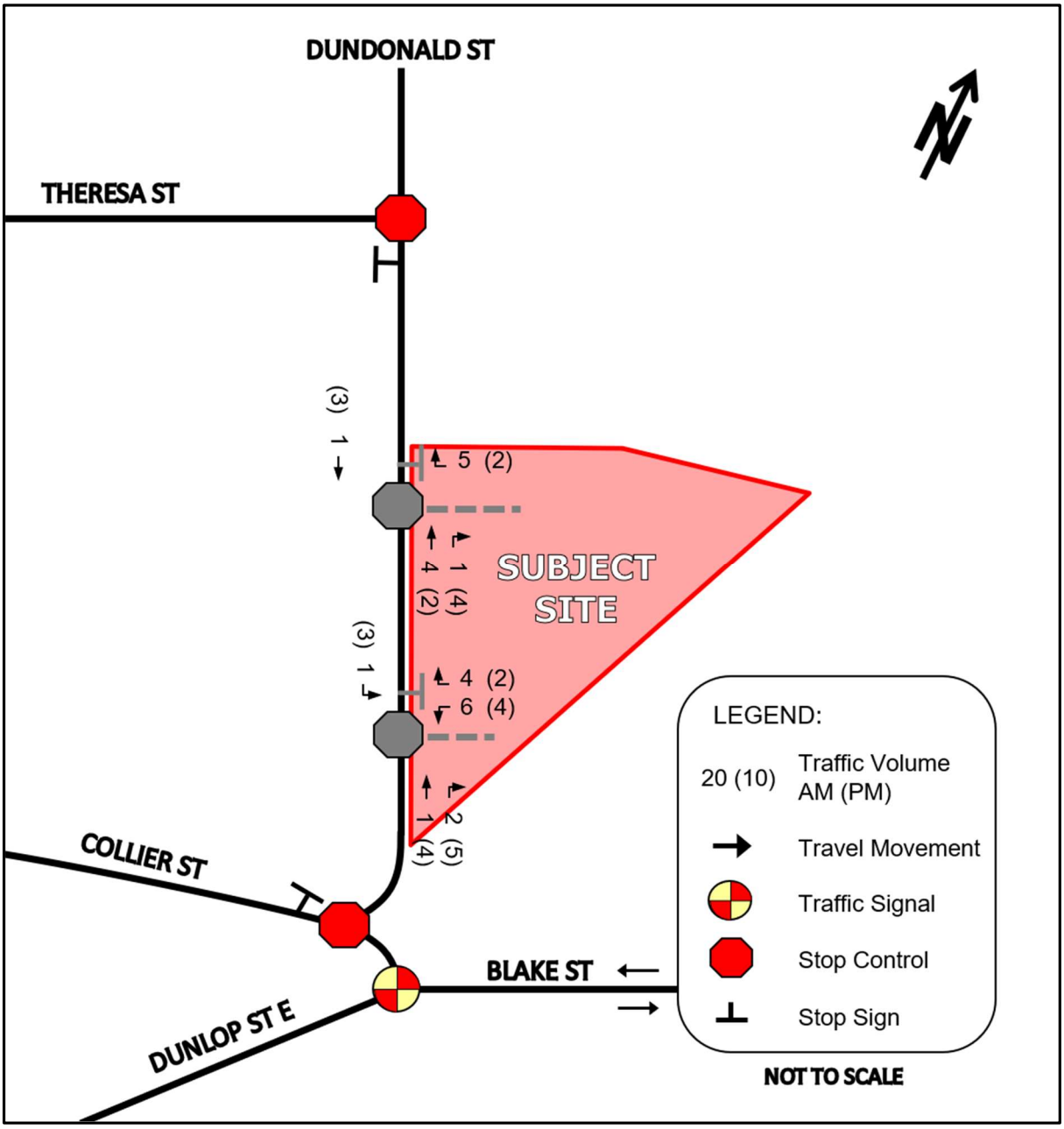
Table 3 – Proposed Development Traffic Distribution Summary

Travel Direction (to/from)	Percent of Total Traffic Generation
North	40%
South	60%
Total	**100%**

Further distribution to the Site Access points has been based on the overall distribution in conjunction with the developments internal parking layout.

Figure 4 illustrates the traffic assignment for the proposed development.

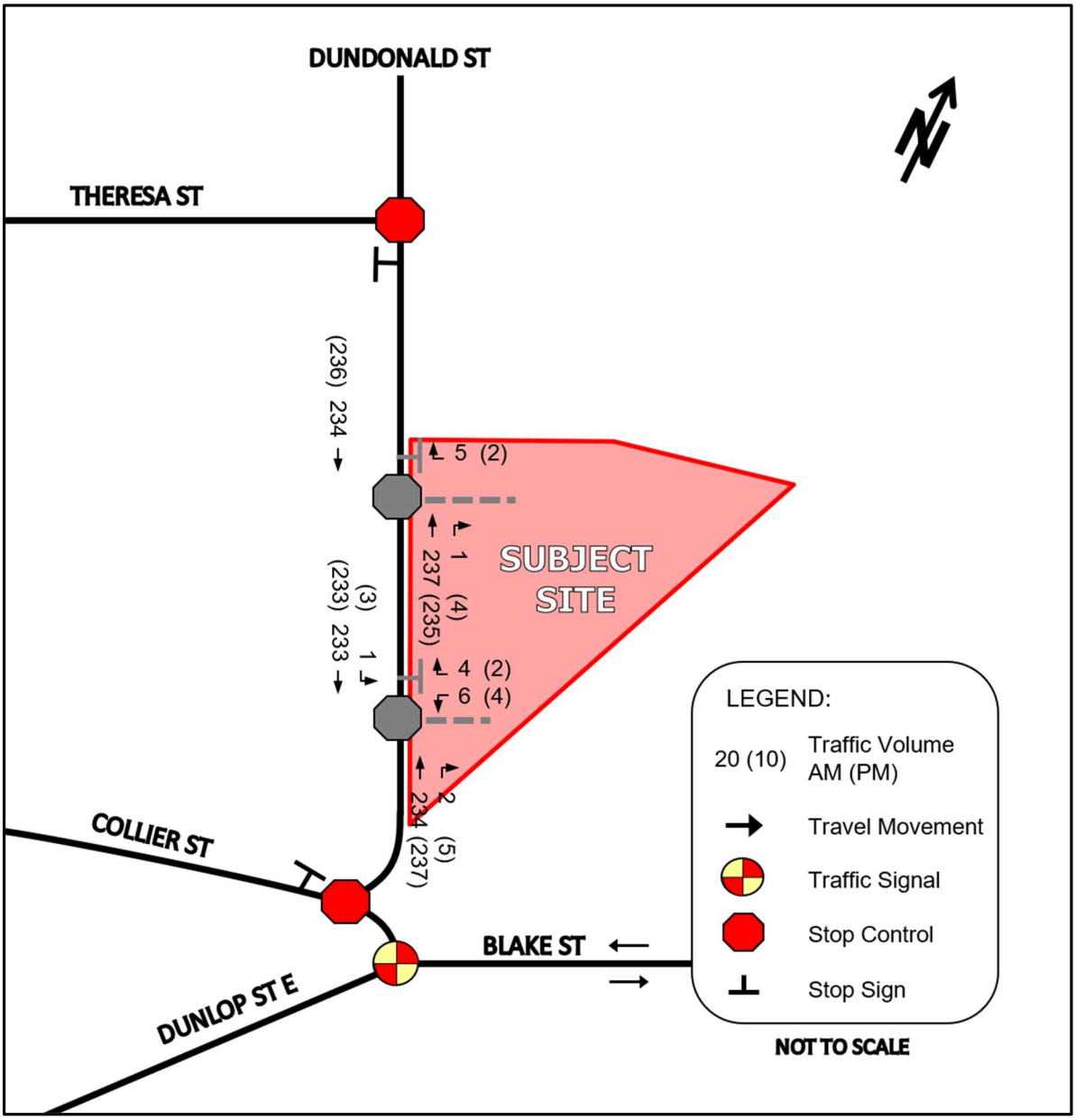
Figure 4 – Traffic Assignment for Proposed Development



3.3 Existing Year Traffic Volumes with the Proposed Development

To illustrate the effect of the proposed development, the site generated traffic volumes have been added to the existing (2023) traffic volumes. The resulting existing (2023) + proposed development traffic volumes for the AM and PM peak hour are illustrated in **Figure 5**.

Figure 5 – Existing (2023) Traffic Volumes + Proposed Development



4 Traffic Operations

4.1 Traffic Impact Review

As per **Figure 5**, traffic volumes on Dundonald Street, adjacent the subject site are in the range of 236 to 242 vehicles per lane during both the AM and PM peak hours. In context with the capacity of a local road (400 vehicles per hour per lane), Dundonald Street is operating below 60% capacity. As such, it is evident that that the roadway can support the development volumes and will continue to operate

below capacity. It is further noted that should traffic distributions differ from those assumed in this study; Dundonald Street is still expected to operate with reserve capacity during the peak hours.

Considering the relatively minor volumes expected to be generated by the proposed development (20 PM trips translate to 1 trip every 3 minutes), the proposed site access driveways are expected to provide good operations with minimal delays operating under stop control for egress movements.

Given the residential nature of the study area and surrounding uses, seasonal traffic volume fluctuation on Dundonald Street is expected to be minimal. During the winter months, snow storage will be provided on site, without any obstruction to vehicle movement or motorists sight lines at the proposed site accesses. "Steep Hill" signage is currently located on Dundonald Street, north of Theresa Street, warning motorists of the upcoming downgrade. It is recommended that the City continue to prioritize the snow clearing on the east side of Dundonald Street to reduce any obstruction of the available sight lines noted in Section 4.3.

The intersection of Dundonald Street / Blake Street will experience an additional 9 AM and 13 PM peak hour trips, an increase of less than 4% in context with the 2023 traffic volumes on Dundonald Street (noted in **Table 1**). The traffic volumes will be further distributed to the east and west on Collier Street, attributing a minor amount of traffic to the Dunlop Street / Collier Street intersection. The additional traffic generated by the proposed development will have a negligible impact on the surrounding City roads and intersections.

4.2 Site Access

The North Access and South Access will operate efficiently as a right-in, right-out access and a full-movement access, respectively, with one-way stop control for westbound (egress) movements. A single ingress and egress lane for the Site Access driveways will provide the necessary capacity to service the proposed development.

The proposed spacing between the Site Accesses driveways and their closest intersections (Theresa Street to the North and Collier Street to the South) meets the minimum driveway spacing requirements as per the TAC Guidelines – Figure 8.8.2 (Suggested Minimum Corner Clearances to Accesses or Public Lanes at Major Intersections) – 15 metres for unsignalized condition.

As per TAC Guidelines Section 8.9.9, for low volume roads such as locals and collectors, the spacing between driveways on opposite sides of the road is not a necessary design consideration and typically, does not impact traffic operations at the driveways themselves. Nevertheless, the proposed spacing between the South Access and the 200 Collier Street residential building driveway (approximately 10 metres between centerlines) is considered sufficient to accommodate opposing left turn movements.

4.3 Sight Distance Review

A review of the available sight distance for the proposed Site Access was completed as part of this analysis.

The sight distance was evaluated based on minimum stopping sight distance requirements as recommended in the TAC Guidelines using a posted speed of 50km/h and a design speed of 60km/h (posted speed + 10km/h for lower speed roads). **Table 4** summarizes the sight distance analysis for the study area.

The recommended sight distances listed below are based on the TAC Guidelines Table 2.5.3, with consideration of the existing grade of Dundonald Street adjacent the subject site. The available sight distances were identified through field observations.

Table 4 – Sight Distance Analysis

Turning Movement Description	Access	TAC Guidelines (60km/h design speed)		Available Sight Distance	
		to/from North	to/from South	to/from North	to/from South[1]
Minimum Sight Stopping Distance	North	N/A	75m	N/A[2]	188m
	South	97m	75m	133m	60m

[1] Sightlines to the south are measured to the intersection of Dundonald Street / Collier Street
[2] With a right-in, right-out only configuration, sightlines to the north at the North Access are not applicable

As outlined above, the sight distances from the North Access to the south and from the South Access to the north are greater than the minimum stopping sight distance requirements as identified in the TAC Guidelines for the applicable design speed.

The sight distance from the South Access to the south is limited by the road's intersection with Collier Street. Past Collier Street, the sight lines extend slightly east to the intersection of Collier Street / Blake Street & Dunlop Street East. Site lines to the west past Collier Street are limited by the trees and shrubs within the 200 Collier Street property. Considering that vehicles approaching the Subject Site from the south will do so from a reduced speed having just completed a left or right turn, such sight lines are considered acceptable.

There are no issues with the sight distance available for the proposed Site Accesses.

4.4 Swept Path Analysis

A swept path analysis has been provided in **Appendix C** to illustrate that the following vehicles can access the site as intended:

- Passenger Vehicle (TAC P); and
- City of Barrie – Recycling Truck.

5 Parking Review

5.1 Scope

The purpose of this analysis is to estimate the parking supply required to adequately service the proposed development.

5.2 Municipal By-law

The City's *Zoning By-Law 2009-141* [City ZBL] (Office Consolidation December 2018) provides parking requirements for a variety of building types and land uses. **Table 5** summarizes the parking requirement for the proposed development uses, according to the Towns ZBL.

Table 5 – Zoning By-law Parking Requirements

Category	Zoning By-Law Section	Parking Standard	Size	Required	Provided	Net Supply
Residential Uses (residential building containing more than 3 dwelling units)	4.6.1	1.5 spaces / unit	50	75	61	-14 spaces
TOTAL			**50**	**75**	**61**	**-14 spaces**
Accessible Parking	*4.6.4*	*51 to 75 required parking spaces*		*1 Type A* *2 Type B*	*3 Type A*	-

The proposed parking supply falls below the calculated requirement by 14 spaces.

5.3 Study Area Parking Infrastructure

On-street parking is prohibited on Collier Street, Blake Street, Dunlop Street East and on the west side along Dundonald street within the study area.

On-street parking is permitted on the east side of Dundonald street from 8:00 AM to 5:00 PM Monday to Friday, within the study area.

There are various private commercial and residential surface parking lots located along Dundonald Street, Collier Street, Blake Street and Dunlop Street East within the study area.

5.4 Parking Analysis

5.4.1 Proxy Visitor Parking Counts

The Zoning By-law does not identify a specific parking requirement for residential visitors.

To estimate the residential visitor parking demand for the proposed development, parking survey data obtained by JD Engineering at two proxy sites were reviewed. The selected proxy locations are as follows:

1. 369 Essa Road, Barrie; and
2. 28 Donald Street, Barrie.

The proxy surveys at 369 Essa Road and 28 Donald Street were completed at the following times:

3. Friday December 3rd, 2021 from 14:00 to 23:00; and
4. Saturday December 4th, 2021 from 10:00 to 23:00.

The proxy parking counts were completed at 30-minute intervals during the above-noted periods. The surrounding transportation conditions at the proxy parking sites are consistent with the surrounding transportation conditions at the proposed development.

No on-street parking was observed on Essa Road, in the area, during the proxy surveys.

On-street parking is permitted on Donald Street, adjacent to 28 Donald Steet; however, as illustrated in the proxy parking counts, the dedicated visitor parking areas maintain additional capacity throughout the survey. Consequently, there would be no incentive for residential visitors to park on Donald Street. As such, the parking data collected represents the full visitor parking demand.

Table 6 – Residential Visitor Proxy Survey Data

Proxy Site	Units	Visitor Parking			
		Peak Period	Supply (spaces)	Demand (spaces)	Demand Rate (spaces / unit)
369 Essa Road	104	Friday: 21:00 Saturday: 19:30, 20:30 & 21:00	14	12	0.15
28 Donald Street	82	Friday: 18:30	15	25	0.18
AVERAGE					**0.165**

5.4.2 Proxy Municipalities

An additional review of visitor parking requirements for other similar municipalities was completed as part of our analysis. **Table 7** summarizes similar municipalities parking requirement for residential visitors.

Table 7 – Similar Municipalities Visitor Parking Requirements

Municipality	Zoning By-law	Visitor Parking Requirements
Town of Innisfil	080-13	0.25 spaces per unit
Town of Newmarket	2010-40	0.15 spaces per unit
Town of Oakville	2009-189	0.20 spaces per unit
Town of New Tecumseth	2010-128	0.25 spaces per unit
Town of Bradford West Gwillimbury	2010-050	0.25 spaces per unit

The visitor parking requirement identified in the above noted municipalities' Zoning By-Laws provide a reasonable reference for the Subject Site as the above noted municipalities have similar parking-related characteristics to the City of Barrie, including population density, access to transit and access to active transportation infrastructure. Consequently, a visitor parking supply of 0.22 spaces / unit is consistent with the parking supply required in similar municipalities.

5.4.3 Analysis - Residential Visitor Parking

The proxy survey at 369 Essa found that the standard visitor parking spaces were fully occupied for a three-hour period during the Friday survey and for a total of two and a half hours during the Saturday survey. It is also noted that some vehicles were parked illegally, in areas along the driveways that were not designated as visitor parking. The survey data also shows that illegal parking occurred at times when there were visitor parking spaces available. This suggests that the illegal parking was not directly related to a shortage of visitor parking spaces. Consequently, we have assumed that the visitor parking demand was not constrained by the visitor parking supply.

Based on the parking data collected at the proxy sites, in addition to the visitor parking requirements identified in similar municipalities, a visitor parking supply of 0.22 spaces / unit will provide sufficient parking supply to accommodate the peak visitor parking demand from the proposed residential units. The visitor parking generated by the proposed development is not anticipated to impact the existing on-street parking or private parking in the study area.

5.4.4 Analysis - Resident Parking Supply

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 a conservative visitor parking supply as outlined in Section 5.4.3, 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 an apartment or condominium unit has included one or more parking spaces, which provides an incentive for private vehicle ownership. The proposed development includes 50 units and 40 resident parking spaces, translating to 1.0 resident spaces per unit (excluding the 0.22 residential visitor spaces per unit). Permitting a development of this nature provides an opportunity to fill a specific housing demand (individuals or families with one vehicle), while maintaining a sufficient supply of visitor parking. This demand has been evident in our completion of numerous other parking studies within the City, for developments of a similar nature. Based on our findings, there is no shortage in the demand for single vehicle unit.

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

5.5 Recommendations

Table 8 illustrates the recommended parking supply for the Subject Site.

Table 8 – Recommended Minimum Parking Summary

Category	Parking Standard	Size	Recommended Parking Supply	Justification Criteria
Resident	1.0 spaces / unit	50 units	50 spaces	Control of Parking Spaces at Sale of Units
Visitor	0.22 space / unit		11 spaces	Proxy Municipalities Proxy Parking Counts
Recommended Minimum Parking Supply			**61 spaces**	

The above-noted parking supply is considered to be adequate to support the parking demand for the proposed development. Overflow parking onto adjacent on-street parking or private parking lots is expected to be minimal.

6 Summary

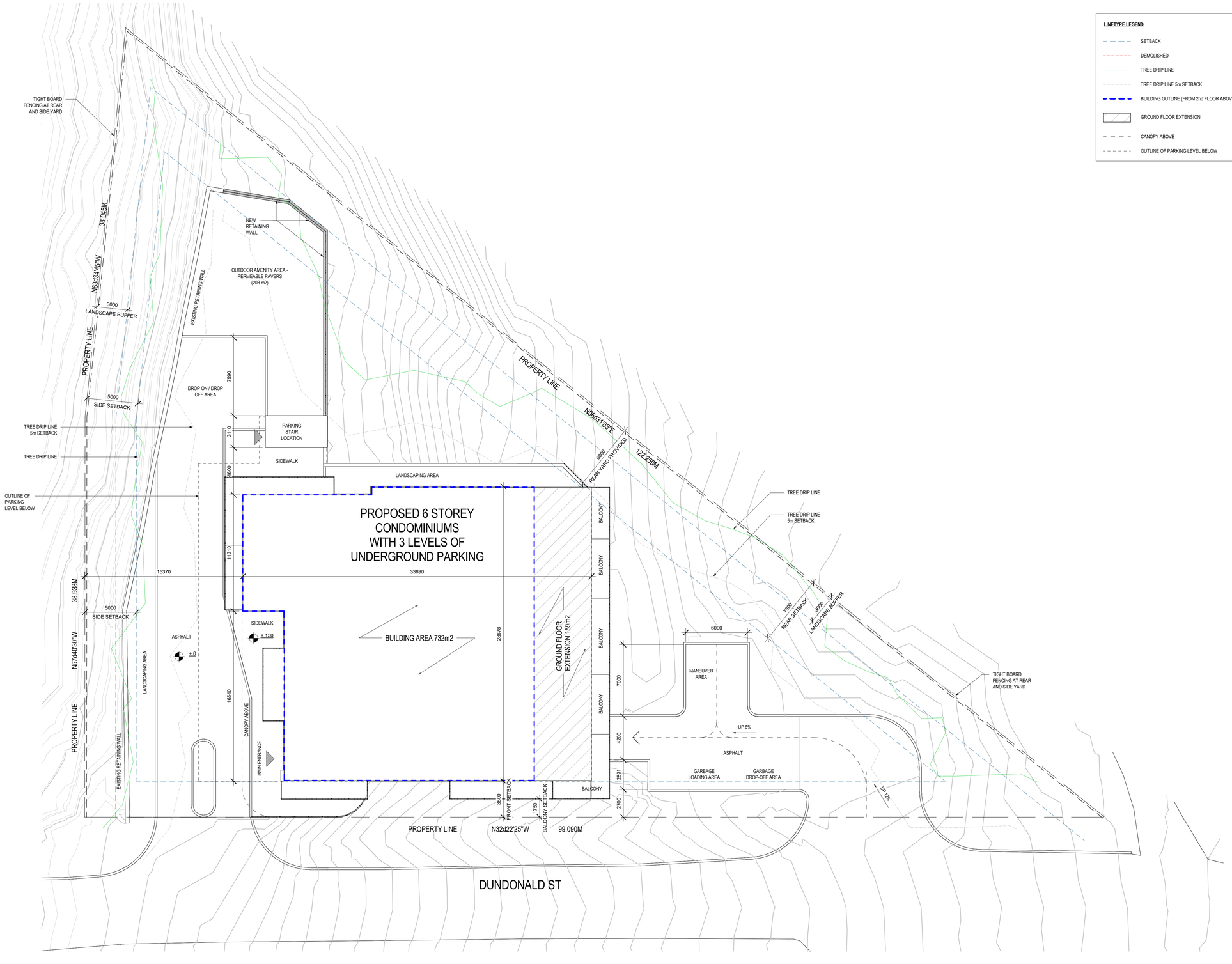
John & Pat Hargraves retained **JD Engineering** to complete a Traffic Brief in support of the proposed residential development located on the east of Dundonald Street in the City of Barrie. The proposed Site Plan is included in **Appendix A**. This chapter summarizes the conclusions and recommendations from the study.

The proposed development is anticipated to consist of 58 residential condominium units.

1. The proposed development is expected to generate an additional 19 AM and 20 PM peak hour trips.

2. An estimate of the amount of traffic that would be generated by the Subject Site was prepared and assigned to the study area streets and intersections.
3. A road section analysis for Dundonald Street and functional review of the Site Access driveways was undertaking with the proposed development operational. No improvements recommended within the study area.
4. The proposed North Access and South Access will operate efficiently as a right-in, right-out access and a full-movement access, respectively, with one-way stop control for westbound (egress) movements. A single lane for ingress and egress movements at the Site Access driveways will provide the necessary capacity to convey the traffic volume generated by the proposed development.
5. The sight distance available for the Site Accesses is sufficient for the intended use.
6. The proposed parking supply is appropriate for the intended use.
7. The Turning Movement Analysis completed demonstrates that the proposed site layout can accommodate the typical traffic movements.
8. In summary, the proposed development will not cause any operational issues to the local roadway network.

Appendix A – Site Plan



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SITE PLAN NOTATION

1 : 175

LINETYPE LEGEND

- SETBACK
- DEMOLISHED
- TREE DRIP LINE
- TREE DRIP LINE 5m SETBACK
- BUILDING OUTLINE (FROM 2nd FLOOR ABOVE)
- GROUND FLOOR EXTENSION
- CANOPY ABOVE
- OUTLINE OF PARKING LEVEL BELOW

BUILDING/SITE INFO:

Suites on ground floor = 5
Suites on 2nd floor = 9
Suites on typical floors (3rd to 6th) = 9x4 = 36
Total Suites = 50

Parking Spaces Required = 75
Parking Spaces Provided = 61 (1.22 / unit)

Storeys = 6
Building Height = 18.6m
Building Area = 732m2
GFA = 4,555m2

RA1-3 ZONING TABLE

	REQUIRED	PROPOSED
LOT AREA (MIN.)	1,100m2	3,880.2m2
LOT FRONTAGE (MIN.)	24m	99m
FRONT YARD (MIN.)	7m	3.5m (exception)
PARKING STRUCTURE SETBACK FROM STREET LINE (MIN.)	1.8m	3.5m
INTERIOR SIDE YARD (MIN.)	5m	15.3m
REAR YARD (MIN.)	7m	6.6m
DWELLING UNIT AREA (MIN.)	35m2+10m2/bedroom	>35m2+10m2/bedroom
LOT COVERAGE (MAX.)	35%	23.5%
PARKING AREA COVERAGE (MAX.)	35%	0% (All parking is underground / indoor)
% OF PARKING AREA IN THE FRONT YARD (MAX.)	20%	0%
LANDSCAPING (MIN.)	35%	54.7%
G.F.A. (MAX.)	100%	118% (exception)
BUILDING HEIGHT (MAX.)	30m	18.6m (from ground floor) 29.1m (from parking level 3) 23.85m (from average grade)
PARKING (MIN.)	1.5 spaces/unit = 75 spaces @ 2.7m x 5.5m (Including 3 BF spaces)	1.22 spaces/unit = 61 spaces @ 2.7m x 5.5m (Including 3 BF spaces)
DRIVE AISLE WIDTH (MIN.)	6.4m	6.4m
BARRIER FREE (MIN.)	1 Type A space @ 3.4m x 5.5m & 2 Type B space @ 3.1m x 5.5m Each barrier-free space shall contain a 1.5m access aisle	3 Type A space @ 3.4m x 5.5m
LANDSCAPED BUFFER (MIN.)	3m setback (sides & rear)	5m (majority)
FENCING (MIN.)	2m (tight board fence) *Parking with 4 or more spaces abutting residential zone*	Provided
MAX. DENSITY	150 units per hectare for lands located outside of the City Centre (Official Plan Policy)	129 units per hectare
SECONDARY MEANS OF ACCESS/LANDSCAPED OPEN SPACE	7m	7m
ACCESSORY BUILDING FRONT YARD SETBACKS (MIN.)	7m Not permitted in the front yard	> 7m
ACCESSORY BUILDING REAR & SITE YARD SETBACKS (MIN.)	0.6mm	> 3m both sides and rear
ACCESSORY BUILDING LOT COVERAGE (MAX.)	10%	0.6% = Parking Stair
ACCESSORY BUILDING/STRUCTURE HEIGHT (MAX.)	4m	3.6m

10	Issued for 2nd ZBA Application	2023 09 14
9	Re-Issued for Planner Approval	2023 05 05
8	Re-Issued for Planner Approval	2023 01 13
7	Re-Issued for Planner Approval	2022 09 13
6	Consultant Coordination	2021 01 21
5	Re-Issued for Re-Zoning	2020 11 17

ISSUES/REVISIONS

ALL DIMENSIONS TO BE CHECKED AND VERIFIED ON SITE. DISCREPANCIES TO BE REPORTED TO THE ARCHITECT. LATEST APPROVED STAMPED DRAWINGS ONLY TO BE USED FOR CONSTRUCTION.

PROJECT NORTH

ONTARIO ASSOCIATION OF ARCHITECTS
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DRAWING TITLE:
SITE PLAN DIMENSIONED

PROJECT NAME:
DUNDONALD APARTMENT BUILDING
19 DUNDONALD ST.
BARRIE, ONTARIO

DATE:	September 14, 2023	PROJECT #	SHEET #
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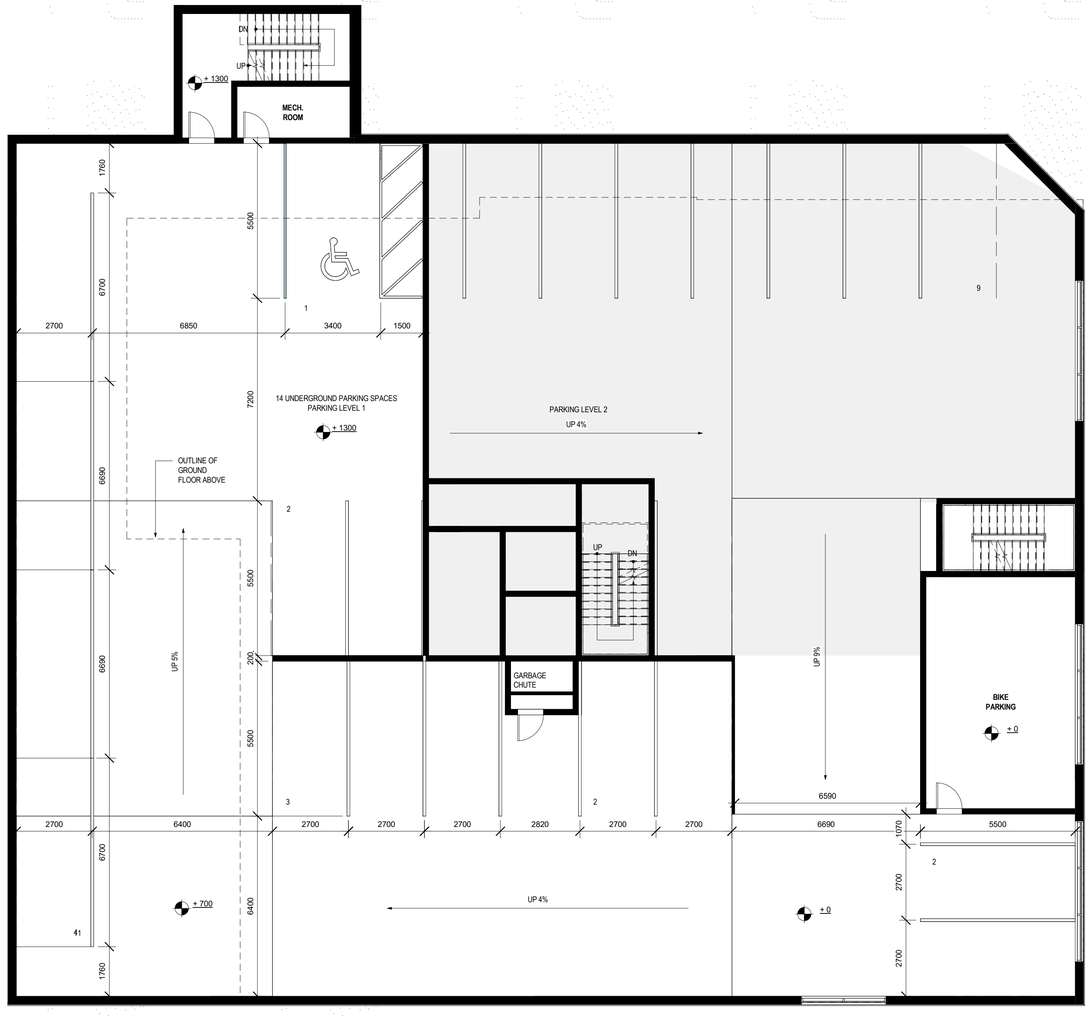
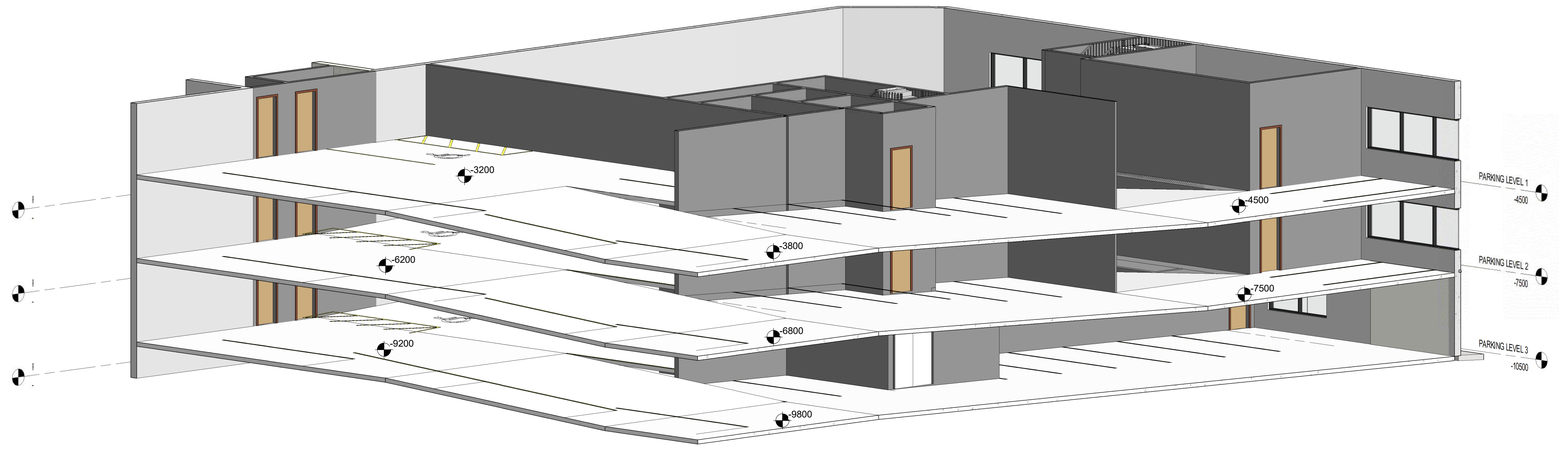
SCALE:	As indicated		



1 A2.1 PARKING LEVEL 1

1 : 100



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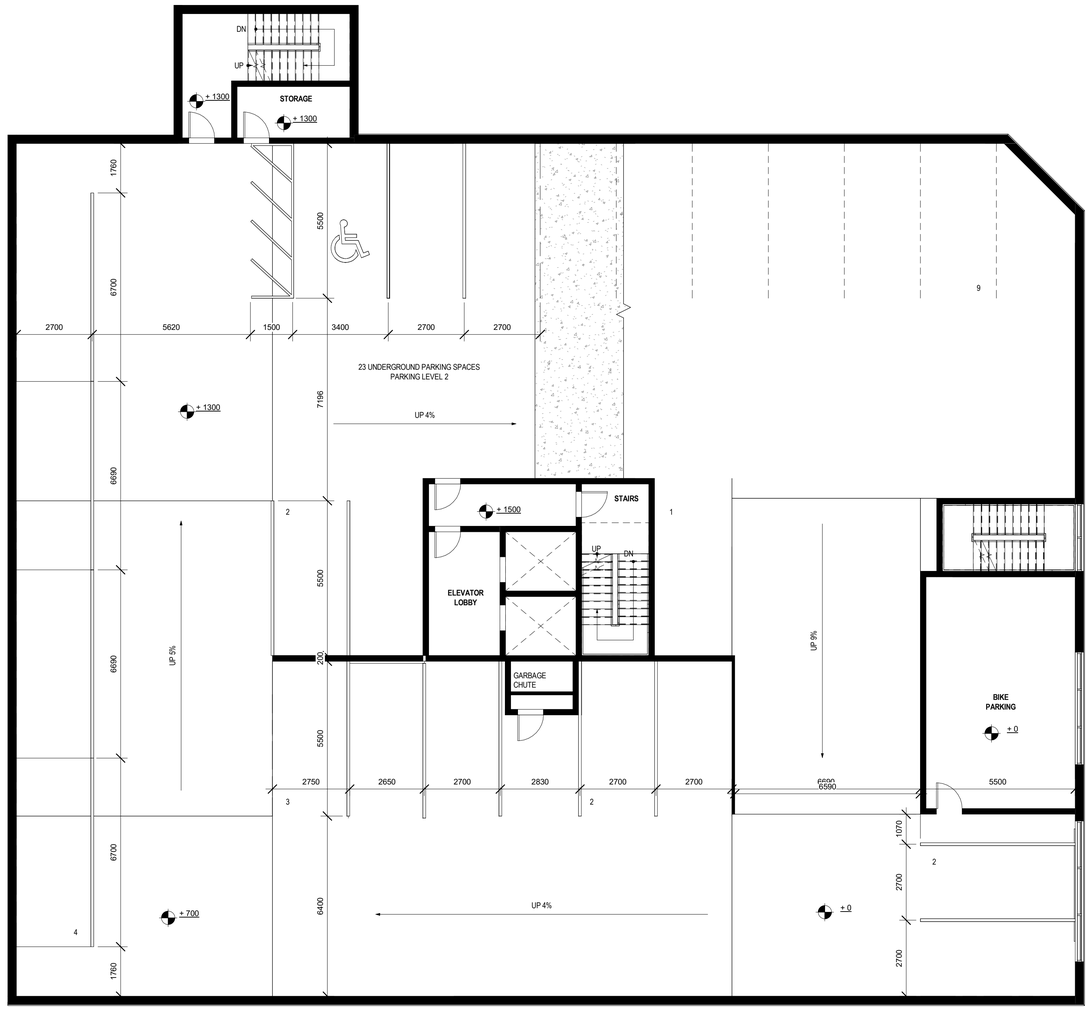
DRAWING TITLE:
PARKING LEVEL 1 PLAN

PROJECT NAME:
DUNDONALD APARTMENT BUILDING
19 DUNDONALD ST.
BARRIE, ONTARIO

DATE:	PROJECT #	SHEET #
September 14, 2023	-	A2.1
DRAWN BY: LR		
SCALE: 1 : 100		



1 / A2.2 PARKING LEVEL 2

1 : 100

10	Issued for 2nd ZBA Application	2023 09 14
9	Re-Issued for Planner Approval	2023 05 05
8	Re-Issued for Planner Approval	2023 01 13
7	Re-Issued for Planner Approval	2022 09 13
6	Consultant Coordination	2021 01 21
5	Re-Issued for Re-Zoning	2020 11 17

ISSUES/REVISIONS

ALL DIMENSIONS TO BE CHECKED AND VERIFIED ON SITE. DISCREPANCIES TO BE REPORTED TO THE ARCHITECT. LATEST APPROVED STAMPED DRAWINGS ONLY TO BE USED FOR CONSTRUCTION.

PROJECT NORTH

ONTARIO ASSOCIATION OF ARCHITECTS
MICHAEL W. McKNIGHT
LICENCE
3808

MCLARCHITECTS
MCKNIGHT CHARRON LIMITED

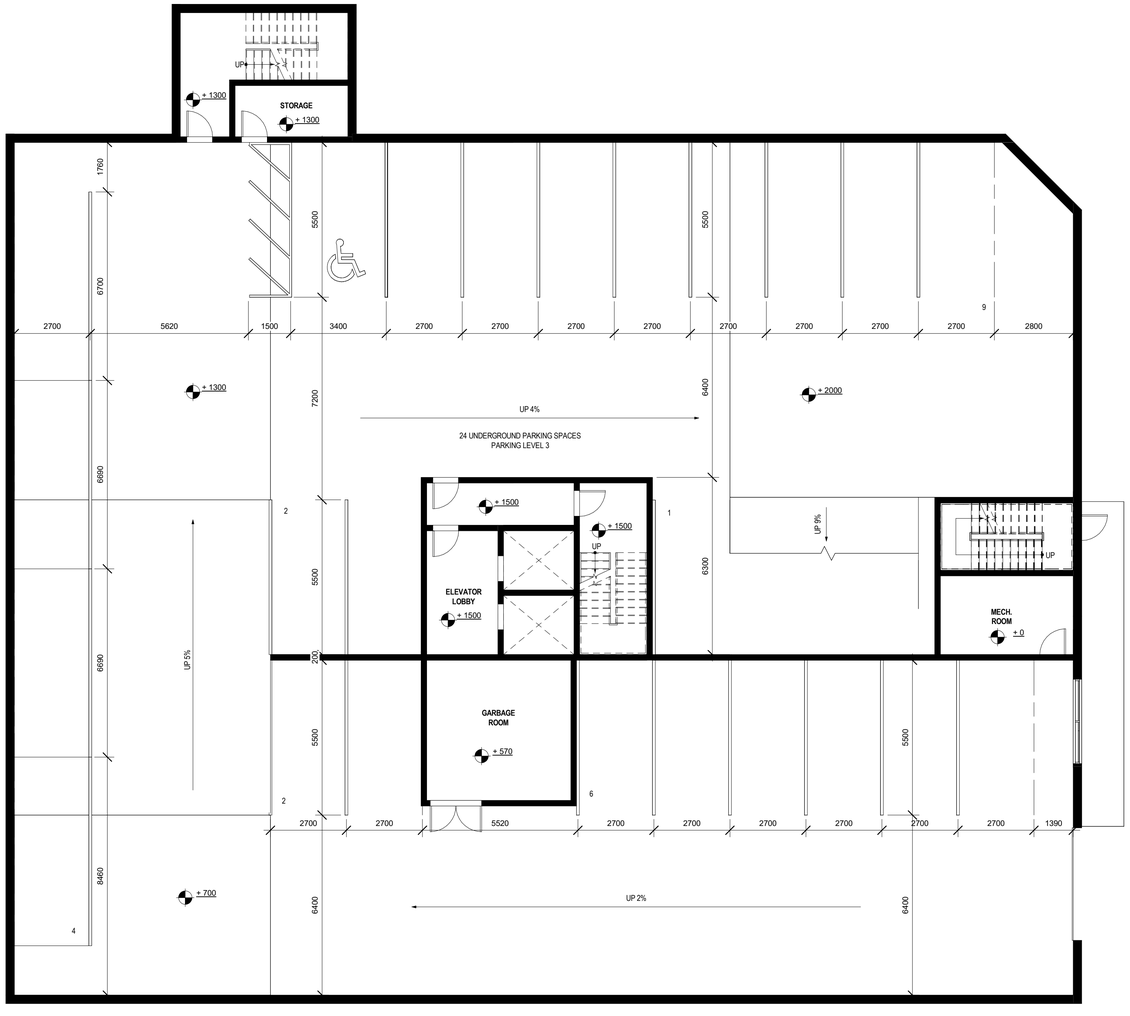
48 ALLIANCE BLVD., UNIT 110
BARRIE, ONTARIO L4M 5K3

T 705 722 6739
WWW.MCLARCHITECTS.CA

DRAWING TITLE:
PARKING LEVEL 2 PLAN

PROJECT NAME:
DUNDONALD APARTMENT BUILDING
19 DUNDONALD ST.
BARRIE, ONTARIO

DATE: September 14, 2023		PROJECT #	SHEET #
DRAWN BY:	LR	-	A2.2
SCALE:	1 : 100		



1 / A2.3 PARKING LEVEL 3

1 : 100

10	Issued for 2nd ZBA Application	2023 09 14
9	Re-Issued for Planner Approval	2023 05 05
8	Re-Issued for Planner Approval	2023 01 13
7	Re-Issued for Planner Approval	2022 09 13
6	Consultant Coordination	2021 01 21
5	Re-Issued for Re-Zoning	2020 11 17

ISSUES/REVISIONS

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BARRIE, ONTARIO L4M 5K3

T 705 722 6739
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DRAWING TITLE:
PARKING LEVEL 3 PLAN

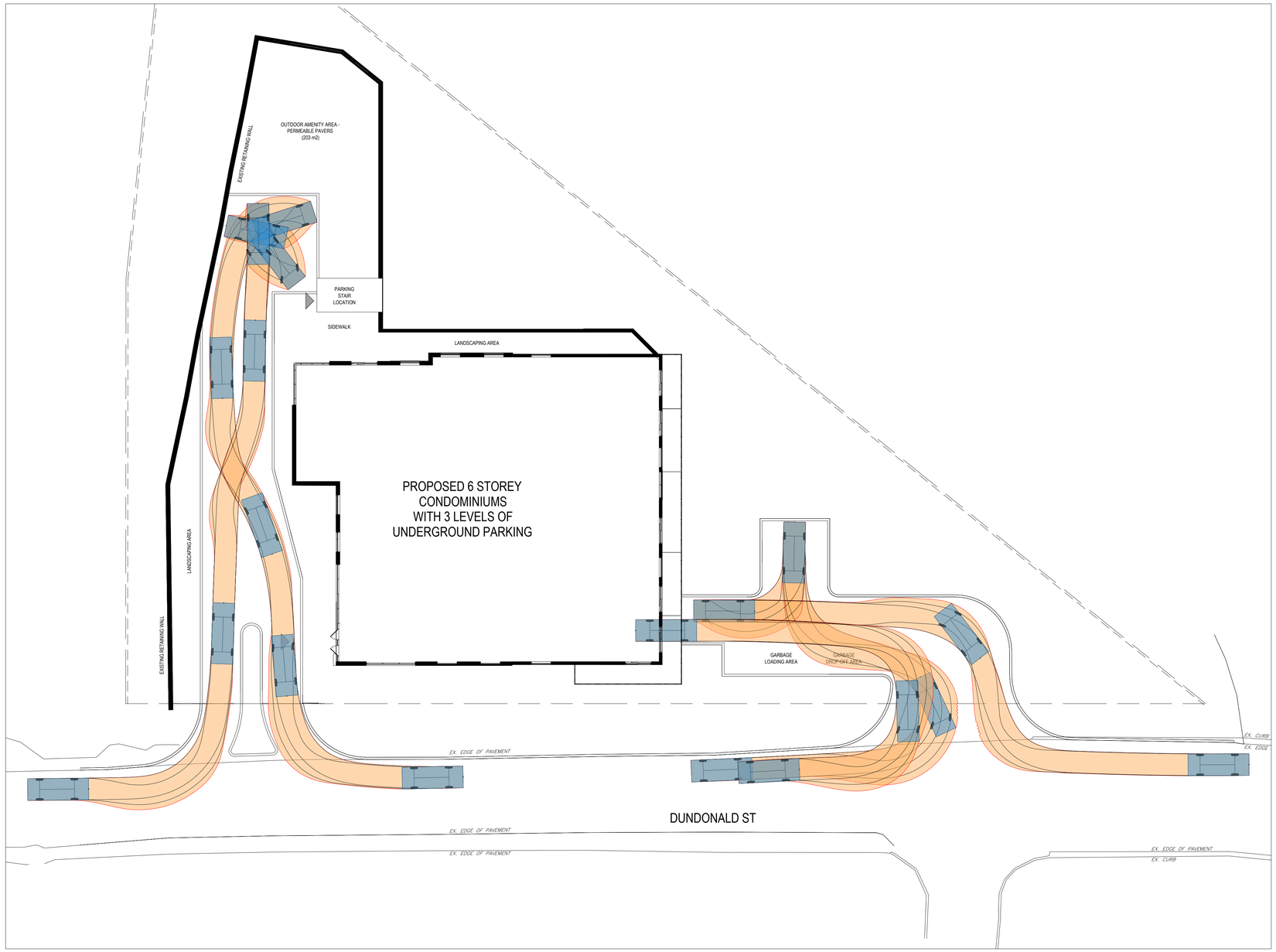
PROJECT NAME:
DUNDONALD APARTMENT BUILDING
19 DUNDONALD ST.
BARRIE, ONTARIO

DATE:	PROJECT #	SHEET #
September 14, 2023	-	A2.3
DRAWN BY: LR		
SCALE: 1 : 100		

Appendix B – Traffic Data

OBJECTID	LABEL	DATE_YEAR	TYPE	PEAKHOUR	LOCATION	PEDESTRIANS
1	ADT-11149	2017	TMC	6194	E Mapleview and Stunden	21
2	ADT-3047	2017	TMC	1693	N Mapleview and Stunden	8
3	ADT-14756	2017	TMC	8198	W Mapleview and Stunden	17
3972	ADT-702	2017	TMC	390	N Collier and Dundonald	24
3973	ADT-7596	2017	TMC	4220	E Bayfield and Dunlop	761
3974	ADT-9446	2017	TMC	5248	W Bayfield and Dunlop	262

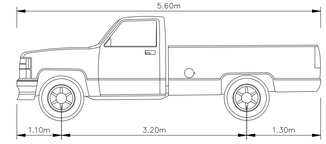
Appendix C –
Swept Path Analysis



DESIGN VEHICLE

PASSENGER VEHICLE (TAC P)

VEHICLE WIDTH: 2.00m
OUTSIDE TURNING RADIUS: 6.30m



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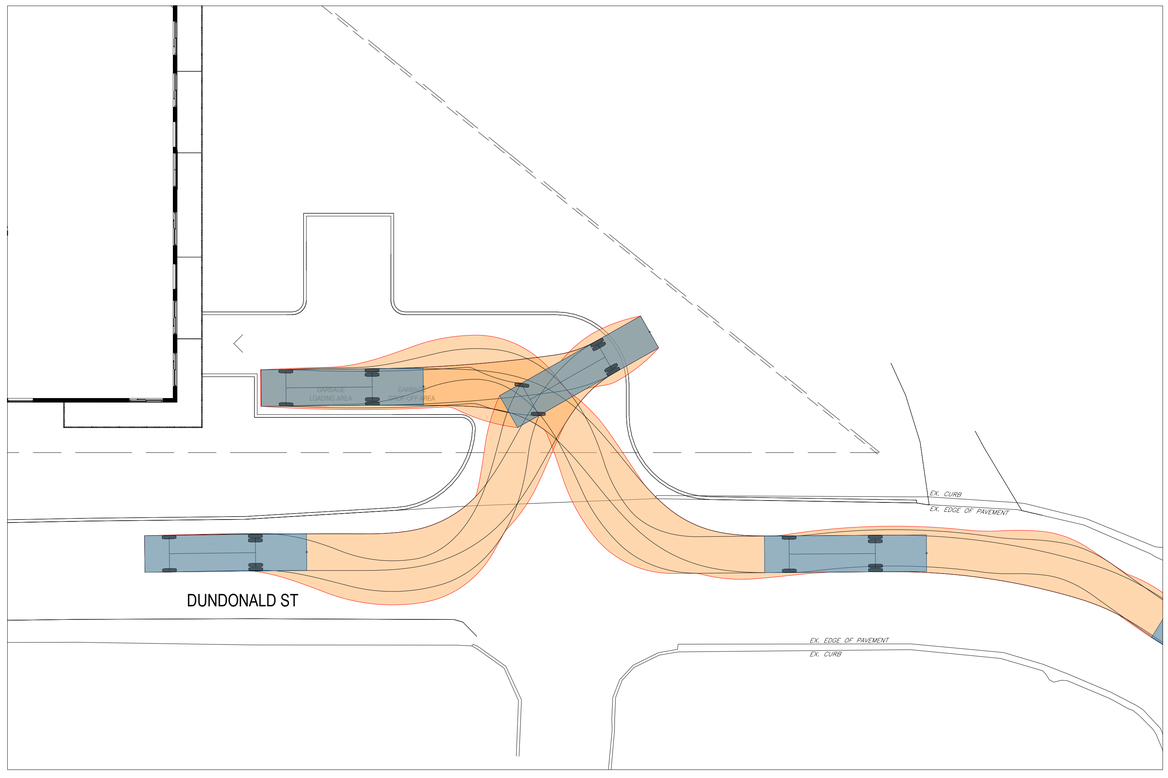
AREA MUNICIPALITY

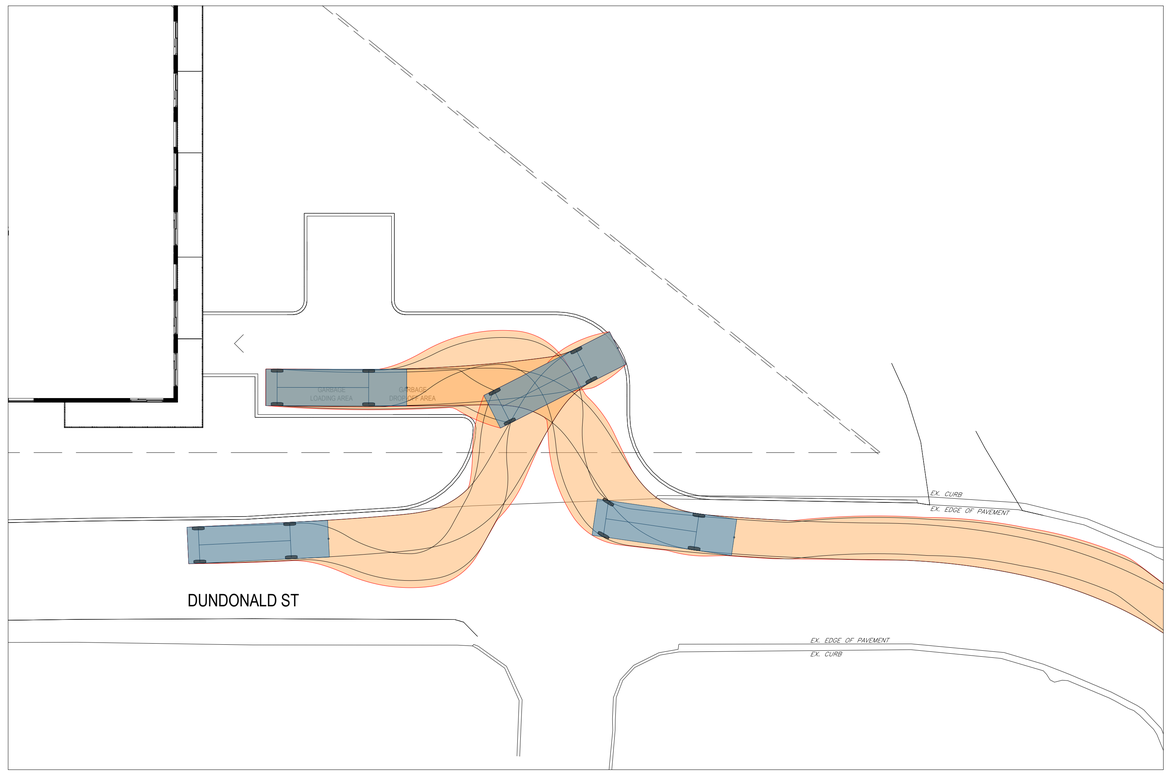
CITY OF BARRIE

DUNDONALD STREET PROJECT

PASSENGER VEHICLE TURNING MOVEMENT
GROUND FLOOR

DESIGN: JN	DATE: 12/20
DRAWN: JN	DATE: 12/20
REVIEWED: JN	DATE: 12/20
SCALE HOR. 1:200	SCALE VERT. N/A
SHEET NO. 20014 - TURN A	

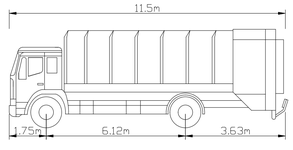




DESIGN VEHICLE

BARRIE RECYCLING TRUCK

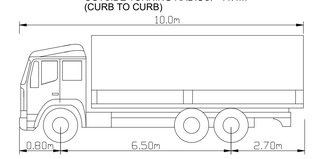
VEHICLE WIDTH: 2.60m
OUTSIDE TURNING RADIUS: 12.35m



DESIGN VEHICLE

TAC MEDIUM SINGLE UNIT TRUCK

VEHICLE WIDTH: 2.60m
OUTSIDE TURNING RADIUS: 11.1m
(CURB TO CURB)



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1.	DEC 2021	JN	FIRST SUBMISSION

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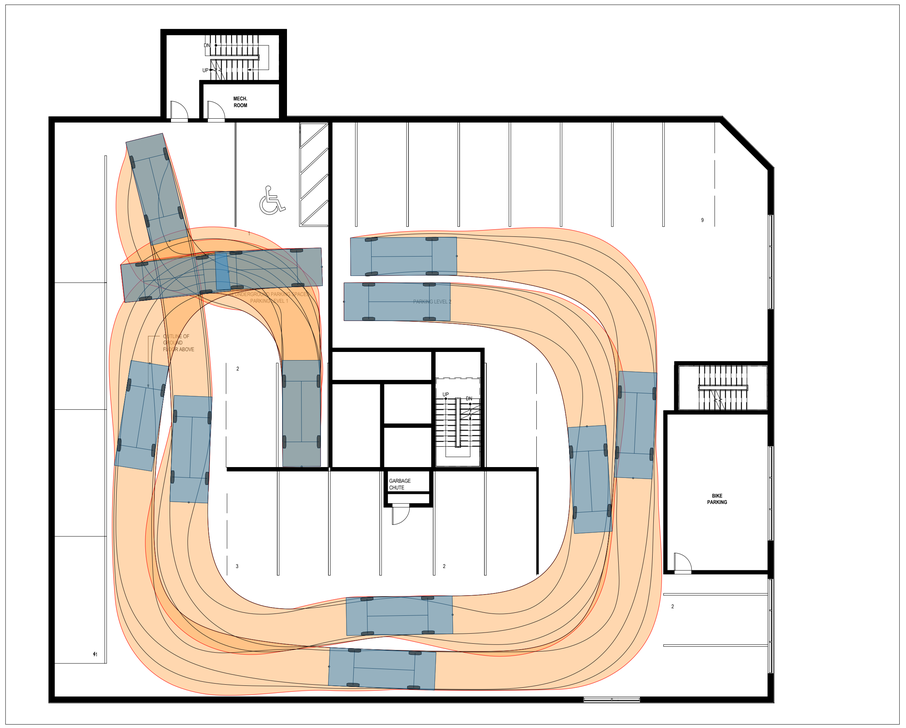
CITY OF BARRIE

DUNDONALD STREET PROJECT

LOADING VEHICLE TURNING MOVEMENT
GROUND FLOOR

DESIGN:	JN	DATE:	12/20
DRAWN:	JN	DATE:	12/20
REVIEWED:	JN	DATE:	12/20
SCALE HOR.	1:200	SCALE VERT.	N/A
SHEET NO.	20014 - TURN B		

DESIGN VEHICLE - TAC PASSENGER

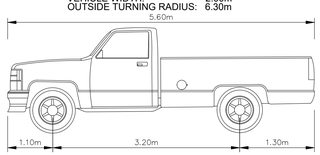


DESIGN VEHICLE - TAC PASSENGER

DESIGN VEHICLE

PASSENGER VEHICLE (TAC P)

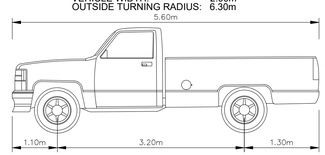
VEHICLE WIDTH: 2.00m
OUTSIDE TURNING RADIUS: 6.30m



DESIGN VEHICLE

PASSENGER VEHICLE (TAC P)

VEHICLE WIDTH: 2.00m
OUTSIDE TURNING RADIUS: 6.30m



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1.	DEC 2021	JN	FIRST SUBMISSION

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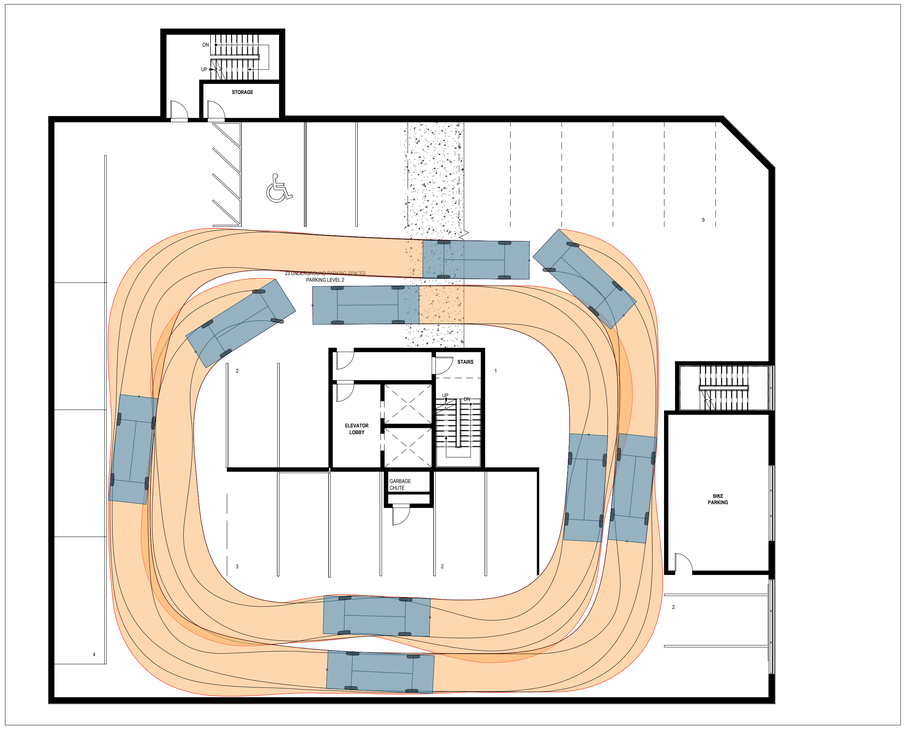
CITY OF BARRIE

DUNDONALD STREET PROJECT

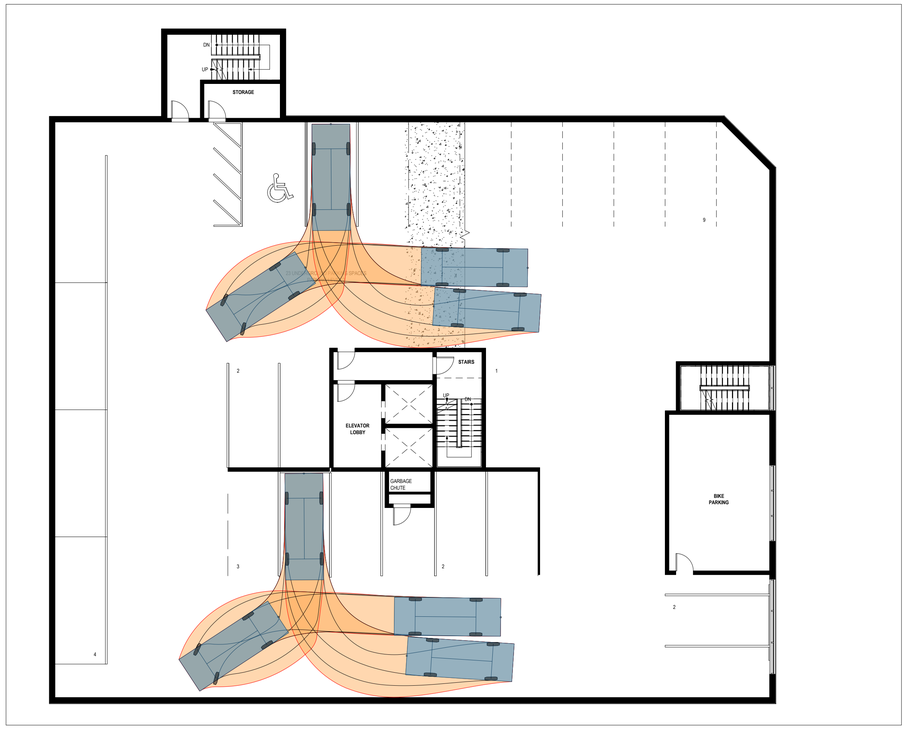
PASSENGE VEHICLE TURNING MOVEMENT
PARKING LEVEL 1

DESIGN:	JN	DATE:	12/20
DRAWN:	JN	DATE:	12/20
REVIEWED:	JN	DATE:	12/20
SCALE HOR.	1:150	SCALE VERT.	N/A
SHEET NO.	20014 - TURN C		

DESIGN VEHICLE - TAC PASSENGER



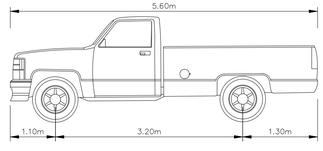
DESIGN VEHICLE - TAC PASSENGER



DESIGN VEHICLE

PASSENGER VEHICLE (TAC P)

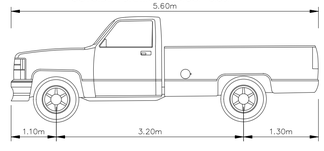
VEHICLE WIDTH: 2.00m
OUTSIDE TURNING RADIUS: 6.30m



DESIGN VEHICLE

PASSENGER VEHICLE (TAC P)

VEHICLE WIDTH: 2.00m
OUTSIDE TURNING RADIUS: 6.30m



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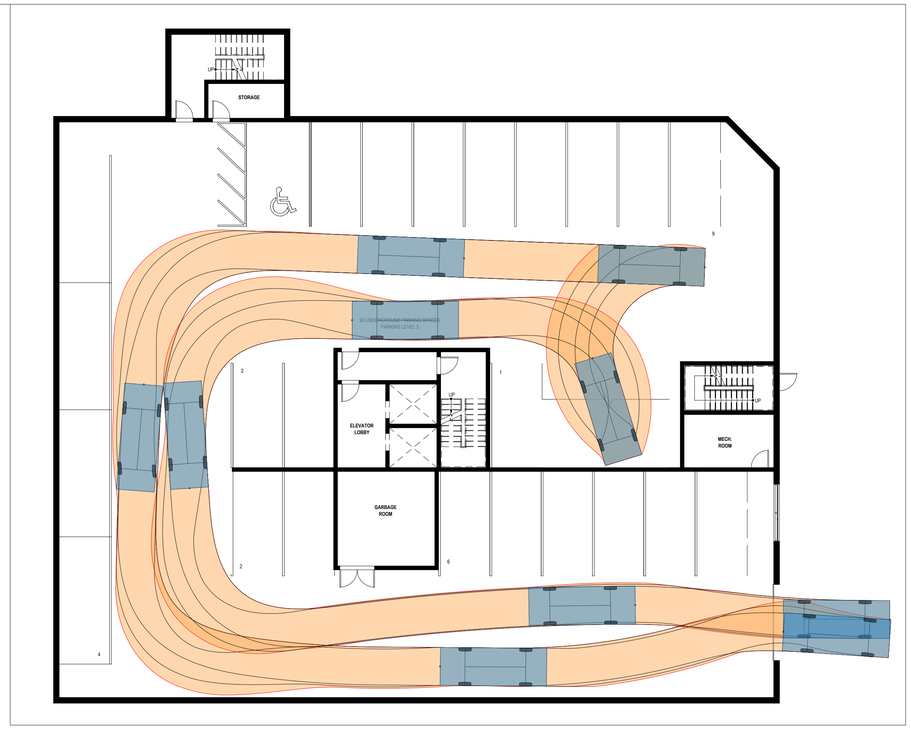
DUNDONALD STREET PROJECT

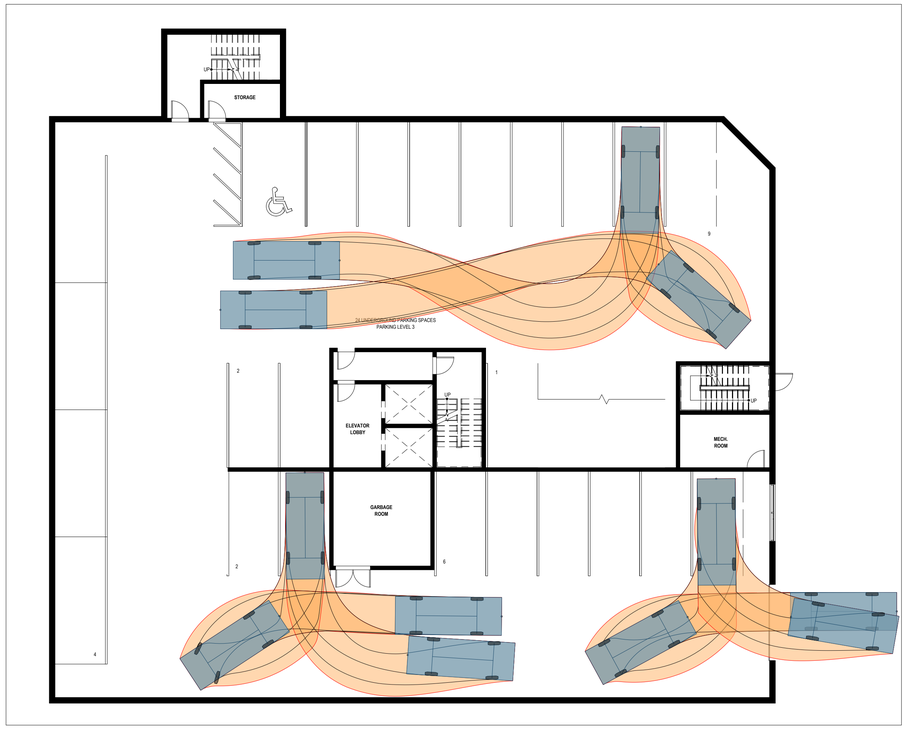
PASSENGER VEHICLE TURNING MOVEMENT
PARKING LEVEL 2

DESIGN:	JN	DATE:	12/20
DRAWN:	JN	DATE:	12/20
REVIEWED:	JN	DATE:	12/20
SCALE HOR.	1:150	SCALE VERT.	N/A
SHEET NO.	20014 - TURN D		

DESIGN VEHICLE - TAC PASSENGER



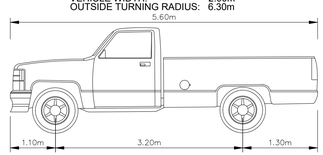
DESIGN VEHICLE - TAC PASSENGER



DESIGN VEHICLE

PASSENGER VEHICLE (TAC P)

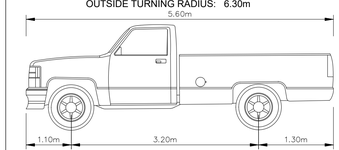
VEHICLE WIDTH: 2.00m
OUTSIDE TURNING RADIUS: 6.30m



DESIGN VEHICLE

PASSENGER VEHICLE (TAC P)

VEHICLE WIDTH: 2.00m
OUTSIDE TURNING RADIUS: 6.30m



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1.	DEC 2021	JN	FIRST SUBMISSION

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CITY OF BARRIE

DUNDONALD STREET PROJECT

PASSENGE VEHICLE TURNING MOVEMENT
PARKING LEVEL 3

DESIGN:	JN	DATE:	12/20
DRAWN:	JN	DATE:	12/20
REVIEWED:	JN	DATE:	12/20
SCALE HOR.	1:150	SCALE VERT.	N/A

SHEET NO. 20014 - TURN E