PREPARED BY:
MDT URBAN TRAFFIC SOLUTIONS LTD.

57-75 WELLINGTON ROAD AND 68 HIGH STREET

TRANSPORTATION IMPACT ASSESSMENT

CITY OF LONDON

MAY 2026

PREPARED FOR:
FOUNDATION DEVELOPMENT FUND I

57-75 Wellington Road and 68 High Street
Transportation Impact Assessment

List of Revisions:

Version	Date	Author	Description
Rev.0	May 4, 2026	M. Dworczak	Draft for submission

Project
2026-07 TIA – Wellington Tower

May 2026

Client
Foundation Development Fund I

Client Contact
Michael Nemanic
Phone: 613-601-4639

Consultant Contact
Michael Dworczak, P.Eng
Phone: 289-768-5455

Signature

MDT Urban Traffic Solutions Limited
59 October Drive
St. Catharines ON L2N 6J4
p: 289.768.5455
www.mdtconsulting.ca

Executive Summary

This report presents a Transportation Impact Assessment (TIA) for the proposed high-rise residential development located at 57-75 Wellington Road and 68 High Street (Wellington Tower), in the City of London, Ontario, herein referred to as the subject site. The subject site consists of a 27-storey tower comprising of 572 residential units on a constrained urban site with minimal on-site vehicle parking and is intended to function as a transit-oriented development.

Study Area and Analysis Framework

The analysis considers AM and PM weekday operations at the following study area intersections:

1. Grand Avenue and Wellington Road (signalized);
2. Grand Avenue and High Street (signalized); and
3. Site driveway connection to High Street.

Existing Traffic Operations

The study area intersections are currently operating with satisfactory levels of service during the AM and PM peak hours.

Horizon Year

The development is anticipated to be operational by 2029. A 2034 horizon year (five years post-buildout) was selected for analysis in accordance with typical City and industry practice.

Background Developments and Growth Rate

A review of the City of London's development applications and planning information identified no background developments within proximity of the study area to be incorporated into the analysis. This was further confirmed through pre-study consultation with City staff.

In the absence of specific background developments, a 2.0% annual growth rate was applied to all study area traffic movements to establish future background conditions. This rate was confirmed by the City and provides a reasonable and conservative estimate of general traffic growth within the corridor.

Development Trip Generation

Trip generation was estimated using the ITE Trip Generation Manual, 12th Edition (Land Use Code 222 – Multifamily Housing, High-Rise, Close to Rail Transit) under a Dense Multi-Use Urban setting. The base ITE rates were adjusted to reflect the site context, including a 32.5% non-auto mode share reduction consistent with City policy.

To reflect the expected operational characteristics of the development, including a high reliance on pick-up/drop-off (PUDO) and ride-hail activity, directional distributions were refined and a balanced operational sensitivity approach was applied. Under this approach, the peak directional volume was

applied to both inbound and outbound movements to conservatively account for short-duration vehicle turnover at the site.

Based on this methodology, the development is expected to generate approximately 60 inbound and 60 outbound trips in the AM peak hour, and 51 inbound and 51 outbound trips in the PM peak hour. This assumption provides a conservative assessment of site-generated traffic.

2034 Future Background Traffic Operations

The study area intersections are forecast to operate with similar levels of service as under existing traffic conditions.

2034 Future Total Traffic Operations

Future total traffic operations were assessed for the 2034 horizon year, incorporating background growth and planned network improvements associated with the Wellington Gateway project. The study area intersections are expected to operate acceptably under future total traffic conditions, and the development can be accommodated within the existing and planned transportation network.

Mitigation Measures

No geometric improvements are warranted based on the analysis and no mitigation measures are required to support the proposed development from a transportation perspective, however, periodic monitoring and optimization of signal timing plans is recommended to maintain efficient operations.

Site Access Review

Site access is proposed via a full-moves driveway to High Street. The access location meets City spacing guidelines and provides adequate visibility. Operational analysis confirms that the access is sufficient, with no requirement for a dedicated left-turn lane. While the proposed driveway width of 6.0 m is below the City's standard 6.7 m requirement, it is considered functionally appropriate based on low traffic volumes and confirmed vehicle operations

Pick-Up / Drop-Off (PUDO) Operations

Site operations are expected to be dominated by short-duration pick-up/drop-off (PUDO) activity, with a peak concurrent demand of approximately 3 vehicles. To accommodate this demand, space for up to 3 pick-up/drop-off vehicles should be accommodated within the proposed drop-off area, ensuring vehicles can queue and dwell without interfering with internal circulation or access operations.

Swept Path Assessment

A swept path assessment completed using Autodesk Vehicle Tracking confirms that emergency, service, and passenger vehicles can safely access and circulate within the site. The internal circular driveway provides flexibility for pick-up/drop-off operations, with a peak concurrent demand of approximately 3 vehicles, which can be accommodated on-site without spillback to the roadway network.

Transportation Demand Management

The following TDM measures are provided or represent opportunities associated with the subject site:

- Sidewalks and active transportation infrastructure are provided along Wellington Road and High Street, supporting pedestrian connectivity to surrounding land uses, along with internal pedestrian connections between building entrances and the public realm
- Bicycle parking is provided on-site, with approximately 260 spaces, which is below the Zoning By-law requirement of approximately 572 spaces, particularly with respect to long-term, secure spaces
- Opportunities exist to improve bicycle parking provision, including:
    - increasing the total number of spaces, where feasible
    - prioritizing sheltered and weather-protected long-term spaces
    - improving layout and accessibility to ensure spaces are functional and convenient for residents
- The development is located along the Wellington Gateway Bus Rapid Transit corridor, providing high-quality transit access within walking distance of the site
- Opportunities exist to incorporate a car share program, which would support reduced reliance on private vehicle ownership and complement the overall transportation strategy
- Wayfinding and trip planning information can be provided to support awareness and use of transit and active transportation options

Right-of-Way Requirement

A review of the City's identified 50 m right-of-way requirement along Wellington Road was undertaken in the context of the Wellington Gateway project. The analysis confirms that the corridor is being implemented at approximately 35–40 m and represents the finalized design condition. On this basis, the proposed development can be accommodated without reliance on an expanded right-of-way. The requested 50 m right-of-way does not align with the implemented Wellington Gateway corridor design and is not required to support future transportation operations.

Conclusion

Overall, the development is supported by strong transit accessibility, active transportation infrastructure, and a transportation strategy focused on reduced reliance on private vehicles. Based on the analysis presented herein, the proposed development can be accommodated without significant adverse impacts to the surrounding transportation network.

Table of Contents

Executive Summary i

1 Introduction 1

1.1 Purpose and Scope 2

1.2 Study Area 2

2 Existing Conditions 3

2.1 Road Network 3

2.2 Active Transportation 4

2.3 Transit Network 5

2.3.1 Future Transit Network – Wellington Gateway Project 6

2.4 Existing Traffic Volumes 9

2.5 Existing Traffic Operations 10

3 Development Concept 12

3.1 Vehicle Parking Provision 12

3.2 Bicycle Parking 13

4 Trip Generation 14

4.1 Trip Generation Methodology 14

4.1.1 Mode Share Adjustment 14

4.1.2 Directional Distribution Adjustment 14

4.1.3 Balanced Operational Sensitivity Adjustment 15

4.2 Trip Distribution 15

4.3 Trip Assignment 16

5 Future Traffic Operations 19

5.1 Horizon Year 19

5.2 Background Developments 19

5.3 Growth Rate 19

5.4 Future Transportation Network Improvements 19

5.5 2034 Background Traffic 20

5.6 2034 Background Traffic Operations 22

5.7 2034 Total Traffic 22

5.8 2034 Total Traffic Operations 24
6 Mitigation Measures 26
7 Site Access and Operations 27
7.1 Site Access Management 27
7.2 Passenger Pick-Up / Drop-Off (PUDO) and Curbside Operations 27
7.2.1 Operational Considerations 27
7.2.2 Paratransit Accommodation 28
7.2.3 Summary 28
7.3 Left Turn Lane Warrant 28
7.4 Swept Path Assessment 28
7.5 Driveway Width Considerations 29
7.6 Snow Storage 29
8 TRANSPORTATION DEMAND MANAGEMENT (TDM) STRATEGY 30
8.1 Walking 30
8.2 Cycling 30
8.2.1 Bicycle Parking Requirements 30
8.2.2 Proposed Bicycle Parking Supply 30
8.2.3 Cycling Assessment and Opportunities 31
8.2.4 Conclusion 31
8.3 Transit 31
8.4 Car Share Program 32
8.5 Wayfinding and Trip Planning 32
9 Wellington Road ROW Requirement Review 33
9.1 City-Identified Right-of-Way (ROW) Requirement 33
9.2 Existing Corridor Condition 33
9.3 Wellington Gateway Corridor Function and Design Intent 34
9.4 Implemented Right-of-Way Condition 34
9.5 Comparison to Requested Right-of-Way 36
9.6 Functional Assessment of Additional Width and Implications 36
9.7 Conclusion and Recommendation 36
10 Overall Conclusion 37

Appendices

Appendix A: Terms of Reference, Pre-Study Consultation Minutes and Email Correspondence
Appendix B: Traffic Data and Signal Timing Plans
Appendix C: Existing Traffic Operations – Synchro Reports
Appendix D: 2034 Background Traffic Operations – Synchro Reports
Appendix E: 2034 Future Total Traffic Operations – Synchro Reports
Appendix F: Swept Path Assessment

Figures

Figure 1 - Location of Subject Site....1
Figure 2 – Existing Study Area Lane Configuration and Traffic Control....4
Figure 3 – Existing Cycling and Trail Network (source: London's 2025 Bike and Walk Map)....5
Figure 4 – Existing Transit Network (source: London Transit - System Map 2025)....6
Figure 5 – Wellington Gateway Construction Phasing and Timeline (source: Wellington Gateway Project)...7
Figure 6 – Clark's Bridge Road Layout Southern Project Limits (source: Wellington Gateway Project)....8
Figure 7 – Phase 2B Road Layout Northern Project Limits (source: Wellington Gateway Project) 8
Figure 8 – Existing Traffic 2026 (AM/PM) 10
Figure 9 – Proposed Development Concept and Site Layout....12
Figure 10 – Estimated Site Traffic (AM Peak Hour) 17
Figure 11 – Estimated Site Traffic (PM Peak Hour) 18
Figure 12 – Future Network Improvements (Wellington Gateway Project Completion) 20
Figure 13 – 2034 Future Background (AM/PM)....21
Figure 14 – 2034 Future Total Traffic (AM Peak Hour)....23
Figure 15 – 2034 Future Total Traffic (PM Peak Hour) 24
Figure 16 – City's ROW Width Requirement....33
Figure 17 – Secured ROW Width for the Wellington Gateway Project....35
Figure 18 – Wellington Gateway Cross-Section 35

Tables

Table 1 – 2026 Existing Traffic Operations 11
Table 2 – ITE Trip Generation and Mode Share Adjustment....14
Table 3 – ITE Trip Distribution vs. Adjusted Directional Distribution....15
Table 4 – Balanced Operation Sensitivity Adjustment....15
Table 5 – Estimated Trip Distribution....16
Table 6 – 2034 Background Traffic Operations....22
Table 7 – 2034 Total Traffic Operations....25
Table 8 – PUDO Demand Assumptions....27

1 Introduction

MDT Urban Traffic Solutions Limited (MDT) was retained by Foundation Development Fund I to conduct this Transportation Impact Assessment (TIA) for the proposed redevelopment of an existing parcel of land located on the east side of High Street in the lands municipally known as 57-75 Wellington Road and 68 High Street in the City of London, Ontario. **Figure 1** indicates the subject site:

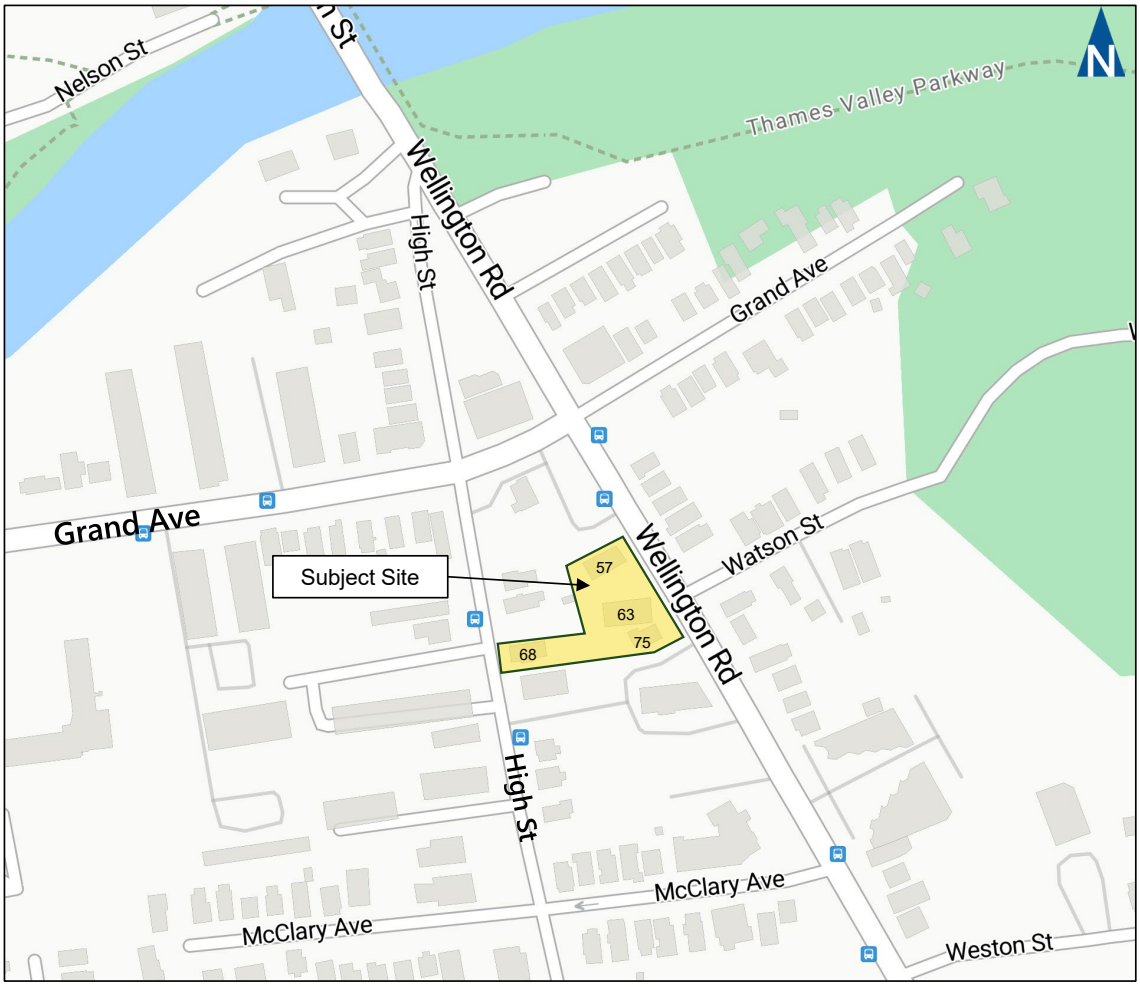


Figure 1 - Location of Subject Site

The site currently contains a mix of low-rise residential buildings, single family detached homes and duplexes, which are proposed to be redeveloped with two high-rise residential towers constructed in 2 phases. This report focuses on Phase 1 (Wellington Tower), which consists of a 27-storey residential building located along the Wellington Road frontage, with vehicular access provided via a full-moves driveway to High Street at the approximate location of 68 High Street.

The development is planned with limited on-site vehicle parking, consisting of approximately 12 visitor spaces located below grade, and is intended to operate with a strong reliance on transit, active

transportation, and passenger pick-up/drop-off activity. The site benefits from direct access to the Wellington Gateway Bus Rapid Transit (BRT) corridor, with a future transit hub located in close proximity.

This report has been prepared in accordance with the City of London Transportation Impact Assessment Guidelines[1]. A Terms of Reference (TOR) was prepared and submitted to the City on April 8, and a pre-study consultation was held on April 13, during which the scope of work and traffic data collection program were reviewed and accepted. A subsequent pre-application consultation with City staff and the developer was held on April 16, during which additional comments were provided, including right-of-way requirements along Wellington Road and site design considerations. A copy of the TOR, including pre-study and pre-application consultation materials, and related correspondence is provided in **Appendix A.**

1.1 Purpose and Scope

The purpose of the TIA is to determine the impacts of the development traffic on the surrounding road network and identify any improvements necessary to accommodate this traffic. The scope of the assessment includes:

1. Determination of the current traffic and site conditions in the vicinity of the development;
2. Estimates of background traffic growth in the area;
3. Estimates of the additional traffic that will be generated by the development;
4. The impact of the traffic at a five-year horizon (2034) from opening day of the planned construction assumed to be 2029; and
5. Providing recommendations on the remedial measures necessary to accommodate the future traffic in a satisfactory manner.

1.2 Study Area

The following intersections have been analyzed in this report to examine the impacts of additional traffic due to the development of the subject site:

1. Grand Avenue and Wellington Road (signalized);
2. Grand Avenue and High Street (signalized); and
3. Site driveway connection to High Street.

[1] City of London Transportation Impact Assessment Guidelines, April 2012

2 Existing Conditions

This section documents the transportation network in the study area in 2026, including existing roadways, traffic control measures, transit operations, walking and cycling facilities, traffic volumes, and intersection performance.

2.1 Road Network

All study area roads fall under the jurisdiction of the City of London and are designated as public roads. The characteristics of the roadways in the vicinity of the subject site considered in assessing the traffic impacts of the development include:

- **Wellington Road** is a north-south Rapid Transit Boulevard[2] with a 4-lane cross section that includes provision for centre-running Bus Rapid Transit (BRT) lanes and has a posted speed limit of 50 km/h.
- **Grand Avenue** is an east-west Neighbourhood Connector with a two-lane cross section and a posted speed limit of 40 km/h.
- **High Street** is a north-south Neighbourhood Connector with a two-lane cross section. The speed is not posted within the immediate study area, and has been assumed to be 50 km/h.

Figure 2 illustrates the existing study area lane configuration and traffic control.

[2] City of London, The London Plan Map 3 – Street Classifications, 2024.

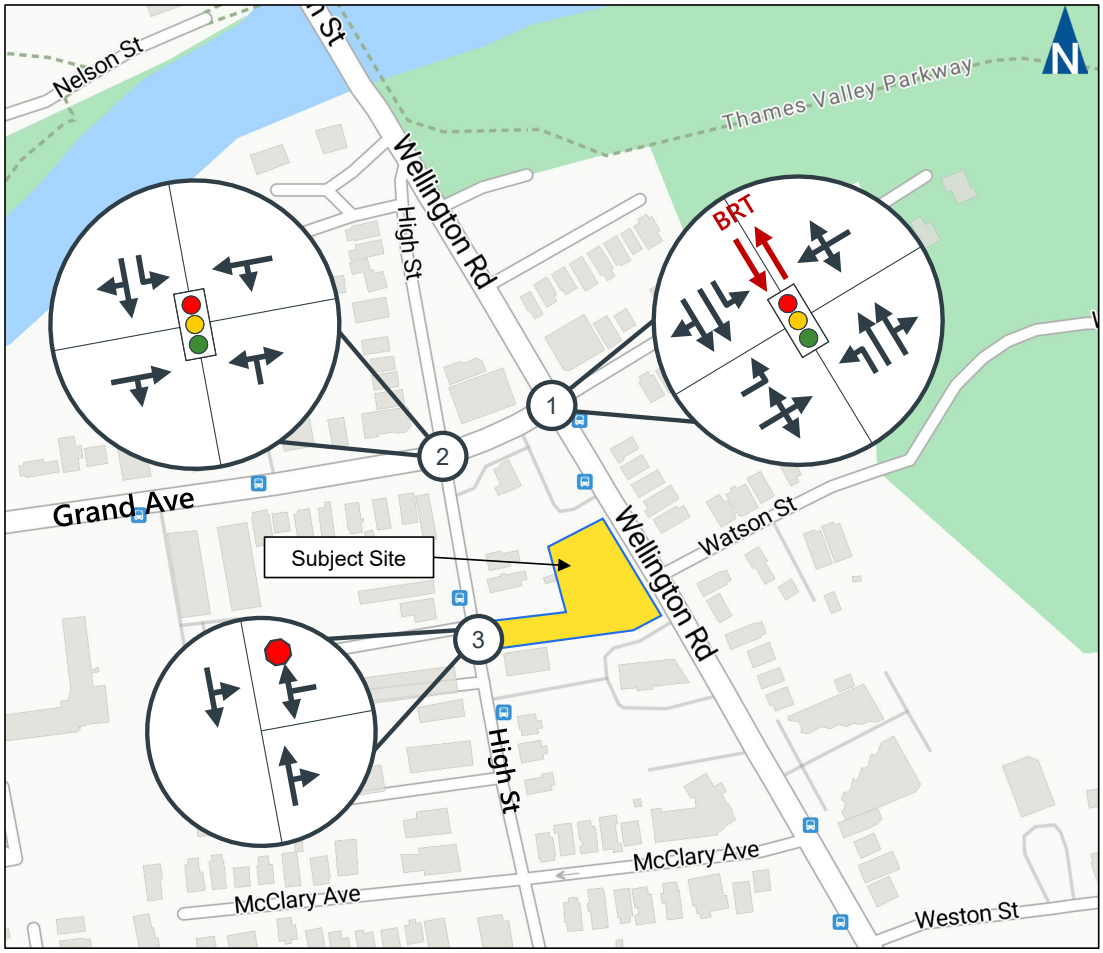


Figure 2 – Existing Study Area Lane Configuration and Traffic Control

2.2 Active Transportation

Sidewalks are provided on both sides of the road throughout the entire study area along Wellington Road, Grand Avenue and High Street.

Bike lanes are not provided within the study area, however there are plans to incorporate a multi-use path and shared space along Wellington Road as part of the Wellington Gateway Bus Rapid Transit project. Study plans indicate a 2.0m wide concrete sidewalk on the west side and 3.0m multi-use pathway on the east side of Wellington Road.

In addition, the Thames Valley Parkway multi-use trail is accessible from the north via Wellington Road and provides connection east-west across London, including Western University.

Figure 3 illustrates the existing cycling and trail network.

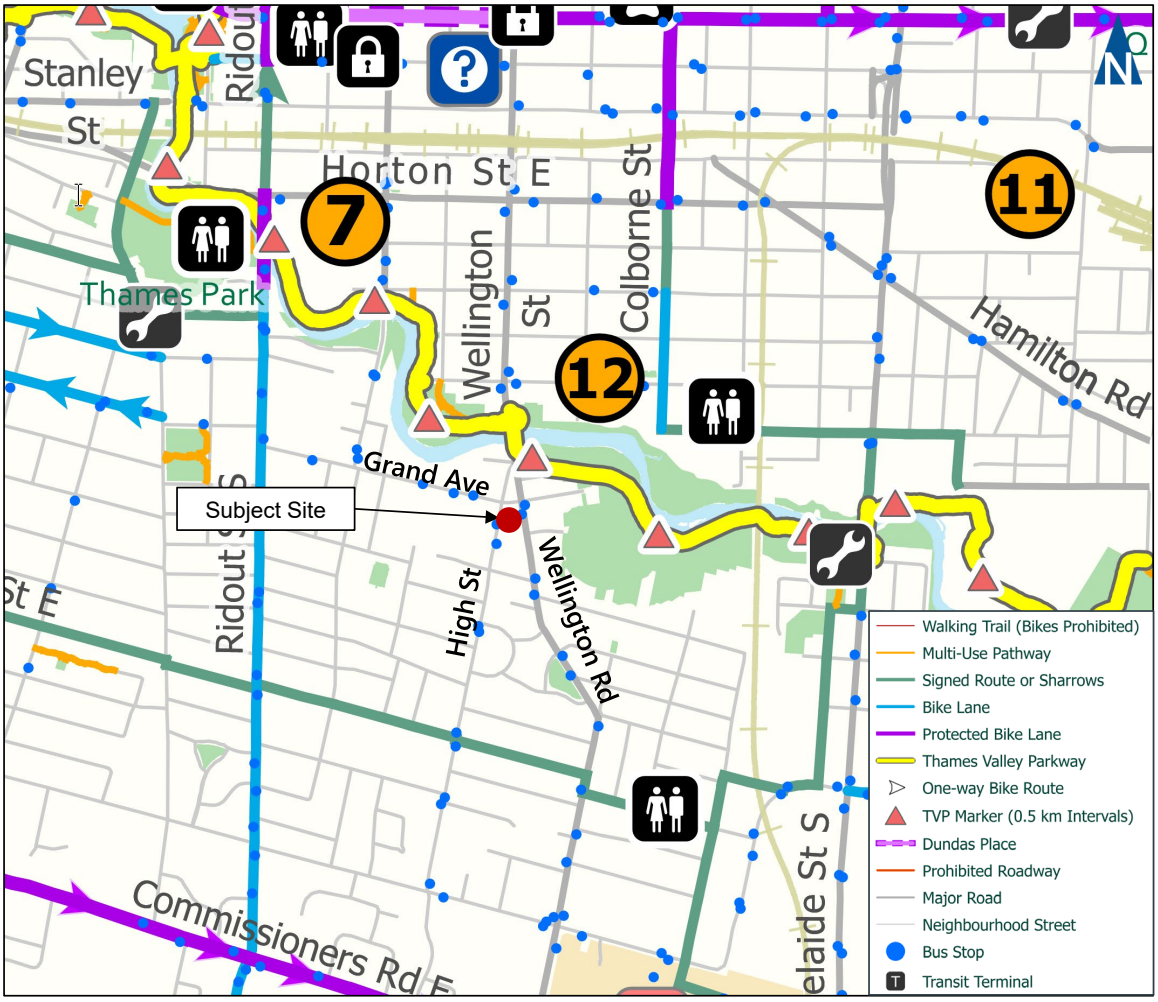


Figure 3 – Existing Cycling and Trail Network (source: London's 2025 Bike and Walk Map)

2.3 Transit Network

London Transit Routes 1, 13 and 90 operate along Wellington Road within immediate vicinity of the site and provides direct connection to Downtown London and the south of the city to White Oaks Mall. The routes operate Monday to Sunday and holidays with 15 to 30-minute headways depending on the route. The closest stops are located right at the intersection of Wellington Road and Grand Avenue along the new BRT route for the Wellington Gateway Project.

London Transit Route 6 operates along High Street also immediately adjacent to the site and provides an additional direct connection between Downtown London to the north and the Victoria Hospital/Children's Hospital at Base Line Road in the south. The route operates Monday to Sunday and holidays with 25 to 30-minute headways. The closest stop is located immediately south of the site access at ~68 High Street on the east side for northbound travel. The southbound transit stop is located on the west side within 20 metres to the north between the site access and Grand Avenue.

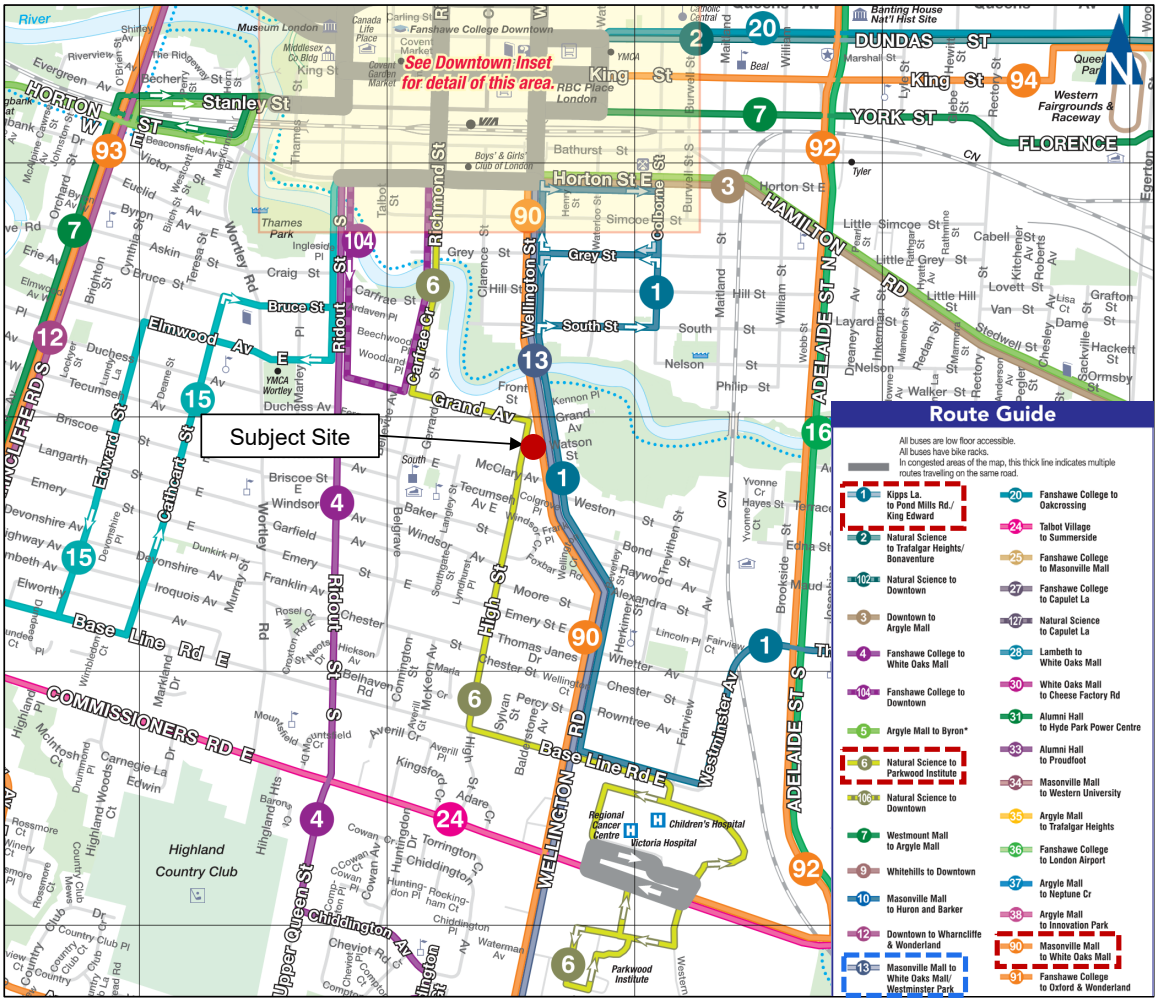


Figure 4 – Existing Transit Network (source: London Transit - System Map 2025)

2.3.1 Future Transit Network – Wellington Gateway Project

The City of London is currently implementing the Wellington Gateway Bus Rapid Transit (BRT) project along Wellington Road, which directly fronts the subject site. The project is being delivered in multiple phases and represents a significant transformation of the corridor to support higher-order transit and improved multimodal operations.

Figure 5 depicts the proposed study area alignment and phasing in relation to the subject site.

Figure 5 – Wellington Gateway Construction Phasing and Timeline (source: Wellington Gateway Project)

Phase 1 (Downtown) has been completed, and the Clark's Bridge segment, located immediately north of the subject site, is substantially constructed with roadway infrastructure in place and traffic operations functioning as intended. Minor finishing works are ongoing; however, the corridor is currently operational in its planned configuration.

The subject site is situated at the transition point between the completed Clark's Bridge segment and the future Phase 2 works. Based on available City project information, Phase 2 will extend the corridor improvements south of the site, connecting the Clark's Bridge segment to the remainder of the Wellington Gateway corridor toward Base Line Road and beyond. Construction of the Phase 2 segments, including Phase 2B, is anticipated to occur in the near term, with completion targeted for approximately 2028.

Figure 6 and **Figure 7** depict the study area road network in relation to the subject site.

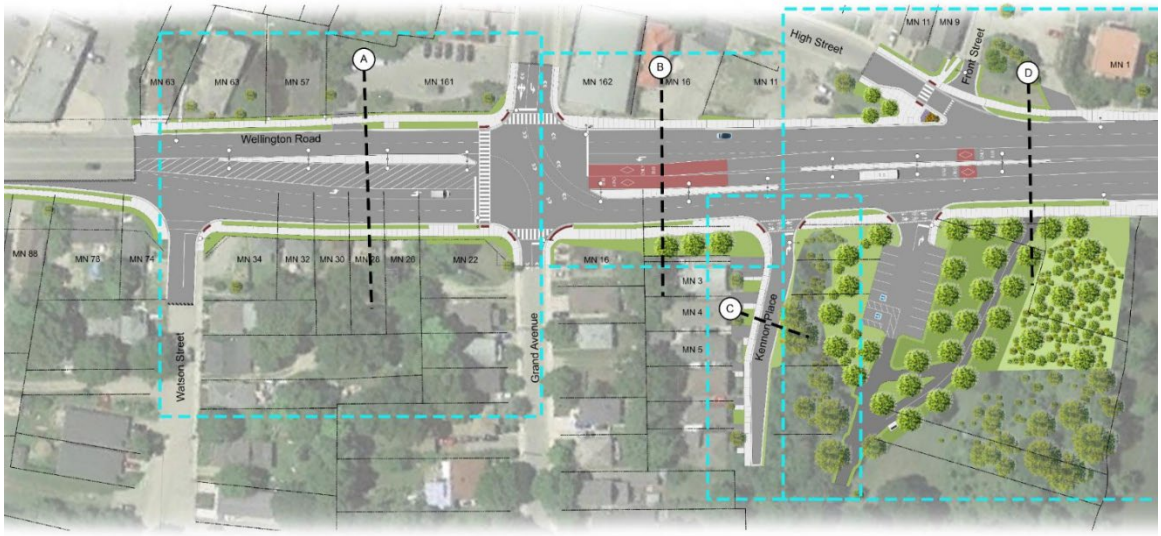


Figure 6 – Clark's Bridge Road Layout Southern Project Limits (source: Wellington Gateway Project)

Figure 7 – Phase 2B Road Layout Northern Project Limits (source: Wellington Gateway Project)

The Wellington Gateway project establishes the ultimate cross-section for Wellington Road, incorporating two general purpose lanes in each direction, centre-running BRT infrastructure, and enhanced pedestrian and boulevard elements. As such, the corridor design and right-of-way configuration in the vicinity of the subject site are largely defined through this ongoing capital works program.

For the purposes of this assessment, the Wellington Gateway project is considered the governing future condition of the roadway network along the site frontage, and the Transportation Impact Assessment has been prepared with consideration of both the current operational state and the planned ultimate configuration of the corridor. This project also establishes the ultimate geometric and operational framework for Wellington Road in the vicinity of the subject site.

At present, the subject site benefits from proximate transit service with bus stops located at the intersection of Wellington Road and Grand Avenue. As part of the Wellington Gateway project, transit operations will be consolidated into defined transit hubs, with the nearest planned stop located at the intersection of Bond Street and Wellington Crescent, approximately 380 meters south of the subject site along Wellington Road.

2.4 Existing Traffic Volumes

Traffic data was coordinated with the City of London Traffic Management Centre (TMC). Available turning movement counts for the study area intersections, including Wellington Road/Grand Avenue (2025) and Grand Avenue/High Street (2023), were not utilized, as the datasets were not current and would require additional cost to obtain. Accordingly, new turning movement counts were commissioned and collected by Pyramid Traffic Inc. on April 16, 2026, at both study area intersections.

Figure 8 illustrates the existing AM and PM weekday peak hour traffic volumes, balanced along Grand Avenue between High Street and Wellington Road due to their immediate proximity and presence of signal coordination. The detailed traffic count data, along with signal timing information obtained from the city, is provided in **Appendix B**.

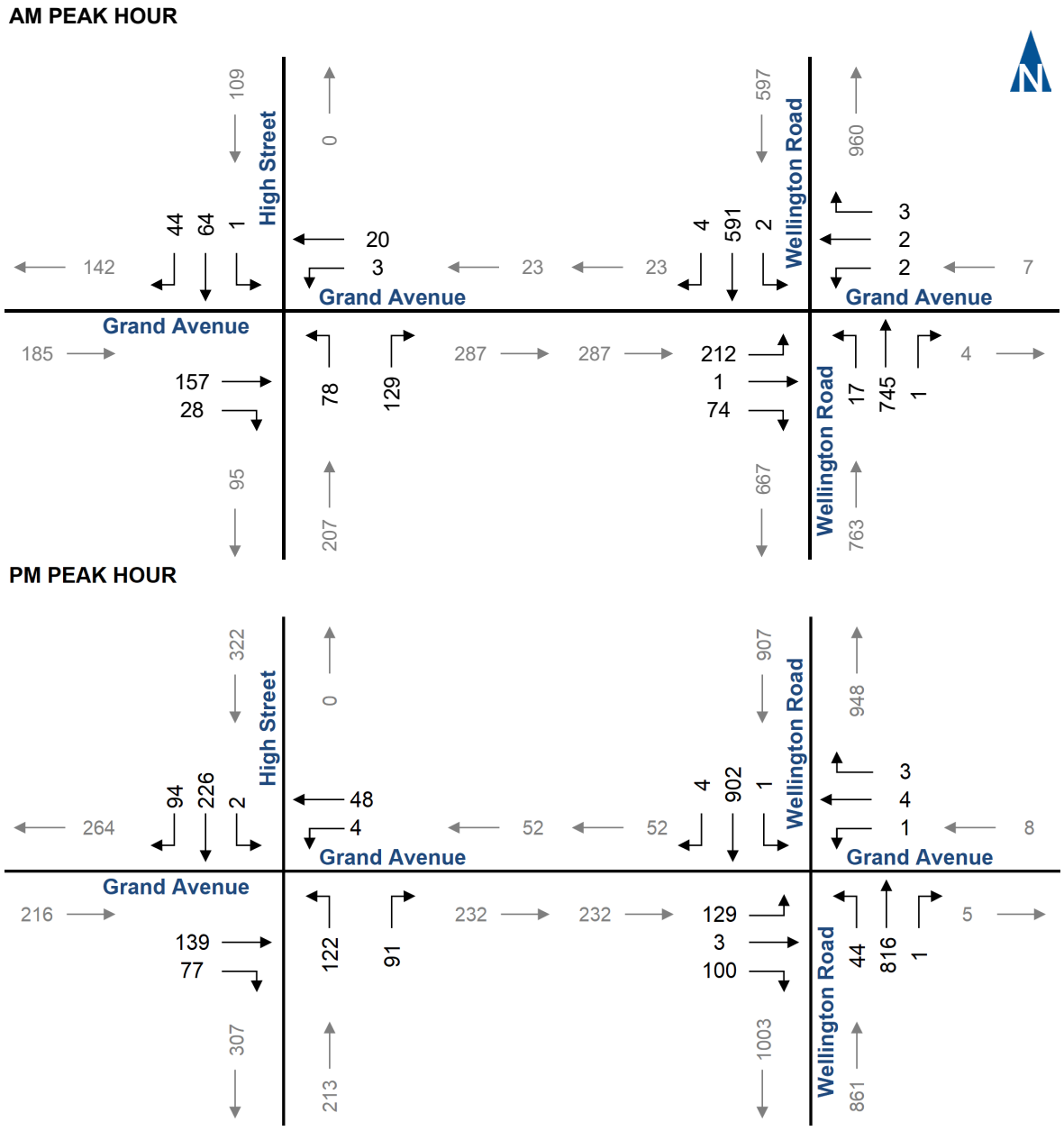


Figure 8 – Existing Traffic 2026 (AM/PM)

2.5 Existing Traffic Operations

The operations at the study area intersections have been assessed using Synchro 12. Movements are considered critical under the following conditions:

- volume/capacity (v/c) ratios for overall intersection operations, through movements or shared through/turning movements increased to 0.90 or above and level of service (LOS) 'E' or worse;
- v/c ratios for dedicated turning movements increased to 0.90 or above and LOS 'E' or worse; or
- 95th percentile queue lengths for individual movements exceed available lane storage.

Intersection LOS is a recognized method of quantifying the average delay experienced by drivers at intersections. It is based on the delay experienced by individual vehicles executing various movements. The delay is related to the number of vehicles intending to make a particular movement, compared to the estimated capacity for that movement. The capacity is based on a number of criteria related to the opposing traffic flows and intersection geometry.

The highest possible rating is LOS A, under which the average total delay is equal to or less than 10.0 seconds per vehicle. When the average delay exceeds 80 seconds for signalized intersections, 50 seconds for unsignalized intersections or when the volume to capacity ratio is greater than 1.0, the movement is classed as LOS F and remedial measures are usually implemented, if they are feasible. LOS E is usually used as a guideline for the determination of road improvement needs on through lanes, while LOS F may be acceptable for left-turn movements at peak times, depending on delays.

The following **Table 1** summarizes the results of the intersection operational analysis under existing conditions, including the AM and PM peak hour LOS, v/c ratios, and 95th percentile queues.

Table 1 – 2026 Existing Traffic Operations

Analysis Period	Intersection	Control Type	MOE	Direction / Movement / Approach																	
				Eastbound				Westbound				Northbound				Southbound				Overall
				Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	
AM Peak Hour	1 - Wellington Road/ Grand Avenue	TCS	LOS	C	B	-	B	-	E	-	E	C	B	-	B	E	C	-	C	C
			Delay	23	13		18		61		61	34	14		14	56	29		29	21
			V/C	0.56	0.39				0.28			0.05	0.41			0.11	0.53			0.48
			Q	24	31				10			12	74			5	87			
			Ex.	37					200			45				25				
			Avail	13					190			33				20				
	2 - High Street/ Grand Avenue	TCS	LOS	-	D	-	D	-	D	-	D	-	C	-	C	B	B	-	B	C
			Delay		47		47		51		51		26		26	10	11		11	32
			V/C		0.66				0.07				0.28			0.00	0.12			0.31
			Q		59				16				46				23			
			Ex.		449				37				82				106			
			Avail		390				21				36				83			
PM Peak Hour	1 - Wellington Road/ Grand Avenue	TCS	LOS	C	B	-	B	-	D	-	D	D	B	-	B	D	D	-	D	C
			Delay	28	6		18		46		46	38	12		13	55	38		38	25
			V/C	0.48	0.38				0.11			0.09	0.37			0.01	0.77			0.77
			Q	18	30				8			25	80			10	124			
			Ex.	37					200			45				25				
			Avail	19					192			20				15				
	2 - High Street/ Grand Avenue	TCS	LOS	-	D	-	D	-	E	-	E	-	B	-	B	B	B	-	B	C
			Delay		54		54		63		63		17		17	14	11		11	28
			V/C		0.72				0.19				0.52			0.00	0.30			0.77
			Q		64				25				62			2	54			
			Ex.		449				37				82			106	106			
			Avail		385				12				20			104	52			

MOE - Measure of Effectiveness
LOS - Level of Service
Delay - Average Delay per Vehicle in Seconds

Q - 95th Percentile Queue Length
Ex. - Existing Available Storage
Avail. - Available Storage

TCS - Traffic Control Signal
TWSC - Two-Way Stop Control

The results indicate that the study area intersections are operating with acceptable levels of service.

Appendix C contains the detailed Synchro 12 reports for Existing Traffic Operations.

3 Development Concept

The subject site is located along Wellington Road, with access provided from High Street, and is proposed to be redeveloped with a two-tower high-rise residential development constructed in two separate phases. This TIA addresses Phase 1 referred to as Wellington Tower, which includes a 27-storey residential building comprising 572 dwelling units. A second high-rise tower is planned as part of the ultimate site buildout under a future phase and is currently unknown. Construction of Phase 1 is anticipated to be completed by 2029.

Primary vehicular access is proposed via a full-moves driveway to High Street at the approximate address of 68 High Street. An internal circular driveway (roundabout) is incorporated to support pick-up/drop-off activity, short-term circulation, and access to servicing functions.

The following **Figure 9** shows the proposed development concept and site layout for Wellington Tower, with its orientation between High Street and Wellington Road.

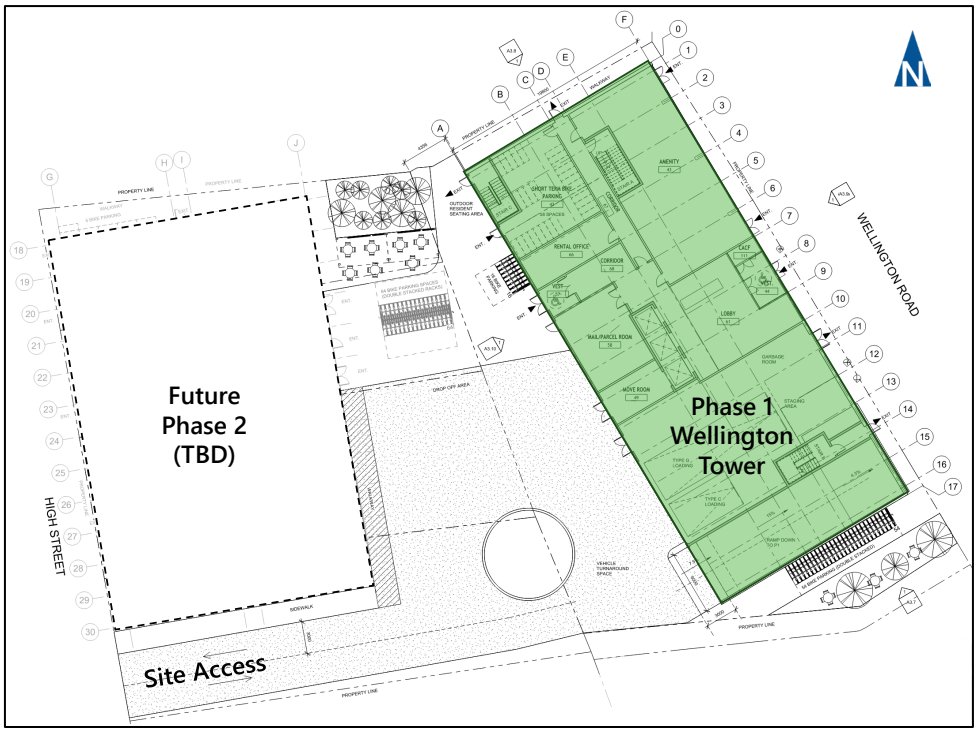


Figure 9 – Proposed Development Concept and Site Layout

3.1 Vehicle Parking Provision

The proposed development includes a total of approximately 12 on-site vehicle parking spaces, primarily intended to accommodate short-term visitor parking demand. No resident parking is proposed, reflecting the site's location within a transit-supportive corridor and the overall development strategy focused on reduced automobile dependency. Given the limited parking supply, the development is expected to rely on a combination of alternative transportation modes, including transit, walking, cycling, and pick-up/drop-off

activity. This approach is consistent with the evolving transportation context along Wellington Road, particularly in consideration of the Wellington Gateway Bus Rapid Transit project.

The adequacy of the proposed visitor parking supply has been assessed in the context of expected demand, which is anticipated to be low based on the nature of the development and the availability of alternative transportation options. Short-term parking demand is expected to be accommodated through a combination of on-site supply, efficient turnover, and the use of pick-up/drop-off activity.

3.2 Bicycle Parking

The proposed development provides approximately 260 bicycle parking spaces, corresponding to a provision rate of approximately 0.45 spaces per unit. Based on the City of London Zoning By-law requirements, a total of approximately 572 bicycle parking spaces would be required for the proposed 572-unit development, consisting of 90% long-term and 10% short-term spaces.

As such, the current design is deficient relative to the Zoning By-law requirements, particularly with respect to the quantity of secure, weather-protected long-term spaces. A detailed assessment of bicycle parking provision, including constraints and opportunities for refinement, is provided in **Section 7.2**.

4 Trip Generation

Trip generation for the proposed development was estimated based on industry standard methodologies and adjusted to reflect the site's urban context, transit accessibility, and restricted on-site parking supply. The analysis considers ITE-based trip generation, mode share adjustments, and site-specific operational characteristics, including pick-up/drop-off activity. The following subsections outline the methodology and assumptions applied.

4.1 Trip Generation Methodology

Trip generation for the proposed development was estimated using the ITE Trip Generation Manual (12th Edition), Land Use Code 222 (Multifamily Housing High-Rise), within a Dense Multi-Use Urban setting and Close to Transit. Both the fitted regression curve and average rate were reviewed, and the average rate was selected, as it produces a higher and more conservative estimate of peak hour trip generation for the subject site. Based on 572 units, this results in 126 AM peak hour trips and 109 PM peak hour trips.

The standard ITE directional distributions are not fully representative of developments with minimal on-site parking and high reliance on ride-hail and PUDO activity and have therefore been adjusted to better reflect expected operational conditions in the following sections.

4.1.1 Mode Share Adjustment

Given the site's location along a Bus Rapid Transit (BRT) corridor and its limited on-site parking supply, a 32.5% non-auto mode share reduction was applied to the ITE trip generation rate. This reduction is consistent with direction provided by the City of London through the pre-application consultation process. As noted in the meeting summary, the City's current transportation planning objective is to achieve a 32.5% non-auto mode share target by 2050, as outlined in the Mobility Master Plan (July 2025). While the 32.5% target may not fully capture the behaviour of a near-zero parking development, it provides a standardized and City-aligned basis for assessment and is considered a reasonable and somewhat conservative estimate of site-generated vehicle traffic. **Table 2** shows the Mode Share reduction:

Table 2 – ITE Trip Generation and Mode Share Adjustment

Peak Hour	Rate (Trips/Unit)	Units	Total Trips	Reduction	Adjusted Trips
AM Peak Hour	0.22	572	126	-32.5%	85
PM Peak Hour	0.19	572	109	-32.5%	74

4.1.2 Directional Distribution Adjustment

The ITE Trip Generation Manual identifies directional splits of approximately 11%/89% (IN/OUT) in the AM peak hour and 69%/31% (IN/OUT) in the PM peak hour for multifamily residential developments. These splits reflect conventional auto-oriented travel patterns.

The AM directional distribution of 11%/89% (IN/OUT) reflects a strong bias toward resident vehicle departures typical of developments with high car ownership. This is not representative of the proposed

development, which includes no resident parking and is intended to support alternative travel modes such as transit, walking, and cycling, along with short-duration pick-up/drop-off activity.

Accordingly, the AM peak hour split has been moderated to 30%/70% (IN/OUT) to better reflect expected site operations while maintaining a reasonable commuter bias. The PM peak hour distribution of 69%/31% (IN/OUT) has been retained as it is considered representative of return-home travel patterns. The following **Table 3** shows these adjustments:

Table 3 – ITE Trip Distribution vs. Adjusted Directional Distribution

Scenario	AM Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total
ITE Directional Split (%)	11%	89%	100%	69%	31%	100%
Modal Split Reduction (32.5%)	9	76	85	51	23	74
Adjusted Directional Split	30%	70%	100%	69%	31%	100%
Adjusted Trip Generation	**26**	**60**	**85**	**51**	**23**	**74**

4.1.3 Balanced Operational Sensitivity Adjustment

Due to the anticipated prominence of pick-up/drop-off and ride-hail activity, a conservative operational sensitivity scenario was considered to account for anticipated short-duration vehicle turnover at the site.

Under this condition, the upper bound directional volume in each peak hour was selected and applied on a like-for-like basis to both inbound and outbound movements. This approach reflects the operational reality of pick-up/drop-off activity, where vehicles arriving at the site will also depart within the same peak period, resulting in a mirrored pattern of inbound and outbound movements. As a result, this method increases the total number of site access movements relative to the reduced ITE trip generation, providing a conservative estimate of driveway and site circulation activity. The following **Table 4** shows the sensitivity adjustment.

Table 4 – Balanced Operation Sensitivity Adjustment

Operational Sensitivity Adjustment	AM Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total
Upper Bound Operational Sensitivity Adjustment	60	60	120	51	51	102
Balanced Operational Sensitivity Split (%)	50%	50%	100%	50%	50%	100%

This approach provides an overall conservative representation of site access activity, capturing the effects of short-duration vehicle turnover associated with ride-hail and pick-up/drop-off operations without overstating overall trip generation.

4.2 Trip Distribution

The trip distribution was determined based on existing traffic patterns, roadway connectivity, and logical routing to and from the proposed site access. No traffic was assigned east of the site via Grand Avenue, as this segment functions as a dead-end local street and does not provide a meaningful external travel route.

For outbound site traffic, movements observed on both High Street and Wellington Road were consolidated into north- and south-oriented travel patterns to better reflect expected departure routes. All southbound outbound trips were assumed to travel directly south from the site via High Street, consistent with the most direct and logical routing as would be selected by GPS navigation. This avoids the unrealistic condition where vehicles would travel north to access Wellington Road, incur delay at the signalized intersections at High Street/Grand Avenue and Grand Avenue/Wellington Road, and then proceed south. **Table 5** below displays the breakdown of trip distribution used in this study across the study area.

Table 5 – Estimated Trip Distribution

		AM		PM	
Route	**Direction**	**In**	**Out**	**In**	**Out**
High St.	North	38%	0%	49%	0%
Wellington Rd.	North	0%	51%	0%	38%
High St.	South	11%	41%	8%	52%
Wellington Rd.	South	41%	0%	34%	0%
Grand Ave.	West	10%	8%	9%	10%
Total		**100%**	**100%**	**100%**	**100%**

Notes:

1. East on Grand Ave, not utilized for routing due to being a dead-end street
2. North on High St, inbound functions as ramp from Wellington Rd. All inbound from north on Wellington adjusted to North on High St.
3. South on Wellington Rd, outbound not utilized due to most direct travel route south will exit to High St. and connect via any east/west connection towards Wellington Rd through to Base Line Rd E.

4.3 Trip Assignment

The trips were assigned to the roadway network based on the trip distribution outlined in Section 3.2 and 3.3 above. The resulting site-generated trip assignment is displayed in the following **Figures 10** and **Figure 11**, for AM and PM Peak Hours, respectively.

AM PEAK HOUR

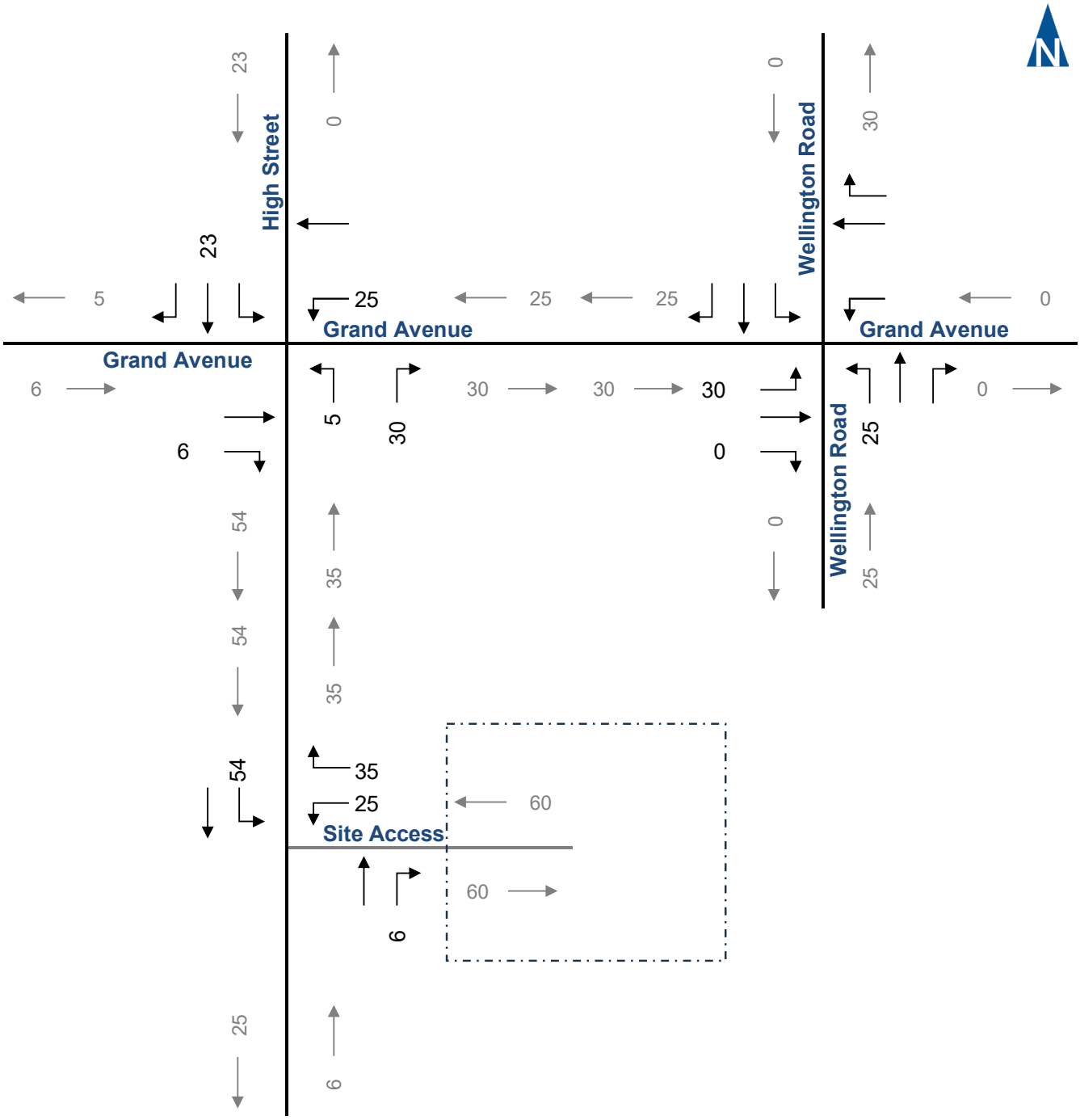


Figure 10 – Estimated Site Traffic (AM Peak Hour)

PM PEAK HOUR

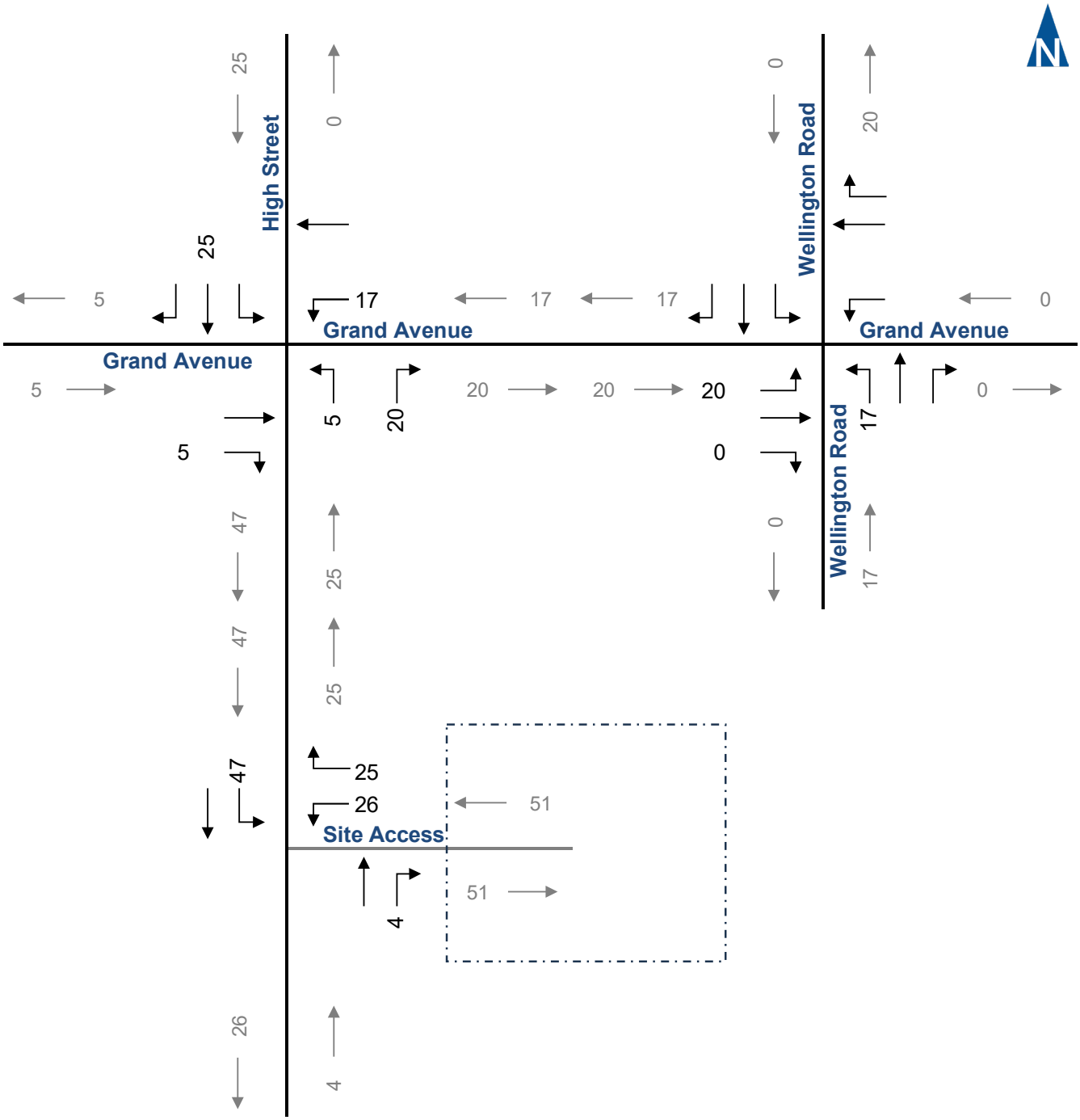


Figure 11 – Estimated Site Traffic (PM Peak Hour)

5 Future Traffic Operations

The assessment of future traffic conditions in this section includes estimates of future background and total traffic volumes. This section discusses the proposed horizon year for the purpose of analyzing future traffic conditions, the background traffic growth rate, and the anticipated future transportation network improvements.

5.1 Horizon Year

Per the City of London Transportation Impact Assessment Guidelines (April 2012), the future analysis horizon is defined as five years beyond the anticipated build-out of the development. For this study, the proposed development is assumed to be fully operational by 2029 (opening year). Accordingly, a 2034 horizon year has been selected to represent future conditions, consistent with the City's guideline for a five-year post build-out assessment. The 2034 horizon year is used for the evaluation of both Future Background Conditions and Future Total Conditions.

5.2 Background Developments

A review of the City of London's current development applications and publicly available planning information was undertaken to identify any background developments within proximity of the study area. Upon review, no development applications or proposals were identified within immediate proximity of the study area. Furthermore, no background developments were identified or requested for inclusion by City staff during the pre-consultation process and review of the Terms of Reference. Accordingly, no specific background developments have been incorporated into the analysis.

5.3 Growth Rate

Traffic growth has been applied to all movements within the study area to develop Future Background Conditions. In the absence of detailed corridor-specific growth data, a 2.0% annual growth rate has been applied to all study area intersections. This rate was confirmed in consultation with City staff through pre-study consultation and is considered appropriate for the study area.

Given that no background developments were identified within proximity of the study area, the applied growth rate is intended to account for general traffic growth in lieu of site-specific development impacts and represents a conservative proxy for cumulative development activity within the study area.

5.4 Future Transportation Network Improvements

A review of planned transportation infrastructure within the study area identified ongoing and future improvements associated with the Wellington Gateway Project, which includes modifications to Wellington Road to support enhanced transit operations, including Bus Rapid Transit (BRT) infrastructure.

Under existing conditions, roadway improvements associated with the Clark's Bridge component of the project have already been completed, including upgrades at the intersection of Wellington Road and Grand Avenue extending north of the site. The southern continuation of these improvements is currently planned for completion by 2028 as part of Phase 2B, which represents the final phase of the project.

Accordingly, by the 2034 horizon year, the Wellington Gateway Project is expected to be fully operational. The future analysis therefore assumes the ultimate roadway geometry and operating conditions along Wellington Road, including the section south of Wellington Road and Grand Avenue, consistent with the completed design. The following **Figure 12** defines the future road network which includes the addition of centre running BRT bus lanes to the south of Grand Avenue and Wellington Road. This is the only change documented between Existing conditions and the ultimate condition of the Wellington Gateway Project.

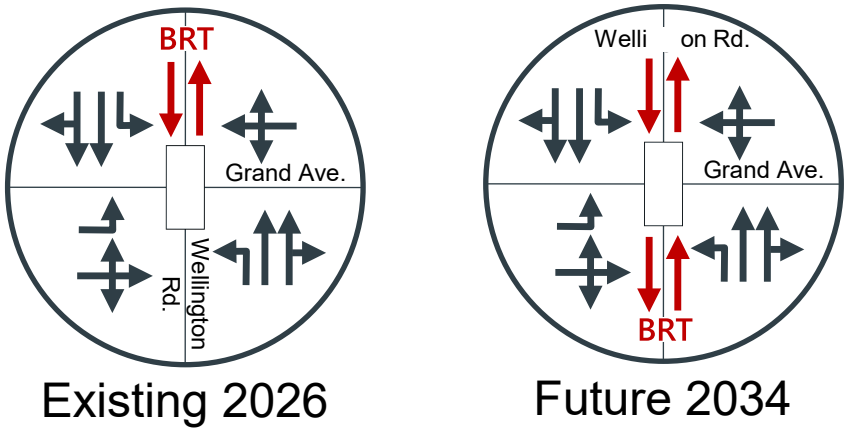


Figure 12 – Future Network Improvements (Wellington Gateway Project Completion)

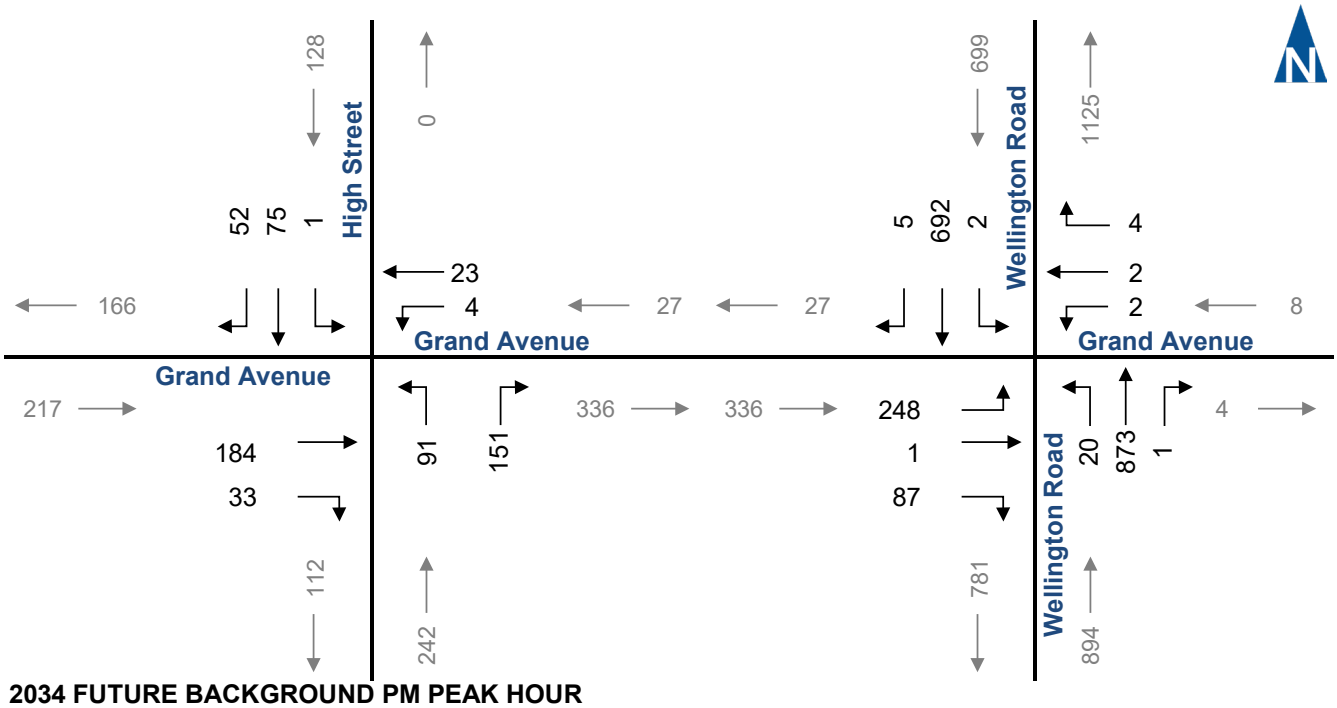
Given the limitations of Synchro to model BRT lanes, it is assumed the BRT lanes operate on the same signal timing as the southbound and northbound through movements, as was visible from the signal timing plans provided by the City that reflect the condition already within their timing plans. As such, no new network changes we created in the synchro analysis.

5.5 2034 Background Traffic

The 2034 Background Traffic volumes were derived by applying the growth rate of 2.0% per annum to the existing 2026 volumes. The network was then assessed with the proposed network improvements identified in **Section 4.3**.

Figure 13 below summarizes the 2034 Background Traffic Volumes.

2034 FUTURE BACKGROUND AM PEAK HOUR



2034 FUTURE BACKGROUND PM PEAK HOUR

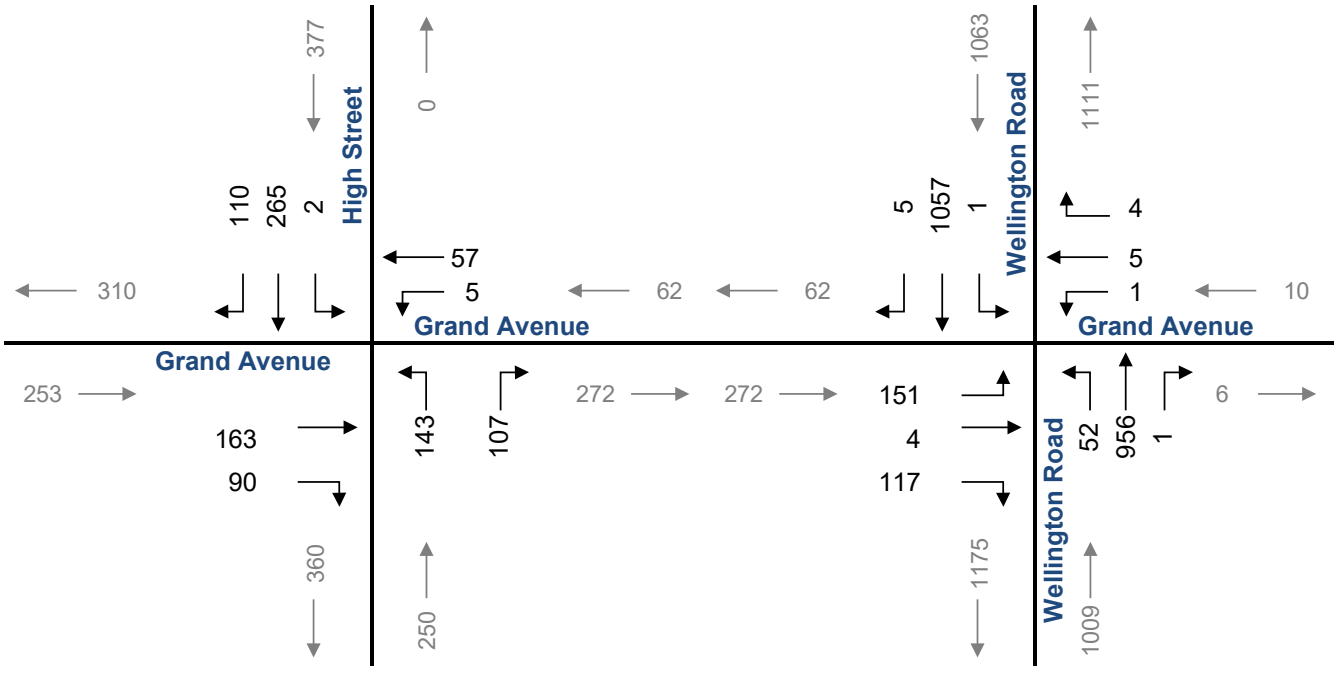


Figure 13 – 2034 Future Background (AM/PM)

5.6 2034 Background Traffic Operations

The 2034 background traffic volumes have been analyzed using the same methodology as under existing traffic conditions. Signal timings have not been optimized.

Table 6 summarizes the results of the 2034 background traffic operations. The results indicate that the study area intersections are forecast to operate with similar levels of service as under existing traffic conditions.

Table 6 – 2034 Background Traffic Operations

Analysis Period	Intersection	Control Type	MOE	Direction / Movement / Approach																Overall
				Eastbound				Westbound				Northbound				Southbound				
				Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	
AM Peak Hour	1 - Wellington Road/ Grand Avenue	TCS	LOS	C	B	-	C	-	D	-	D	D	B	-	B	D	D	-	D	C
			Delay	27	14		21		38		38	40	16		17	50	36		36	25
			V/C	0.57	0.50				0.14			0.05	0.45			0.02	0.69			0.69
			Q	29	37				8			14	79			5	100			
			Ex.	37					200			45				25				
			Avail	8					192			31				20				
	2 - High Street/ Grand Avenue	TCS	LOS	-	D	-	D	-	D	-	D	-	B	-	B	B	B	-	B	C
			Delay		48		48		46		46		16		16	18	12		12	28
			V/C		0.69				0.08				0.51			0.00	0.14			0.69
			Q		67				15				55				22			
			Ex.		449				37				82				106			
			Avail		382				22				27				84			
PM Peak Hour	1 - Wellington Road/ Grand Avenue	TCS	LOS	C	A	-	B	-	D	-	D	D	B	-	B	D	D	-	D	C
			Delay	28	6		17		45		45	45	17		18	55	47		47	31
			V/C	0.48	0.38				0.18			0.13	0.47			0.01	0.90			0.90
			Q	22	32				11			39	91			10	121			
			Ex.	37					200			45				25				
			Avail	15					189			6				15				
	2 - High Street/ Grand Avenue	TCS	LOS	-	D	-	D	-	E	-	E	-	C	-	B	B	B	-	B	C
			Delay		52		52		59		59		22		18	18	16		16	30
			V/C		0.74				0.19				0.06			0.00	0.04			0.90
			Q		71				32				75			2	68			
			Ex.		449				37				82			106	106			
			Avail		378				5				7			104	38			

MOE - Measure of Effectiveness
LOS - Level of Service
Delay - Average Delay per Vehicle in Seconds

Q - 95th Percentile Queue Length
Ex. - Existing Available Storage
Avail. - Available Storage

TCS - Traffic Control Signal
TWSC - Two-Way Stop Control

Appendix D contains the detailed Synchro 12 reports for the 2034 Future Background Traffic Operations.

5.7 2034 Total Traffic

The 2034 Total Traffic volumes were derived by combining the 2034 Background Traffic with the proposed development site traffic. **Figure 14** and **Figure 15** summarize the 2034 Total Traffic Volumes for AM and PM Peak Hours, respectively.

2034 FUTURE TOTAL AM PEAK HOUR

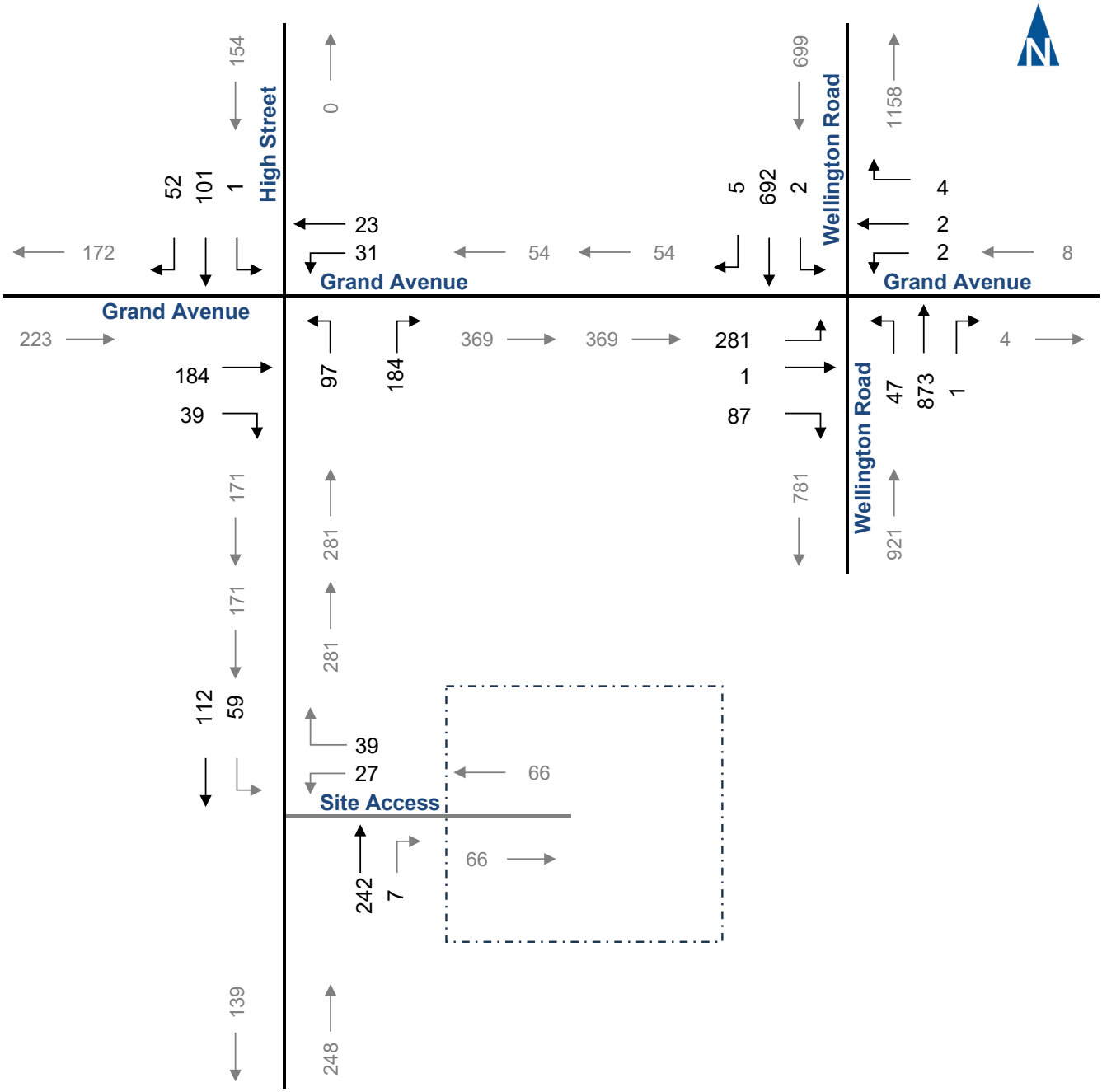


Figure 14 – 2034 Future Total Traffic (AM Peak Hour)

2034 FUTURE TOTAL PM PEAK HOUR

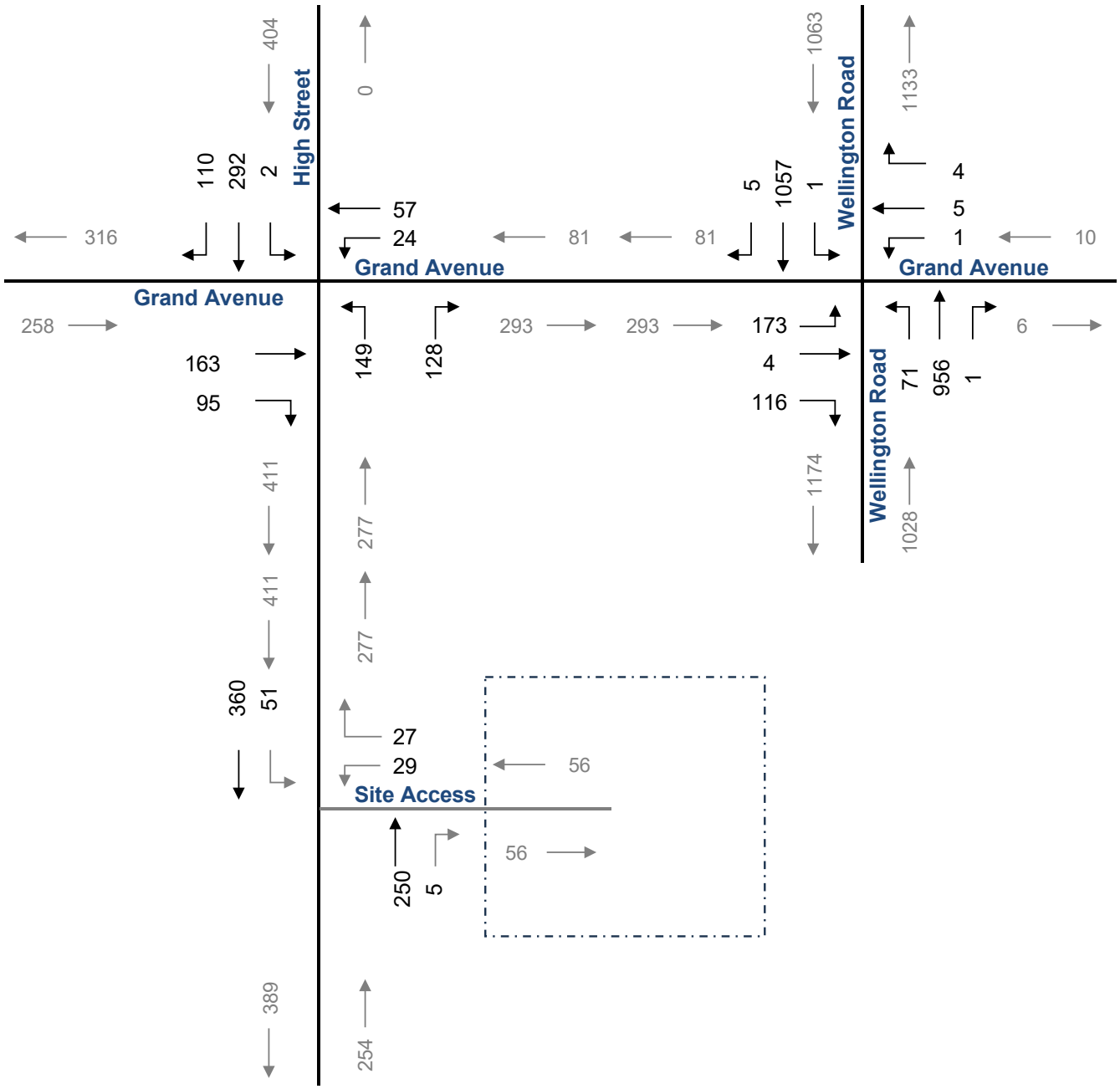


Figure 15 – 2034 Future Total Traffic (PM Peak Hour)

5.8 2034 Total Traffic Operations

The 2034 total traffic volumes have been analyzed using the same methodology as under existing traffic 2034 background traffic conditions. Signal timings have been optimized to a cycle length of 100s for the AM peak hour and 115s for the PM peak hour from 110s and 120s respectively. **Table 7** summarizes the results of the 2034 total traffic operations.

Table 7 – 2034 Total Traffic Operations

Analysis Period	Intersection	Control Type	MOE	Direction / Movement / Approach																
				Eastbound				Westbound				Northbound				Southbound				Overall
				Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	
AM Peak Hour	1 - Wellington Road/ Grand Avenue	TCS	LOS	C	B	-	B	-	C	-	C	C	B	-	B	D	D	-	D	C
			Delay	25	13		19		33		33	31	16		16	45	48		48	28
			V/C	0.60	0.52				0.11			0.10	0.45			0.02	0.87			0.87
			Q	29	37				10			23	84			11	99			
			Ex.	37	37				200			45				25				
			Avail	8	0				190			23				14				
	2 - High Street/ Grand Avenue	TCS	LOS	-	D	-	D	-	D	-	D	-	C	-	C	B	B	-	B	C
			Delay		42		42		51		51		23		23	18	12		12	29
			V/C		0.67				0.33				0.68			0.00	0.17			0.87
			Q		58				12				65				27			
			Ex.		449				37				82				106			
			Avail		391				25				17				79			
	3 - High Street/ Site Access	TWSC	LOS	-	-	-	-	-	B	-	B	-	A	-	A	-	A	-	A	A
			Delay				-		12		12		0		0		3		3	3
			V/C						0.11				0.16				0.05			
			Q						16				0				12			
			Ex.																	
			Avail																	
PM Peak Hour	1 - Wellington Road/ Grand Avenue	TCS	LOS	C	A	-	B	-	D	-	D	D	B	-	B	D	D	-	D	C
			Delay	29	7		18		44		44	44	17		19	52	54		54	35
			V/C	0.53	0.39				0.17			0.19	0.48			0.01	0.93			0.93
			Q	26	35				10			41	91			2	135			
			Ex.	37	37				200			45				25				
			Avail	11	2				190			4				23				
	2 - High Street/ Grand Avenue	TCS	LOS	-	D	-	D	-	E	-	E	-	C	-	C	B	B	-	B	C
			Delay		49		49		64		64		26		26	19	17		17	31
			V/C		0.73				0.39				0.71			0.00	0.42			0.93
			Q		70				35				76			3	62			
			Ex.		449				37				82			106	106			
			Avail		379				2				6			103	44			
	3 - High Street/ Site Access	TWSC	LOS	-	-	-	-	-	B	-	B	-	A	-	A	-	A	-	A	A
			Delay				-		14		14		0		0		1		1	2
			V/C						0.13				0.16				0.04			
			Q						18				15				15			
			Ex.																	
			Avail																	

MOE - Measure of Effectiveness
LOS - Level of Service
Delay - Average Delay per Vehicle in Seconds

Q - 95th Percentile Queue Length
Ex. - Existing Available Storage
Avail. - Available Storage

TCS - Traffic Control Signal
TWSC - Two-Way Stop Control

The results indicate that the study area intersections are forecast to operate at acceptable levels of service overall, with the following observations:

It is noted that the southbound approach at Wellington Road and Grand Avenue is forecast to operate with a v/c ratio of 0.93 during the PM peak hour, with an overall intersection v/c ratio of 0.93. Notwithstanding this, the southbound approach is forecast to operate at LOS D, and the overall intersection is forecast to operate at LOS C, which is considered acceptable for a signalized urban intersection during peak hour conditions.

At High Street and Grand Avenue, the westbound movement is forecast to experience higher delay during the PM peak hour, operating at LOS E with a delay of approximately 64 seconds. This condition is understood to be influenced by the coordinated signal operation between the two closely spaced intersections and the application of a conservative 2.0% annual background growth rate to the 2034 horizon year.

Note: These conditions are localized and do not represent system-wide operational deficiencies. The applied growth rate does not explicitly account for potential reductions in automobile mode share associated with the Wellington Gateway BRT project and broader corridor improvements. As such, the forecast volumes may represent a conservative estimate of future automobile traffic demand. It is recommended that intersection operations be monitored over time and that signal timing plans be reviewed and adjusted as required through future corridor operations review.

Appendix E contains the detailed Synchro 12 reports for the 2034 Future Total Traffic Operations.

6 Mitigation Measures

Based on the results of the traffic operations analysis, all study area intersections are expected to operate at acceptable levels of service under future total traffic conditions. While some movements experience increased delay, these conditions are consistent with typical urban corridor operations and are not indicative of capacity deficiencies requiring geometric or operational improvements.

As such, no geometric improvements are warranted based on the analysis and no mitigation measures are required to support the proposed development from a transportation perspective outside of periodic review and optimization of signal timing plans.

7 Site Access and Operations

7.1 Site Access Management

Vehicular access to the proposed development will be provided via a full-moves driveway to High Street. The proposed access is located in excess of the minimum 75 m corner clearance requirement at approximately 82 m from the nearest upstream intersection at High Street and Grand Avenue, which is in accordance with the City's Access Management Guidelines. High Street is relatively flat in the vicinity of the site, and the proposed access location provides clear visibility in both directions.

7.2 Passenger Pick-Up / Drop-Off (PUDO) and Curbside Operations

Given the proposed development includes minimal on-site parking and is located along a high-order transit corridor, a significant portion of site-related vehicle activity is expected to occur through pick-up/drop-off (PUDO), ride-hail, taxi, and short-duration passenger loading. For the purpose of assessing curbside operations, a conservative assumption has been applied whereby 80% of the peak hour balanced operational sensitivity volumes are attributed to PUDO activity. **Table 8** defines the PUDO assumptions.

Table 8 – PUDO Demand Assumptions

Parameter	AM Peak Hour	PM Peak Hour
Total Balanced Volume (In/Out)	60 / 60	51 / 51
PUDO Share	80%	80%
PUDO Events (veh/hr)	48	41
Average Dwell Time	3–4 min	3–4 min
Estimated Concurrent Vehicles	2–3 vehicles	2–3 vehicles

An average dwell time of 3 to 4 minutes per vehicle has been assumed, reflecting typical short-duration passenger loading associated with ride-hail, taxi, and residential pick-up/drop-off activity in urban high-density environments. While longer dwell durations may occasionally occur, these are not representative of average peak hour conditions. Based on the above, the peak concurrent PUDO demand is expected to be up to 3 vehicles at any given time.

7.2.1 Operational Considerations

The site is designed with a circular internal driveway (roundabout), which provides flexibility for short-term vehicle circulation, staging, and turnover without reliance on the public roadway. A generous area is identified on the site plan adjacent to the roundabout for pick-up/drop-off activity, although it is not explicitly delineated at this stage. This area is expected to function as the primary PUDO zone and can be formalized through detailed design.

- Provision for up to 3 short-term PUDO spaces is expected to accommodate peak demand;
- These spaces may be accommodated within the identified drop-off area as a defined layby or through flexible stopping along the internal circulation, subject to detailed design;

- The circular driveway enables continuous vehicle movement and short-term staging within the site, reducing the potential for queueing or spillback onto High Street.

7.2.2 Paratransit Accommodation

Accommodation for paratransit vehicles has been considered in response to comments received from the City during the pre-study consultation process. Occasional paratransit access is anticipated and can be accommodated through a flexible design approach:

- A layby dimension of approximately 3.5 m x 12 m should be considered;
- One space may be designed with extended length capability, or
- A flexible configuration may allow standard PUDO spaces to accommodate larger vehicles as needed.

Given the relatively low and irregular frequency of paratransit activity, these vehicles are expected to be accommodated within the overall PUDO operations without conflict.

7.2.3 Summary

Based on the above assumptions, site operations are expected to function effectively, with a peak concurrent demand of up to 3 PUDO vehicles during both the AM and PM peak hours. To support this demand, space for up to 3 vehicles should be accommodated within the proposed drop-off area, ensuring vehicles can queue and dwell without impacting internal circulation or site access.

7.3 Left Turn Lane Warrant

Forecast inbound left-turn volumes to the site are estimated to be approximately 59 vehicles in the AM peak hour and 51 vehicles in the PM peak hour. While these volumes are moderate, they are not expected to materially impact through traffic operations due to the context of the roadway, available gaps in opposing traffic, and the relatively low overall site-generated traffic. On this basis, a dedicated left-turn lane and formal warrant assessment were not pursued.

7.4 Swept Path Assessment

A vehicle swept path assessment was completed using Autodesk Vehicle Tracking to evaluate site access and internal circulation. The analysis was undertaken using the following design vehicles:

- Aerial Fire Truck (NCHRP 659, 11.89 m length)
- Rear-Load Garbage Truck (NCHRP 659)
- Standard Passenger Car (TAC, 2017)

As the City does not prescribe specific design vehicles for fire or waste collection, the above vehicles were selected as conservative and representative examples. Final vehicle selection may be refined during the site plan review process in consultation with emergency services and the waste collection provider; however, the vehicles used in this assessment are considered appropriate for evaluating site functionality at this stage.

The assessment confirms that all design vehicles can safely enter and exit the site in a forward motion and access their designated loading and servicing areas. Overall, the proposed site access and internal layout are considered functional for the anticipated emergency, servicing, and passenger vehicle operations. The swept path analysis drawings are provided in **Appendix F**.

7.5 Driveway Width Considerations

During the pre-study consultation process, City staff identified a requirement for a minimum 6.7 m drive aisle width in accordance with the Site Plan Control By-law, Section 5.7. A review of the proposed access configuration indicates that a 6.0 m driveway is sufficient to accommodate the anticipated vehicle movements associated with the development. The site is expected to generate relatively low traffic volumes, with a significant portion of activity occurring as short-duration pick-up/drop-off movements.

In addition, the swept path assessment confirms that design vehicles, including emergency and service vehicles, can safely enter and exit the site. As such, the proposed 6.0 m driveway width is considered operationally appropriate and does not present a constraint to site access.

While the proposed width is below the standard identified in the Site Plan Control By-law, it is consistent with access configurations in comparable urban developments, where constrained site conditions and low traffic volumes are present.

7.6 Snow Storage

During the pre-study consultation process, City staff identified the need to accommodate snow storage on-site. This can be accommodated within the central island of the proposed internal circular driveway (roundabout), which provides a practical and centralized location for temporary snow storage without interfering with site access, circulation, or pick-up/drop-off operations. The use of the central island is appropriate given the internal configuration of the site and the operational flexibility provided by the roundabout layout.

Additional capacity is available within the large at-grade drop-off area, where snow can be temporarily stored along the building edge and between pedestrian walkways, while maintaining accessible paths of travel. Together, these areas provide sufficient flexibility to accommodate snow storage within the site. Detailed design can further refine grading and clearances to ensure safe and efficient winter operations.

8 TRANSPORTATION DEMAND MANAGEMENT (TDM) STRATEGY

Transportation Demand Management (TDM) refers to strategies that improve the efficiency of the transportation network by reducing reliance on private automobile travel and encouraging the use of alternative modes such as transit, walking, and cycling. TDM measures consider how travel behaviour is influenced by factors such as site design, parking availability, proximity to transit, and the availability of mobility options.

In accordance with City of London requirements, this study identifies potential TDM measures that may be considered for the proposed development to support reduced automobile dependence. Given the site's location along a planned Bus Rapid Transit (BRT) corridor and the limited provision of on-site vehicle parking, the measures outlined below are intended to support a shift toward more sustainable travel patterns. Potential TDM measures appropriate to the subject development are outlined below:

8.1 Walking

The subject site is situated within an established urban area with existing pedestrian infrastructure along adjacent roadways. The site plan shows that direct and accessible pedestrian connections will be provided between the building entrances and the municipal sidewalk network, supporting walk-based access to nearby transit stops and surrounding amenities.

8.2 Cycling

Cycling infrastructure within the surrounding area includes existing and planned facilities that support connections to the broader network, including corridor improvements along Wellington Road as part of the Wellington Gateway project. These connections provide opportunities for cycling to function as a viable mode of transportation for both commuting and recreational trips.

8.2.1 Bicycle Parking Requirements

The City of London Zoning By-law (Section 4.19) requires a minimum bicycle parking provision of 0.9 long-term spaces per unit and 0.1 short-term spaces per unit. Based on the proposed 572-unit development, this corresponds to approximately 515 long-term spaces and 57 short-term spaces, for a total of 572 bicycle parking spaces.

These requirements are prescriptive and represent the standard requirements as part of the development, particularly in the context of a project with limited on-site vehicle parking and a strong reliance on alternative modes of transportation.

8.2.2 Proposed Bicycle Parking Supply

A review of the submitted drawings indicates a discrepancy between the tabulated bicycle parking summary and the layout shown on the plans. Based on a detailed review of the drawings, the bicycle parking supply is interpreted as follows:

- Exterior at-grade (unsheltered): approximately 70 spaces (short-term)
- Level 1 indoor (sheltered): approximately 58 spaces (long-term)
- P1 parking level (sheltered): approximately 132 spaces (long-term)

This results in a total bicycle parking supply of approximately 260 spaces, corresponding to an overall provision rate of approximately 0.45 spaces per unit, of which the split is 190 spaces long term and 70 space short term.

8.2.3 Cycling Assessment and Opportunities

The proposed bicycle parking supply is deficient relative to the zoning requirement, particularly for long-term spaces. The Zoning By-law defines long-term bicycle parking as "parking that is indoors in an accessible, secure, and weather protected area," whereas short-term parking may include outdoor spaces. As such, all currently unsheltered at-grade spaces function as short-term parking. Opportunities to improve the supply include:

- Conversion of at-grade bicycle parking to compliant long-term spaces through the introduction of shelter (e.g., canopy or enclosed structure), particularly at the southeast portion of the site where the space could be expanded into a dedicated sheltered facility, however, at the expense of outdoor amenity space;
- Optimization of indoor and below-grade layouts (Level 1 and P1) to increase long-term capacity;
- Reallocation of space within the building, including potential adjustments to vehicle parking or amenity areas to prioritize bicycle parking;
- Development of a centralized, secure, and sheltered bicycle facility between the Phase 1 and Phase 2 towers, potentially below-grade and accessible to both buildings.

These measures could increase compliant long-term bicycle parking and support the development in improving its current provision rate of approximately 0.45 spaces per unit (260 total) toward the City's combined target of 1.00 space per unit, generally based on the 90% long-term and 10% short-term split. While this represents the standard requirement, a modestly higher proportion of short-term spaces may be appropriate in this context, provided the overall bicycle parking supply approaches the required total rate.

8.2.4 Conclusion

Given the site constraints, it may not be feasible to fully achieve the bicycle parking requirements prescribed by the City of London Zoning By-law. Notwithstanding this, efforts should be made to increase the overall bicycle parking supply and improve the provision of compliant long-term spaces to achieve a satisfactory alignment with the intent of the By-law. This includes prioritizing secure and weather-protected bicycle parking, optimizing existing indoor and below-grade layouts, and expanding sheltered at-grade facilities where feasible. Through these measures, the development can better align with municipal requirements and its transit-oriented design while accommodating site-specific limitations.

8.3 Transit

The subject site is well served by existing and planned transit infrastructure, providing direct and convenient access to higher-order transit services. The development is located along the Wellington Road corridor,

which is being upgraded as part of the Wellington Gateway Bus Rapid Transit (BRT) project. Upon completion, the nearest BRT stop will be located approximately 380 metres south of the site at the intersection of Bond Street and Wellington Crescent, representing a comfortable walking distance and providing frequent, high-capacity transit service along a key north-south corridor.

In addition to the future BRT service, the site is currently served by multiple London Transit routes along Wellington Road, as well as Route 6 along High Street immediately adjacent to the west side of the building. These services provide direct connections to Downtown London, major institutional uses, and regional destinations.

The proximity to both existing and planned transit services supports transit as a primary mode of travel for residents and represents a key component of the overall TDM strategy. This level of transit accessibility reduces reliance on private vehicle ownership and supports the development's transit-oriented design.

8.4 Car Share Program

Car-share services provide short-term access to a vehicle without the need for ownership, supporting reduced reliance on private automobiles and more efficient use of limited parking supply. This measure is particularly relevant for developments with constrained parking provision, where a portion of residents may reasonably choose not to own a vehicle. Communauto currently operates within the City of London and represents a viable opportunity for integration at the site.

A portion of the proposed visitor parking supply should be dedicated to car-share use. This can be initially implemented through a modest allocation of two (2) spaces within the twelve (12) visitor parking spaces. Over time, this allocation may be increased based on observed utilization and operator participation, allowing the program to scale in response to demand.

8.5 Wayfinding and Trip Planning

Improving awareness of available transportation options can support reduced reliance on private vehicles and encourage the use of sustainable travel modes. For a residential development of this scale, providing clear and accessible information to residents is an effective TDM measure.

This may include the provision of a resident welcome package outlining nearby transit services, cycling routes, and active transportation connections. In addition, the installation of real-time transit information displays or static wayfinding signage within common areas (e.g., lobbies or amenity spaces) can assist residents in planning trips using transit and other non-auto modes.

These measures are intended to improve visibility and understanding of available travel options, supporting the overall TDM strategy and encouraging long-term shifts toward more sustainable travel behaviour.

9 Wellington Road ROW Requirement Review

9.1 City-Identified Right-of-Way (ROW) Requirement

As part of the Pre-Application Consultation Meeting held on April 16, 2026, City staff identified a requirement for road widening along Wellington Road in front of the subject site. Specifically, Transportation and Engineering staff indicated that a 25-metre offset from the centreline of Wellington Road is required as part of future right-of-way dedication. This requirement corresponds to an ultimate right-of-way width of approximately 50 m, as illustrated below in **Figure 16**.

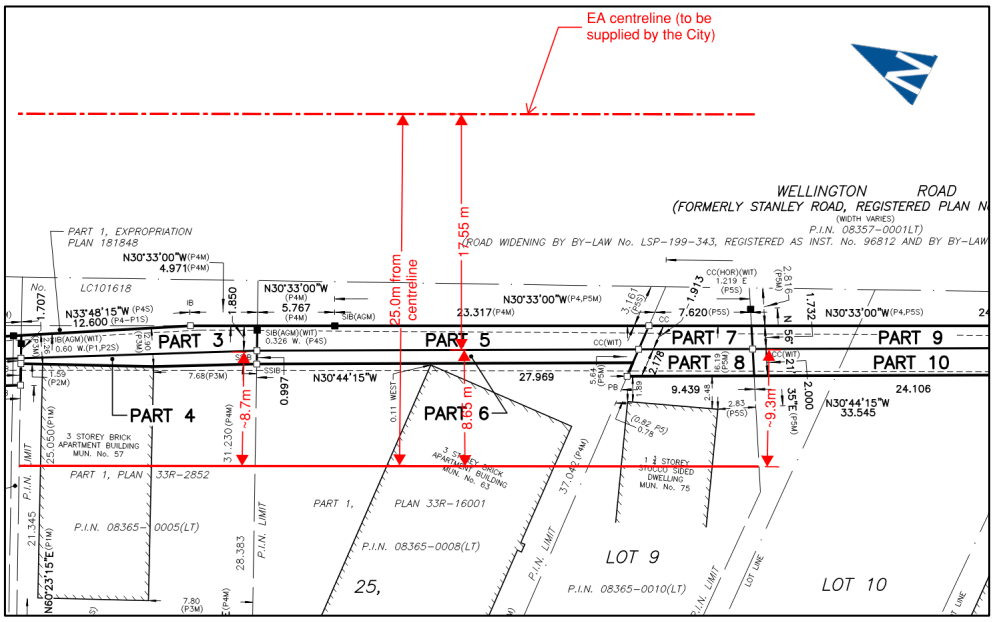


Figure 16 – City's ROW Width Requirement

City staff further noted that, based on this road widening requirement, the proposed development may not be accommodated on the remaining lands and encouraged reconsideration of the development concept. Given the significance of this requirement to the feasibility of the proposed development, a detailed review of the right-of-way width has been undertaken in the context of the Wellington Gateway Bus Rapid Transit (BRT) project, which is currently under construction along Wellington Rd.

9.2 Existing Corridor Condition

Wellington Road is undergoing significant reconstruction as part of this multi-phase infrastructure initiative, intended to establish a higher-order transit corridor and enhance multimodal transportation operations. Phase 1 (Downtown) has been completed, and the Clark's Bridge segment immediately north of the subject site is substantially constructed and operational. The subject site is located between this completed segment and the future Phase 2 works, which will extend improvements further south, with completion anticipated by approximately 2028.

At present, the subject site benefits from existing transit service at Wellington Road and Grand Avenue. As part of the Wellington Gateway project, transit operations will be consolidated into defined transit hubs, with the nearest planned stop located at Bond Street and Wellington Crescent, approximately 380 metres south of the site. This reflects a transition toward a structured, higher-order transit system with fixed infrastructure and defined corridor geometry.

9.3 Wellington Gateway Corridor Function and Design Intent

The Wellington Gateway project establishes the ultimate functional and geometric configuration of Wellington Road in the vicinity of the subject site. The planned cross-section includes two general purpose traffic lanes in each direction, a centre-running BRT facility, and associated pedestrian and boulevard infrastructure. This configuration represents a fully built-out urban corridor intended to accommodate general traffic operations, dedicated transit service, and active transportation within a defined right-of-way. The implementation of centre-running BRT and consolidated transit hub spacing reflects a corridor design that is fixed in form and not intended for future expansion of vehicular capacity.

Accordingly, future modifications to the corridor would be expected to focus on enhancements to pedestrian, boulevard, or public realm elements, rather than expansion of the roadway cross-section.

9.4 Implemented Right-of-Way Condition

Based on available design information and current construction works associated with the Wellington Gateway project, the right-of-way along Wellington Road in the vicinity of the subject site is being implemented at approximately 35-40 metres, with a minimum width of approximately 35.4 metres at its narrowest at the subject sites' southern limits, as depicted below in **Figure 17.**

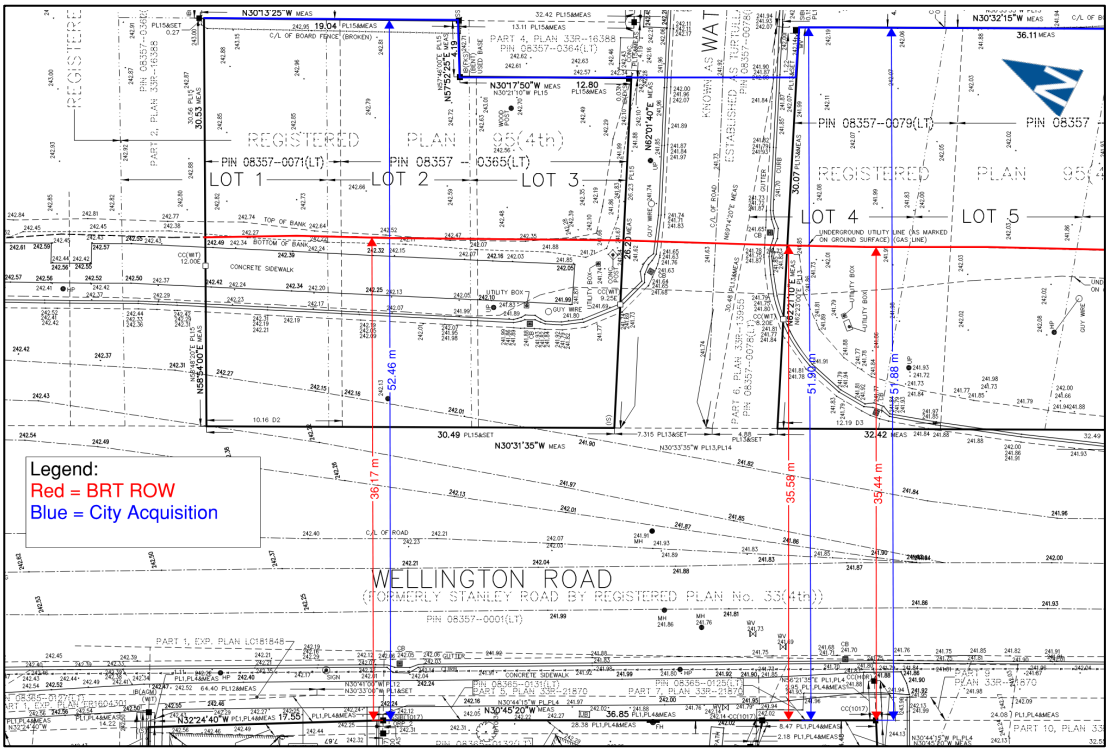


Figure 17 – Secured ROW Width for the Wellington Gateway Project

This right-of-way width accommodates the full corridor cross-section, including general purpose traffic lanes, BRT infrastructure, boulevards, and sidewalks. As shown in **Figure 18**, the primary roadway and transit elements are contained within approximately 21.7 metres, with the remaining width allocated to boulevard and pedestrian facilities, including a 2.0 m sidewalk on the west side, a 3.0 m sidewalk on the east side, and associated boulevard space.

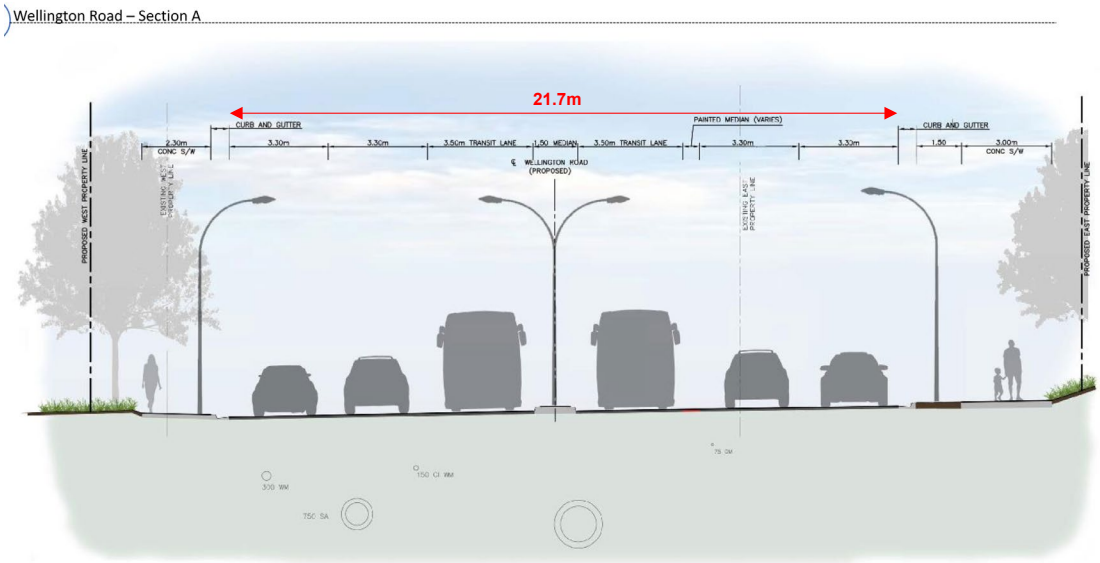


Figure 18 – Wellington Gateway Cross-Section

To achieve this configuration, the Wellington Gateway project has included significant property acquisition on both sides of the corridor. As such, the current cross-section reflects a comprehensive and deliberate widening strategy intended to support the ultimate corridor design.

9.5 Comparison to Requested Right-of-Way

The City's identified requirement for a right-of-way of approximately 50m exceeds the width currently being implemented through the Wellington Gateway project by approximately 10-15m. Based on a review of the planned and constructed corridor configuration, the requested right-of-way does not appear to align with the established or actively implemented cross-section in the vicinity of the subject site.

The Wellington Gateway project already represents the finalized corridor design, incorporating all required elements for vehicular, transit, and active transportation functions. As such, the need for additional right-of-way beyond this configuration is not evident based on the current design framework.

9.6 Functional Assessment of Additional Width and Implications

The implemented Wellington Gateway cross-section accommodates six lanes of transportation function, consisting of four general purpose traffic lanes and two centre-running BRT lanes, in addition to pedestrian and boulevard elements. With the introduction of dedicated transit infrastructure and defined transit hub locations, the corridor operates as a fixed, higher-order transit facility with established geometry and operational characteristics. In this context, opportunities for further widening would be limited to minor enhancements such as increased boulevard or sidewalk widths, rather than additional vehicular or transit capacity. Rather than full lane addition, which will not be possible along the length of the alignment, incremental improvements such as increasing sidewalk or multi-use path widths (e.g., from approximately 2.0 metres to 3.0 metres) could be accommodated within a modest increase in right-of-way and would not require the magnitude of widening implied by a total right-of-way width of extension into the subject property of approximately 8.65m.

Application of a right-of-way dedication corresponding to approximately 8.65 m would result in a significant reduction in the developable area of the subject site and would materially impact site layout, access configuration, and overall functionality. Given that the corridor design has already been established and is being implemented through the Wellington Gateway project, the magnitude of the requested widening appears disproportionate to the demonstrated transportation infrastructure requirements.

9.7 Conclusion and Recommendation

The requested 50m right-of-way is not supported by the implemented corridor design and is not required to accommodate the transportation function of Wellington Road. It is recommended that the required ROW dedication along Wellington Road be confirmed with reference to the finalized and constructed Wellington Gateway corridor design, rather than a generalized ultimate right-of-way assumption. This approach will ensure consistency between the City's implemented transportation infrastructure and the development of the subject lands. On this basis, the proposed development can be accommodated from a transportation perspective, as it aligns with the established corridor design and does not introduce requirements for additional right-of-way beyond that which has been already implemented.

10 Overall Conclusion

Based on the analysis presented in this report, the following conclusions are provided:

- The proposed development will generate moderate traffic volumes, which can be accommodated within the existing and future road network without significant adverse impacts to intersection operations;
- The site is well served by existing and planned transit infrastructure, including the Wellington Gateway BRT corridor, supporting a transit-oriented development framework;
- Site access via High Street meets City guidelines and is considered appropriate, with no requirement for a dedicated left-turn lane;
- Internal site operations, including pick-up/drop-off activity, are expected to function effectively, with peak demand of approximately 3 concurrent vehicles. Space for up to 3 pick-up/drop-off vehicles should be accommodated within the proposed drop-off area to ensure vehicles can queue and dwell without impacting internal circulation or site access;
- The swept path assessment confirms that emergency and service vehicles can safely access and circulate within the site;
- The proposed 6.0 m driveway width is considered operationally sufficient given the low traffic volumes and internal site configuration;
- Snow storage can be accommodated on-site within the central island of the roundabout and the adjacent drop-off area, without impacting site operations;
- The proposed bicycle parking supply is well below the zoning requirement, particularly for long-term spaces; however, opportunities exist to increase the long term parking supply and improve compliance through design refinements and potential integration with future development phases. Given the site constraints, full compliance with bicycle parking requirements may not be feasible; however, efforts should be made to improve alignment with the intent of the By-law and support the overall TDM strategy;
- Transportation Demand Management measures support reduced reliance on private vehicle ownership, including strong transit accessibility, active transportation connections, opportunities to enhance bicycle parking provision, and the potential incorporation of a car share program;
- It is recommended that intersection operations be periodically monitored and that signal timing plans be reviewed and adjusted over time to maintain efficient operations;
- The required right-of-way along Wellington Road should be confirmed based on the implemented Wellington Gateway corridor design (approximately 35–40 m), as the requested 50 m width does not align with the established configuration.

Overall, the proposed development is functional from a transportation perspective, with site access, operations, and supporting infrastructure designed to accommodate anticipated demand while aligning with the City's objectives for transit-oriented development along the Wellington Gateway corridor. Based on the above, the proposed development represents an appropriate and supportable form of transit-oriented intensification that can be accommodated within the existing and planned transportation network.

APPENDIX A

(Terms of Reference, Pre-Study Consultation Minutes and Email Correspondence)

APPENDIX B

(Traffic Data and Signal Timing Plans)

APPENDIX C

(Existing Traffic Operations – Synchro Reports)

APPENDIX D

(2034 Background Traffic Operations – Synchro Reports)

APPENDIX E

(2034 Future Total Traffic Operations – Synchro Reports)

APPENDIX F

(Swept Path Analysis)