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June 30, 2026

Reference Number: 25369

Farrah Ward
Vice President, Land Development
Standford Homes
2700 Dufferin Street, Unit 50
Toronto, ON M6B 4J3

Dear Farrah Ward,

RE: Transportation Response to Comments Letter
Proposed Residential Development
1315 Bough Beeches Boulevard, City of Mississauga

LEA Consulting Ltd. (LEA) has been retained by 1315 Bough Beeches Limited to prepare a comment-response letter for the proposed residential development located at 1315 Bough Beeches Boulevard in the City of Mississauga (herein referred to as the "subject site").

By way of background, LEA prepared an initial Transportation Impact Study (TIS) dated March 2026 in support of the OPA and ZBA submission. Since the initial submission, comments have been received from the City of Mississauga and Region of Peel.

As such, the purpose of this letter is to address the comments received and review the changes to the site plan from a transportation perspective.

1 PROPOSED DEVELOPMENT

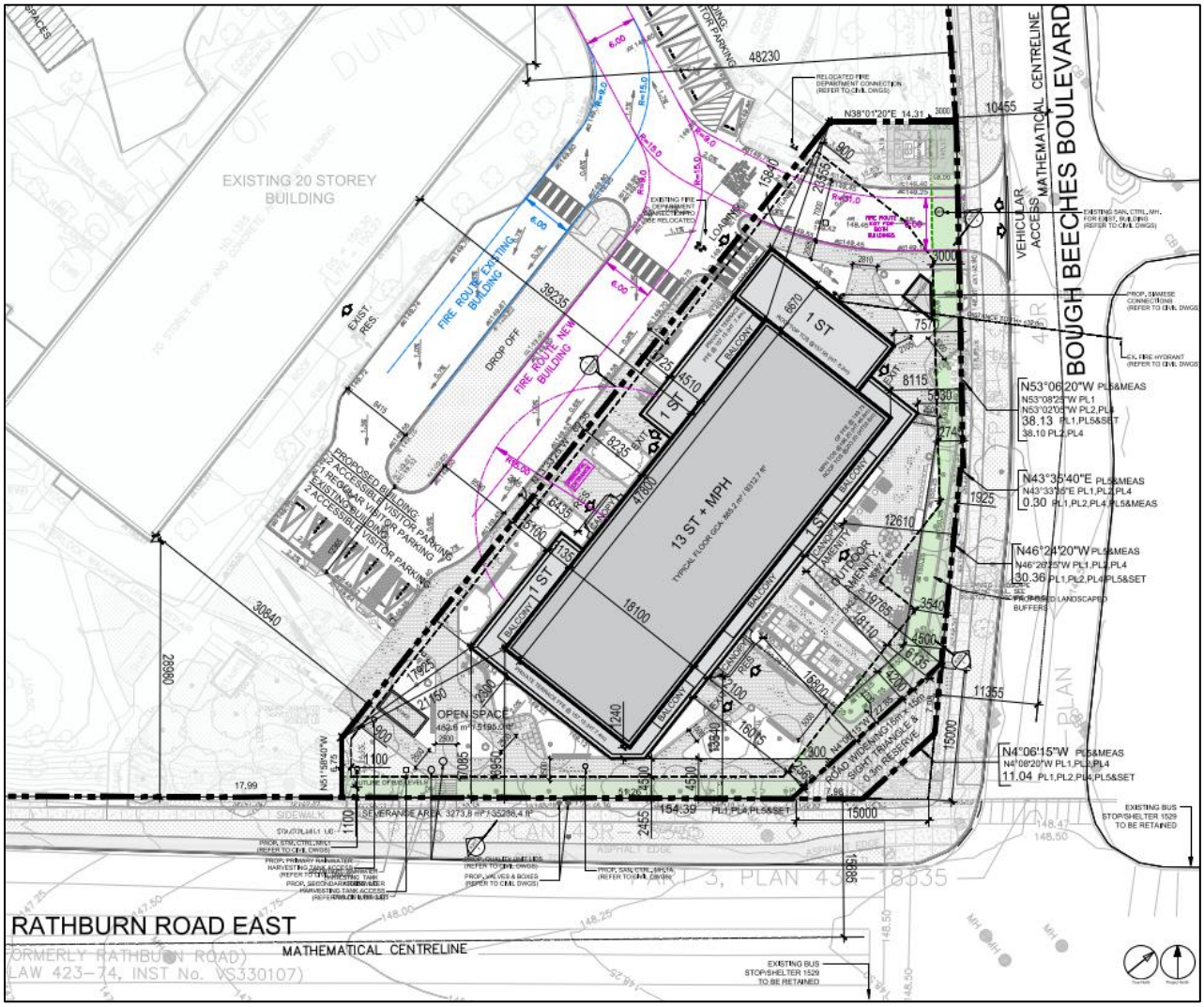
The proposed development consists of a 13-storey tower containing a total of 144 residential units. Parking will be shared across the entire site, provided in a surface parking lot and in two (2) levels of underground parking, accommodating 456 total parking spaces.

Since the previous submission, bicycle parking has increased by two (2) spaces, while all other site statistics remain unchanged. A comparison of the proposed site statistics to the previous submission is provided in **Table 1-1**. The site plan is illustrated in **Figure 1-1**.

Table 1-1: Proposed Site Statistics Comparison

Land Use	Previous Submission (March 2026)	Current Submission (June 2026)	Difference
Residential	144 Units	144 Units	No Change
Studio	12 Units	12 Units	
1-Bedroom	61 Units	61 Units	
2-Bedroom	59 Units	59 Units	
3-Bedroom	12 Units	12 Units	
Vehicle and Loading Supply			
Vehicle Parking	159 Spaces	159 Spaces	No Change
Bicycle Parking	93 Bicycle Spaces	95 Bicycle Spaces	+2 Spaces
Loading Supply	1 Type "G"	1 Type "G"	No Change

Figure 1-1: Proposed Site Plan



Source: Arcadis, June 2026

2 RESPONSE TO COMMENTS

The following section provides a response to comments received from the City of Mississauga and Region of Peel. The comments are shown as provided, followed by LEA's response.

2.1 TRANSIT INFRASTRUCTURE

Comment 21: *Pedestrian Connections – MiWay Stops: Convenient and accessible pedestrian linkages are to be provided between the existing municipal sidewalk network and MiWay services/stops to ensure accessibility, reduce walking time and encourage transit use.*

LEA Response: The MIWAY stops are located at Rathburn and Dixie as well as across the street at Rathburn and Bough Beeches. Accessible pedestrian connections are provided along Rathburn and at the corner of Rathburn and Bough Beeches that connect to the ROW sidewalks.

Comment 22: *Miway Existing and Future Infrastructure - Existing Stops: Please be advised that there are existing nearside stops in both directions (stops #1529 and #1539) with concrete bus pad located along Rathburn Rd at Bough Beeches Blvd.*

The function of these stops are to be maintained and shall remain at their current location during and post construction. All appropriate drawings shall be amended to clearly depict the location of this bus stop/pad and shelter, and a note be added to the plan stating that the existing bus stop is to remain in its current location.

LEA Response: Please refer to site plan.

Comment 23: *Transit Infrastructure Costs: Please be advised that all costs associated with the removal, relocation, and reinstatement of existing transit stops and shelters will be the responsibility of the proponent. All work associated with removal, relocation, and reinstatement of transit shelters shall be completed by MiWay's Shelter Contractor. Payment for the cost of relocating a transit shelter shall be arranged directly with the shelter contractor prior to the shelter being removed and/or relocated.*

Please note a MiWay Stop Infrastructure Permit Review Fee, as captured in the Transportation & Works Fees and Charges, as amended, is required for each bus stop impacted by road work. This fee is associated with relocating bus stop markers, placing temporary bus stops and reinstating stops during construction when needed.

LEA Response: Noted.

Comment 24: *Miway Notification Requirements: MiWay's Infrastructure Team coordinates stop and shelter relocations and must be contacted prior to the commencement of construction.*

Should any road/boulevard works (including lane disruptions) impact existing transit infrastructure (stops/shelters) or service (routes), the applicant is required to mark off the check box on the ROP/PUCC Application and contact MiWay's Infrastructure Management Team at MiWay.Infrastructure@mississauga.ca at least 10 business days prior to submission of the Road Occupancy Permit (ROP), and include information on proposed traffic management plans. In-addition, kindly note 10 business days notice is required for the following:

- *detour plan in the event of a road closure is needed*
- *stop removal/relocation*

Please contact MiWay.Infrastructure@mississauga.ca for MiWay's Construction Notification Schedule which outlines in detail the notification and infrastructure requirements for transit impacts.

LEA Response: Noted.

Comment 31: *Existing Miway Service - The site is served by Route 20 Rathburn operating on Rathburn Road adjacent to the site, as well as Route 5 Dixie operating on Dixie Road, also adjacent to the site.*

LEA Response: Noted.

Comment 32: *Land Dedications - The Owner will be required to gratuitously dedicate the following to the City of Mississauga:*

(A) SIGHT TRIANGLES / ROUNDINGS
i. A 15 metre sight triangle/rounding at the north/west corner of Rathburn Road East and Bough Beeches Boulevard.
(B) 0.3 METRE RESERVES
i. A 0.3 m reserve across the new sight triangle frontage of these lands.

This condition will be cleared upon receipt of confirmation from:
(i) City Surveyor regarding dimensions;
(ii) Environmental Site Management and Compliance regarding environmental conflicts; and
(iii) Legal Services identifying that the transfer has taken place and associated fees have been paid.

LEA Response: Noted. The sight triangle and new 0.3 m reserve adjacent to the sight triangle is reflected on drawing A100 Site Plan. A Remedial Action Plan has also been provided. The conveyance will be completed as part of the Site Plan process.

Comment 33: *Traffic Notes -*

(i) All damaged or disturbed areas within the municipal right-of-way are to be reinstated at the Owner's expense.

(ii) *All landscaping and grading within close proximity to the proposed access points is to be designed to ensure that adequate sight distances are available for all approaching and exiting motorists and pedestrians.*
(iii) *The portion of the driveway within the municipal boulevard is to be paved by the Owner.*
(iv) *Driveway accesses shall maintain a 1.5m setback from above ground features such as utilities and trees.*
(v) *Any above ground utilities located within 1.5m of a proposed access are to be relocated at the Owner's expense.*
(vi) *The cost for any/all road improvements required in support of this development application will be borne by the Owner.*
(vii) *The Owner shall make satisfactory arrangements with the Transportation and Works Department for the design, construction and payment of all costs associated with works necessary in support access to this site.*
(viii) *Any access to internal servicing shall be provided internally through the site.*
(ix) *Details of the site specific access configurations will be finalized in conjunction with the Site Plan review/approval process.*

LEA Response: Noted.

Comment 34: *Access Modification Permit - Prior to site plan approval an access modification permit and fee payment is required for the driveway works proposed to the municipal sidewalk, splash pad, and road curb/culvert only (as applicable). Upon finalizing the site plan details; the applicant is to email the Traffic Planning Reviewer with the finalized site plan. Upon approval from the Traffic Planning section, the applicant is to electronically submitting one (1) copy of the site plan drawing and the application form directly to the Transportation and Works Customer Service Counter at TW.PAS@mississauga.ca. The application shall be accompanied by a cover letter that clearly indicates the site plan application number, property address and the purpose of applying for access approval. The applicant/owner will be contacted by the Customer Service Counter upon review and approval to provide payment for the works to be completed by the City. A copy of the signed work order is to be provided to this Section with a future submission for our records and to clear this condition. A copy of the application form can be found online as follows: https://www.mississauga.ca/publication/access-modification-permit-application-form/.*

LEA Response: Noted.

Comment 37: *A Traffic Impact Study prepared by LEA dated March 2026 was submitted in support of the proposed development. Based on the information provided to date, staff provide the following comments:*

(A) SITE TRAFFIC

(i) Mode Split - Mode Spit apply the ITE trip Generation Rate for the proposed development incorrectly as Passenger trips, as opposed to Auto Driver Trips. This results in an overstated mode split.

LEA Response: The trip generation was based on a proxy rate methodology derived from existing site turning movement counts (TMCs), rather than using ITE trip generation rates. The mode split was applied solely to estimate multi-modal trip generation. Specifically, the auto trips calculated using the proxy rates were divided by the auto driver mode share to estimate total person trips, which were then distributed among the

remaining travel modes. The mode split was derived from the 2022 Transportation Tomorrow Survey (TTS) for Traffic Analysis Zones (TAZs) 4433, 4435–4436, 4439–4442, and 4448. The multi-modal trip generation calculations have been corrected in the letter.

(B) VEHICLE DIAGRAMS

i) Diagrams must detail how the vehicle will enter and exit the site access in a forward motion beginning and ending on public roadway. Current movements start within the property.

LEA Response: Addressed. The truck maneuver diagrams have been updated to show vehicles entering and exiting the site access in a forward motion, with the movements beginning and ending on the public roadway. In addition, a new vehicle path diagram has been added to illustrate the simultaneous movements of the PTAC vehicle entering and exiting the site access while also accessing the underground parkade ramp. Please refer to the updated FDR in **Attachment A**.

ii) Waste collection vehicle access movement diagram depicts the route driving over internal sidewalk paths. This is not acceptable.

LEA Response: The updated waste collection vehicle access movement diagram does not show any truck movements encroaching onto internal sidewalks. It should be noted that the topographic survey has been included as an underlay to illustrate existing site conditions. Please refer to the updated FDR in **Attachment A.**

(C) ADDITIONAL COMMENTS

(i) Community Impacts - The TIS shall include a section in the report to address Community Impacts. This section shall include summary statements outlining the resulting traffic increases to the critical streets, movements and intersections. Comments or concerns from the community through future public meetings and engagements that are related to traffic shall also be addressed in this section.

LEA Response: Noted. Please refer to **Section 5 – Community Impacts**.

ii) Access Review - Section to review and ensure that proposed site accesses conform to all TAC & Mississauga standards (clear throat, access spacing, sightlines, width, curb radii, etc.)

LEA Response: Addressed. Please refer to the updated FDR in **Attachment A**.

2.2 REGION OF PEEL

Comment 47: *Transportation Development Comments - Standards, Specifications, and Submission Requirements. Please review the Public Works Design, Specifications & Procedures Manuals, and the Region of Peels Standard Drawings which can be found at the following links. Digital copies can be provided upon request.*

- *Linear Infrastructure Site Plan Process: Public Works Design, Specifications & Procedures Manual - Linear Infrastructure - Site Plan Process - Revised November 2009 (peelregion.ca)*

- *Public Works Design, Specifications and Procedures Manual: Design, standards specification and procedures - Region of Peel (peelregion.ca)*
- *Public Works Design, Specifications and Procedures Manual Linear Infrastructure: Public Works - Design, Specifications & Procedures Manual - Linear Infrastructure - CAD Submission Requirements - Capital Works - June 2015 (peelregion.ca)*
- *Public Works CAD Submission Requirements Development: Microsoft Word - Development Submission Requirements Manual - Nov2017.docx (brampton.ca)*
- *Standard Drawings - Roads & Traffic: Roads and traffic - standards drawings - Region of Peel (peelregion.ca)*

LEA Response: Noted.

Comment 48: *Transportation Development Comments - Access/Study Requirements. A Traffic Impact Study was received as a part of the first submission, dated April 29, 2026. The Region would like to offer the following comments:*

- *Please consider the future traffic volumes generated from another development application (PAM-25-113M) proposing new access along Dixie Road on the northly limit of the subject property resulting from the interconnection within the subject property.*
- *The Region acknowledges that there is no proposed access off of Regional Road 4 (Dixie Road) via this application.*
- *Please note there is a on-going Environmental Assessment taking place along this portion of Dixie Road; project number #23-4335. The EA Project Manager is April Fang (BihuiApril.Fang@peelregion.ca). Please reach out to obtain additional information on the capital project and detailed design. Additional property requirements and infrastructure may be required to facilitate the Capital Project.*
- *Please note that all works within the Region's right-of-way will require a permit prior to any construction taking place.*

LEA Response: The development application *PAM-25-113M*, is no longer being pursued and as such has not been included. Furthermore, in accordance with the City's direction, the analysis has been updated to incorporate the approved density permissions under By-law 0408-2008 as background developments. In addition, one (1) additional background development, Forest Park Circle (#4), has also been incorporated into the updated analysis. Please refer to **Section 3** below for the revised analysis.

Regarding the ongoing Environmental Assessment, project number #23-4335, LEA has received confirmation that this project is no longer ongoing. Email confirmation is provided in **Attachment B**.

Comment 49: *Transportation Development Comments - Property Requirements.*

- *The Region requests the gratuitous dedication of lands to meet the Regional Official Plan requirement for Regional Road 4 (Dixie Road) which has a right of way of 50.5 metres, 25.25 metres from the centreline of the road allowance, within 245 metres of an intersection to protect for the provision of but not limited to: utilities, sidewalks, multiuse pathways and transit bay/shelters;*
- *The Region will require the gratuitous dedication of a 15 x 15 metre daylight triangle at the intersection of Dixie Road and Rathburn Road East;*

- *The Region will require the gratuitous dedication of a 0.3 metre reserve along the frontage Regional Road 4 (Dixie Road) behind the property line and daylight triangle, except at any approved access point;*
- *The applicant is required to gratuitously dedicate these lands to the Region, free and clear of all encumbrances. All costs associated with the transfer are the responsibility of the applicant. The applicant must provide the Region with the necessary title documents and reference plan(s) to confirm the Regions right-of-way;*
- *A draft reference plan will be required for our review and approval prior to the plans being deposited. All costs associated with preparation of plans and the transfer of the lands will be solely at the expense of the applicant.*

LEA Response: Please note the development limits for the application are not adjacent to the Regional ROW. Any conveyances adjacent to Dixie Road will be addressed as part of a future application.

Comment 50: *Landscaping/Encroachments - Landscaping, signs, fences, cranes, gateway features or any other encroachments are not permitted within the Regions easements and/or Right of Way limits. Cranes will not be permitted to swing over a Regional Road unless a crane swing licence has been granted..*

LEA Response: Noted.

Comment 51: *Transportation Development - A003 R-Plan*

- *Please display the dimension from the centerline of road allowance to the property line along Dixie Road.*
- *Please show the dimension measurements for a 15 * 15 meters daylight triangle..*

LEA Response: Please note the development limits for the application are not adjacent to the Regional ROW. Any conveyances adjacent to Dixie Road will be addressed as part of a future application.

Comment 52: *Transportation Development - Draft Reference Plan*

- *Please display the dimension from the centerline of road allowance to the property line along Dixie Road.*
- *Please show the dimension measurements for a 15 * 15 meters daylight triangle.*
- *Please add the plotting date.*

LEA Response: Please note the development limits for the application are not adjacent to the Regional ROW. Any conveyances adjacent to Dixie Road will be addressed as part of a future application.

Comment 53: *Site Plan*

- *All comments provided should be reflected on the site plan, Including;*
    - *Centreline of roadways with property dimensions reflected;*

LEA Response: A004 Plan of Subject Property shows the dimensions from the centreline of the ROWs adjacent to the development limits, namely Rathburn Road East and Bough Beeches Boulevard, to the property lines, as well as the 15 m x 15 m daylight triangle at the corner of Rathburn Road East and Bough Beeches Boulevard.

Comment 54: *Transportation Development - Engineering Requirements (For Information). A detailed engineering submission of road and access works will be required for our review and comment, designed, stamped and signed by a Licensed Ontario Professional Engineer. The engineering submission MUST include the removals, new construction and grading, typical sections and pavement markings and signing drawings. All works within Region of Peels right of way must be designed in accordance to the Public Works, Design Criteria and Development Procedures Manual and Material Specifications and Standard Drawings Manual;*

The Owner shall submit to the Region a detailed cost estimate, stamped and signed by a Licensed Ontario Professional Engineer, of the proposed road and access works within the Regional right of way;

Securities shall be submitted in the form of either a letter of credit or certified cheque, in the amount of 100% of the approved estimated cost of road and access works along Regional Road 4 (Dixie Road);

A 10.8% engineering and inspection fee shall be paid to the Region based on the approved estimated cost of road and access works (minimum $1,724.41);

The Owner will be required to submit the following prior to commencement of works within the Regions right-of-way:

- *Completed Road Occupancy Permit and a permit fee as per the Regions user fees and charges By-law;*
- *Completed Notice to Commence Work;*
- *Provide proof of insurance with the Region of Peel added to the certificate as an additional insured with $5 million minimum from the Contractor;*
- *Please note that any proposed construction within the Region of Peels right of way is pending PUCC approval (minimum six week process). Please note that PUCC circulation requirements have recently changed. We require PDF version of the full drawing set it is to be sent via email, and cannot exceed 10MB per email.*

Please be advised that any concerns or issues identified by the utility company will be the responsibility of the Owner/Applicant to address and resolve directly with the utility company. All costs associated with the design and construction of road and access works will be 100% paid by the Owner;

LEA Response: Noted.

2.3 PARKING

Comment 115: *The existing parking supply on-site is unclear, staff require detailed information clarifying the number of parking spaces existing on-site at 1315 Bough Beeches Boulevard (i.e. surface and underground), how these parking spaces function (i.e. resident key fob, paid parking, concierge sign-inetc.). Table 7-4: Vehicular Parking Requirements and Proposed Rates states the supply after buildout. Staff need to also know the current supply, today.*

LEA Response: A detailed parking review has been provided below in **Section 4.** Currently, there are 430 parking spaces, 152 are located on the surface level and 278 are located on P1. The underground garage is reserved exclusively for residents and is accessed using a key fob for both entry and exit. Resident parking spaces are assigned in both the underground garage and the surface parking area. Visitor parking is provided

at grade and is managed as paid parking. Contractors and other authorized workers are required to sign in with the property manager to obtain a temporary parking pass.

Comment 116: *The number of units existing within the 20-storey building at 1315 Bough Beeches Boulevard is unclear: staff were advised through correspondences that 273 units are existing currently; meanwhile throughout the TIS, 270 units is referenced.*

LEA Response: Per email correspondence between LEA and the City dated January 22, 2026, the existing building has 270 residential units.

Comment 117: *The number of vacant units within the 20-storey building at 1315 Bough Beeches Boulevard is unclear: staff were advised through correspondences which occurred within the same week as the surveying, that 261 units are occupied, meanwhile throughout the TIS, 266 units is referenced. Staff would like to see the parking leasing demand measured by rent roll to validate the presented numbers. The vacant units should also be factored into the parking calculations.*

LEA Response: Confirmation from the client has been provided and is included in **Attachment C**. Based on the confirmation, in January and February 2026, there were a total of 266 occupied units and as such, the parking calculations remain the same. **Section 4** below outlines a summary of the parking.

Comment 118: *Staff commend the Applicant for considering the provision of TDM measures on site.*

Municipal Parking Staff advise that the Applicant contact TDM Staff in the Transportation Planning Section (tdm@mississauga.ca) should they wish to receive more information on TDM strategies. TDM Staff are unable to provide evaluation of parking requirements.

LEA Response: Noted.

Comment 119: *Staff advise that the updated parking requirements for off-street parking, Zoning By-Law 0117-2022, that came into effect June 8, 2022, is supportive of provincial and municipal land use and transportation policies. The updated rates were derived from the Parking Regulations Study (PRS) which undertook a review of off-street parking rates throughout the City, including Precinct 3 areas. These developed rates were carefully tailored to Mississauga's context as well as current needs.*

LEA Response: Noted.

3 TRAFFIC REVIEW

Based on correspondence received from the City of Mississauga, the traffic analysis has been updated to incorporate the approved density permissions under By-law 0408-2008 for 1315 Bough Beeches Boulevard as a background development, along with one (1) additional background development. The sections below provide an updated traffic analysis.

3.1 FUTURE BACKGROUND TRAFFIC CONDITIONS

3.1.1 Future Background Developments

The following background developments were reviewed as per communication with the city and the Region. Background development traffic volumes were extracted from the respective traffic study and were subsequently assigned to the study area road network. The background developments are summarized in **Table 3-1**. Excerpts from the background development traffic studies are provided in **Attachment D**.

Consistent with the previous submission, it is noted that the 1470 Williamsport Drive (#5) is not expected to have trips that impact the study intersections. Also, the trip generation for 1325 Burnhamthorpe Road East (#6) was estimated using ITE and trips are minimal and not expected to have an impact on the study intersection. As a result, these two (2) backgrounds developments were not included in the analysis.

Furthermore, the trip generation for 1315 Bough Beeches Boulevard (2009) (#3), which reflects the approved development permissions under By-law 0408-2008 for the townhouse and residential building at Dixie Road and Rathburn Road East, was estimated by applying the existing site trip generation rates to the residential building component and ITE trip generation rates to the townhouse component.

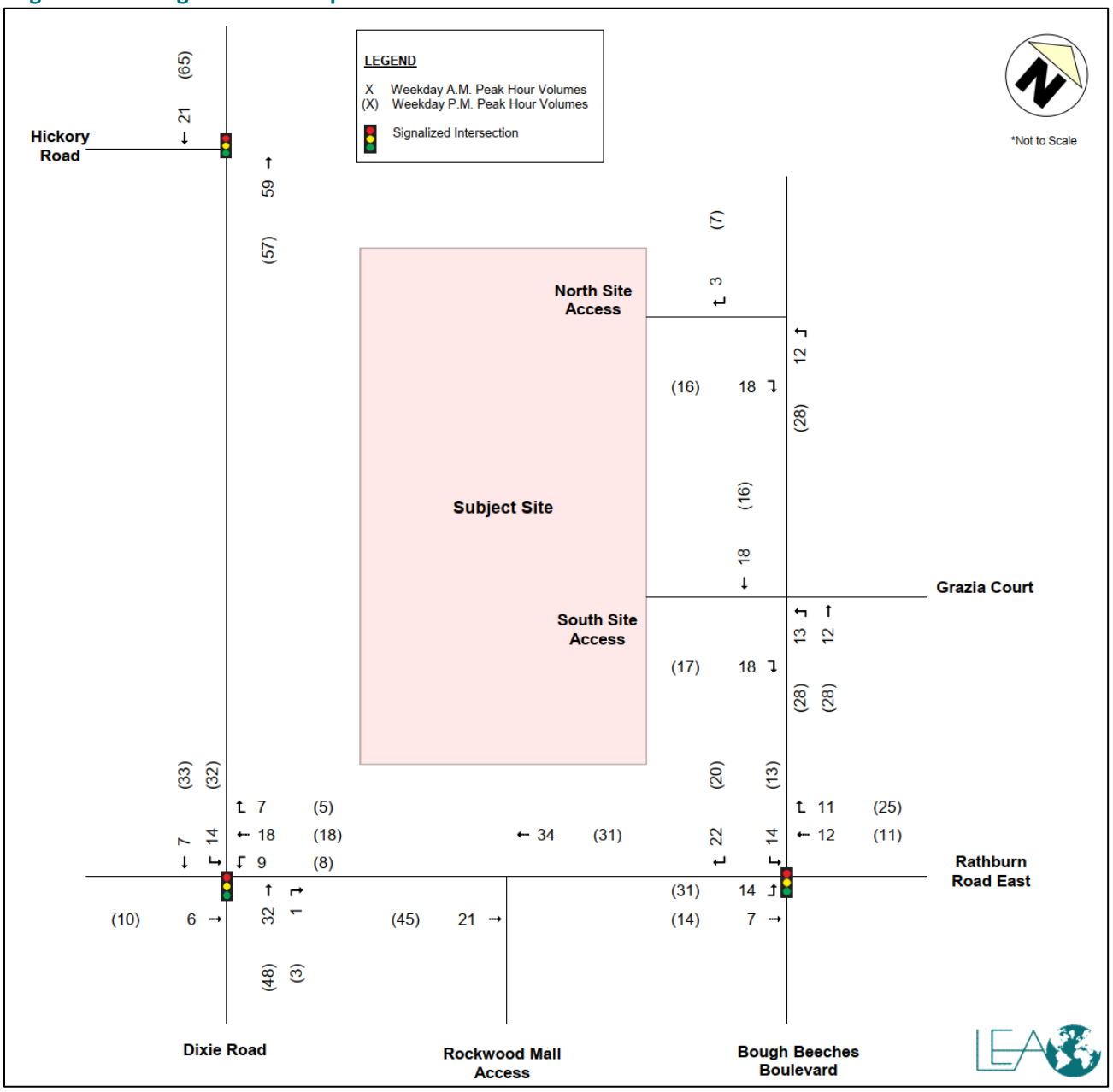
Table 3-1: Background Developments

#	Location	Proposed Development	Source of Traffic Volumes
1	3480 Havenwood Drive & 1485 Williamsport Drive, Mississauga	202 residential units	TIS dated June 2018 (Figure 4-1) LEA Consulting
2	1315 Silver Spear Road, Mississauga	252 residential units	TIS dated November 2017 nexTrans
3	1315 Bough Beeches Boulevard, Mississauga (2009) Townhouses + Building at Dixie and Rathburn	311 residential units (18 townhouses, 293 apartment units)	Zoning By-law 0408-2008
4	Forest Park Circle – Buildings B4-B6, Mississauga	695 residential units	TIS dated December 2025 TYLin
5	1470 Williamsport Drive, Mississauga	283 residential units	TIS dated February 2025 Crozier
6	1325 Burnhamthorpe Road East, Mississauga	922 m^2 of office GFA	-

3.1.1.1 Background Development Traffic Volumes 2030

The background development traffic volumes for the weekday AM and PM peak hours are illustrated in **Figure 3-1**.

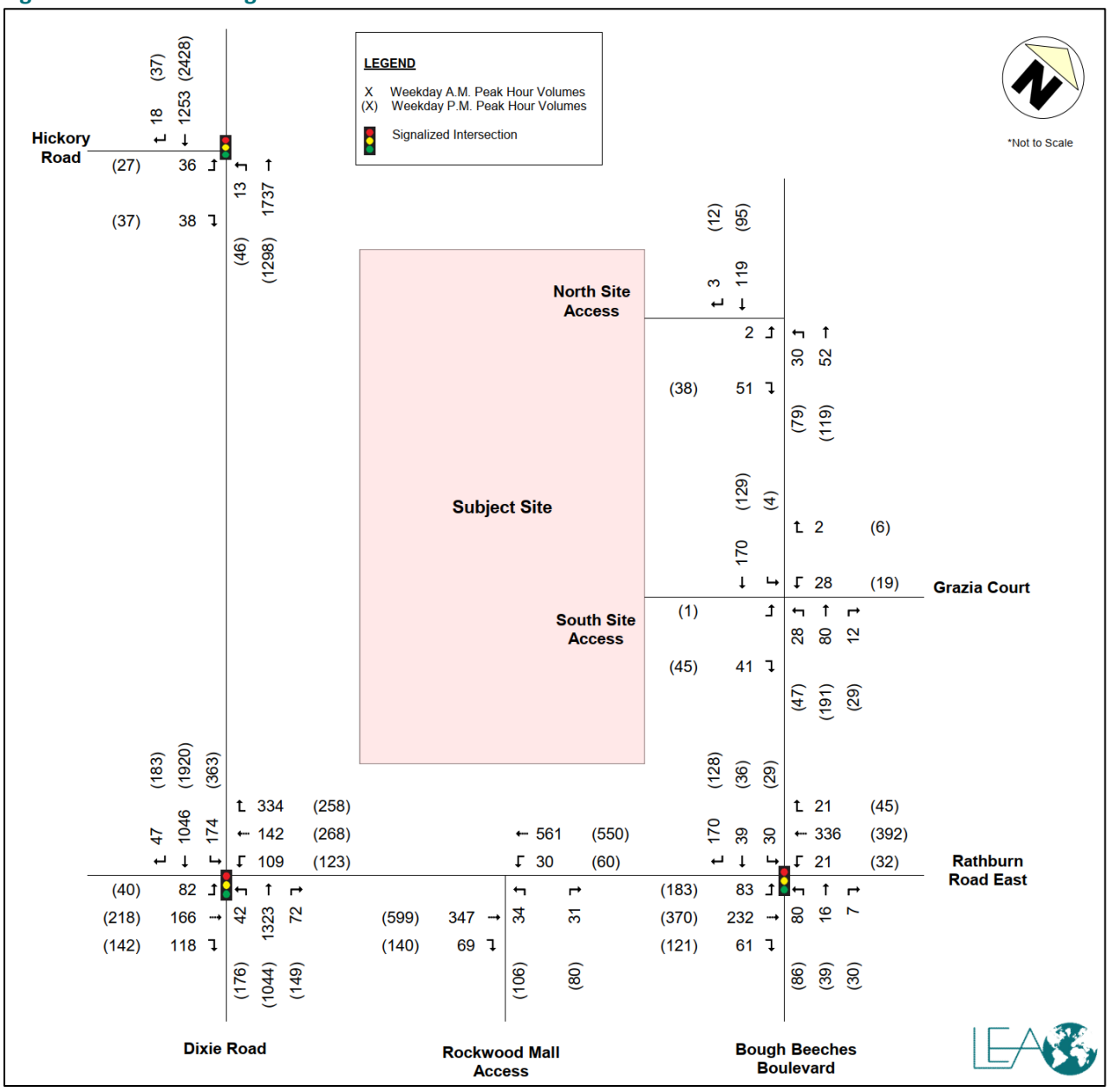
Figure 3-1: Background Development Peak Hour Traffic Volumes 2030



3.1.1.2 *Future Background Traffic Volumes 2030*

The future background traffic volumes for the weekday AM and PM peak hours are illustrated in **Figure 3-2**.

Figure 3-2: Future Background Peak Hour Traffic Volumes 2030



3.2 TRIP GENERATION

As with the previous submission, trip generation for the proposed development was estimated using the observed trip generation rates at the existing building located at 1315 Bough Beeches Boulevard. The occupancy of the building at the time of the surveys was 260 units, as confirmed by the client in **Attachment C**.

Table 3-2 summarizes the existing trip generation rates, **Table 3-3** summarizes the trip generation of the development.

Table 3-2: Trip Generation Rates - Existing Residential Use

Location	Survey Date	Occupied Units	Description	Weekday AM Peak			Weekday PM Peak		
				In	Out	Total	In	Out	Total
1315 Bough Beeches Boulevard, Mississauga	July 24th, 2025	260	Surveyed Trips	33	58	91	75	51	126
			Trip Rates (/unit)	0.13	0.22	0.35	0.28	0.19	0.47

Table 3-3: Trip Generation - Proposed Residential Use

Land Use	Description	Weekday AM Peak			Weekday PM Peak		
		In	Out	Total	In	Out	Total
Residential (144 units)	Proxy Trip Rate (/unit)	0.13	0.22	0.35	0.28	0.19	0.47
	Site Auto Trips	**19**	**32**	**51**	**42**	**29**	**71**

The proposed development is anticipated to generate a total of 51 two-way auto trips during the AM peak hour (19 inbound, 32 outbound) and 71 two-way auto trips during the PM peak hour (42 inbound, 29 outbound). A breakdown of the trips generated by mode is summarized in **Table 3-4**.

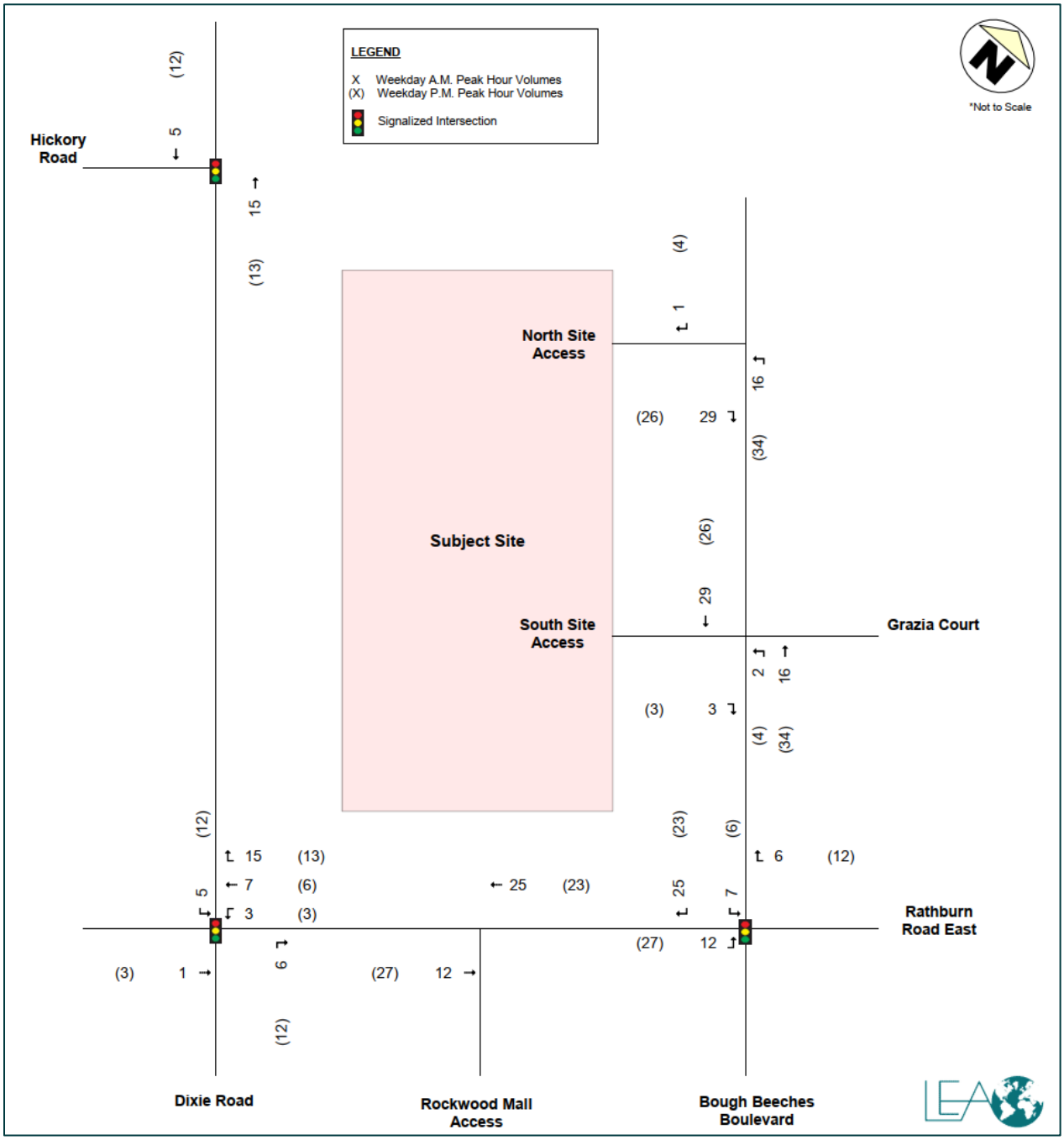
Table 3-4: Multi-Modal Trip Generation

Land Use	Description	Modal Split	Weekday AM Peak Hour			Weekday PM Peak Hour		
			In	Out	Total	In	Out	Total
Proposed Residential	**External Person Trips**	**100%**	**42**	**71**	**113**	**93**	**64**	**157**
	Auto Driver Trips	45%	19	32	51	42	29	71
	Passenger Trip	16%	7	11	18	15	10	25
	Taxi/Rideshare	0%	0	0	0	0	0	0
	Transit Trips	22%	9	16	25	20	14	34
	Pedestrian trips	14%	6	10	16	13	9	22
	Cycling Trips	3%	1	2	3	3	2	5

3.2.1 Subject Site - Residential Traffic Volumes

The residential traffic volumes for the weekday AM and PM peak hours are illustrated in **Figure 3-3**.

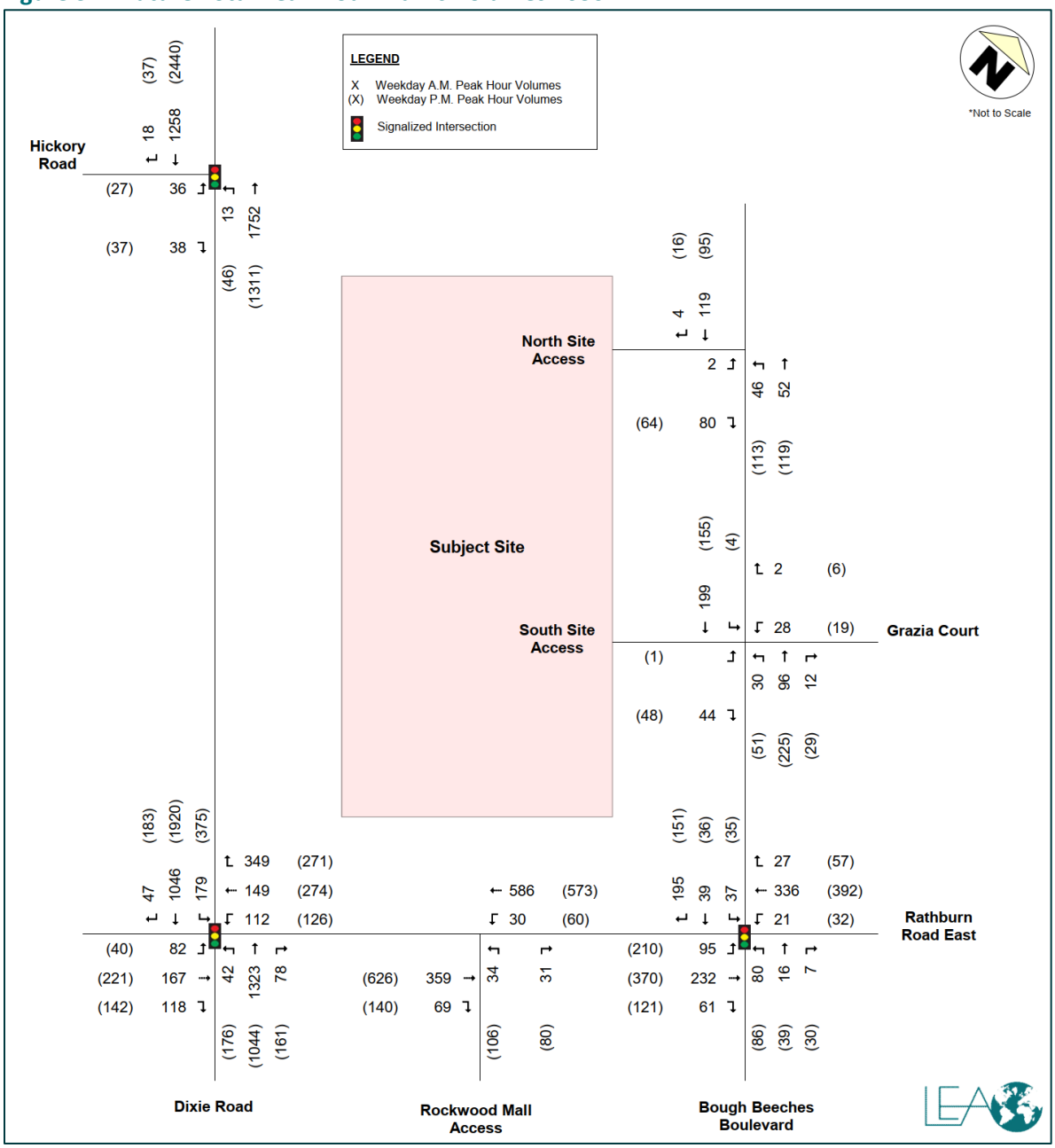
Figure 3-3: Subject Site – Residential Traffic Volumes



3.3 FUTURE TOTAL TRAFFIC CONDITIONS

Future total traffic volumes were estimated by applying the site traffic volumes to the 2030 future background volumes. The future total traffic volumes for the weekday AM and PM peak hours are illustrated in **Figure 3-4**.

Figure 3-4: Future Total Peak Hour Traffic Volumes 2030



3.4 INTERSECTION CAPACITY ANALYSIS – SIGNALIZED INTERSECTIONS

The results for the studied signalized intersections under each traffic scenario during the weekday AM and PM peak hours are summarized in the sections below. Detailed intersection capacity analysis results are provided in **Attachment E**.

3.4.1 Dixie Road & Hickory Drive

The intersection capacity analysis at Dixie Road & Hickory Drive during the AM and PM peak hours are summarized in **Table 3-5.**

Table 3-5: 2030 Intersection Capacity Analysis – Dixie Road & Hickory Drive

Mvmt	Existing (2025)				Future Background (2030)				Future Total (2030)			
	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)
AM Peak Hour												
Overall	-	-	A (7)	-/-	-	-	A (7)	-/-	-	-	A (8)	-/-
EBLR	74	0.50	D (36)	6/18	74	0.50	D (36)	6/18	74	0.50	D (36)	6/18
NBL	13	0.37	D (44)	2/4	13	0.37	D (44)	2/4	13	0.04	A (5)	1/2
NBT	1637	0.49	A (5)	152/169	1737	0.52	A (5)	165/182	1752	0.52	A (5)	152/172
SBTR	1220	0.40	A (7)	26/57	1271	0.41	A (7)	28/60	1276	0.46	B (10)	28/59
PM Peak Hour												
Overall	-	-	B (10)	-/-	-	-	B (11)	-/-	-	-	B (11)	-/-
EBLR	64	0.43	D (36)	4/16	64	0.43	D (36)	4/16	64	0.43	D (36)	4/16
NBL	46	0.48	D (40)	9/17	46	0.48	D (40)	9/15	46	0.21	B (12)	5/13
NBT	1210	0.34	A (4)	90/103	1298	0.36	A (4)	100/113	1311	0.36	A (4)	69/85
SBTR	2342	0.71	B (13)	104/141	2465	0.75	B (15)	115/176	2477	0.76	B (15)	113/141

Existing Conditions: Under existing conditions, the intersection of Dixie Road & Hickory Drive operates well during both weekday peak hours. All movements are operating with residual capacity and acceptable delays. All existing 95th percentile queues can be accommodated by their available storage lanes. No critical movements have been identified.

Future Background Conditions: Under future background conditions, the intersection is expected to generally operate similar to existing conditions with acceptable increases in V/C ratios and delay. No critical movements have been identified.

Future Total Conditions: Under future total conditions, the addition of site traffic is expected to have an acceptable impact on intersection operations, with all movements operating similar to future background conditions. No intersection modifications are recommended.

3.4.2 Dixie Road & Rathburn Road East

The intersection capacity analysis at Dixie Road & Rathburn Road East during the AM and PM peak hours are summarized in **Table 3-6.**

Table 3-6: 2030 Intersection Capacity Analysis – Dixie Road & Rathburn Road East

Mvmt	Existing (2025)				Future Background (2030)				Future Total (2030)			
	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)
AM Peak Hour												
Overall	-	-	C (27)	-/-	-	-	C (28)	-/-	-	-	C (29)	-/-
EBL	82	0.21	D (42)	23/42	82	0.22	D (43)	23/43	82	0.22	D (43)	23/44
EBTR	252	0.13	D (37)	25/38	284	0.16	D (37)	30/43	285	0.16	D (37)	30/43
WBL	100	0.28	D (44)	31/52	109	0.31	D (46)	33/57	112	0.33	D (46)	34/57
WBTR	448	0.11	D (36)	54/75	476	0.13	D (37)	59/81	498	0.13	D (37)	61/83
NBL	42	0.18	C (29)	9/19	42	0.18	C (29)	9/19	42	0.18	C (29)	9/19
NBT	1259	0.55	C (29)	117/132	1323	0.59	C (30)	125/141	1323	0.59	C (30)	125/141
NBR	61	0.00	(0)	0/9	72	0.00	(0)	0/9	78	0.00	(0)	0/10
SBL	143	0.61	C (26)	25/33	174	0.76	D (38)	39/64	179	0.78	D (41)	29/71
SBT	1048	0.40	B (19)	75/119	1046	0.40	B (19)	75/113	1046	0.40	B (19)	75/92
SBR	49	0.00	(0)	0/10	47	0.00	(0)	0/9	47	0.00	(0)	0/11
PM Peak Hour												
Overall	-	-	C (31)	-/-	-	-	C (33)	-/-	-	-	C (34)	-/-
EBL	40	0.14	D (49)	11/23	40	0.14	D (50)	11/23	40	0.14	D (51)	11/23
EBTR	344	0.20	D (43)	33/48	360	0.22	D (44)	38/53	363	0.22	D (44)	39/55
WBL	115	0.37	D (54)	34/58	123	0.41	E (56)	38/64	126	0.42	E (56)	38/65
WBTR	497	0.24	D (44)	54/61	526	0.26	D (44)	61/72	545	0.27	D (44)	56/74
NBL	176	0.82	D (47)	41/93	176	0.86	D (54)	45/99	176	0.86	D (54)	45/99
NBT	971	0.39	C (25)	74/86	1044	0.42	C (26)	81/93	1044	0.42	C (26)	81/93
NBR	146	0.00	(0)	0/12	149	0.00	(0)	0/12	161	0.00	(0)	0/13
SBL	330	0.78	C (27)	53/84	363	0.90	D (45)	64/129	375	0.93	D (53)	73/143
SBT	1841	0.68	C (28)	230/256	1920	0.71	C (29)	242/267	1920	0.71	C (29)	254/269
SBR	183	0.00	(0)	11/28	183	0.00	(0)	11/26	183	0.00	(0)	13/26

Existing Conditions: Under existing conditions, the intersection of Dixie Road & Rathburn Road East operates well during both weekday peak hours. All movements are operating with residual capacity and acceptable delays. The 95th percentile queue for the eastbound left movement slightly exceeds the available storage during the AM peak hour. All other 95th percentile queues can be accommodated by their available storage lanes. No other critical movements have been identified.

Future Background Conditions: Under future background conditions, the intersection is expected to generally operate similar to existing conditions with acceptable increases in V/C ratios and delay. No new critical movements have been identified.

Future Total Conditions: Under future total conditions, the addition of site traffic is expected to have an acceptable impact on intersection operations, with all movements operating similar to future background conditions. No new critical movements have been identified.

3.4.3 Bough Beeches Boulevard & Rathburn Road East

The intersection capacity analysis at Bough Beeches Boulevard & Rathburn Road East during the AM and PM peak hours are summarized in **Table 3-7.**

Table 3-7: 2030 Intersection Capacity Analysis – Bough Beeches Boulevard & Rathburn Road East

Mvmt	Existing (2025)				Future Background (2030)				Future Total (2030)			
	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)
AM Peak Hour												
Overall	-	-	B (14)	-/-	-	-	B (15)	-/-	-	-	B (16)	-/-
EBL	69	0.12	A (10)	2/6	83	0.15	B (11)	3/5	95	0.18	B (12)	4/6
EBTR	280	0.15	A (8)	4/8	293	0.16	A (9)	4/7	293	0.17	A (10)	4/7
WBL	21	0.03	A (9)	1/4	21	0.04	A (10)	1/4	21	0.04	B (10)	1/4
WBTR	312	0.16	A (8)	8/16	357	0.19	A (9)	10/19	363	0.20	A (10)	10/19
NBL	76	0.32	C (32)	12/24	80	0.34	C (33)	13/25	80	0.35	C (33)	13/26
NBTR	23	0.06	C (23)	2/8	23	0.05	C (22)	2/8	23	0.05	C (21)	2/8
SBL	16	0.04	C (24)	2/7	30	0.08	C (23)	5/11	37	0.09	C (22)	6/13
SBTR	181	0.49	C (27)	6/23	209	0.53	C (26)	6/24	234	0.57	C (26)	6/25
PM Peak Hour												
Overall	-	-	B (14)	-/-	-	-	B (15)	-/-	-	-	B (15)	-/-
EBL	155	0.31	B (14)	8/18	183	0.39	B (16)	9/26	210	0.46	B (19)	23/35
EBTR	468	0.27	B (10)	11/15	491	0.28	B (10)	10/16	491	0.29	B (11)	15/28
WBL	32	0.07	B (12)	2/6	32	0.07	B (12)	2/6	32	0.07	B (13)	2/6
WBTR	392	0.21	A (10)	11/22	437	0.24	A (10)	13/24	449	0.26	B (11)	13/25
NBL	86	0.31	C (30)	14/27	86	0.31	C (30)	14/27	86	0.33	C (30)	14/27
NBTR	66	0.16	C (23)	6/16	69	0.16	C (22)	6/16	69	0.16	C (22)	6/16
SBL	17	0.05	C (24)	3/8	29	0.08	C (24)	5/11	35	0.09	C (24)	5/13
SBTR	154	0.39	C (25)	6/21	164	0.41	C (25)	6/21	187	0.45	C (25)	6/22

Existing Conditions: Under existing conditions, the intersection of Bough Beeches Boulevard & Rathburn Road East operates well during both weekday peak hours. All movements are operating with residual capacity and acceptable delays. All existing 95th percentile queues can be accommodated by their available storage lanes. No critical movements have been identified.

Future Background Conditions: Under future background conditions, the intersection is expected to generally operate similar to existing conditions with acceptable increases in V/C ratios and delay. No critical movements have been identified.

Future Total Conditions: Under future total conditions, the addition of site traffic is expected to have an acceptable impact on intersection operations, with all movements operating similar to future background conditions. No critical movements have been identified.

3.5 INTERSECTION CAPACITY ANALYSIS – UNSIGNALIZED INTERSECTIONS

The results for the studied unsignalized intersections under each traffic scenario during the weekday AM and PM peak hours are summarized below.

3.5.1 Rathburn Road East & Rockwood Mall Access

The intersection capacity analysis at Rathburn Road East & Rockwood Mall Access during the AM and PM peak hours are summarized in **Table 3-8**.

Table 3-8: 2030 Intersection Capacity Analysis – Rathburn Road East & Rockwood Mall Access

Mvmt	Existing (2025)				Future Background (2030)				Future Total (2030)			
	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)
AM Peak Hour												
Overall	-	-	**- (1)**	**-/0**	-	-	**- (1)**	**-/0**	-	-	**- (1)**	**-/0**
NBL	34	0.11	C (17)	-/3	34	0.13	C (19)	-/3	34	0.13	C (19)	-/3
NBR	31	0.04	A (10)	-/1	31	0.04	A (10)	-/1	31	0.04	A (10)	-/1
EBT	318	0.00	(-)	-/0	347	0.00	(-)	-/0	359	0.00	(-)	-/0
EBR	69	0.00	(-)	-/0	69	0.00	(-)	-/0	69	0.00	(-)	-/0
WBL	30	0.03	A (8)	-/1	30	0.03	A (8)	-/1	30	0.03	A (8)	-/1
WBT	490	0.00	(-)	-/0	561	0.00	(-)	-/0	586	0.00	(-)	-/0
PM Peak Hour												
Overall	-	-	**- (5)**	**-/0**	-	-	**- (6)**	**-/0**	-	-	**- (6)**	**-/0**
NBL	106	0.62	E (49)	-/25	106	0.70	**F (65)**	-/30	106	0.75	**F (75)**	-/33
NBR	80	0.13	B (11)	-/4	80	0.14	B (11)	-/4	80	0.14	B (12)	-/4
EBT	543	0.00	(-)	-/0	599	0.00	(-)	-/0	626	0.00	(-)	-/0
EBR	140	0.00	(-)	-/0	140	0.00	(-)	-/0	140	0.00	(-)	-/0
WBL	61	0.08	A (10)	-/2	60	0.09	A (10)	-/2	60	0.09	B (10)	-/2
WBT	513	0.00	(-)	-/0	550	0.00	(-)	-/0	573	0.00	(-)	-/0

Existing Conditions: Under existing conditions, the intersection of Rathburn Road East & Rockwood Mall Access operates well during both weekday peak hours. All movements are operating with residual capacity and acceptable delays. All existing 95th percentile queues can be accommodated by their available storage lanes. No critical movements have been identified.

Future Background Conditions: Under future background conditions, the intersection is expected to generally operate similar to existing conditions with acceptable increases in V/C ratios and delay. The increase in delays is minimal compared to the existing conditions and the queues remain similar. The northbound left movement is expected to experience LOS F with a slight increase in delay during the PM peak hour. No other constraints are noted.

Future Total Conditions: Under future total conditions, the addition of site traffic is expected to have an acceptable impact on intersection operations, with all movements operating similar to future background conditions. No new critical movements have been identified.

3.5.2 Bough Beeches Boulevard and South Site Access/Grazia Court

The intersection capacity analysis at Bough Beeches Boulevard & South Site Access/Grazia Court during the AM and PM peak hours are summarized in **Table 3-9**.

Table 3-9: 2030 Intersection Capacity Analysis – Bough Beeches Boulevard & South Site Access/Grazia Court

Mvmt	Existing (2025)				Future Background (2030)				Future Total (2030)			
	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)
AM Peak Hour												
Overall	-	-	- (2)	-/0	-	-	- (3)	-/0	-	-	- (3)	-/0
NBL	15	0.01	A (8)	-/0	28	0.03	A (8)	-/1	30	0.03	A (8)	-/1
NBT	68	0.00	A (0)	-/0	80	0.00	A (0)	-/0	96	0.00	A (0)	-/0
NBR	12	0.00	(-)	-/0	12	0.00	(-)	-/0	12	0.00	(-)	-/0
EBLTR	23	0.03	A (9)	-/1	41	0.06	A (10)	-/1	44	0.07	A (10)	-/1
WBLTR	30	0.06	B (11)	-/1	30	0.07	B (12)	-/1	30	0.07	B (13)	-/1
SBL	0	0.00	A (0)	-/0	0	0.00	A (0)	-/0	0	0.00	A (0)	-/0
SBT	146	0.00	(-)	-/0	170	0.00	(-)	-/0	199	0.00	(-)	-/0
SBR	0	0.00	(-)	-/0	0	0.00	(-)	-/0	0	0.00	(-)	-/0
PM Peak Hour												
Overall	-	-	- (2)	-/0	-	-	- (2)	-/0	-	-	- (2)	-/0
NBL	19	0.02	A (8)	-/0	47	0.04	A (8)	-/1	51	0.04	A (8)	-/1
NBT	163	0.00	A (0)	-/0	191	0.00	A (0)	-/0	225	0.00	A (0)	-/0
NBR	29	0.00	(-)	-/0	29	0.00	(-)	-/0	29	0.00	(-)	-/0
EBLTR	29	0.04	A (9)	-/1	46	0.06	A (9)	-/1	49	0.07	A (10)	-/1
WBLTR	25	0.06	B (12)	-/1	25	0.07	B (14)	-/1	25	0.08	B (15)	-/1
SBL	4	0.00	A (8)	-/0	4	0.00	A (8)	-/0	4	0.00	A (8)	-/0
SBT	124	0.00	A (0)	-/0	129	0.00	A (0)	-/0	155	0.00	A (0)	-/0
SBR	0	0.00	(-)	-/0	0	0.00	(-)	-/0	0	0.00	(-)	-/0

Existing Conditions: Under existing conditions, the intersection of Bough Beeches Boulevard & South Site Access/Grazia Court operates well during both weekday peak hours. All movements are operating with residual capacity and acceptable delays. All existing 95th percentile queues can be accommodated by their available storage lanes. No critical movements have been identified.

Future Background Conditions: Under future background conditions, the intersection is expected to generally operate similar to existing conditions with acceptable increases in V/C ratios and delay. No constraints are noted.

Future Total Conditions: Under future total conditions, the addition of site traffic is expected to have an acceptable impact on intersection operations, with all movements operating similar to future background conditions. No critical movements have been identified.

3.5.3 Bough Beeches Boulevard and North Site Access

The intersection capacity analysis at Bough Beeches Boulevard & North Site Access during the AM and PM peak hours are summarized in **Table 3-10**.

Table 3-10: 2030 Intersection Capacity Analysis – Bough Beeches Boulevard & North Site Access

Mvmt	Existing (2025)				Future Background (2030)				Future Total (2030)			
	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)	Vol	V/C	LOS (Delay)	Queues (50/95)
AM Peak Hour												
Overall	**-**	**-**	**- (2)**	**-/0**	**-**	**-**	**- (3)**	**-/0**	**-**	**-**	**- (4)**	**-/0**
NBL	18	0.02	A (8)	-/0	30	0.03	A (8)	-/1	46	0.04	A (8)	-/1
NBT	52	0.00	A (0)	-/0	52	0.00	A (0)	-/0	52	0.00	A (0)	-/0
EBLR	35	0.05	A (9)	-/1	53	0.07	A (9)	-/1	82	0.11	A (10)	-/3
SBT	113	0.00	(-)	-/0	119	0.00	(-)	-/0	119	0.00	(-)	-/0
SBR	0	0.00	(-)	-/0	3	0.00	(-)	-/0	4	0.00	(-)	-/0
PM Peak Hour												
Overall	**-**	**-**	**- (2)**	**-/0**	**-**	**-**	**- (3)**	**-/0**	**-**	**-**	**- (4)**	**-/0**
NBL	52	0.04	A (8)	-/1	79	0.07	A (8)	-/1	113	0.09	A (8)	-/2
NBT	118	0.00	A (0)	-/0	119	0.00	A (0)	-/0	119	0.00	A (0)	-/0
EBLR	22	0.03	A (9)	-/1	38	0.05	A (9)	-/1	64	0.08	A (9)	-/2
SBT	106	0.00	(-)	-/0	95	0.00	(-)	-/0	95	0.00	(-)	-/0
SBR	5	0.00	(-)	-/0	12	0.00	(-)	-/0	16	0.00	(-)	-/0

Existing Conditions: Under existing conditions, the intersection of Bough Beeches Boulevard & North Site Access operates well during both weekday peak hours. All movements are operating with residual capacity and acceptable delays. All existing 95th percentile queues can be accommodated by their available storage lanes. No critical movements have been identified.

Future Background Conditions: Under future background conditions, the intersection is expected to generally operate similar to existing conditions with acceptable increases in V/C ratios and delay. No constraints are noted.

Future Total Conditions: Under future total conditions, the addition of site traffic is expected to have an acceptable impact on intersection operations, with all movements operating similar to future background conditions. No critical movements have been identified.

4 PARKING REVIEW

The City of Mississauga By-law 0225-2007 has been reviewed to determine if the proposed vehicular parking supply aligns with the City's latest parking policy direction. The parking requirements for Precinct 3 and proposed supply are summarized in **Table 4-1**.

Table 4-1: Vehicular Parking Requirements - Precinct 3

Land Use	Units	ZBL 0225-2007 Precinct 3		Proposed Supply
		Minimum Parking Rate	Required Parking	
Residential (Rental Apartment)	144 Units	0.9 sp./unit	130 Spaces	144 Spaces
Visitor		0.2 sp./unit	29 Spaces	15 Spaces
Total for New Development			**159 Spaces**	**159 Spaces**

In accordance with Precinct 3 rates, the proposed development is required to provide 159 parking spaces, consisting of 130 residential and 29 visitor spaces. The subject site is proposing to supply 159 parking spaces, consisting of 144 residential spaces, and 15 visitor spaces.

Parking will be shared across the entire site, including sharing the existing parking supply. To justify the proposed visitor deficiency, parking utilization surveys were conducted at the existing 1315 Bough Beeches Boulevard 20-storey building. **Table 4-2** outlines the visitor parking utilization results.

Based on confirmation from the client (provided in **Attachment C**), there were 266 occupied units at the time of the survey, out of the total 270 residential units.

Table 4-2: Visitor Proxy Parking Utilization Survey Results

Proxy Site Location	Occupied Units	Total Parking Supply	Visitor Parking Rate Summary	95th Percentile Observed Demand	Parking Demand Rate
1315 Bough Beeches Boulevard	266 Units	55 spaces	0.21 spaces/unit	27 spaces	0.10 spaces/unit

Based on the 95th percentile highest observed visitor demand, a total of 27 spaces were observed resulting in a parking demand rate of 0.10 spaces/unit.

In summary, at full build-out, residential parking will be provided at 0.9 spaces/unit per the by-law requirements for the existing building and 1.0 spaces/unit for the proposed development. Visitor parking will be provided at 0.2 spaces/unit for the existing building, meeting the by-law requirements and also maintaining the existing visitor parking supply. For the proposed building, visitor parking will be provided at 0.10 spaces/unit, which was the 95th percentile visitor demand rate observed during the parking surveys. **Table 4-3** summarizes the existing and proposed parking summary for the proposed development.

It should be noted that at full build out, all existing residential units will continue to have a parking space.

Table 4-3: Vehicular Parking Summary - Existing and Proposed

Land Use	Units	Parking Supply	Parking Rate
Existing Development			
Residential	270 Units	375 Spaces	1.38 spaces/unit
Visitor		55 Spaces	0.20 spaces/unit
Proposed Development			
Residential	144 Units	144 Spaces	1.0 space/unit
Visitor		15 Spaces	0.10 spaces/unit
Full Build Out (Existing + Proposed)			
Existing Residential Building	270 Units	243 Spaces	0.9 spaces/unit
Existing Visitor		54 Spaces	0.2 spaces/unit
Proposed Residential Building	144 Units	144 Spaces	1.0 space/unit
Proposed Visitor		15 spaces	0.10 spaces/unit

5 COMMUNITY IMPACTS

The traffic analysis indicates that the proposed residential development will have an acceptable impact on the surrounding road network, generating a total of 51 two-way auto trips during the AM peak hour (19 inbound, 32 outbound) and 71 two-way auto trips during the PM peak hour (42 inbound, 29 outbound).

While the northbound left at Rathburn Road East & Rockwood Mall Access is projected to operate at LOS F during the PM peak hour, the movement will operate at a volume-to-capacity (v/c) ratio below 1.0 and with residual capacity. It should be noted that this condition is driven by future background conditions with the addition of background traffic.

Public consultation meetings will be held to gather feedback. Any transportation-related comments received will be documented in this section and updated in future submissions as the development progresses. Community concerns raised during future public engagements will also be addressed accordingly.

Additionally, based on previous community feedback, the curbs along the existing underground ramp were modified to improve traffic operations and facilitate vehicle access to and from the site, including entry to and exit from the ramp.

Overall, the proposed development is expected to have an acceptable impact on the surrounding road network, with no traffic constraints identified.

6 CONCLUSION

This letter summarizes the key transportation items discussed for the proposed residential development at 1315 Bough Beeches Boulevard. With the exception of an increase of two (2) bicycle parking spaces, the proposed development remains unchanged from the previous submission and continues to include a 13-storey residential building with 144 residential units. The letter also provides responses to the comments received from the City of Mississauga and Region of Peel.

The letter provides an updated traffic review and concludes that the proposed development is expected to have an acceptable impact on the surrounding road network, with no traffic constraints identified.

The letter also provides a parking review for the existing and proposed buildings. Overall, the proposed parking supply reflects the applicable Precinct 3 requirements, the shared parking arrangement on the site, rent roll information, and observed visitor parking demand.

Should you have any questions or concerns regarding this letter, please do not hesitate to contact the undersigned.

Yours truly,

LEA CONSULTING LTD.

ZARA MCCORMICK

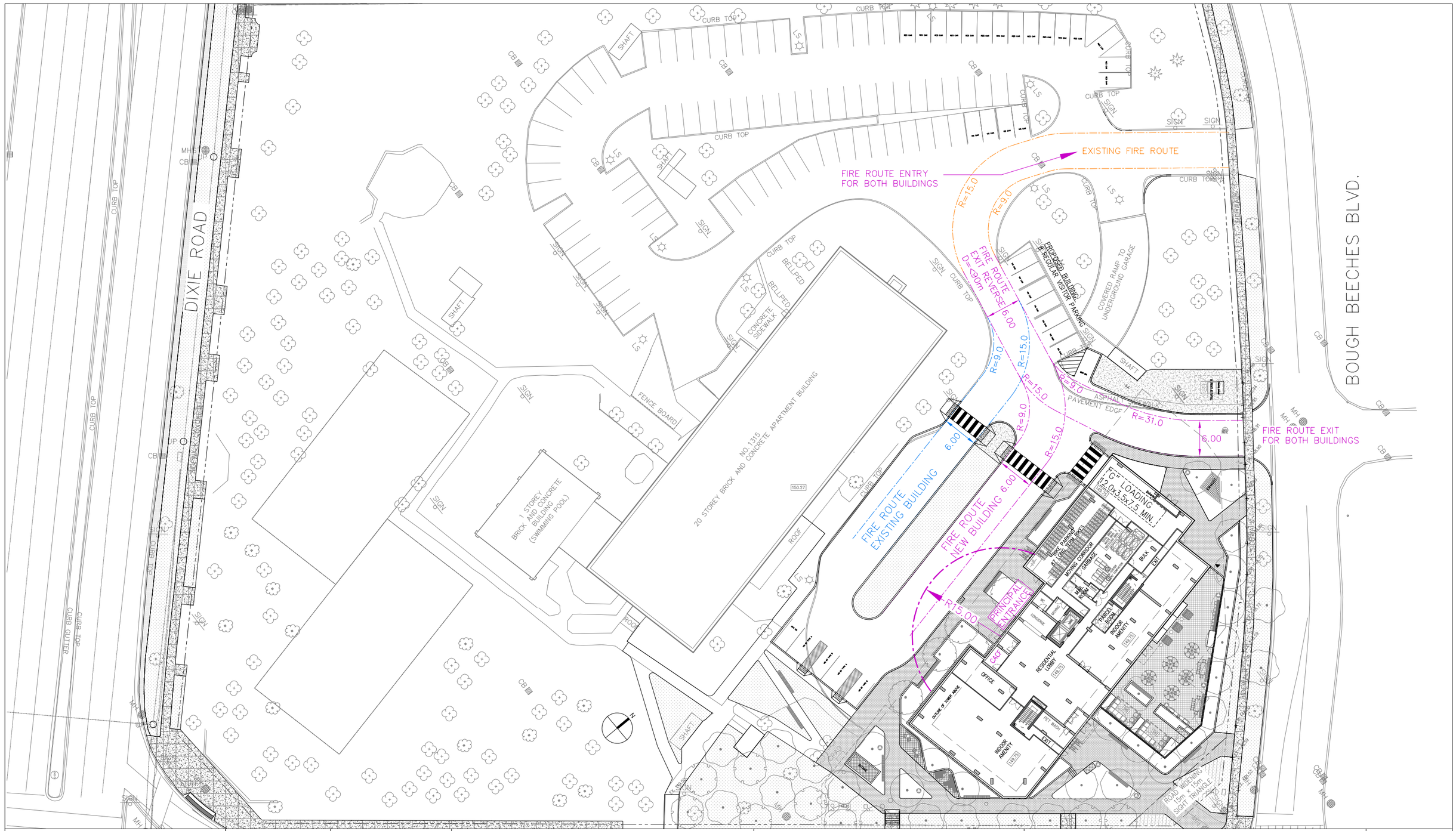
Zara McCormick, M.Eng., P.Eng.
Manager, Transportation Engineering (Western Canada)

Jorge Ordenes, M.Sc., E.I.T
Project Coordinator

Encl. Attachment A: Functional Design Review
Attachment B: EA Confirmation
Attachment C: Client Confirmation on Occupancy
Attachment D: Background Developments
Attachment E: Intersection Capacity Analysis Results

ATTACHMENT A

Functional Design Review



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Project No.
25369

Date
REV. JUNE 29, 2026

1315 BOUGH BEECHES DLVD.
MISSISSAUGA ONTARIO

6 0 6 12 18m
1:600

GROUND FLOOR
FIRE ROUTE REVIEW

Drawing No.
SK—1

DRAWING NAME: F:\25369\Drafting\25369WF05F GRND.dwg

SIGHT LINE NOTES:

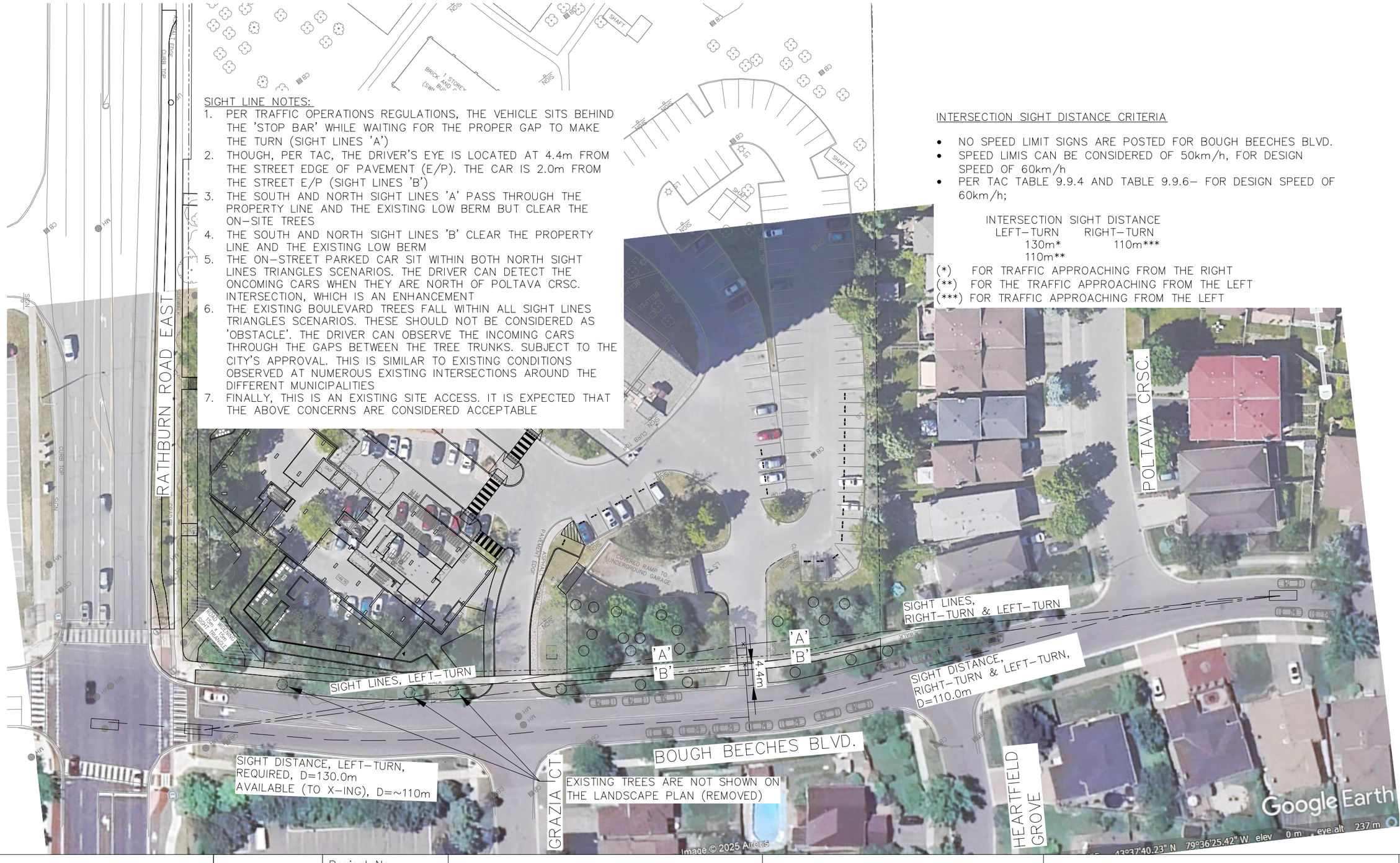
1. PER TRAFFIC OPERATIONS REGULATIONS, THE VEHICLE SITS BEHIND THE 'STOP BAR' WHILE WAITING FOR THE PROPER GAP TO MAKE THE TURN (SIGHT LINES 'A')
2. THOUGH, PER TAC, THE DRIVER'S EYE IS LOCATED AT 4.4m FROM THE STREET EDGE OF PAVEMENT (E/P). THE CAR IS 2.0m FROM THE STREET E/P (SIGHT LINES 'B')
3. THE SOUTH AND NORTH SIGHT LINES 'A' PASS THROUGH THE PROPERTY LINE AND THE EXISTING LOW BERM BUT CLEAR THE ON-SITE TREES
4. THE SOUTH AND NORTH SIGHT LINES 'B' CLEAR THE PROPERTY LINE AND THE EXISTING LOW BERM
5. THE ON-STREET PARKED CAR SIT WITHIN BOTH NORTH SIGHT LINES TRIANGLES SCENARIOS. THE DRIVER CAN DETECT THE ONCOMING CARS WHEN THEY ARE NORTH OF POLTAVA CRSC. INTERSECTION, WHICH IS AN ENHANCEMENT
6. THE EXISTING BOULEVARD TREES FALL WITHIN ALL SIGHT LINES TRIANGLES SCENARIOS. THESE SHOULD NOT BE CONSIDERED AS 'OBSTACLE'. THE DRIVER CAN OBSERVE THE INCOMING CARS THROUGH THE GAPS BETWEEN THE TREE TRUNKS. SUBJECT TO THE CITY'S APPROVAL. THIS IS SIMILAR TO EXISTING CONDITIONS OBSERVED AT NUMEROUS EXISTING INTERSECTIONS AROUND THE DIFFERENT MUNICIPALITIES
7. FINALLY, THIS IS AN EXISTING SITE ACCESS. IT IS EXPECTED THAT THE ABOVE CONCERNS ARE CONSIDERED ACCEPTABLE

INTERSECTION SIGHT DISTANCE CRITERIA

- NO SPEED LIMIT SIGNS ARE POSTED FOR BOUGH BEECHES BLVD.
- SPEED LIMIS CAN BE CONSIDERED OF 50km/h, FOR DESIGN SPEED OF 60km/h
- PER TAC TABLE 9.9.4 AND TABLE 9.9.6– FOR DESIGN SPEED OF 60km/h;

INTERSECTION SIGHT DISTANCE	
LEFT–TURN	RIGHT–TURN
130m*	110m***
110m**	

(*) FOR TRAFFIC APPROACHING FROM THE RIGHT
(**) FOR THE TRAFFIC APPROACHING FROM THE LEFT
(***) FOR TRAFFIC APPROACHING FROM THE LEFT



LEA Consulting Ltd. Consulting Engineers and Planners **www.LEA.ca**	N	Project No. 25369 Date REV. JUNE 29, 2026	1315 BOUGH BEECHES DLVD. MISSISSAUGA ONTARIO 7.5 0 7.5 15 22.5m 1:750	EXISTING NORTH SITE ACCESS SIGHT LINES REVIEW	Drawing No. SK–2

DRAWING NAME: F:\25369\Drafting\25369WF05F GRND.dwg

SIGHT LINE NOTES:

1. PER TRAFFIC OPERATIONS REGULATIONS, THE VEHICLE SITS BEHIND THE 'STOP BAR' WHILE WAITING FOR THE PROPER GAP TO MAKE THE TURN (SIGHT LINES 'A')
2. THOUGH, PER TAC, THE DRIVER'S EYE IS LOCATED AT 4.4m FROM THE STREET EDGE OF PAVEMENT (E/P). THE CAR IS 2.0m FROM THE STREET E/P (SIGHT LINES 'B')
3. THE SOUTH AND NORTH SIGHT LINES 'A' PASS THROUGH THE PROPERTY LINE AND THE EXISTING LOW BERM BUT CLEAR THE ON-SITE TREES TRUNKS
4. THE SOUTH AND NORTH SIGHT LINES 'B' CLEAR THE PROPERTY LINE AND THE EXISTING LOW BERM
5. THE ON-STREET PARKED CAR SIT WITHIN BOTH NORTH SIGHT LINES TRIANGLES SCENARIOS. THE DRIVER CAN DETECT THE ONCOMING CARS WHEN PASSING POLTAVA CRSC. INTERSECTION, WHICH IS AN ENHANCEMENT
6. THE EXISTING BOULEVARD TREES FALL WITHIN ALL SIGHT LINES TRIANGLES SCENARIOS. THESE SHOULD NOT BE CONSIDERED AS 'OBSTACLE'. THE DRIVER CAN OBSERVE THE INCOMING CARS THROUGH THE GAPS BETWEEN THE TREE TRUNKS. SUBJECT TO THE CITY'S APPROVAL. THIS IS SIMILAR TO EXISTING CONDITIONS OBSERVED AT NUMEROUS EXISTING INTERSECTIONS AROUND THE DIFFERENT MUNICIPALITIES
7. FINALLY, THIS IS AN EXISTING SITE ACCESS. IT IS EXPECTED THAT THE ABOVE CONCERNS ARE CONSIDERED ACCEPTABLE

INTERSECTION SIGHT DISTANCE CRITERIA

- NO SPEED LIMIT SIGNS ARE POSTED FOR BOUGH BEECHES BLVD.
- SPEED LIMIS CAN BE CONSIDERED OF 50km/h, FOR DESIGN SPEED OF 60km/h
- PER TAC TABLE 9.9.4 AND TABLE 9.9.6– FOR DESIGN SPEED OF 60km/h;

INTERSECTION SIGHT DISTANCE	
LEFT–TURN	RIGHT–TURN
130m*	110m***
110m**	

(*) FOR TRAFFIC APPROACHING FROM THE RIGHT
(**) FOR THE TRAFFIC APPROACHING FROM THE LEFT
(***) FOR TRAFFIC APPROACHING FROM THE LEFT



LEA Consulting Ltd. Consulting Engineers and Planners **www.LEA.ca**	Project No. 25369 Date REV. JUNE 29, 2026	1315 BOUGH BEECHES DLVD. MISSISSAUGA ONTARIO 7.5 0 7.5 15 22.5m 1:750	EXISTING SOUTH SITE ACCESS SIGHT LINES REVIEW	Drawing No. SK–3

DRAWING NAME: F:\25369\Drafting\25369WF05F GRND.dwg

B– DRIVEWAY THROAT LENGTH:

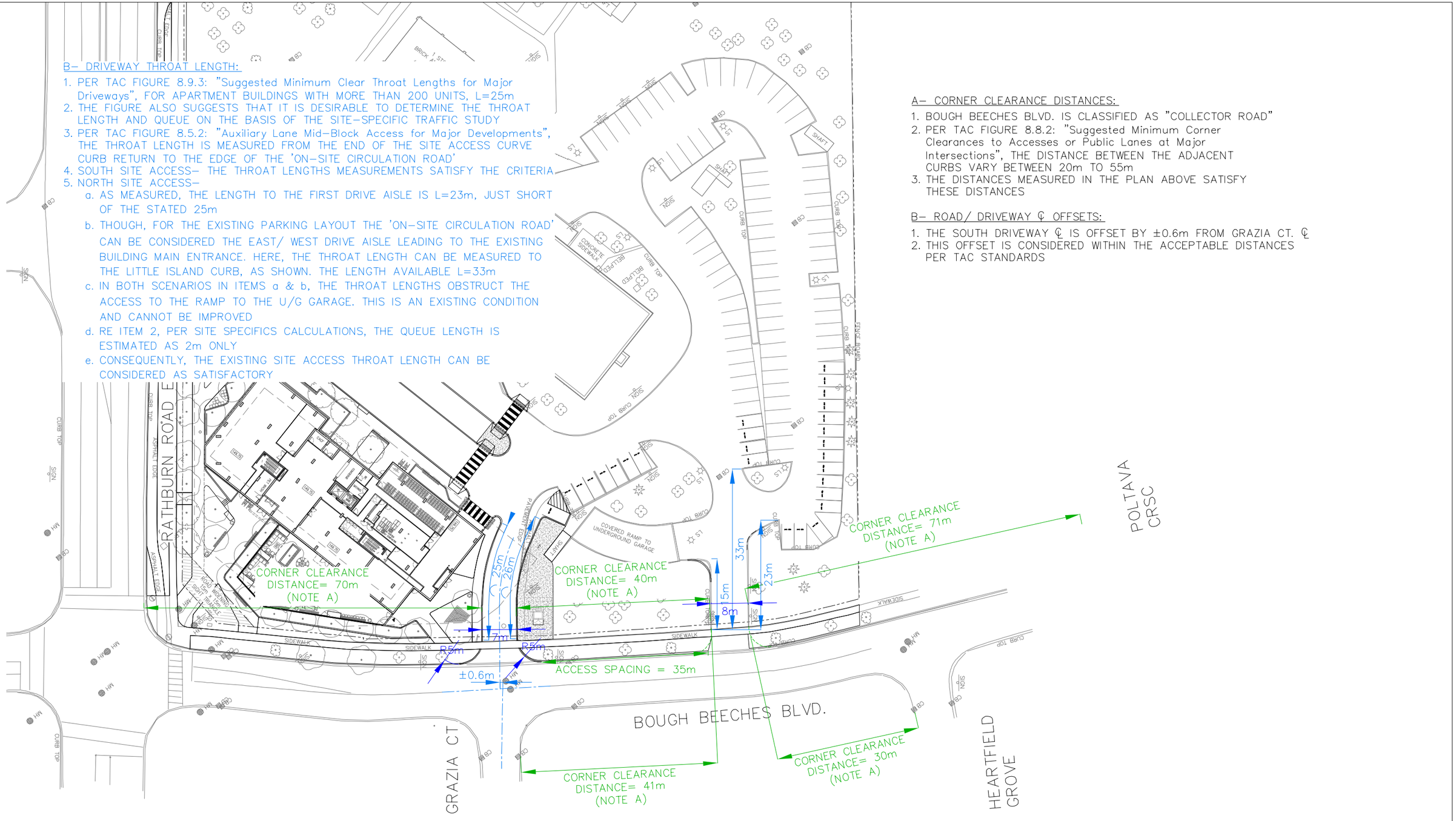
1. PER TAC FIGURE 8.9.3: "Suggested Minimum Clear Throat Lengths for Major Driveways", FOR APARTMENT BUILDINGS WITH MORE THAN 200 UNITS, L=25m
2. THE FIGURE ALSO SUGGESTS THAT IT IS DESIRABLE TO DETERMINE THE THROAT LENGTH AND QUEUE ON THE BASIS OF THE SITE–SPECIFIC TRAFFIC STUDY
3. PER TAC FIGURE 8.5.2: "Auxiliary Lane Mid–Block Access for Major Developments", THE THROAT LENGTH IS MEASURED FROM THE END OF THE SITE ACCESS CURB RETURN TO THE EDGE OF THE 'ON–SITE CIRCULATION ROAD'
4. SOUTH SITE ACCESS– THE THROAT LENGTHS MEASUREMENTS SATISFY THE CRITERIA
5. NORTH SITE ACCESS–
   a. AS MEASURED, THE LENGTH TO THE FIRST DRIVE AISLE IS L=23m, JUST SHORT OF THE STATED 25m
   b. THOUGH, FOR THE EXISTING PARKING LAYOUT THE 'ON–SITE CIRCULATION ROAD' CAN BE CONSIDERED THE EAST/ WEST DRIVE AISLE LEADING TO THE EXISTING BUILDING MAIN ENTRANCE. HERE, THE THROAT LENGTH CAN BE MEASURED TO THE LITTLE ISLAND CURB, AS SHOWN. THE LENGTH AVAILABLE L=33m
   c. IN BOTH SCENARIOS IN ITEMS a & b, THE THROAT LENGTHS OBSTRUCT THE ACCESS TO THE RAMP TO THE U/G GARAGE. THIS IS AN EXISTING CONDITION AND CANNOT BE IMPROVED
   d. RE ITEM 2, PER SITE SPECIFICS CALCULATIONS, THE QUEUE LENGTH IS ESTIMATED AS 2m ONLY
   e. CONSEQUENTLY, THE EXISTING SITE ACCESS THROAT LENGTH CAN BE CONSIDERED AS SATISFACTORY

A– CORNER CLEARANCE DISTANCES:

1. BOUGH BEECHES BLVD. IS CLASSIFIED AS "COLLECTOR ROAD"
2. PER TAC FIGURE 8.8.2: "Suggested Minimum Corner Clearances to Accesses or Public Lanes at Major Intersections", THE DISTANCE BETWEEN THE ADJACENT CURBS VARY BETWEEN 20m TO 55m
3. THE DISTANCES MEASURED IN THE PLAN ABOVE SATISFY THESE DISTANCES

B– ROAD/ DRIVEWAY ℄ OFFSETS:

1. THE SOUTH DRIVEWAY ℄ IS OFFSET BY ±0.6m FROM GRAZIA CT. ℄
2. THIS OFFSET IS CONSIDERED WITHIN THE ACCEPTABLE DISTANCES PER TAC STANDARDS



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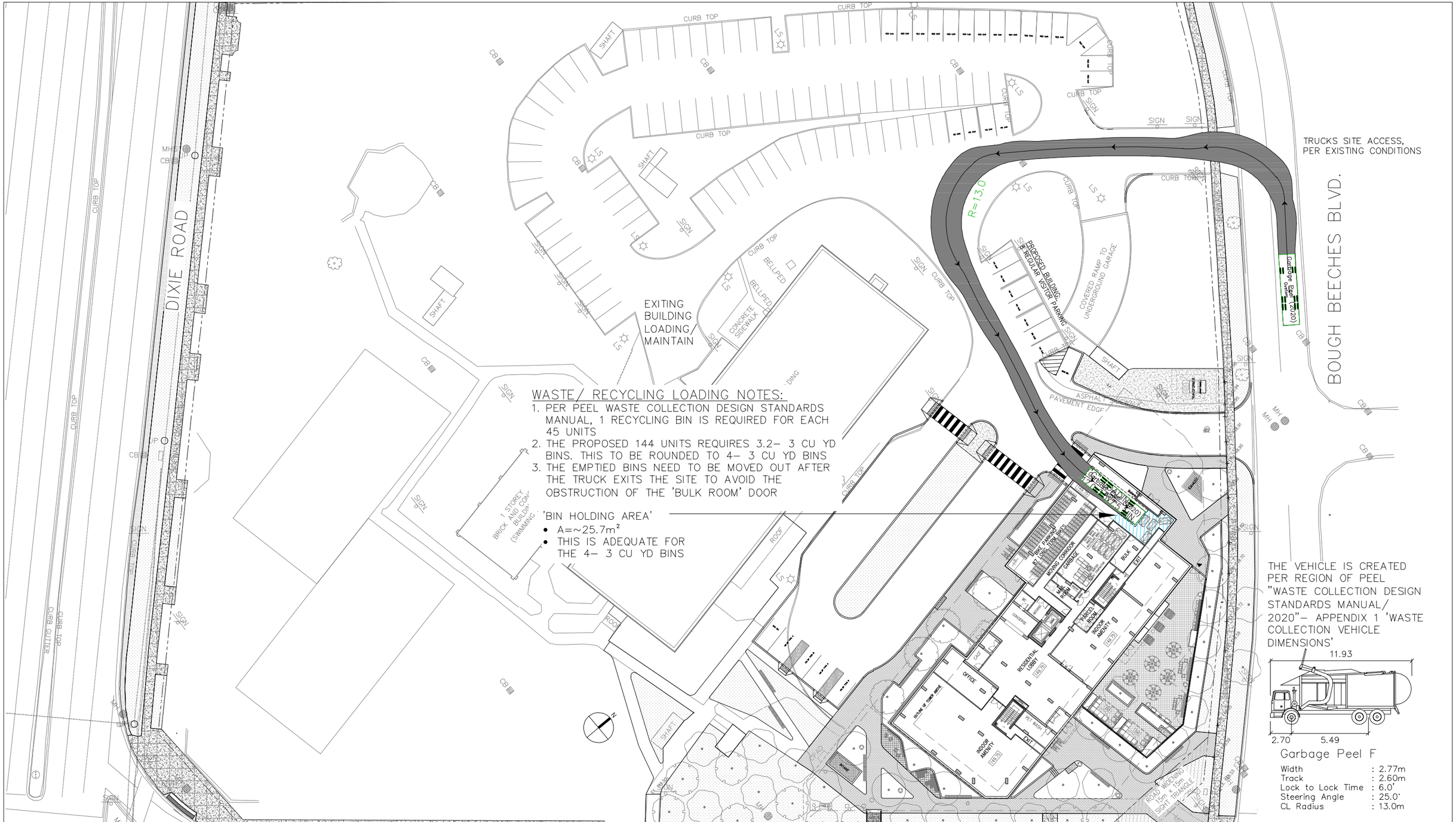
DRAWING NAME: F:\25369\Drafting\25369WF05G GRND.dwg



WASTE/ RECYCLING LOADING NOTES:

1. PER PEEL WASTE COLLECTION DESIGN STANDARDS MANUAL, 1 RECYCLING BIN IS REQUIRED FOR EACH 45 UNITS
2. THE PROPOSED 144 UNITS REQUIRES 3.2– 3 CU YD BINS. THIS TO BE ROUNDED TO 4– 3 CU YD BINS
3. THE EMPTIED BINS NEED TO BE MOVED OUT AFTER THE TRUCK EXITS THE SITE TO AVOID THE OBSTRUCTION OF THE 'BULK ROOM' DOOR

'BIN HOLDING AREA'

- A=~25.7m²
- THIS IS ADEQUATE FOR THE 4– 3 CU YD BINS

THE VEHICLE IS CREATED PER REGION OF PEEL "WASTE COLLECTION DESIGN STANDARDS MANUAL/ 2020"– APPENDIX 1 'WASTE COLLECTION VEHICLE DIMENSIONS'

Garbage Peel F

Width	: 2.77m
Track	: 2.60m
Lock to Lock Time	: 6.0'
Steering Angle	: 25.0°
CL Radius	: 13.0m

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Project No. 25369

Date REV. JUNE 30, 2026

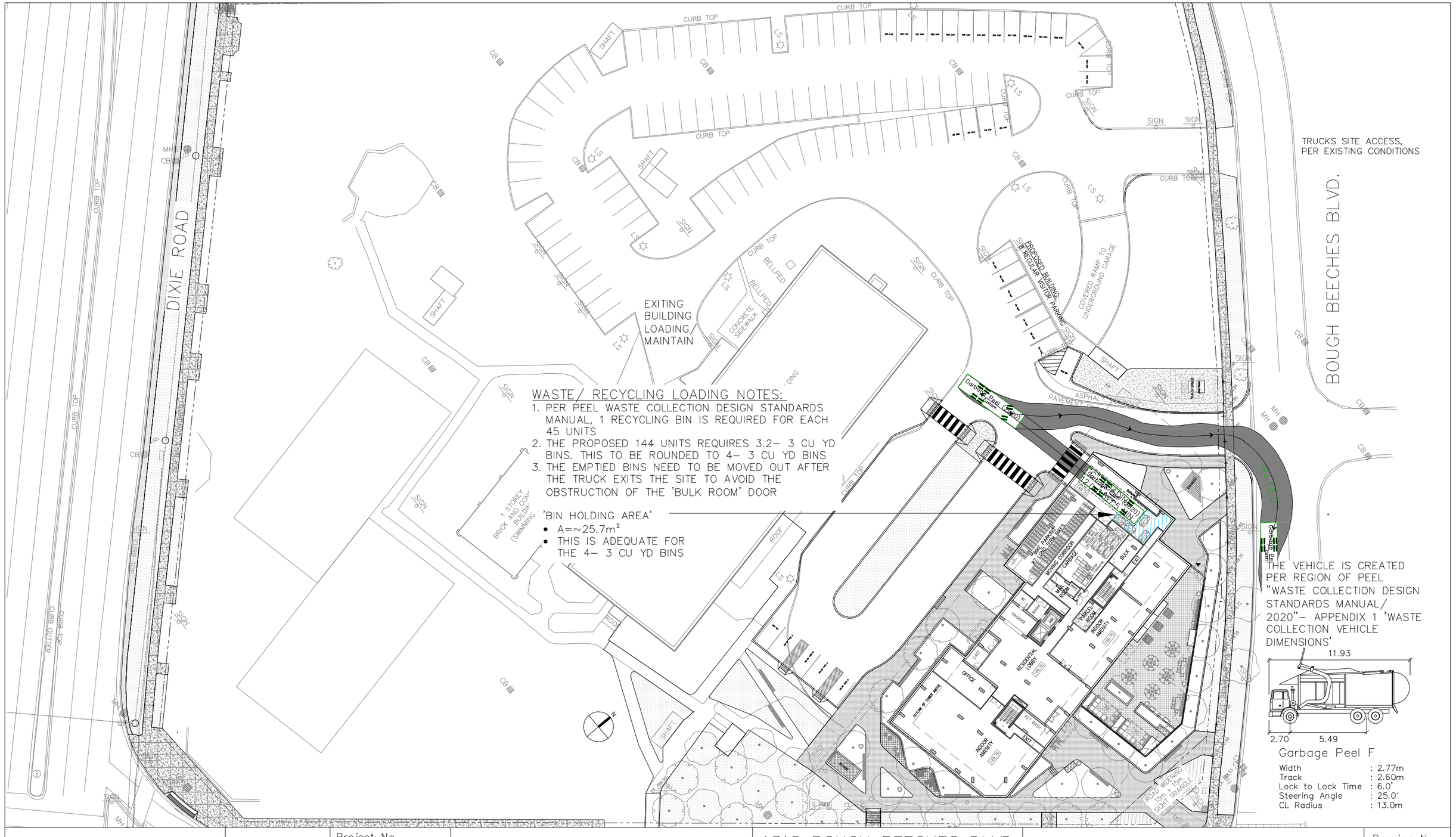
1315 BOUGH BEECHES DLVD.
MISSISSAUGA ONTARIO

6 0 6 12 18m
1:600

GROUND FLOOR– LOADING AREA
REGION GARBAGE TRUCK– FRONT ENTRY PATH

Drawing No. P1

DRAWING NAME: F:\25369\Drafting\25369WF05G GRND.dwg



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Garbage Peel F

Width	: 2.77m
Track	: 2.60m
Lock to Lock Time	: 6.0"
Steering Angle	: 25.0°
CL Radius	: 13.0m

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Project No. 25369

Date REV. JUNE 30, 2026

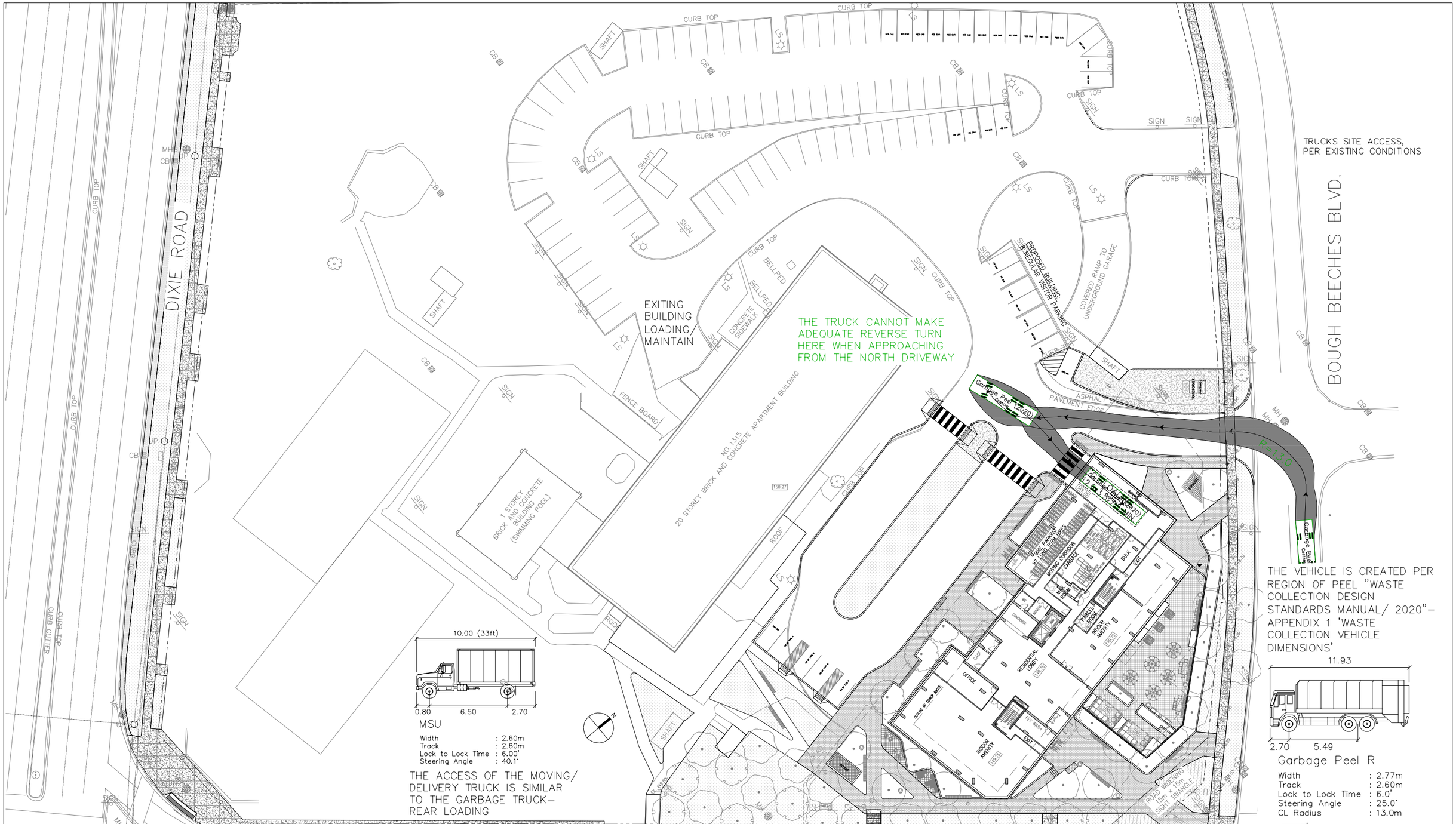
1315 BOUGH BEECHES DLVD.
MISSISSAUGA ONTARIO

6 0 6 12 18m
1:600

GROUND FLOOR– LOADING AREA REGION GARBAGE TRUCK– FRONT EXIT PATH

Drawing No. P2

DRAWING NAME: F:\25369\Drafting\25369WF05G GRND.dwg



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Project No. 25369

Date REV. JUNE 30, 2026

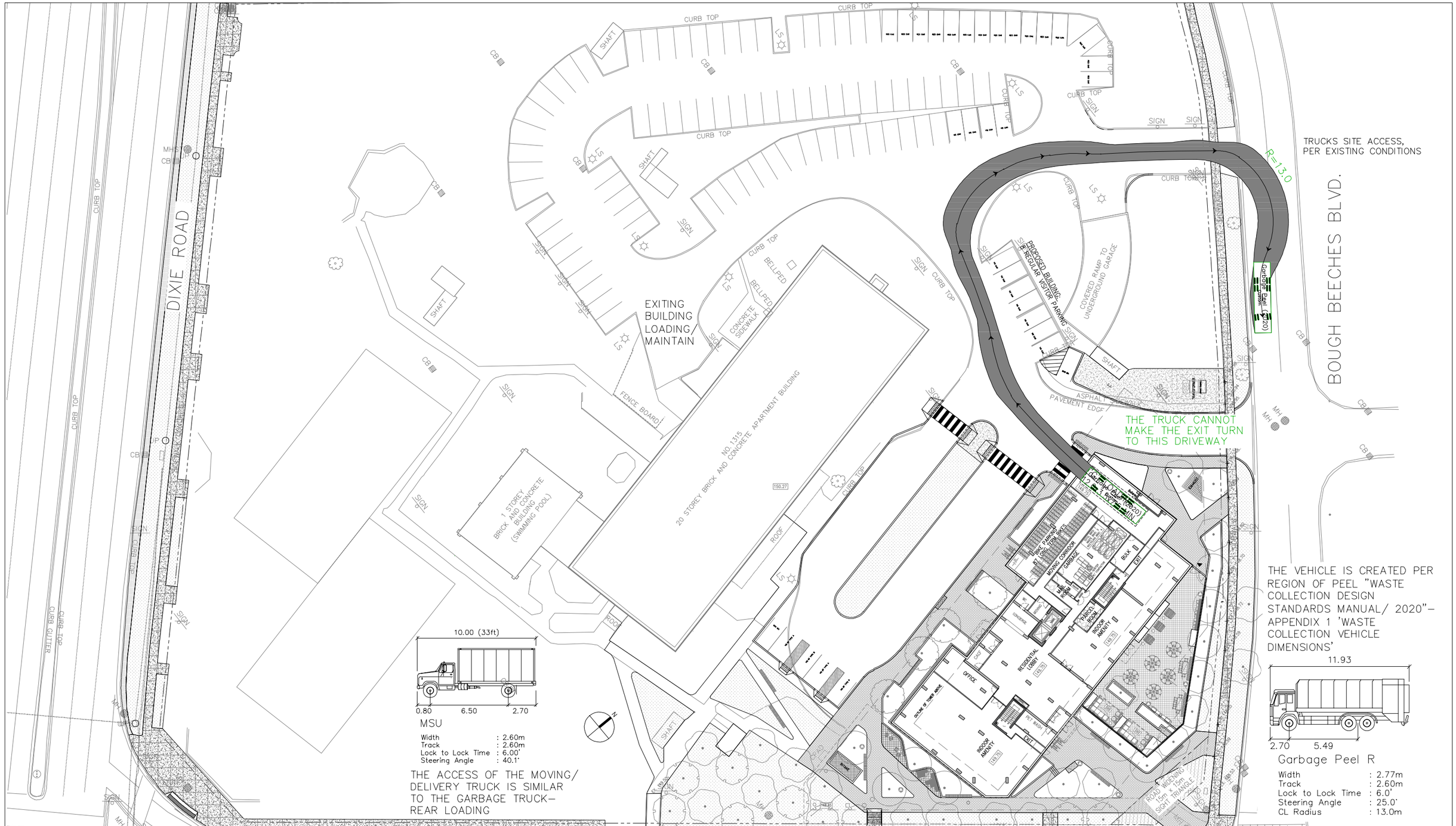
1315 BOUGH BEECHES DLVD.
MISSISSAUGA ONTARIO

6 0 6 12 18m
1:600

GROUND FLOOR– LOADING AREA
REGION GARBAGE TRUCK– REAR ENTRY PATH

Drawing No. P3

DRAWING NAME: F:\25369\Drafting\25369WF05G GRND.dwg



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Project No. 25369

Date
REV. JUNE 30, 2026

1315 BOUGH BEECHES DLVD.
MISSISSAUGA ONTARIO

6 0 6 12 18m
1: 600

GROUND FLOOR– LOADING AREA REGION GARBAGE TRUCK– REAR EXIT PATH

Drawing No. P4

DRAWING NAME: F:\25369\Drafting\25369WF05G GRND.dwg



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Project No. 25369

Date REV. JUNE 30, 2026

1315 BOUGH BEECHES DLVD.
MISSISSAUGA ONTARIO

3 0 3 6 9m
1: 300

GROUND FLOOR– PTAC REVIEW

Drawing No. P5

DRAWING NAME: F:\25369\Drafting\25369WF05G GRND.dwg



- PASSENGER CARS GOING IN OPPOSITE DIRECTIONS HAVE MINOR PATH OVERLAPS
- THE DRIVERS CAN OBSERVE EACH OTHER
- ONE OF THE CARS CAN WAIT TO GIVE–WAY TO THE OTHER TO PASS
- CONVEX MIRRORS SHOULD IMPROVE ON SIGHT LINES
- CAR TURNING PATHS ARE THE SAME ON PARKING LEVEL P2

P

Width	: 2.00m
Track	: 2.00m
Lock to Lock Time	: 6.00'
Steering Angle	: 36.21°

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Project No. 25369

Date REV. JUNE 29, 2026

1315 BOUGH BEECHES DLVD.
MISSISSAUGA ONTARIO

4 0 4 8 12m
1:400

PARKING LEVEL P1
PASSENGER CAR PATHS

Drawing No. P11

DRAWING NAME: F:\25369\Drafting\25369WF06D P1.dwg

ATTACHMENT B

EA Confirmation

Jorge Ordenes

From: Fang, Bihui April <BihuiApril.Fang@peelregion.ca>
Sent: June 18, 2026 2:09 PM
To: Jorge Ordenes
Cc: Banuri, Syeda
Subject: RE: Request for Information on EA #23-4335- City File OZ/OPA 26-5 W3

External Sender

Hello Jorge,

Thank you for reaching out. At this time, the Region of Peel will not be proceeding with the Dixie Road (from Burnhamthorpe Road East to the Highway 401 westbound off-ramp) Project 23-4335 RFP. This direction has been provided by the City of Mississauga in relation to the upcoming transfer of transportation services from Peel Region. I will keep you informed should there be any updates or changes moving forward.

Best Regards,

Peel Region

April Fang
Transportation Policy Advisor
Transportation Policy & Modeling
Public Works

bihui.fang@peelregion.ca
905-791-7800 ext. 6450

From: Jorge Ordenes <jordenes@lea.ca>
Sent: June 17, 2026 2:19 PM
To: Fang, Bihui April <BihuiApril.Fang@peelregion.ca>
Cc: Zara McCormick <ZMcCormick@lea.ca>
Subject: Request for Information on EA #23-4335- City File OZ/OPA 26-5 W3

You don't often get email from jordenes@lea.ca. Learn why this is important

CAUTION: External Email. Do not click on links or open attachments you do not trust.

Hi April,

I hope you are doing well.

LEA Consulting Ltd. (LEA) has been retained by 1315 Bough Beeches Boulevard Limited to undertake a Transportation Impact Study (TIS) for a proposed residential development located on a portion of the property at 1315 Bough Beeches in the City of Mississauga.

We received comments, and one of them requested that we reach out to you to obtain additional information regarding the ongoing Environmental Assessment along this portion of Dixie Street (project number #23-4335).

TRANSPORTATION DEVELOPMENT COMMENTS:
Access/Study Requirements
A Traffic Impact Study was received as a part of the first submission, dated April 29, 2026. The Region would like to offer the following comments:
O Please consider the future traffic volumes generated from another development application (PAM-25-113M) proposing new access along Dixie Road on the northly limit of the subject property resulting from the interconnection within the subject property.
The Region acknowledges that there is no proposed access off of Regional Road 4 (Dixie Road) via this application.
Please note there is a on-going Environmental Assessment taking place along this portion of Dixie Road; project number #23-4335. The EA Project Manager is April Fang (BihuiApril.Fang@peelregion.ca). Please reach out to obtain additional information on the capital project and detailed design. Additional property requirements and infrastructure may be required to facilitate the Capital Project.
Please note that all works within the Region's right-of-way will require a permit prior to any construction taking place.

Could you please provide us with that information?

Thank you,

Jorge Ordenes, M.Sc., E.I.T.
Project Coordinator, Transportation & Systems

LEA Consulting Ltd.
T: 905 470 0015 ext. 329 **E:** jordenes@lea.ca **W:** www.LEA.ca

Certificates & Accolades

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ATTACHMENT C

Client Confirmation on Occupancy

Amelia Crichton

From: Farrah Ward <fward@stanfordhomes.ca>
Sent: June 24, 2026 11:37 PM
To: Zara McCormick
Subject: Re: 1315 Bough Beeches - Below-grade levels

External Sender

Hi Zara -

I received the rent rolls for the following months and can confirm occupancies as follows:

July 2025 - 260 units (10 vacant units)
January 2026 - 266 units (4 vacant units)
February 2026 - 266 units (4 vacant units)

Let me know if you need anything else.

Thanks

FARRAH WARD P.ENG
Vice President, Land Development

STANFORD

DESTINATION HOME

2700 Dufferin St., Unit 50 Toronto, ON M6B 4J3
C 437-518-4968 | F 416.792.0115 | fward@stanfordhomes.ca

STANFORDHOMES.CA

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ATTACHMENT D

Background Developments

Site Stats

Land Use	EXACT (March 6, 2026) Res Units	sq. m. GFA	sq. ft. GFA	ROUNDED Res Units	sq. m. GFA	sq. ft. GFA
Proposed						
Residential (High-Rise)	293	-	-	293	-	-
Residential (Mid-Rise)		-	-	0	-	-
Residential (Low-Rise)	18	-	-	18	-	-
Retail	-		0	-	-	0
Office	-		0	-	-	0

Local Mode Split

Link to Data: Link

Mode	Residential
Auto Driver	45%
Auto Passenger	16%
Taxi/Rideshare	0%
Transit	22%
Walk	14%
Cycle	3%
Total	100%

Non-auto mode share: 55%

ITE Trip Gen

Proposed Development Statistics

Proposed Land Use
Residential (High-Rise) 293 Units
ITE LUC 222 - Multifamily Housing (High-Rise)
Weekday, __ Peak Hour of Adjacent Street Traffic; General Urban/Suburban; Not Close to Rail Transit

Proxy
ITE Vehicle Trips

ITE LUC 222 - Multifamily Housing (High-Rise)	In	Out	Total	In	Out	Total
ITE LUC 222 - Multifamily Housing (High-Rise)						
Trip Rates	0.13	0.22	0.35	0.29	0.20	0.49
Baseline Auto Trips	38	64	102	85	59	144
Auto Split	100%	100%		100%	100%	
Avg Veh Occupancy	1.00	1.00		1.00	1.00	
Conversion to Person Trips	84	142	226	189	131	320
Interaction Trip Reduction	0	0	0	0	0	0
Total External Person Trips	84	142	226	189	131	320
External Auto Driver Trips	38	64	102	85	59	144
Total External Person PUDO Trips	0	0	0	0	0	0
External Vehicle PUDO Trips	0	0	0	0	0	0
Proposed Residential - External Auto Trips	38	64	102	85	59	144

Proposed Land Use
Residential (Low-Rise) 18 Units
ITE LUC 215- Single Family Attached Housing
Weekday, __ Peak Hour of Adjacent Street Traffic; General Urban/Suburban; Not Close to Rail Transit

Average Rates
ITE Vehicle Trips

ITE LUC 215- Single Family Attached Housing	In	Out	Total	In	Out	Total
ITE Distribution (Vehicle)	25%	75%	100%	57%	43%	100%
ITE Trip Rates	0.13	0.39	0.52	0.29	0.22	0.51
Baseline Auto Trips	2	7	9	5	4	9
Auto Split	100%	100%		100%	100%	
Avg Veh Occupancy	1.00	1.00		1.00	1.00	
Conversion to Person Trips	2	7	9	5	4	9
Interaction Trip Reduction	0	0	0	0	0	0
Total External Person Trips	2	7	9	5	4	9
External Auto Driver Trips	1	3	4	2	2	4
Total External Person PUDO Trips	0	0		0	0	
External Vehicle PUDO Trips	0	0	0	0	0	0
Proposed Residential - External Auto Trips	1	3	4	2	2	4

4.0 SITE TRAFFIC

The development proposal is to construct an 8-storey residential building to provide an additional 10,577.4 m^2 of gross floor area (GFA). Trip rates and site generated trips were derived from the information contained in the *Trip Generation Manual, 9th Edition* published by the Institute of Transportation Engineers (ITE) for "Residential Condominium/Townhouse" (LUC 230). The trip generation summary is provided in **Appendix E** and shown in **Table 4.1**.

Table 4.1 – Site Traffic Trip Generation (Based on ITE)

ITE Land Use	Parameter	Morning Peak Hour			Afternoon Peak Hour		
		In	Out	Total	In	Out	Total
Residential Condominium/Townhouse (LUC 230) 159 units	Gross New Trips	13	62	75	88	43	131
	Trip Rate	0.08	0.39	0.47	0.55	0.27	0.82
	Non-Auto (25%)	3	16	19	22	11	33
Total	**New Trips**	**10**	**46**	**56**	**66**	**32**	**98**
	New Rate	**0.06**	**0.29**	**0.35**	**0.42**	**0.20**	**0.62**

Based on the information contained in the 2011 Transportation Tomorrow Survey (TTS), a non-auto modal split for the subject area is approximately 25%. As shown in **Table 4.1**, the proposed development is anticipated to generate 56 two-way trips (10 inbound and 46 outbound) during the AM peak hours and 98 two-way trips (66 inbound and 32 outbound) during the PM peak hours.

Furthermore, based on the existing site traffic trends, the Apartment Building is generating a trip rate of 0.34 trips per occupied unit during the AM peak hours and 0.49 trips per occupied unit during the PM peak hours. Therefore, the ITE rate applied to this land use is conservative. **Table 4.2** shows the existing site traffic and trip rates for the AM and PM peak hours.

Table 4.2 – Existing Site Traffic Trip Generation

Land Use	Parameter	Morning Peak Hour			Afternoon Peak Hour		
		In	Out	Total	In	Out	Total
Apartment Building 93 units	Total Trips	10	22	32	29	17	46
	Trip Rate	0.11	0.24	0.34	0.31	0.18	0.49

The assumptions for the trip distribution rates are based on the information extracted from the 2011 Transportation Tomorrow Survey (TTS) and existing traffic patterns and routes that drivers would likely take to access the subject site and engineering judgement based on ease of site access. As a result, site trip distribution is summarized for the inbound and outbound site traffic movements during the morning and afternoon peak hours in **Table 4.3** with the trip assignment illustrated in **Figure 4-2**.

Table 4.3 – Site Traffic Trip Distribution

Direction	Via	AM Peak Hour		PM Peak Hour	
		Inbound	Outbound	Inbound	Outbound
North	Dixie Road	20%	20%	20%	20%
South	Dixie Road	35%	35%	35%	35%
East	Burnhamthorpe Road East	15%	15%	15%	15%
West	Burnhamthorpe Road East	30%	30%	30%	30%
Total		**100%**	**100%**	**100%**	**100%**

Site Stats

	EXACT (June 18, 2025)			ROUNDED		
Land Use	Res Units	sq. m. GFA	sq. ft. GFA	Res Units	sq. m. GFA	sq. ft. GFA
Proposed						
Residential (High-Rise)		-	-	0	-	-
Residential (Mid-Rise)		-	-	0	-	-
Residential (Low-Rise)		-	-	0	-	-
Retail	-		0	-	-	0
Office	-	922	9,924	-	-	10,000

Local Mode Split

Link to Data: Link

Mode	Residential
Auto Driver	45%
Auto Passenger	16%
Taxi/Rideshare	0%
Transit	22%
Walk	14%
Cycle	3%
Total	100%

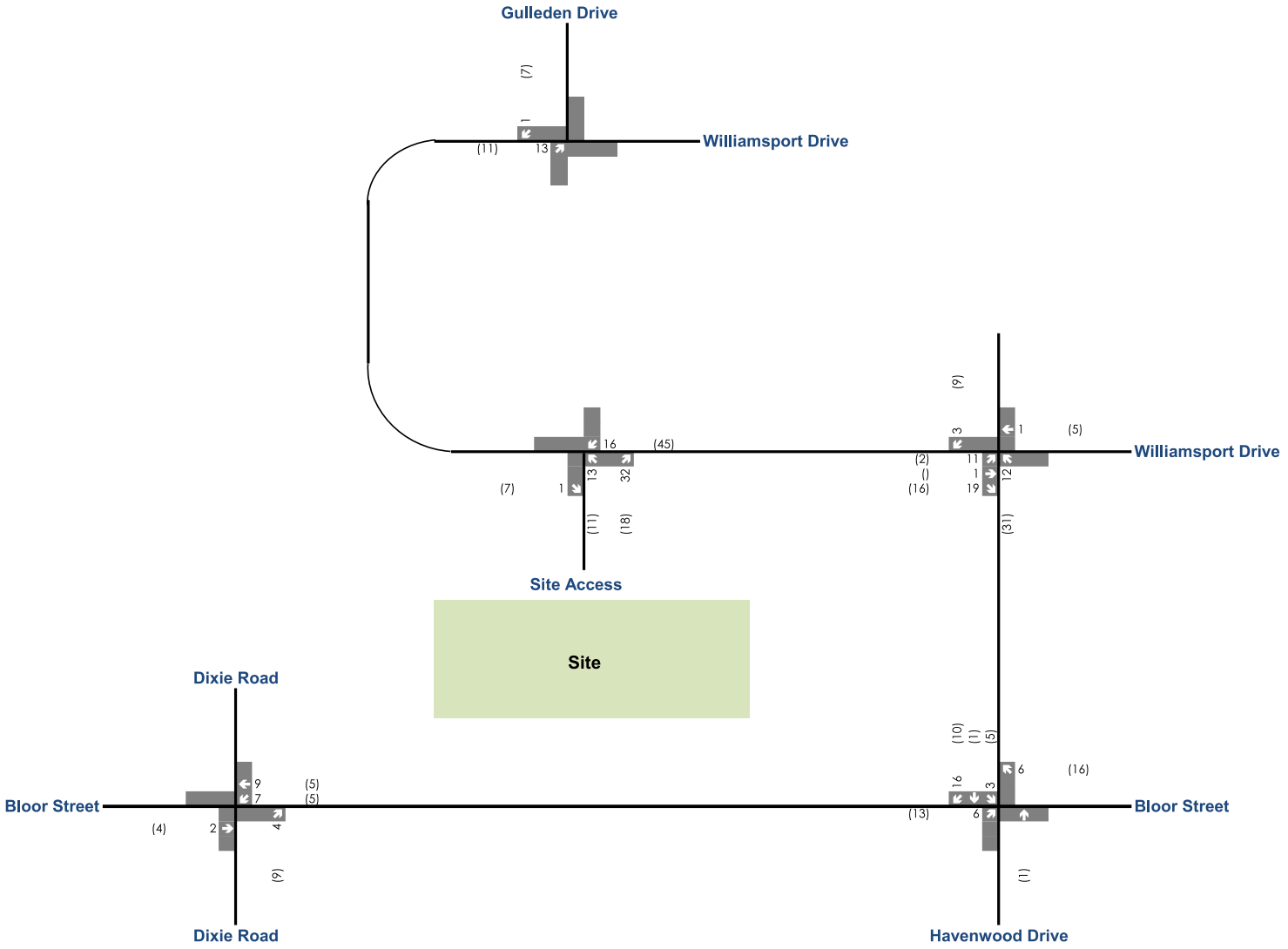
Non-auto mode share: 55%

ITE Trip Gen

Proposed Land Use
Office 10,000 ft²
ITE LUC 710 - General Office Building
Weekday, __ Peak Hour of Adjacent Street Traffic; General Urban/Suburban

Average Rates
ITE Person Trips

ITE LUC 710 - General Office Building	In	Out	Total	In	Out	Total
ITE Distribution (Person)	87%	13%	100%	15%	85%	100%
ITE Trip Rates	1.26	0.19	1.45	0.23	1.28	1.50
ITE Person Trips	13	2	15	2	13	15
Auto Split	100%	100%		100%	100%	
Avg Veh Occupancy	1.00	1.00		1.00	1.00	
Converted to Vehicle Trips	13	2	15	2	13	15
Interaction Trip Reduction	0	0	0	0	0	0
Total External Person Trips	13	2	15	2	13	15
External Auto Driver Trips	6	1	7	1	6	7
Proposed Office - External Auto Trips	6	1	7	1	6	7
Passby Percentage	0%	0%		0%	0%	
Passby Trips	0	0	0	0	0	0
Average Passby Trips	0	0	0	0	0	0
Proposed Office - Primary External Auto Trips	6	1	7	1	6	7



Legend

xx A.M. Peak Hour Traffic Volumes
(xx) P.M. Peak Hour Traffic Volumes

1470 Williamsport Drive

Site Generated Trips

CROZIER CONSULTING ENGINEERS

Figure 10

Project No. 2719-7179
Date: 02/04/2025
Analyst. AD

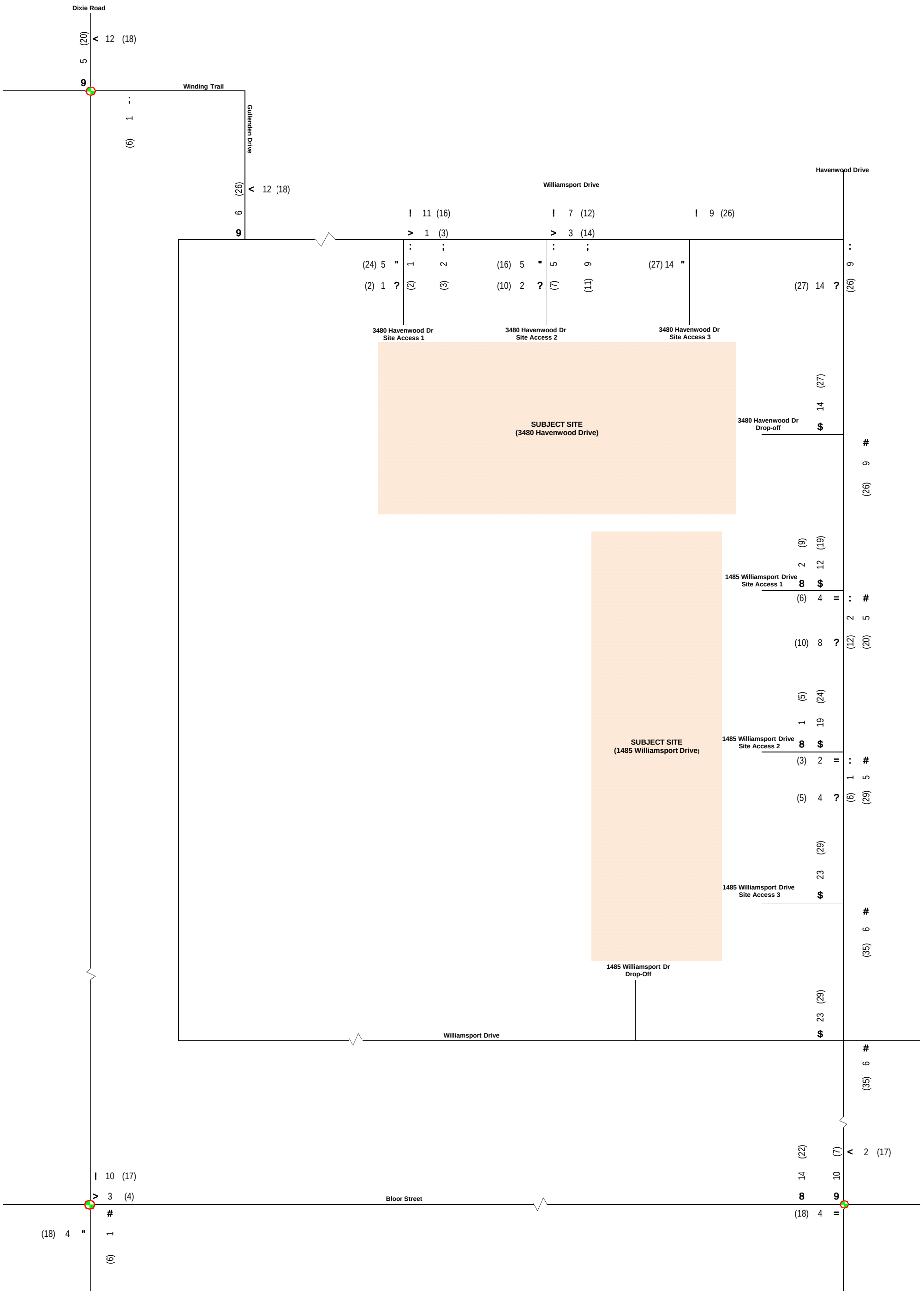


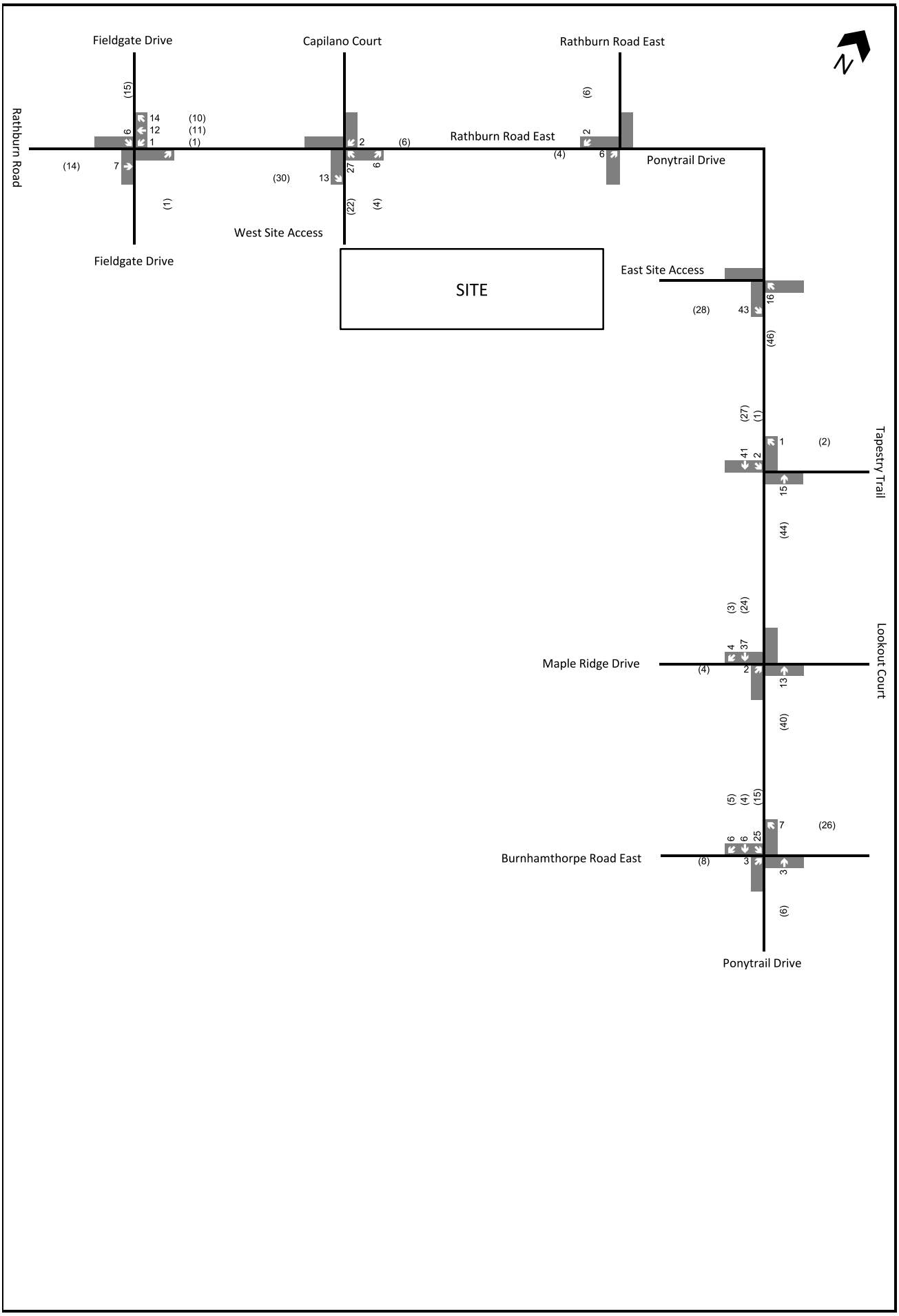
FIGURE 4-1
FUTURE TOTAL (2023)
LEA Consulting Ltd.

NOT TO SCALE

LEGEND

XX (XX) WEEKDAY AM (PM) PEAK HOUR TRAFFIC VOLUMES

SIGNALIZED INTERSECTION



Legend

xx A.M. Peak Hour Traffic
(xx) P.M. Peak Hour Traffic

Figure 5-1

Site Traffic Volumes

ATTACHMENT E

Intersection Capacity Analysis Results

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	2	33	18	52	113	0
Future Vol, veh/h	2	33	18	52	113	0
Conflicting Peds, #/hr	0	0	11	0	0	11
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	0	0	0	6	4	0
Mvmt Flow	2	40	22	63	136	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	254	147	147	0	-	0
Stage 1	147	-	-	-	-	-
Stage 2	107	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	739	905	1447	-	-	-
Stage 1	885	-	-	-	-	-
Stage 2	922	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	715	898	1436	-	-	-
Mov Cap-2 Maneuver	715	-	-	-	-	-
Stage 1	864	-	-	-	-	-
Stage 2	915	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	9.3	1.9	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1436	-	885	-	-
HCM Lane V/C Ratio	0.015	-	0.048	-	-
HCM Control Delay (s/veh)	7.5	0	9.3	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q (veh)	0	-	0.2	-	-

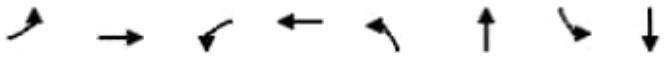
Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	23	28	0	2	15	68	12	0	146	0
Future Vol, veh/h	0	0	23	28	0	2	15	68	12	0	146	0
Conflicting Peds, #/hr	1	0	1	1	0	1	7	0	6	6	0	7
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	0	0	4	0	0	0	13	4	0	0	3	0
Mvmt Flow	0	0	27	33	0	2	18	80	14	0	172	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	304	315	180	316	308	94	179	0	0	100	0	0
Stage 1	179	179	-	129	129	-	-	-	-	-	-	-
Stage 2	125	136	-	187	179	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.24	7.1	6.5	6.2	4.23	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.336	3.5	4	3.3	2.317	-	-	2.2	-	-
Pot Cap-1 Maneuver	652	604	858	641	609	968	1333	-	-	1505	-	-
Stage 1	827	755	-	880	793	-	-	-	-	-	-	-
Stage 2	884	788	-	819	755	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	640	590	853	611	594	963	1326	-	-	1498	-	-
Mov Cap-2 Maneuver	640	590	-	611	594	-	-	-	-	-	-	-
Stage 1	811	751	-	863	778	-	-	-	-	-	-	-
Stage 2	869	773	-	792	751	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	9.4	11.1	1.2	0
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1326	-	-	853	626	1498	-	-
HCM Lane V/C Ratio	0.013	-	-	0.032	0.056	-	-	-
HCM Control Delay (s/veh)	7.8	0	-	9.4	11.1	0	-	-
HCM Lane LOS	A	A	-	A	B	A	-	-
HCM 95th %tile Q (veh)	0	-	-	0.1	0.2	0	-	-



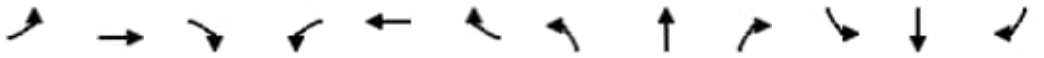
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	69	219	21	302	76	16	16	39
Future Volume (vph)	69	219	21	302	76	16	16	39
Lane Group Flow (vph)	73	295	22	329	80	24	17	190
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		2		6		4		8
Permitted Phases	2		6		4		8	
Detector Phase	2	2	6	6	4	4	8	8
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	29.5	29.5	29.5	29.5	37.0	37.0	37.0	37.0
Total Split (s)	37.0	37.0	37.0	37.0	43.0	43.0	43.0	43.0
Total Split (%)	46.3%	46.3%	46.3%	46.3%	53.8%	53.8%	53.8%	53.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.0	3.0	3.0	3.0
All-Red Time (s)	3.0	3.0	3.0	3.0	5.0	5.0	5.0	5.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5	6.5	8.0	8.0	8.0	8.0
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None	None	None
Act Effct Green (s)	53.1	53.1	53.1	53.1	12.4	12.4	12.4	12.4
Actuated g/C Ratio	0.66	0.66	0.66	0.66	0.16	0.16	0.16	0.16
v/c Ratio	0.12	0.13	0.03	0.14	0.48	0.09	0.08	0.52
Control Delay (s/veh)	4.1	2.8	5.8	5.5	39.9	22.2	28.1	13.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	4.1	2.8	5.8	5.5	39.9	22.2	28.1	13.9
LOS	A	A	A	A	D	C	C	B
Approach Delay (s/veh)		3.0		5.5		35.8		15.0
Approach LOS		A		A		D		B
Queue Length 50th (m)	2.3	3.5	1.0	8.2	12.1	2.4	2.4	5.9
Queue Length 95th (m)	m5.6	7.7	4.1	16.3	23.9	8.3	7.4	22.6
Internal Link Dist (m)		65.1		84.3		120.2		58.6
Turn Bay Length (m)	33.0		40.0		27.0		11.0	
Base Capacity (vph)	621	2204	666	2302	471	724	570	766
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.13	0.03	0.14	0.17	0.03	0.03	0.25

Intersection Summary			
Cycle Length: 80			
Actuated Cycle Length: 80			
Offset: 27 (34%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 70			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.52			
Intersection Signal Delay (s/veh): 9.6		Intersection LOS: A	
Intersection Capacity Utilization 76.8%		ICU Level of Service D	
Analysis Period (min) 15			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Bough Beeches Blvd & Rathburn Rd E





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	69	219	61	21	302	10	76	16	7	16	39	142
Future Volume (veh/h)	69	219	61	21	302	10	76	16	7	16	39	142
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.97	0.99		0.98	0.98		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1767	1826	1824	1824	1870	1682	1767	1811	1625	1824	1826	1767
Adj Flow Rate, veh/h	73	231	64	22	318	11	80	17	7	17	41	149
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	5	0	0	2	10	4	6	14	0	5	4
Cap, veh/h	613	1540	417	649	2001	69	250	299	123	404	84	305
Arrive On Green	0.57	0.57	0.57	0.57	0.57	0.57	0.25	0.25	0.25	0.25	0.25	0.25
Sat Flow, veh/h	989	2694	729	1053	3501	121	1115	1212	499	1329	340	1236
Grp Volume(v), veh/h	73	147	148	22	161	168	80	0	24	17	0	190
Grp Sat Flow(s),veh/h/ln	989	1735	1689	1053	1777	1845	1115	0	1710	1329	0	1576
Q Serve(g_s), s	3.0	3.2	3.3	0.8	3.4	3.4	5.3	0.0	0.9	0.8	0.0	8.3
Cycle Q Clear(g_c), s	6.4	3.2	3.3	4.1	3.4	3.4	13.5	0.0	0.9	1.6	0.0	8.3
Prop In Lane	1.00		0.43	1.00		0.07	1.00		0.29	1.00		0.78
Lane Grp Cap(c), veh/h	613	992	965	649	1016	1054	250	0	423	404	0	389
V/C Ratio(X)	0.12	0.15	0.15	0.03	0.16	0.16	0.32	0.00	0.06	0.04	0.00	0.49
Avail Cap(c_a), veh/h	613	992	965	649	1016	1054	463	0	748	657	0	690
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	9.6	8.0	8.0	9.0	8.1	8.1	31.6	0.0	23.0	23.6	0.0	25.8
Incr Delay (d2), s/veh	0.4	0.3	0.3	0.1	0.3	0.3	0.7	0.0	0.1	0.0	0.0	0.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.1	0.1	0.0	0.1	0.1	0.9	0.0	0.2	0.1	0.0	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	10.0	8.3	8.4	9.1	8.4	8.4	32.3	0.0	23.1	23.7	0.0	26.7
LnGrp LOS	A	A	A	A	A	A	C		C	C		C
Approach Vol, veh/h		368			351			104			207	
Approach Delay, s/veh		8.7			8.4			30.2			26.5	
Approach LOS		A			A			C			C	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		52.2		27.8		52.2		27.8				
Change Period (Y+Rc), s		6.5		8.0		6.5		8.0				
Max Green Setting (Gmax), s		30.5		35.0		30.5		35.0				
Max Q Clear Time (g_c+I1), s		8.4		15.5		6.1		10.3				
Green Ext Time (p_c), s		2.6		0.5		2.5		1.6				

Intersection Summary												
HCM 6th Ctrl Delay, s/veh			14.3									
HCM 6th LOS			B									

Intersection	
Int Delay, s/veh	1.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	318	69	30	490	34	31
Future Vol, veh/h	318	69	30	490	34	31
Conflicting Peds, #/hr	0	2	2	0	24	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	22	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	5	6	0	3	6	3
Mvmt Flow	353	77	33	544	38	34

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	432	0	717	179
Stage 1	-	-	-	-	355	-
Stage 2	-	-	-	-	362	-
Critical Hdwy	-	-	4.1	-	6.92	6.96
Critical Hdwy Stg 1	-	-	-	-	5.92	-
Critical Hdwy Stg 2	-	-	-	-	5.92	-
Follow-up Hdwy	-	-	2.2	-	3.56	3.33
Pot Cap-1 Maneuver	-	-	1138	-	356	830
Stage 1	-	-	-	-	669	-
Stage 2	-	-	-	-	663	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1136	-	339	829
Mov Cap-2 Maneuver	-	-	-	-	339	-
Stage 1	-	-	-	-	668	-
Stage 2	-	-	-	-	632	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0.5	13.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	339	829	-	-	1136	-
HCM Lane V/C Ratio	0.111	0.042	-	-	0.029	-
HCM Control Delay (s/veh)	16.9	9.5	-	-	8.3	-
HCM Lane LOS	C	A	-	-	A	-
HCM 95th %tile Q (veh)	0.4	0.1	-	-	0.1	-

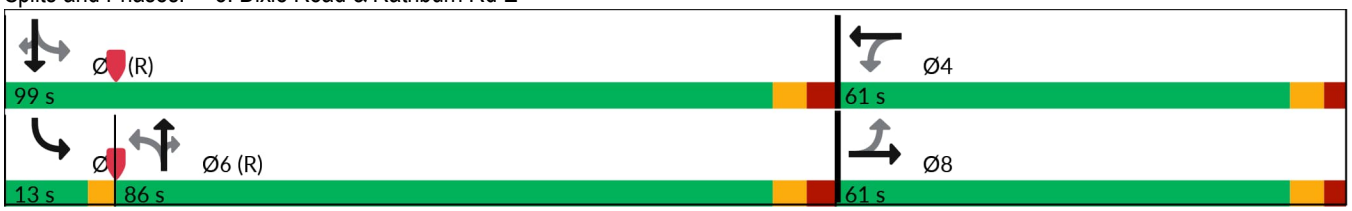


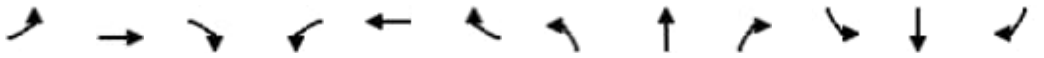
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	82	134	100	121	42	1259	61	143	1048	49
Future Volume (vph)	82	134	100	121	42	1259	61	143	1048	49
Lane Group Flow (vph)	89	274	109	487	46	1368	66	155	1139	53
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	pm+pt	NA	Perm
Protected Phases		8		4		6		5	2	
Permitted Phases	8		4		6		6	2		2
Detector Phase	8	8	4	4	6	6	6	5	2	2
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	41.6	41.6	41.6	41.6	48.3	48.3	48.3	11.5	48.3	48.3
Total Split (s)	61.0	61.0	61.0	61.0	86.0	86.0	86.0	13.0	99.0	99.0
Total Split (%)	38.1%	38.1%	38.1%	38.1%	53.8%	53.8%	53.8%	8.1%	61.9%	61.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	2.6	2.6	2.6	2.6	3.3	3.3	3.3	0.0	3.3	3.3
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.6	6.6	6.6	6.6	7.3	7.3	7.3	3.0	7.3	7.3
Lead/Lag					Lag	Lag	Lag	Lead		
Lead-Lag Optimize?										
Recall Mode	Max	Max	Max	Max	C-Max	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	54.4	54.4	54.4	54.4	78.9	78.9	78.9	96.0	91.7	91.7
Actuated g/C Ratio	0.34	0.34	0.34	0.34	0.49	0.49	0.49	0.60	0.57	0.57
v/c Ratio	0.41	0.25	0.36	0.43	0.23	0.57	0.09	0.73	0.41	0.06
Control Delay (s/veh)	47.5	28.3	49.9	35.3	27.1	29.8	4.7	44.5	20.5	6.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	47.5	28.3	49.9	35.3	27.1	29.8	4.7	44.5	20.5	6.1
LOS	D	C	D	D	C	C	A	D	C	A
Approach Delay (s/veh)		33.0		38.0		28.6			22.7	
Approach LOS		C		D		C			C	
Queue Length 50th (m)	22.9	25.2	30.5	53.7	8.7	116.5	0.0	25.0	75.4	0.0
Queue Length 95th (m)	42.2	37.7	52.0	74.7	19.0	131.6	8.7	#33.3	118.5	9.6
Internal Link Dist (m)		145.2		95.0		286.2			319.0	
Turn Bay Length (m)	37.0		73.0		107.0		90.0	112.0		140.0
Base Capacity (vph)	218	1106	307	1134	201	2407	741	213	2773	846
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.41	0.25	0.36	0.43	0.23	0.57	0.09	0.73	0.41	0.06

Intersection Summary		
Cycle Length: 160		
Actuated Cycle Length: 160		
Offset: 98 (61%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green		
Natural Cycle: 105		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.73		
Intersection Signal Delay (s/veh): 28.4	Intersection LOS: C	
Intersection Capacity Utilization 103.2%	ICU Level of Service G	
Analysis Period (min) 15		

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: Dixie Road & Rathburn Rd E





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	82	134	118	100	121	327	42	1259	61	143	1048	49
Future Volume (veh/h)	82	134	118	100	121	327	42	1259	61	143	1048	49
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		1.00	0.99		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1767	1767	1810	1710	1870	1796	1796	1826	1796	1753	1811	1796
Adj Flow Rate, veh/h	89	146	0	109	132	0	46	1368	0	155	1139	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	9	1	8	2	2	2	5	2	5	6	2
Cap, veh/h	416	1141		395	1208		256	2479		255	2834	
Arrive On Green	0.34	0.34	0.00	0.34	0.34	0.00	0.50	0.50	0.00	0.06	0.57	0.00
Sat Flow, veh/h	1181	3445	0	1128	3647	0	474	4985	1522	1669	4944	1522
Grp Volume(v), veh/h	89	146	0	109	132	0	46	1368	0	155	1139	0
Grp Sat Flow(s),veh/h/ln	1181	1678	0	1128	1777	0	474	1662	1522	1669	1648	1522
Q Serve(g_s), s	8.9	4.8	0.0	11.8	4.1	0.0	9.5	30.4	0.0	7.1	20.4	0.0
Cycle Q Clear(g_c), s	13.0	4.8	0.0	16.6	4.1	0.0	17.9	30.4	0.0	7.1	20.4	0.0
Prop In Lane	1.00		0.00	1.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	416	1141		395	1208		256	2479		255	2834	
V/C Ratio(X)	0.21	0.13		0.28	0.11		0.18	0.55		0.61	0.40	
Avail Cap(c_a), veh/h	416	1141		395	1208		256	2479		264	2834	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	40.7	36.4	0.0	42.2	36.2	0.0	27.3	27.9	0.0	22.2	18.9	0.0
Incr Delay (d2), s/veh	1.2	0.2	0.0	1.7	0.2	0.0	1.5	0.9	0.0	3.8	0.4	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	1.5	0.0	2.6	1.3	0.0	0.8	7.2	0.0	1.6	3.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	41.8	36.7	0.0	43.9	36.4	0.0	28.8	28.8	0.0	26.0	19.4	0.0
LnGrp LOS	D	D		D	D		C	C		C	B	
Approach Vol, veh/h		235			241			1414			1294	
Approach Delay, s/veh		38.6			39.8			28.8			20.2	
Approach LOS		D			D			C			C	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		99.0		61.0	12.1	86.9		61.0				
Change Period (Y+Rc), s		7.3		6.6	3.0	7.3		6.6				
Max Green Setting (Gmax), s		91.7		54.4	10.0	78.7		54.4				
Max Q Clear Time (g_c+I1), s		22.4		18.6	9.1	32.4		15.0				
Green Ext Time (p_c), s		13.7		1.7	0.0	18.2		1.7				

Intersection Summary		
HCM 6th Ctrl Delay, s/veh	26.8	
HCM 6th LOS	C	

Notes

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

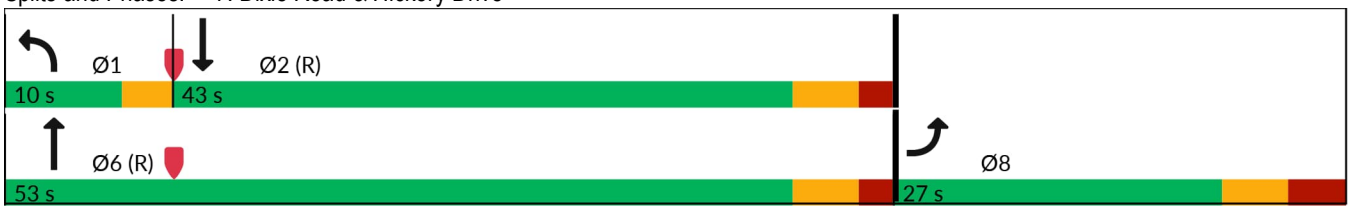


Lane Group	EBL	NBL	NBT	SBT
Lane Configurations				
Traffic Volume (vph)	36	13	1637	1202
Future Volume (vph)	36	13	1637	1202
Lane Group Flow (vph)	82	14	1799	1341
Turn Type	Prot	Prot	NA	NA
Protected Phases	8	1	6	2
Permitted Phases				
Detector Phase	8	1	6	2
Switch Phase				
Minimum Initial (s)	10.0	7.0	10.0	10.0
Minimum Split (s)	46.4	10.0	31.0	31.0
Total Split (s)	27.0	10.0	53.0	43.0
Total Split (%)	33.8%	12.5%	66.3%	53.8%
Yellow Time (s)	4.0	3.0	4.0	4.0
All-Red Time (s)	3.4	0.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.4	3.0	6.0	6.0
Lead/Lag		Lead		Lag
Lead-Lag Optimize?				
Recall Mode	None	None	C-Max	C-Max
Act Effct Green (s)	10.4	7.1	60.9	58.8
Actuated g/C Ratio	0.13	0.09	0.76	0.74
v/c Ratio	0.36	0.10	0.47	0.38
Control Delay (s/veh)	22.9	26.6	13.3	6.2
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	22.9	26.6	13.3	6.2
LOS	C	C	B	A
Approach Delay (s/veh)	22.9		13.4	6.2
Approach LOS	C		B	A
Queue Length 50th (m)	5.9	2.1	152.4	26.1
Queue Length 95th (m)	18.4	m4.0	168.7	56.7
Internal Link Dist (m)	166.6		319.0	244.6
Turn Bay Length (m)		100.0		
Base Capacity (vph)	392	139	3791	3549
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.21	0.10	0.47	0.38

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 79 (99%), Referenced to phase 2:SBT and 6:NBT, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.47	
Intersection Signal Delay (s/veh): 10.6	Intersection LOS: B
Intersection Capacity Utilization 51.9%	ICU Level of Service A
Analysis Period (min) 15	

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 7: Dixie Road & Hickory Drive





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	36	38	13	1637	1202	18
Future Volume (veh/h)	36	38	13	1637	1202	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	0.98	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1739	1668	1710	1856	1811	1824
Adj Flow Rate, veh/h	40	42	14	1799	1321	20
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	6	11	8	3	6	0
Cap, veh/h	79	83	38	3676	3335	50
Arrive On Green	0.11	0.11	0.02	0.73	0.66	0.66
Sat Flow, veh/h	744	781	1629	5233	5180	76
Grp Volume(v), veh/h	83	0	14	1799	868	473
Grp Sat Flow(s),veh/h/ln	1544	0	1629	1689	1648	1797
Q Serve(g_s), s	4.1	0.0	0.7	12.1	9.6	9.6
Cycle Q Clear(g_c), s	4.1	0.0	0.7	12.1	9.6	9.6
Prop In Lane	0.48	0.51	1.00			0.04
Lane Grp Cap(c), veh/h	165	0	38	3676	2191	1195
V/C Ratio(X)	0.50	0.00	0.37	0.49	0.40	0.40
Avail Cap(c_a), veh/h	378	0	143	3676	2191	1195
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.7	0.0	38.5	4.7	6.1	6.1
Incr Delay (d2), s/veh	2.4	0.0	5.8	0.5	0.5	1.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	0.2	0.2	0.2	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	36.1	0.0	44.3	5.1	6.6	7.1
LnGrp LOS	D		D	A	A	A
Approach Vol, veh/h	83			1813	1341	
Approach Delay, s/veh	36.1			5.4	6.8	
Approach LOS	D			A	A	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	4.9	59.2				64.1	15.9
Change Period (Y+Rc), s	3.0	6.0				6.0	7.4
Max Green Setting (Gmax), s	7.0	37.0				47.0	19.6
Max Q Clear Time (g_c+I1), s	2.7	11.6				14.1	6.1
Green Ext Time (p_c), s	0.0	12.2				20.7	0.2

Intersection Summary	
HCM 6th Ctrl Delay, s/veh	6.8
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	22	52	118	106	5
Future Vol, veh/h	0	22	52	118	106	5
Conflicting Peds, #/hr	0	0	5	0	0	5
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	0	0	0	1	2	0
Mvmt Flow	0	27	63	142	128	6

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	404	136	139	0	-	0
Stage 1	136	-	-	-	-	-
Stage 2	268	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	606	918	1457	-	-	-
Stage 1	895	-	-	-	-	-
Stage 2	782	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	573	915	1452	-	-	-
Mov Cap-2 Maneuver	573	-	-	-	-	-
Stage 1	849	-	-	-	-	-
Stage 2	779	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	9.1	2.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1452	-	915	-	-
HCM Lane V/C Ratio	0.043	-	0.029	-	-
HCM Control Delay (s/veh)	7.6	0	9.1	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q (veh)	0.1	-	0.1	-	-

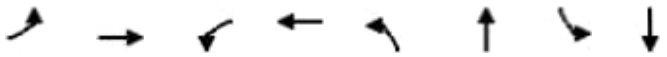
Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	0	28	19	0	6	19	163	29	4	124	0
Future Vol, veh/h	1	0	28	19	0	6	19	163	29	4	124	0
Conflicting Peds, #/hr	1	0	1	1	0	1	4	0	9	9	0	4
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	0	0	0	0	0	0	0	1	0	0	2	0
Mvmt Flow	1	0	34	23	0	7	23	196	35	5	149	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	427	449	154	446	432	224	153	0	0	240	0	0
Stage 1	163	163	-	269	269	-	-	-	-	-	-	-
Stage 2	264	286	-	177	163	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	541	508	897	526	519	820	1440	-	-	1339	-	-
Stage 1	844	767	-	741	690	-	-	-	-	-	-	-
Stage 2	746	679	-	829	767	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	525	492	894	494	502	814	1436	-	-	1330	-	-
Mov Cap-2 Maneuver	525	492	-	494	502	-	-	-	-	-	-	-
Stage 1	826	762	-	722	673	-	-	-	-	-	-	-
Stage 2	726	662	-	794	762	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	9.3	12	0.7	0.2
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1436	-	-	873	545	1330	-	-
HCM Lane V/C Ratio	0.016	-	-	0.04	0.055	0.004	-	-
HCM Control Delay (s/veh)	7.5	0	-	9.3	12	7.7	0	-
HCM Lane LOS	A	A	-	A	B	A	A	-
HCM 95th %tile Q (veh)	0	-	-	0.1	0.2	0	-	-



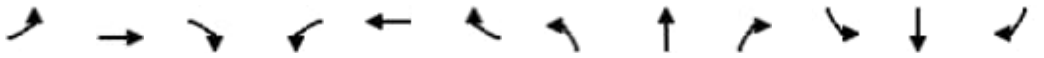
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	155	347	32	372	86	36	17	38
Future Volume (vph)	155	347	32	372	86	36	17	38
Lane Group Flow (vph)	168	509	35	426	93	72	18	167
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		2		6		4		8
Permitted Phases	2		6		4		8	
Detector Phase	2	2	6	6	4	4	8	8
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	29.5	29.5	29.5	29.5	37.0	37.0	37.0	37.0
Total Split (s)	37.0	37.0	37.0	37.0	43.0	43.0	43.0	43.0
Total Split (%)	46.3%	46.3%	46.3%	46.3%	53.8%	53.8%	53.8%	53.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.0	3.0	3.0	3.0
All-Red Time (s)	3.0	3.0	3.0	3.0	5.0	5.0	5.0	5.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5	6.5	8.0	8.0	8.0	8.0
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None	None	None
Act Effct Green (s)	52.6	52.6	52.6	52.6	12.9	12.9	12.9	12.9
Actuated g/C Ratio	0.66	0.66	0.66	0.66	0.16	0.16	0.16	0.16
v/c Ratio	0.29	0.23	0.07	0.19	0.51	0.24	0.09	0.46
Control Delay (s/veh)	6.1	3.7	6.3	5.9	40.1	19.1	27.5	13.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	6.1	3.7	6.3	5.9	40.1	19.1	27.5	13.4
LOS	A	A	A	A	D	B	C	B
Approach Delay (s/veh)		4.3		6.0		30.9		14.7
Approach LOS		A		A		C		B
Queue Length 50th (m)	8.4	10.6	1.7	11.4	14.0	5.5	2.5	5.8
Queue Length 95th (m)	m17.7	m15.4	6.0	21.7	26.5	15.5	7.7	21.0
Internal Link Dist (m)		65.1		84.3		120.2		58.6
Turn Bay Length (m)	33.0		40.0		27.0		11.0	
Base Capacity (vph)	575	2222	534	2282	491	764	545	776
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.29	0.23	0.07	0.19	0.19	0.09	0.03	0.22

Intersection Summary		
Cycle Length: 80		
Actuated Cycle Length: 80		
Offset: 35 (44%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green		
Natural Cycle: 70		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.51		
Intersection Signal Delay (s/veh): 9.1	Intersection LOS: A	
Intersection Capacity Utilization 78.7%	ICU Level of Service D	
Analysis Period (min) 15		

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Bough Beeches Blvd & Rathburn Rd E





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	155	347	121	32	372	20	86	36	30	17	38	116
Future Volume (veh/h)	155	347	121	32	372	20	86	36	30	17	38	116
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.96	0.99		0.98	0.98		0.96	0.98		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1810	1885	1796	1824	1870	1824	1810	1900	1781	1824	1900	1810
Adj Flow Rate, veh/h	168	377	132	35	404	22	93	39	33	18	41	126
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	1	1	2	0	2	0	1	0	3	0	0	1
Cap, veh/h	545	1429	492	500	1893	103	300	248	210	386	106	325
Arrive On Green	0.55	0.55	0.55	0.55	0.55	0.55	0.27	0.27	0.27	0.27	0.27	0.27
Sat Flow, veh/h	924	2586	891	864	3424	186	1157	931	788	1264	397	1221
Grp Volume(v), veh/h	168	259	250	35	209	217	93	0	72	18	0	167
Grp Sat Flow(s),veh/h/ln	924	1791	1686	864	1777	1833	1157	0	1718	1264	0	1618
Q Serve(g_s), s	9.0	6.1	6.2	1.8	4.8	4.8	5.7	0.0	2.6	0.9	0.0	6.8
Cycle Q Clear(g_c), s	13.8	6.1	6.2	8.0	4.8	4.8	12.5	0.0	2.6	3.5	0.0	6.8
Prop In Lane	1.00		0.53	1.00		0.10	1.00		0.46	1.00		0.75
Lane Grp Cap(c), veh/h	545	990	932	500	982	1013	300	0	457	386	0	431
V/C Ratio(X)	0.31	0.26	0.27	0.07	0.21	0.21	0.31	0.00	0.16	0.05	0.00	0.39
Avail Cap(c_a), veh/h	545	990	932	500	982	1013	498	0	752	603	0	708
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	12.6	9.4	9.4	11.5	9.1	9.1	29.1	0.0	22.5	23.8	0.0	24.0
Incr Delay (d2), s/veh	1.5	0.6	0.7	0.3	0.5	0.5	0.6	0.0	0.2	0.0	0.0	0.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.2	0.2	0.1	0.1	0.1	0.9	0.0	0.6	0.1	0.0	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	14.1	10.0	10.1	11.8	9.6	9.6	29.7	0.0	22.6	23.9	0.0	24.6
LnGrp LOS	B	B	B	B	A	A	C		C	C		C
Approach Vol, veh/h		677			461			165			185	
Approach Delay, s/veh		11.0			9.7			26.6			24.5	
Approach LOS		B			A			C			C	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		50.7		29.3		50.7		29.3				
Change Period (Y+Rc), s		6.5		8.0		6.5		8.0				
Max Green Setting (Gmax), s		30.5		35.0		30.5		35.0				
Max Q Clear Time (g_c+I1), s		15.8		14.5		10.0		8.8				
Green Ext Time (p_c), s		4.3		0.9		3.2		1.4				

Intersection Summary												
HCM 6th Ctrl Delay, s/veh			14.0									
HCM 6th LOS			B									

Intersection	
Int Delay, s/veh	4.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	543	140	61	513	106	80
Future Vol, veh/h	543	140	61	513	106	80
Conflicting Peds, #/hr	0	6	6	0	13	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	22	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	1	1	0	1	3	0
Mvmt Flow	617	159	69	583	120	91

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	782	0	1066	315
Stage 1	-	-	-	-	623	-
Stage 2	-	-	-	-	443	-
Critical Hdwy	-	-	4.1	-	6.86	6.9
Critical Hdwy Stg 1	-	-	-	-	5.86	-
Critical Hdwy Stg 2	-	-	-	-	5.86	-
Follow-up Hdwy	-	-	2.2	-	3.53	3.3
Pot Cap-1 Maneuver	-	-	845	-	216	687
Stage 1	-	-	-	-	494	-
Stage 2	-	-	-	-	611	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	841	-	195	684
Mov Cap-2 Maneuver	-	-	-	-	195	-
Stage 1	-	-	-	-	492	-
Stage 2	-	-	-	-	555	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	1	32.9
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	195	684	-	-	841	-
HCM Lane V/C Ratio	0.618	0.133	-	-	0.082	-
HCM Control Delay (s/veh)	49.4	11.1	-	-	9.7	-
HCM Lane LOS	E	B	-	-	A	-
HCM 95th %tile Q (veh)	3.5	0.5	-	-	0.3	-

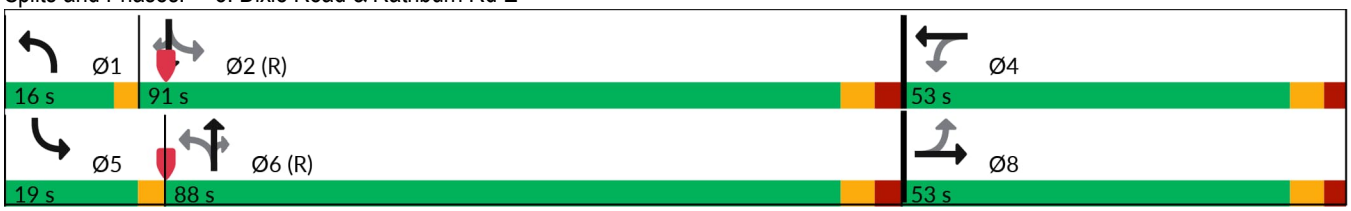


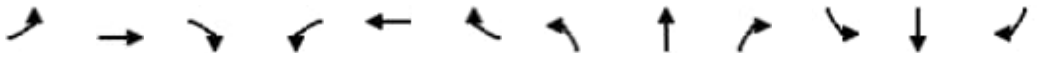
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	40	202	115	244	176	971	146	330	1841	183
Future Volume (vph)	40	202	115	244	176	971	146	330	1841	183
Lane Group Flow (vph)	41	351	117	507	180	991	149	337	1879	187
Turn Type	Perm	NA	Perm	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		8		4	1	6		5	2	
Permitted Phases	8		4		6		6	2		2
Detector Phase	8	8	4	4	1	6	6	5	2	2
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	10.0	7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	41.6	41.6	41.6	41.6	11.5	48.3	48.3	11.5	48.3	48.3
Total Split (s)	53.0	53.0	53.0	53.0	16.0	88.0	88.0	19.0	91.0	91.0
Total Split (%)	33.1%	33.1%	33.1%	33.1%	10.0%	55.0%	55.0%	11.9%	56.9%	56.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	2.6	2.6	2.6	2.6	0.0	3.3	3.3	0.0	3.3	3.3
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.6	6.6	6.6	6.6	3.0	7.3	7.3	3.0	7.3	7.3
Lead/Lag					Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?										
Recall Mode	Max	Max	Max	Max	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	46.4	46.4	46.4	46.4	98.0	80.7	80.7	104.0	83.7	83.7
Actuated g/C Ratio	0.29	0.29	0.29	0.29	0.61	0.50	0.50	0.65	0.52	0.52
v/c Ratio	0.24	0.35	0.51	0.49	0.95	0.40	0.19	0.88	0.71	0.22
Control Delay (s/veh)	48.3	31.0	56.4	32.1	92.5	25.2	3.4	44.5	40.1	8.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	48.3	31.0	56.4	32.1	92.5	25.2	3.4	44.5	40.1	8.9
LOS	D	C	E	C	F	C	A	D	D	A
Approach Delay (s/veh)		32.8		36.7		31.9			38.3	
Approach LOS		C		D		C			D	
Queue Length 50th (m)	10.6	32.9	34.2	53.9	41.4	74.0	0.0	52.5	230.2	10.7
Queue Length 95th (m)	22.8	48.1	58.4	61.1	#93.4	85.8	12.2	#83.9	256.4	27.6
Internal Link Dist (m)		145.2		95.0		286.2			319.0	
Turn Bay Length (m)	37.0		73.0		107.0		90.0	112.0		140.0
Base Capacity (vph)	168	1002	230	1034	190	2487	790	385	2630	839
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.24	0.35	0.51	0.49	0.95	0.40	0.19	0.88	0.71	0.22

Intersection Summary		
Cycle Length: 160		
Actuated Cycle Length: 160		
Offset: 94 (59%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green		
Natural Cycle: 105		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.95		
Intersection Signal Delay (s/veh): 35.8	Intersection LOS: D	
Intersection Capacity Utilization 110.4%	ICU Level of Service H	
Analysis Period (min) 15		

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: Dixie Road & Rathburn Rd E





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	202	142	115	244	253	176	971	146	330	1841	183
Future Volume (veh/h)	40	202	142	115	244	253	176	971	146	330	1841	183
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		1.00	0.97		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1824	1870	1796	1810	1870	1796	1810	1841	1824	1824	1870	1824
Adj Flow Rate, veh/h	41	206	0	117	249	0	180	991	0	337	1879	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	2	2	1	2	2	1	4	0	0	2	0
Cap, veh/h	299	1031		318	1031		219	2535		430	2759	
Arrive On Green	0.29	0.29	0.00	0.29	0.29	0.00	0.06	0.50	0.00	0.10	0.54	0.00
Sat Flow, veh/h	1075	3647	0	1106	3647	0	1724	5025	1546	1737	5106	1546
Grp Volume(v), veh/h	41	206	0	117	249	0	180	991	0	337	1879	0
Grp Sat Flow(s),veh/h/ln	1075	1777	0	1106	1777	0	1724	1675	1546	1737	1702	1546
Q Serve(g_s), s	4.8	7.0	0.0	14.3	8.6	0.0	8.1	19.5	0.0	14.8	42.8	0.0
Cycle Q Clear(g_c), s	13.4	7.0	0.0	21.3	8.6	0.0	8.1	19.5	0.0	14.8	42.8	0.0
Prop In Lane	1.00		0.00	1.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	299	1031		318	1031		219	2535		430	2759	
V/C Ratio(X)	0.14	0.20		0.37	0.24		0.82	0.39		0.78	0.68	
Avail Cap(c_a), veh/h	299	1031		318	1031		249	2535		430	2759	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	48.5	42.8	0.0	50.8	43.4	0.0	29.2	24.5	0.0	18.3	26.7	0.0
Incr Delay (d2), s/veh	1.0	0.4	0.0	3.3	0.6	0.0	17.5	0.5	0.0	9.1	1.4	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	2.4	0.0	3.3	2.9	0.0	2.7	4.5	0.0	3.5	9.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	49.4	43.2	0.0	54.1	43.9	0.0	46.8	24.9	0.0	27.4	28.1	0.0
LnGrp LOS	D	D		D	D		D	C		C	C	
Approach Vol, veh/h		247			366			1171			2216	
Approach Delay, s/veh		44.3			47.2			28.3			28.0	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.2	93.8		53.0	19.0	88.0		53.0				
Change Period (Y+Rc), s	3.0	7.3		6.6	3.0	7.3		6.6				
Max Green Setting (Gmax), s	13.0	83.7		46.4	16.0	80.7		46.4				
Max Q Clear Time (g_c+I1), s	10.1	44.8		23.3	16.8	21.5		15.4				
Green Ext Time (p_c), s	0.2	24.1		2.6	0.0	10.9		1.9				

Intersection Summary	
HCM 6th Ctrl Delay, s/veh	30.8
HCM 6th LOS	C

Notes

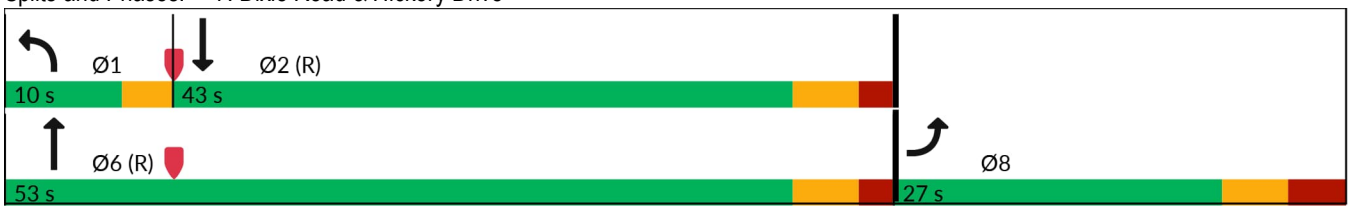
Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Lane Group	EBL	NBL	NBT	SBT
Lane Configurations				
Traffic Volume (vph)	27	46	1210	2305
Future Volume (vph)	27	46	1210	2305
Lane Group Flow (vph)	66	47	1235	2390
Turn Type	Prot	Prot	NA	NA
Protected Phases	8	1	6	2
Permitted Phases				
Detector Phase	8	1	6	2
Switch Phase				
Minimum Initial (s)	10.0	7.0	10.0	10.0
Minimum Split (s)	46.4	10.0	31.0	31.0
Total Split (s)	27.0	10.0	53.0	43.0
Total Split (%)	33.8%	12.5%	66.3%	53.8%
Yellow Time (s)	4.0	3.0	4.0	4.0
All-Red Time (s)	3.4	0.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.4	3.0	6.0	6.0
Lead/Lag		Lead		Lag
Lead-Lag Optimize?				
Recall Mode	None	None	C-Max	C-Max
Act Effct Green (s)	10.1	8.1	61.2	54.1
Actuated g/C Ratio	0.13	0.10	0.77	0.68
v/c Ratio	0.29	0.27	0.33	0.70
Control Delay (s/veh)	20.7	27.0	12.1	13.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	20.7	27.0	12.1	13.3
LOS	C	C	B	B
Approach Delay (s/veh)	20.7		12.6	13.3
Approach LOS	C		B	B
Queue Length 50th (m)	4.1	8.9	90.4	104.0
Queue Length 95th (m)	15.5	16.5	102.9	140.5
Internal Link Dist (m)	166.6		319.0	244.6
Turn Bay Length (m)		100.0		
Base Capacity (vph)	410	171	3773	3391
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.16	0.27	0.33	0.70

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 79 (99%), Referenced to phase 2:SBT and 6:NBT, Start of Green	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.70	
Intersection Signal Delay (s/veh): 13.2	Intersection LOS: B
Intersection Capacity Utilization 65.7%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 7: Dixie Road & Hickory Drive





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	27	37	46	1210	2305	37
Future Volume (veh/h)	27	37	46	1210	2305	37
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	0.97	1.00			0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1767	1824	1824	1841	1870	1781
Adj Flow Rate, veh/h	28	38	47	1235	2352	38
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	4	0	0	4	2	3
Cap, veh/h	65	88	99	3680	3301	53
Arrive On Green	0.10	0.10	0.06	0.73	0.64	0.64
Sat Flow, veh/h	647	878	1737	5191	5342	83
Grp Volume(v), veh/h	67	0	47	1235	1546	844
Grp Sat Flow(s),veh/h/ln	1548	0	1737	1675	1702	1853
Q Serve(g_s), s	3.3	0.0	2.1	7.0	24.1	24.2
Cycle Q Clear(g_c), s	3.3	0.0	2.1	7.0	24.1	24.2
Prop In Lane	0.42	0.57	1.00			0.05
Lane Grp Cap(c), veh/h	155	0	99	3680	2172	1182
V/C Ratio(X)	0.43	0.00	0.48	0.34	0.71	0.71
Avail Cap(c_a), veh/h	379	0	152	3680	2172	1182
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.9	0.0	36.6	3.8	9.6	9.6
Incr Delay (d2), s/veh	1.9	0.0	3.5	0.2	2.0	3.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	0.6	0.1	0.6	1.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	35.8	0.0	40.1	4.0	11.6	13.3
LnGrp LOS	D		D	A	B	B
Approach Vol, veh/h	67			1282	2390	
Approach Delay, s/veh	35.8			5.4	12.2	
Approach LOS	D			A	B	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	7.5	57.1				64.6	15.4
Change Period (Y+Rc), s	3.0	6.0				6.0	7.4
Max Green Setting (Gmax), s	7.0	37.0				47.0	19.6
Max Q Clear Time (g_c+I1), s	4.1	26.2				9.0	5.3
Green Ext Time (p_c), s	0.0	9.8				13.6	0.2

Intersection Summary		
HCM 6th Ctrl Delay, s/veh		10.3
HCM 6th LOS		B

Notes

User approved pedestrian interval to be less than phase max green.

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	2	51	30	52	119	3
Future Vol, veh/h	2	51	30	52	119	3
Conflicting Peds, #/hr	0	0	11	0	0	11
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	0	0	0	6	4	0
Mvmt Flow	2	61	36	63	143	4

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	291	156	158	0	-	0
Stage 1	156	-	-	-	-	-
Stage 2	135	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	704	895	1434	-	-	-
Stage 1	877	-	-	-	-	-
Stage 2	896	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	674	888	1423	-	-	-
Mov Cap-2 Maneuver	674	-	-	-	-	-
Stage 1	847	-	-	-	-	-
Stage 2	889	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	9.4	2.8	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1423	-	877	-	-
HCM Lane V/C Ratio	0.025	-	0.073	-	-
HCM Control Delay (s/veh)	7.6	0	9.4	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q (veh)	0.1	-	0.2	-	-

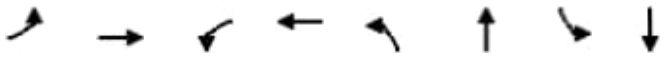
Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	41	28	0	2	28	80	12	0	170	0
Future Vol, veh/h	0	0	41	28	0	2	28	80	12	0	170	0
Conflicting Peds, #/hr	1	0	1	1	0	1	7	0	6	6	0	7
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	0	0	4	0	0	0	13	4	0	0	3	0
Mvmt Flow	0	0	48	33	0	2	33	94	14	0	200	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	376	387	208	398	380	108	207	0	0	114	0	0
Stage 1	207	207	-	173	173	-	-	-	-	-	-	-
Stage 2	169	180	-	225	207	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.24	7.1	6.5	6.2	4.23	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.336	3.5	4	3.3	2.317	-	-	2.2	-	-
Pot Cap-1 Maneuver	585	551	827	566	556	951	1301	-	-	1488	-	-
Stage 1	800	734	-	834	760	-	-	-	-	-	-	-
Stage 2	838	754	-	782	734	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	568	531	822	519	535	946	1294	-	-	1481	-	-
Mov Cap-2 Maneuver	568	531	-	519	535	-	-	-	-	-	-	-
Stage 1	774	730	-	807	736	-	-	-	-	-	-	-
Stage 2	813	730	-	736	730	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	9.7	12.2	1.8	0
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1294	-	-	822	535	1481	-	-
HCM Lane V/C Ratio	0.025	-	-	0.059	0.066	-	-	-
HCM Control Delay (s/veh)	7.9	0	-	9.7	12.2	0	-	-
HCM Lane LOS	A	A	-	A	B	A	-	-
HCM 95th %tile Q (veh)	0.1	-	-	0.2	0.2	0	-	-



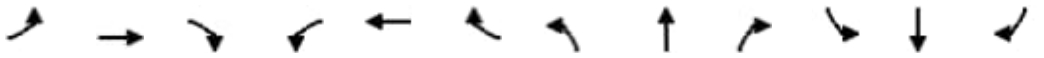
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	83	232	21	336	80	16	30	39
Future Volume (vph)	83	232	21	336	80	16	30	39
Lane Group Flow (vph)	87	308	22	376	84	24	32	220
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		2		6		4		8
Permitted Phases	2		6		4		8	
Detector Phase	2	2	6	6	4	4	8	8
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	29.5	29.5	29.5	29.5	37.0	37.0	37.0	37.0
Total Split (s)	37.0	37.0	37.0	37.0	43.0	43.0	43.0	43.0
Total Split (%)	46.3%	46.3%	46.3%	46.3%	53.8%	53.8%	53.8%	53.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.0	3.0	3.0	3.0
All-Red Time (s)	3.0	3.0	3.0	3.0	5.0	5.0	5.0	5.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5	6.5	8.0	8.0	8.0	8.0
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None	None	None
Act Effct Green (s)	52.8	52.8	52.8	52.8	12.7	12.7	12.7	12.7
Actuated g/C Ratio	0.66	0.66	0.66	0.66	0.16	0.16	0.16	0.16
v/c Ratio	0.15	0.14	0.03	0.17	0.57	0.09	0.15	0.56
Control Delay (s/veh)	4.1	2.7	6.0	5.7	45.6	21.9	29.2	13.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	4.1	2.7	6.0	5.7	45.6	21.9	29.2	13.4
LOS	A	A	A	A	D	C	C	B
Approach Delay (s/veh)		3.0		5.7		40.3		15.4
Approach LOS		A		A		D		B
Queue Length 50th (m)	3.0	4.3	1.0	9.6	12.8	2.4	4.6	5.9
Queue Length 95th (m)	m5.4	m6.7	4.2	18.8	25.4	8.2	11.4	23.9
Internal Link Dist (m)		65.1		84.3		120.2		58.6
Turn Bay Length (m)	33.0		40.0		27.0		11.0	
Base Capacity (vph)	591	2197	654	2278	409	724	570	779
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.14	0.03	0.17	0.21	0.03	0.06	0.28

Intersection Summary			
Cycle Length: 80			
Actuated Cycle Length: 80			
Offset: 27 (34%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 70			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.57			
Intersection Signal Delay (s/veh): 10.1		Intersection LOS: B	
Intersection Capacity Utilization 77.8%		ICU Level of Service D	
Analysis Period (min) 15			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Bough Beeches Blvd & Rathburn Rd E





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	83	232	61	21	336	21	80	16	7	30	39	170
Future Volume (veh/h)	83	232	61	21	336	21	80	16	7	30	39	170
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.97	0.99		0.98	0.98		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1767	1826	1824	1824	1870	1682	1767	1811	1625	1824	1826	1767
Adj Flow Rate, veh/h	87	244	64	22	354	22	84	17	7	32	41	179
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	5	0	0	2	10	4	6	14	0	5	4
Cap, veh/h	567	1515	389	622	1884	117	246	319	131	426	77	336
Arrive On Green	0.56	0.56	0.56	0.56	0.56	0.56	0.26	0.26	0.26	0.26	0.26	0.26
Sat Flow, veh/h	948	2728	700	1041	3393	210	1086	1212	499	1331	293	1277
Grp Volume(v), veh/h	87	153	155	22	185	191	84	0	24	32	0	220
Grp Sat Flow(s),veh/h/ln	948	1735	1694	1041	1777	1826	1086	0	1711	1331	0	1570
Q Serve(g_s), s	4.0	3.4	3.6	0.8	4.1	4.2	5.7	0.0	0.8	1.5	0.0	9.6
Cycle Q Clear(g_c), s	8.2	3.4	3.6	4.4	4.1	4.2	15.4	0.0	0.8	2.3	0.0	9.6
Prop In Lane	1.00		0.41	1.00		0.11	1.00		0.29	1.00		0.81
Lane Grp Cap(c), veh/h	567	964	941	622	987	1014	246	0	450	426	0	413
V/C Ratio(X)	0.15	0.16	0.16	0.04	0.19	0.19	0.34	0.00	0.05	0.08	0.00	0.53
Avail Cap(c_a), veh/h	567	964	941	622	987	1014	435	0	749	658	0	687
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	10.9	8.7	8.7	9.8	8.8	8.8	31.8	0.0	22.0	22.9	0.0	25.2
Incr Delay (d2), s/veh	0.6	0.4	0.4	0.1	0.4	0.4	0.8	0.0	0.0	0.1	0.0	1.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.1	0.1	0.0	0.1	0.1	0.9	0.0	0.2	0.2	0.0	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	11.4	9.0	9.1	9.9	9.2	9.2	32.6	0.0	22.1	23.0	0.0	26.3
LnGrp LOS	B	A	A	A	A	A	C		C	C		C
Approach Vol, veh/h		395			398			108			252	
Approach Delay, s/veh		9.6			9.3			30.3			25.9	
Approach LOS		A			A			C			C	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		50.9		29.1		50.9		29.1				
Change Period (Y+Rc), s		6.5		8.0		6.5		8.0				
Max Green Setting (Gmax), s		30.5		35.0		30.5		35.0				
Max Q Clear Time (g_c+I1), s		10.2		17.4		6.4		11.6				
Green Ext Time (p_c), s		2.7		0.5		2.8		2.0				

Intersection Summary												
HCM 6th Ctrl Delay, s/veh			15.0									
HCM 6th LOS			B									

Intersection	
Int Delay, s/veh	1.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	347	69	30	561	34	31
Future Vol, veh/h	347	69	30	561	34	31
Conflicting Peds, #/hr	0	2	2	0	24	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	22	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	5	6	0	3	6	3
Mvmt Flow	386	77	33	623	38	34

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	465	0	790	195
Stage 1	-	-	-	-	388	-
Stage 2	-	-	-	-	402	-
Critical Hdwy	-	-	4.1	-	6.92	6.96
Critical Hdwy Stg 1	-	-	-	-	5.92	-
Critical Hdwy Stg 2	-	-	-	-	5.92	-
Follow-up Hdwy	-	-	2.2	-	3.56	3.33
Pot Cap-1 Maneuver	-	-	1107	-	319	810
Stage 1	-	-	-	-	643	-
Stage 2	-	-	-	-	633	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1105	-	303	809
Mov Cap-2 Maneuver	-	-	-	-	303	-
Stage 1	-	-	-	-	642	-
Stage 2	-	-	-	-	603	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0.4	14.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	303	809	-	-	1105	-
HCM Lane V/C Ratio	0.125	0.043	-	-	0.03	-
HCM Control Delay (s/veh)	18.6	9.6	-	-	8.4	-
HCM Lane LOS	C	A	-	-	A	-
HCM 95th %tile Q (veh)	0.4	0.1	-	-	0.1	-

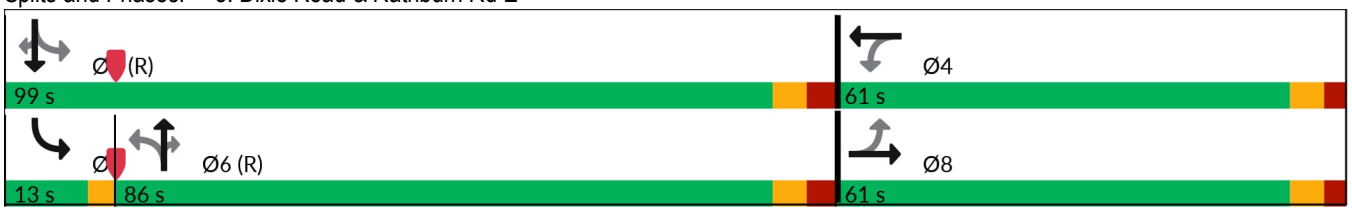


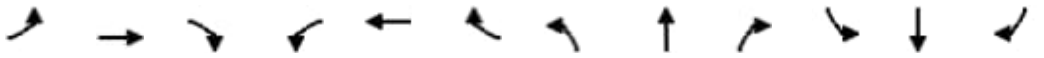
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	82	166	109	142	42	1323	72	174	1046	47
Future Volume (vph)	82	166	109	142	42	1323	72	174	1046	47
Lane Group Flow (vph)	89	308	118	517	46	1438	78	189	1137	51
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	pm+pt	NA	Perm
Protected Phases		8		4		6		5	2	
Permitted Phases	8		4		6		6	2		2
Detector Phase	8	8	4	4	6	6	6	5	2	2
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	41.6	41.6	41.6	41.6	48.3	48.3	48.3	11.5	48.3	48.3
Total Split (s)	61.0	61.0	61.0	61.0	86.0	86.0	86.0	13.0	99.0	99.0
Total Split (%)	38.1%	38.1%	38.1%	38.1%	53.8%	53.8%	53.8%	8.1%	61.9%	61.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	2.6	2.6	2.6	2.6	3.3	3.3	3.3	0.0	3.3	3.3
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.6	6.6	6.6	6.6	7.3	7.3	7.3	3.0	7.3	7.3
Lead/Lag					Lag	Lag	Lag	Lead		
Lead-Lag Optimize?										
Recall Mode	Max	Max	Max	Max	C-Max	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	54.4	54.4	54.4	54.4	78.7	78.7	78.7	96.0	91.7	91.7
Actuated g/C Ratio	0.34	0.34	0.34	0.34	0.49	0.49	0.49	0.60	0.57	0.57
v/c Ratio	0.43	0.28	0.41	0.46	0.23	0.60	0.10	0.95	0.41	0.06
Control Delay (s/veh)	48.9	29.7	51.4	36.1	27.1	30.6	4.4	80.3	20.5	6.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	48.9	29.7	51.4	36.1	27.1	30.6	4.4	80.3	20.5	6.2
LOS	D	C	D	D	C	C	A	F	C	A
Approach Delay (s/veh)		34.0		38.9		29.2			28.1	
Approach LOS		C		D		C			C	
Queue Length 50th (m)	23.1	29.7	33.3	59.4	8.7	124.9	0.0	38.5	75.3	0.0
Queue Length 95th (m)	42.9	43.2	57.1	81.0	19.0	140.6	9.4	#63.8	113.4	9.4
Internal Link Dist (m)		145.2		95.0		286.2			319.0	
Turn Bay Length (m)	37.0		73.0		107.0		90.0	112.0		140.0
Base Capacity (vph)	206	1113	290	1136	202	2402	746	200	2773	845
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.43	0.28	0.41	0.46	0.23	0.60	0.10	0.95	0.41	0.06

Intersection Summary		
Cycle Length: 160		
Actuated Cycle Length: 160		
Offset: 98 (61%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green		
Natural Cycle: 105		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.95		
Intersection Signal Delay (s/veh): 30.9	Intersection LOS: C	
Intersection Capacity Utilization 103.2%	ICU Level of Service G	
Analysis Period (min) 15		

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: Dixie Road & Rathburn Rd E





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	82	166	118	109	142	334	42	1323	72	174	1046	47
Future Volume (veh/h)	82	166	118	109	142	334	42	1323	72	174	1046	47
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		1.00	0.99		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1767	1767	1810	1710	1870	1796	1796	1826	1796	1753	1811	1796
Adj Flow Rate, veh/h	89	180	0	118	154	0	46	1438	0	189	1137	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	9	1	8	2	2	2	5	2	5	6	2
Cap, veh/h	404	1141		376	1208		256	2452		249	2834	
Arrive On Green	0.34	0.34	0.00	0.34	0.34	0.00	0.49	0.49	0.00	0.06	0.57	0.00
Sat Flow, veh/h	1158	3445	0	1095	3647	0	474	4985	1522	1669	4944	1522
Grp Volume(v), veh/h	89	180	0	118	154	0	46	1438	0	189	1137	0
Grp Sat Flow(s),veh/h/ln	1158	1678	0	1095	1777	0	474	1662	1522	1669	1648	1522
Q Serve(g_s), s	9.2	6.0	0.0	13.5	4.8	0.0	9.5	33.0	0.0	8.8	20.4	0.0
Cycle Q Clear(g_c), s	14.0	6.0	0.0	19.5	4.8	0.0	16.9	33.0	0.0	8.8	20.4	0.0
Prop In Lane	1.00		0.00	1.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	404	1141		376	1208		256	2452		249	2834	
V/C Ratio(X)	0.22	0.16		0.31	0.13		0.18	0.59		0.76	0.40	
Avail Cap(c_a), veh/h	404	1141		376	1208		256	2452		249	2834	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	41.2	36.8	0.0	43.6	36.4	0.0	27.2	29.0	0.0	25.3	18.9	0.0
Incr Delay (d2), s/veh	1.3	0.3	0.0	2.2	0.2	0.0	1.5	1.0	0.0	12.7	0.4	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	1.8	0.0	2.9	1.5	0.0	0.8	7.9	0.0	2.6	3.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	42.5	37.1	0.0	45.8	36.6	0.0	28.8	30.1	0.0	38.0	19.4	0.0
LnGrp LOS	D	D		D	D		C	C		D	B	
Approach Vol, veh/h		269			272			1484			1326	
Approach Delay, s/veh		38.9			40.6			30.0			22.0	
Approach LOS		D			D			C			C	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		99.0		61.0	13.0	86.0		61.0				
Change Period (Y+Rc), s		7.3		6.6	3.0	7.3		6.6				
Max Green Setting (Gmax), s		91.7		54.4	10.0	78.7		54.4				
Max Q Clear Time (g_c+I1), s		22.4		21.5	10.8	35.0		16.0				
Green Ext Time (p_c), s		13.7		2.0	0.0	19.1		2.0				

Intersection Summary		
HCM 6th Ctrl Delay, s/veh	28.4	
HCM 6th LOS	C	

Notes

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

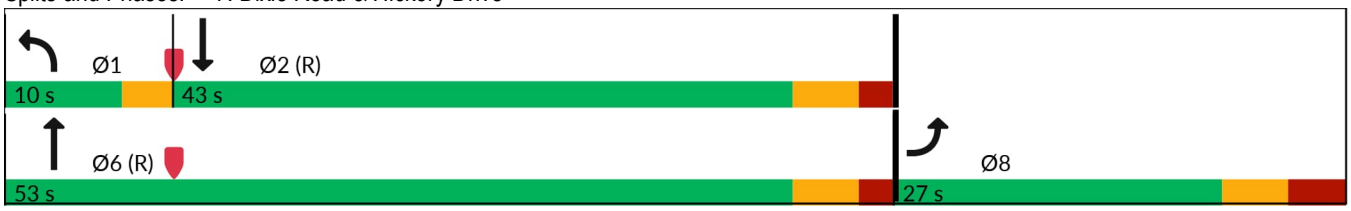


Lane Group	EBL	NBL	NBT	SBT
Lane Configurations				
Traffic Volume (vph)	36	13	1737	1253
Future Volume (vph)	36	13	1737	1253
Lane Group Flow (vph)	82	14	1909	1397
Turn Type	Prot	Prot	NA	NA
Protected Phases	8	1	6	2
Permitted Phases				
Detector Phase	8	1	6	2
Switch Phase				
Minimum Initial (s)	10.0	7.0	10.0	10.0
Minimum Split (s)	46.4	10.0	31.0	31.0
Total Split (s)	27.0	10.0	53.0	43.0
Total Split (%)	33.8%	12.5%	66.3%	53.8%
Yellow Time (s)	4.0	3.0	4.0	4.0
All-Red Time (s)	3.4	0.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.4	3.0	6.0	6.0
Lead/Lag		Lead		Lag
Lead-Lag Optimize?				
Recall Mode	None	None	C-Max	C-Max
Act Effct Green (s)	10.4	7.1	60.9	58.8
Actuated g/C Ratio	0.13	0.09	0.76	0.74
v/c Ratio	0.36	0.10	0.50	0.39
Control Delay (s/veh)	22.9	28.0	13.5	6.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	22.9	28.0	13.5	6.3
LOS	C	C	B	A
Approach Delay (s/veh)	22.9		13.6	6.3
Approach LOS	C		B	A
Queue Length 50th (m)	5.9	2.0	165.3	27.7
Queue Length 95th (m)	18.4	m3.8	182.4	59.8
Internal Link Dist (m)	166.6		319.0	244.6
Turn Bay Length (m)		100.0		
Base Capacity (vph)	392	139	3791	3549
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.21	0.10	0.50	0.39

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 79 (99%), Referenced to phase 2:SBT and 6:NBT, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.50	
Intersection Signal Delay (s/veh): 10.8	Intersection LOS: B
Intersection Capacity Utilization 53.9%	ICU Level of Service A
Analysis Period (min) 15	

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 7: Dixie Road & Hickory Drive





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	36	38	13	1737	1253	18
Future Volume (veh/h)	36	38	13	1737	1253	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	0.98	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1739	1668	1710	1856	1811	1824
Adj Flow Rate, veh/h	40	42	14	1909	1377	20
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	6	11	8	3	6	0
Cap, veh/h	79	83	38	3676	3338	48
Arrive On Green	0.11	0.11	0.02	0.73	0.66	0.66
Sat Flow, veh/h	744	781	1629	5233	5184	73
Grp Volume(v), veh/h	83	0	14	1909	904	493
Grp Sat Flow(s),veh/h/ln	1544	0	1629	1689	1648	1798
Q Serve(g_s), s	4.1	0.0	0.7	13.3	10.1	10.1
Cycle Q Clear(g_c), s	4.1	0.0	0.7	13.3	10.1	10.1
Prop In Lane	0.48	0.51	1.00			0.04
Lane Grp Cap(c), veh/h	165	0	38	3676	2191	1195
V/C Ratio(X)	0.50	0.00	0.37	0.52	0.41	0.41
Avail Cap(c_a), veh/h	378	0	143	3676	2191	1195
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.7	0.0	38.5	4.8	6.2	6.2
Incr Delay (d2), s/veh	2.4	0.0	5.8	0.5	0.6	1.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	0.2	0.2	0.2	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	36.1	0.0	44.3	5.4	6.8	7.2
LnGrp LOS	D		D	A	A	A
Approach Vol, veh/h	83			1923	1397	
Approach Delay, s/veh	36.1			5.6	6.9	
Approach LOS	D			A	A	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	4.9	59.2				64.1	15.9
Change Period (Y+Rc), s	3.0	6.0				6.0	7.4
Max Green Setting (Gmax), s	7.0	37.0				47.0	19.6
Max Q Clear Time (g_c+I1), s	2.7	12.1				15.3	6.1
Green Ext Time (p_c), s	0.0	12.6				21.5	0.2

Intersection Summary	
HCM 6th Ctrl Delay, s/veh	6.9
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	38	79	119	95	12
Future Vol, veh/h	0	38	79	119	95	12
Conflicting Peds, #/hr	0	0	5	0	0	5
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	0	0	0	1	2	0
Mvmt Flow	0	46	95	143	114	14

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	459	126	133	0	-	0
Stage 1	126	-	-	-	-	-
Stage 2	333	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	564	930	1464	-	-	-
Stage 1	905	-	-	-	-	-
Stage 2	731	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	520	927	1459	-	-	-
Mov Cap-2 Maneuver	520	-	-	-	-	-
Stage 1	837	-	-	-	-	-
Stage 2	728	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	9.1	3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1459	-	927	-	-
HCM Lane V/C Ratio	0.065	-	0.049	-	-
HCM Control Delay (s/veh)	7.6	0	9.1	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q (veh)	0.2	-	0.2	-	-

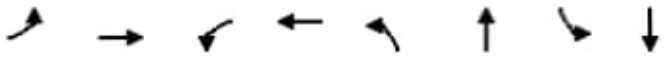
Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	0	45	19	0	6	47	191	29	4	129	0
Future Vol, veh/h	1	0	45	19	0	6	47	191	29	4	129	0
Conflicting Peds, #/hr	1	0	1	1	0	1	4	0	9	9	0	4
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	0	0	0	0	0	0	0	1	0	0	2	0
Mvmt Flow	1	0	54	23	0	7	57	230	35	5	155	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	535	557	160	564	540	258	159	0	0	274	0	0
Stage 1	169	169	-	371	371	-	-	-	-	-	-	-
Stage 2	366	388	-	193	169	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	459	442	890	439	451	786	1433	-	-	1301	-	-
Stage 1	838	763	-	653	623	-	-	-	-	-	-	-
Stage 2	657	612	-	813	763	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	436	415	887	393	424	780	1429	-	-	1292	-	-
Mov Cap-2 Maneuver	436	415	-	393	424	-	-	-	-	-	-	-
Stage 1	796	758	-	618	589	-	-	-	-	-	-	-
Stage 2	620	579	-	760	758	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	9.4	13.7	1.3	0.2
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1429	-	-	867	446	1292	-	-
HCM Lane V/C Ratio	0.04	-	-	0.064	0.068	0.004	-	-
HCM Control Delay (s/veh)	7.6	0	-	9.4	13.7	7.8	0	-
HCM Lane LOS	A	A	-	A	B	A	A	-
HCM 95th %tile Q (veh)	0.1	-	-	0.2	0.2	0	-	-



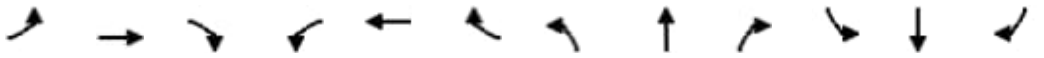
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	183	370	32	392	86	39	29	36
Future Volume (vph)	183	370	32	392	86	39	29	36
Lane Group Flow (vph)	199	534	35	475	93	75	32	178
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		2		6		4		8
Permitted Phases	2		6		4		8	
Detector Phase	2	2	6	6	4	4	8	8
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	29.5	29.5	29.5	29.5	37.0	37.0	37.0	37.0
Total Split (s)	37.0	37.0	37.0	37.0	43.0	43.0	43.0	43.0
Total Split (%)	46.3%	46.3%	46.3%	46.3%	53.8%	53.8%	53.8%	53.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.0	3.0	3.0	3.0
All-Red Time (s)	3.0	3.0	3.0	3.0	5.0	5.0	5.0	5.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5	6.5	8.0	8.0	8.0	8.0
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None	None	None
Act Effct Green (s)	52.5	52.5	52.5	52.5	13.0	13.0	13.0	13.0
Actuated g/C Ratio	0.66	0.66	0.66	0.66	0.16	0.16	0.16	0.16
v/c Ratio	0.36	0.24	0.07	0.21	0.52	0.25	0.16	0.47
Control Delay (s/veh)	7.0	3.8	6.4	6.0	40.2	19.5	29.0	12.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	7.0	3.8	6.4	6.0	40.2	19.5	29.0	12.9
LOS	A	A	A	A	D	B	C	B
Approach Delay (s/veh)		4.6		6.0		30.9		15.3
Approach LOS		A		A		C		B
Queue Length 50th (m)	9.4	10.1	1.7	12.6	14.0	5.9	4.5	5.5
Queue Length 95th (m)	m25.9	m16.1	6.0	23.8	26.5	16.2	11.3	21.1
Internal Link Dist (m)		65.1		84.3		120.2		58.6
Turn Bay Length (m)	33.0		40.0		27.0		11.0	
Base Capacity (vph)	548	2224	520	2264	487	768	543	779
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.36	0.24	0.07	0.21	0.19	0.10	0.06	0.23

Intersection Summary			
Cycle Length: 80			
Actuated Cycle Length: 80			
Offset: 35 (44%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 70			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.52			
Intersection Signal Delay (s/veh): 9.2		Intersection LOS: A	
Intersection Capacity Utilization 80.5%		ICU Level of Service D	
Analysis Period (min) 15			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Bough Beeches Blvd & Rathburn Rd E





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	183	370	121	32	392	45	86	39	30	29	36	128
Future Volume (veh/h)	183	370	121	32	392	45	86	39	30	29	36	128
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.96	0.99		0.98	0.98		0.96	0.98		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1810	1885	1796	1824	1870	1824	1810	1900	1781	1824	1900	1810
Adj Flow Rate, veh/h	199	402	132	35	426	49	93	42	33	32	39	139
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	1	1	2	0	2	0	1	0	3	0	0	1
Cap, veh/h	513	1444	468	483	1759	201	296	261	205	389	95	340
Arrive On Green	0.55	0.55	0.55	0.55	0.55	0.55	0.27	0.27	0.27	0.27	0.27	0.27
Sat Flow, veh/h	884	2633	852	844	3208	367	1146	966	759	1261	353	1258
Grp Volume(v), veh/h	199	272	262	35	235	240	93	0	75	32	0	178
Grp Sat Flow(s),veh/h/ln	884	1791	1694	844	1777	1798	1146	0	1725	1261	0	1611
Q Serve(g_s), s	12.1	6.5	6.6	1.8	5.5	5.6	5.8	0.0	2.7	1.6	0.0	7.3
Cycle Q Clear(g_c), s	17.7	6.5	6.6	8.5	5.5	5.6	13.0	0.0	2.7	4.2	0.0	7.3
Prop In Lane	1.00		0.50	1.00		0.20	1.00		0.44	1.00		0.78
Lane Grp Cap(c), veh/h	513	982	929	483	975	986	296	0	466	389	0	435
V/C Ratio(X)	0.39	0.28	0.28	0.07	0.24	0.24	0.31	0.00	0.16	0.08	0.00	0.41
Avail Cap(c_a), veh/h	513	982	929	483	975	986	488	0	755	600	0	705
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	14.0	9.6	9.6	11.9	9.4	9.4	29.3	0.0	22.3	23.9	0.0	23.9
Incr Delay (d2), s/veh	2.2	0.7	0.8	0.3	0.6	0.6	0.6	0.0	0.2	0.1	0.0	0.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.2	0.2	0.1	0.2	0.2	1.0	0.0	0.6	0.3	0.0	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	16.2	10.3	10.4	12.2	10.0	10.0	29.9	0.0	22.4	24.0	0.0	24.6
LnGrp LOS	B	B	B	B	A	A	C		C	C		C
Approach Vol, veh/h		733			510			168			210	
Approach Delay, s/veh		12.0			10.1			26.6			24.5	
Approach LOS		B			B			C			C	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		50.4		29.6		50.4		29.6				
Change Period (Y+Rc), s		6.5		8.0		6.5		8.0				
Max Green Setting (Gmax), s		30.5		35.0		30.5		35.0				
Max Q Clear Time (g_c+I1), s		19.7		15.0		10.5		9.3				
Green Ext Time (p_c), s		4.0		1.0		3.6		1.6				

Intersection Summary												
HCM 6th Ctrl Delay, s/veh			14.5									
HCM 6th LOS			B									

Intersection	
Int Delay, s/veh	5.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	599	140	60	550	106	80
Future Vol, veh/h	599	140	60	550	106	80
Conflicting Peds, #/hr	0	6	6	0	13	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	22	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	1	1	0	1	3	0
Mvmt Flow	681	159	68	625	120	91

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	846	0	1149	347
Stage 1	-	-	-	-	687	-
Stage 2	-	-	-	-	462	-
Critical Hdwy	-	-	4.1	-	6.86	6.9
Critical Hdwy Stg 1	-	-	-	-	5.86	-
Critical Hdwy Stg 2	-	-	-	-	5.86	-
Follow-up Hdwy	-	-	2.2	-	3.53	3.3
Pot Cap-1 Maneuver	-	-	800	-	190	655
Stage 1	-	-	-	-	458	-
Stage 2	-	-	-	-	598	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	797	-	171	652
Mov Cap-2 Maneuver	-	-	-	-	171	-
Stage 1	-	-	-	-	456	-
Stage 2	-	-	-	-	542	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	1	41.9
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	171	652	-	-	797	-
HCM Lane V/C Ratio	0.704	0.139	-	-	0.086	-
HCM Control Delay (s/veh)	64.9	11.4	-	-	9.9	-
HCM Lane LOS	F	B	-	-	A	-
HCM 95th %tile Q (veh)	4.3	0.5	-	-	0.3	-

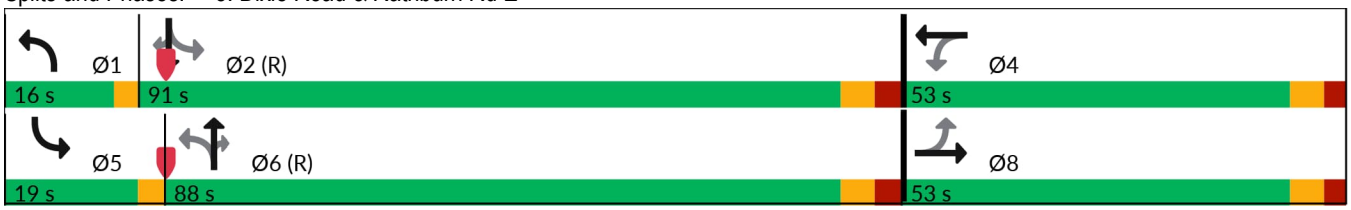


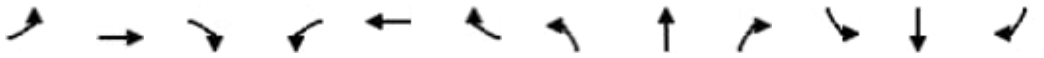
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	40	218	123	268	176	1044	149	363	1920	183
Future Volume (vph)	40	218	123	268	176	1044	149	363	1920	183
Lane Group Flow (vph)	41	367	126	536	180	1065	152	370	1959	187
Turn Type	Perm	NA	Perm	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		8		4	1	6		5	2	
Permitted Phases	8		4		6		6	2		2
Detector Phase	8	8	4	4	1	6	6	5	2	2
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	10.0	7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	41.6	41.6	41.6	41.6	11.5	48.3	48.3	11.5	48.3	48.3
Total Split (s)	53.0	53.0	53.0	53.0	16.0	88.0	88.0	19.0	91.0	91.0
Total Split (%)	33.1%	33.1%	33.1%	33.1%	10.0%	55.0%	55.0%	11.9%	56.9%	56.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	2.6	2.6	2.6	2.6	0.0	3.3	3.3	0.0	3.3	3.3
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.6	6.6	6.6	6.6	3.0	7.3	7.3	3.0	7.3	7.3
Lead/Lag					Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?										
Recall Mode	Max	Max	Max	Max	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	46.4	46.4	46.4	46.4	98.0	80.7	80.7	104.0	83.7	83.7
Actuated g/C Ratio	0.29	0.29	0.29	0.29	0.61	0.50	0.50	0.65	0.52	0.52
v/c Ratio	0.26	0.37	0.57	0.52	0.99	0.43	0.19	1.02	0.74	0.22
Control Delay (s/veh)	49.2	34.0	59.6	34.7	108.1	25.7	3.4	73.2	41.3	8.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	49.2	34.0	59.6	34.7	108.1	25.7	3.4	73.2	41.3	8.9
LOS	D	C	E	C	F	C	A	E	D	A
Approach Delay (s/veh)		35.5		39.4		33.9			43.6	
Approach LOS		D		D		C			D	
Queue Length 50th (m)	10.6	37.7	37.8	60.7	44.6	81.0	0.0	~63.7	241.7	11.2
Queue Length 95th (m)	23.1	53.3	63.6	71.7	#99.1	93.3	12.2	#128.9	266.7	m25.8
Internal Link Dist (m)		145.2		95.0		286.2			319.0	
Turn Bay Length (m)	37.0		73.0		107.0		90.0	112.0		140.0
Base Capacity (vph)	157	995	223	1027	182	2487	791	363	2630	839
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.37	0.57	0.52	0.99	0.43	0.19	1.02	0.74	0.22

Intersection Summary		
Cycle Length: 160		
Actuated Cycle Length: 160		
Offset: 94 (59%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green		
Natural Cycle: 105		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 1.02		
Intersection Signal Delay (s/veh): 39.7	Intersection LOS: D	
Intersection Capacity Utilization 112.2%	ICU Level of Service H	
Analysis Period (min) 15		

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: Dixie Road & Rathburn Rd E





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	218	142	123	268	258	176	1044	149	363	1920	183
Future Volume (veh/h)	40	218	142	123	268	258	176	1044	149	363	1920	183
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		1.00	0.97		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1824	1870	1796	1810	1870	1796	1810	1841	1824	1824	1870	1824
Adj Flow Rate, veh/h	41	222	0	126	273	0	180	1065	0	370	1959	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	2	2	1	2	2	1	4	0	0	2	0
Cap, veh/h	288	1031		310	1031		210	2535		410	2759	
Arrive On Green	0.29	0.29	0.00	0.29	0.29	0.00	0.06	0.50	0.00	0.10	0.54	0.00
Sat Flow, veh/h	1053	3647	0	1092	3647	0	1724	5025	1546	1737	5106	1546
Grp Volume(v), veh/h	41	222	0	126	273	0	180	1065	0	370	1959	0
Grp Sat Flow(s),veh/h/ln	1053	1777	0	1092	1777	0	1724	1675	1546	1737	1702	1546
Q Serve(g_s), s	5.0	7.6	0.0	15.8	9.5	0.0	8.1	21.3	0.0	16.0	45.8	0.0
Cycle Q Clear(g_c), s	14.4	7.6	0.0	23.4	9.5	0.0	8.1	21.3	0.0	16.0	45.8	0.0
Prop In Lane	1.00		0.00	1.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	288	1031		310	1031		210	2535		410	2759	
V/C Ratio(X)	0.14	0.22		0.41	0.26		0.86	0.42		0.90	0.71	
Avail Cap(c_a), veh/h	288	1031		310	1031		240	2535		410	2759	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	49.2	43.0	0.0	51.9	43.7	0.0	30.8	24.9	0.0	22.1	27.4	0.0
Incr Delay (d2), s/veh	1.0	0.5	0.0	3.9	0.6	0.0	22.8	0.5	0.0	22.7	1.6	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	2.6	0.0	3.6	3.2	0.0	2.9	5.0	0.0	5.3	10.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	50.3	43.5	0.0	55.8	44.3	0.0	53.5	25.5	0.0	44.7	29.0	0.0
LnGrp LOS	D	D		E	D		D	C		D	C	
Approach Vol, veh/h		263			399			1245			2329	
Approach Delay, s/veh		44.6			47.9			29.5			31.5	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.2	93.8		53.0	19.0	88.0		53.0				
Change Period (Y+Rc), s	3.0	7.3		6.6	3.0	7.3		6.6				
Max Green Setting (Gmax), s	13.0	83.7		46.4	16.0	80.7		46.4				
Max Q Clear Time (g_c+I1), s	10.1	47.8		25.4	18.0	23.3		16.4				
Green Ext Time (p_c), s	0.2	24.1		2.8	0.0	12.1		2.0				

Intersection Summary			
HCM 6th Ctrl Delay, s/veh		33.3	
HCM 6th LOS		C	

Notes

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

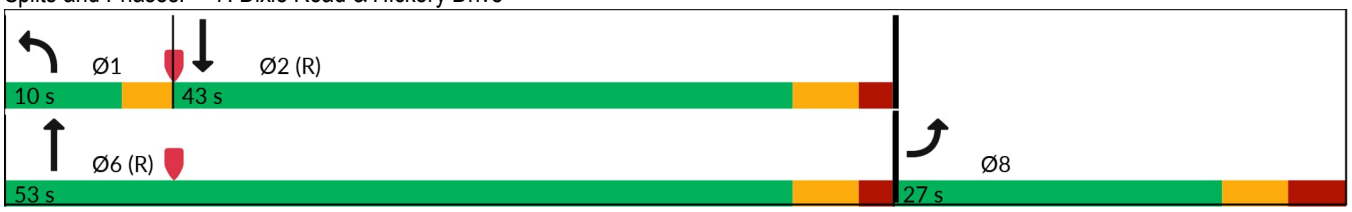


Lane Group	EBL	NBL	NBT	SBT
Lane Configurations				
Traffic Volume (vph)	27	46	1298	2428
Future Volume (vph)	27	46	1298	2428
Lane Group Flow (vph)	66	47	1324	2516
Turn Type	Prot	Prot	NA	NA
Protected Phases	8	1	6	2
Permitted Phases				
Detector Phase	8	1	6	2
Switch Phase				
Minimum Initial (s)	10.0	7.0	10.0	10.0
Minimum Split (s)	46.4	10.0	31.0	31.0
Total Split (s)	27.0	10.0	53.0	43.0
Total Split (%)	33.8%	12.5%	66.3%	53.8%
Yellow Time (s)	4.0	3.0	4.0	4.0
All-Red Time (s)	3.4	0.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.4	3.0	6.0	6.0
Lead/Lag		Lead		Lag
Lead-Lag Optimize?				
Recall Mode	None	None	C-Max	C-Max
Act Effct Green (s)	10.1	8.1	61.2	54.1
Actuated g/C Ratio	0.13	0.10	0.77	0.68
v/c Ratio	0.29	0.27	0.35	0.74
Control Delay (s/veh)	20.7	26.5	12.4	14.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	20.7	26.5	12.4	14.3
LOS	C	C	B	B
Approach Delay (s/veh)	20.7		12.8	14.3
Approach LOS	C		B	B
Queue Length 50th (m)	4.1	8.7	100.1	114.9
Queue Length 95th (m)	15.5	15.3	113.4	#175.6
Internal Link Dist (m)	166.6		319.0	244.6
Turn Bay Length (m)		100.0		
Base Capacity (vph)	410	171	3773	3391
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.16	0.27	0.35	0.74

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 79 (99%), Referenced to phase 2:SBT and 6:NBT, Start of Green	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay (s/veh): 13.9	Intersection LOS: B
Intersection Capacity Utilization 68.0%	ICU Level of Service C
Analysis Period (min) 15	

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 7: Dixie Road & Hickory Drive





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	27	37	46	1298	2428	37
Future Volume (veh/h)	27	37	46	1298	2428	37
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	0.97	1.00			0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1767	1824	1824	1841	1870	1781
Adj Flow Rate, veh/h	28	38	47	1324	2478	38
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	4	0	0	4	2	3
Cap, veh/h	65	88	99	3680	3305	51
Arrive On Green	0.10	0.10	0.06	0.73	0.64	0.64
Sat Flow, veh/h	647	878	1737	5191	5347	79
Grp Volume(v), veh/h	67	0	47	1324	1626	890
Grp Sat Flow(s),veh/h/ln	1548	0	1737	1675	1702	1853
Q Serve(g_s), s	3.3	0.0	2.1	7.7	26.5	26.7
Cycle Q Clear(g_c), s	3.3	0.0	2.1	7.7	26.5	26.7
Prop In Lane	0.42	0.57	1.00			0.04
Lane Grp Cap(c), veh/h	155	0	99	3680	2172	1183
V/C Ratio(X)	0.43	0.00	0.48	0.36	0.75	0.75
Avail Cap(c_a), veh/h	379	0	152	3680	2172	1183
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.9	0.0	36.6	3.9	10.0	10.1
Incr Delay (d2), s/veh	1.9	0.0	3.5	0.3	2.4	4.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	0.6	0.1	0.7	1.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	35.8	0.0	40.1	4.2	12.4	14.5
LnGrp LOS	D		D	A	B	B
Approach Vol, veh/h	67			1371	2516	
Approach Delay, s/veh	35.8			5.4	13.2	
Approach LOS	D			A	B	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	7.5	57.1				64.6	15.4
Change Period (Y+Rc), s	3.0	6.0				6.0	7.4
Max Green Setting (Gmax), s	7.0	37.0				47.0	19.6
Max Q Clear Time (g_c+I1), s	4.1	28.7				9.7	5.3
Green Ext Time (p_c), s	0.0	7.8				14.9	0.2

Intersection Summary		
HCM 6th Ctrl Delay, s/veh		10.9
HCM 6th LOS		B

Notes

User approved pedestrian interval to be less than phase max green.

Intersection	
Int Delay, s/veh	3.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	2	80	46	52	119	4
Future Vol, veh/h	2	80	46	52	119	4
Conflicting Peds, #/hr	0	0	11	0	0	11
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	0	0	0	6	4	0
Mvmt Flow	2	96	55	63	143	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	330	157	159	0	-	0
Stage 1	157	-	-	-	-	-
Stage 2	173	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	669	894	1433	-	-	-
Stage 1	876	-	-	-	-	-
Stage 2	862	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	632	887	1422	-	-	-
Mov Cap-2 Maneuver	632	-	-	-	-	-
Stage 1	834	-	-	-	-	-
Stage 2	855	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	9.6	3.6	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1422	-	878	-	-
HCM Lane V/C Ratio	0.039	-	0.113	-	-
HCM Control Delay (s/veh)	7.6	0	9.6	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q (veh)	0.1	-	0.4	-	-

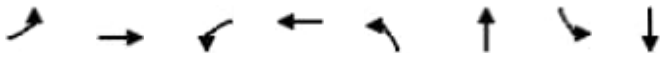
Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	44	28	0	2	30	96	12	0	199	0
Future Vol, veh/h	0	0	44	28	0	2	30	96	12	0	199	0
Conflicting Peds, #/hr	1	0	1	1	0	1	7	0	6	6	0	7
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	0	0	4	0	0	0	12	3	0	0	3	0
Mvmt Flow	0	0	52	33	0	2	35	113	14	0	234	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	433	444	242	457	437	127	241	0	0	133	0	0
Stage 1	241	241	-	196	196	-	-	-	-	-	-	-
Stage 2	192	203	-	261	241	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.24	7.1	6.5	6.2	4.22	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.336	3.5	4	3.3	2.308	-	-	2.2	-	-
Pot Cap-1 Maneuver	537	511	792	517	516	929	1269	-	-	1464	-	-
Stage 1	767	710	-	810	742	-	-	-	-	-	-	-
Stage 2	814	737	-	748	710	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	520	491	787	469	495	924	1262	-	-	1457	-	-
Mov Cap-2 Maneuver	520	491	-	469	495	-	-	-	-	-	-	-
Stage 1	740	706	-	782	716	-	-	-	-	-	-	-
Stage 2	787	711	-	698	706	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	9.9	13	1.7	0
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1262	-	-	787	485	1457	-	-
HCM Lane V/C Ratio	0.028	-	-	0.066	0.073	-	-	-
HCM Control Delay (s/veh)	7.9	0	-	9.9	13	0	-	-
HCM Lane LOS	A	A	-	A	B	A	-	-
HCM 95th %tile Q (veh)	0.1	-	-	0.2	0.2	0	-	-



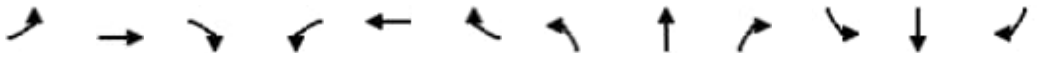
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	95	232	21	336	80	16	37	39
Future Volume (vph)	95	232	21	336	80	16	37	39
Lane Group Flow (vph)	100	308	22	382	84	24	39	246
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		2		6		4		8
Permitted Phases	2		6		4		8	
Detector Phase	2	2	6	6	4	4	8	8
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	29.5	29.5	29.5	29.5	37.0	37.0	37.0	37.0
Total Split (s)	37.0	37.0	37.0	37.0	43.0	43.0	43.0	43.0
Total Split (%)	46.3%	46.3%	46.3%	46.3%	53.8%	53.8%	53.8%	53.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.0	3.0	3.0	3.0
All-Red Time (s)	3.0	3.0	3.0	3.0	5.0	5.0	5.0	5.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5	6.5	8.0	8.0	8.0	8.0
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None	None	None
Act Effct Green (s)	52.6	52.6	52.6	52.6	12.9	12.9	12.9	12.9
Actuated g/C Ratio	0.66	0.66	0.66	0.66	0.16	0.16	0.16	0.16
v/c Ratio	0.17	0.14	0.03	0.17	0.64	0.09	0.18	0.58
Control Delay (s/veh)	4.2	2.8	6.1	5.8	52.4	21.5	29.5	12.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	4.2	2.8	6.1	5.8	52.4	21.5	29.5	12.9
LOS	A	A	A	A	D	C	C	B
Approach Delay (s/veh)		3.1		5.8		45.5		15.1
Approach LOS		A		A		D		B
Queue Length 50th (m)	3.5	4.3	1.0	9.8	12.9	2.4	5.6	5.8
Queue Length 95th (m)	m6.4	m6.8	4.3	19.4	26.0	8.1	13.0	24.5
Internal Link Dist (m)		65.1		84.3		120.2		58.6
Turn Bay Length (m)	33.0		40.0		27.0		11.0	
Base Capacity (vph)	589	2186	650	2263	357	724	570	797
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.17	0.14	0.03	0.17	0.24	0.03	0.07	0.31

Intersection Summary			
Cycle Length: 80			
Actuated Cycle Length: 80			
Offset: 27 (34%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 70			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.64			
Intersection Signal Delay (s/veh): 10.7		Intersection LOS: B	
Intersection Capacity Utilization 78.8%		ICU Level of Service D	
Analysis Period (min) 15			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Bough Beeches Blvd & Rathburn Rd E





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	95	232	61	21	336	27	80	16	7	37	39	195
Future Volume (veh/h)	95	232	61	21	336	27	80	16	7	37	39	195
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.97	0.99		0.98	0.98		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1781	1826	1824	1824	1870	1710	1767	1811	1625	1824	1826	1781
Adj Flow Rate, veh/h	100	244	64	22	354	28	84	17	7	39	41	205
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	5	0	0	2	8	4	6	14	0	5	3
Cap, veh/h	554	1483	380	608	1809	142	239	334	137	443	72	359
Arrive On Green	0.54	0.54	0.54	0.54	0.54	0.54	0.28	0.28	0.28	0.28	0.28	0.28
Sat Flow, veh/h	950	2728	700	1041	3329	262	1062	1212	499	1332	261	1305
Grp Volume(v), veh/h	100	153	155	22	188	194	84	0	24	39	0	246
Grp Sat Flow(s),veh/h/ln	950	1735	1694	1041	1777	1814	1062	0	1711	1332	0	1565
Q Serve(g_s), s	4.8	3.5	3.7	0.9	4.3	4.4	5.9	0.0	0.8	1.8	0.0	10.8
Cycle Q Clear(g_c), s	9.2	3.5	3.7	4.5	4.3	4.4	16.7	0.0	0.8	2.6	0.0	10.8
Prop In Lane	1.00		0.41	1.00		0.14	1.00		0.29	1.00		0.83
Lane Grp Cap(c), veh/h	554	943	920	608	966	986	239	0	471	443	0	431
V/C Ratio(X)	0.18	0.16	0.17	0.04	0.19	0.20	0.35	0.00	0.05	0.09	0.00	0.57
Avail Cap(c_a), veh/h	554	943	920	608	966	986	411	0	749	659	0	685
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	11.7	9.1	9.2	10.3	9.3	9.3	32.1	0.0	21.3	22.3	0.0	24.9
Incr Delay (d2), s/veh	0.7	0.4	0.4	0.1	0.5	0.4	0.9	0.0	0.0	0.1	0.0	1.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.1	0.1	0.0	0.1	0.1	1.0	0.0	0.2	0.3	0.0	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	12.4	9.5	9.6	10.4	9.8	9.8	33.0	0.0	21.3	22.3	0.0	26.1
LnGrp LOS	B	A	A	B	A	A	C		C	C		C
Approach Vol, veh/h		408			404			108			285	
Approach Delay, s/veh		10.2			9.8			30.4			25.6	
Approach LOS		B			A			C			C	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		50.0		30.0		50.0		30.0				
Change Period (Y+Rc), s		6.5		8.0		6.5		8.0				
Max Green Setting (Gmax), s		30.5		35.0		30.5		35.0				
Max Q Clear Time (g_c+I1), s		11.2		18.7		6.5		12.8				
Green Ext Time (p_c), s		2.8		0.5		2.9		2.2				

Intersection Summary												
HCM 6th Ctrl Delay, s/veh			15.5									
HCM 6th LOS			B									

Intersection	
Int Delay, s/veh	1.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	359	69	30	586	34	31
Future Vol, veh/h	359	69	30	586	34	31
Conflicting Peds, #/hr	0	2	2	0	24	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	22	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	5	6	0	3	6	3
Mvmt Flow	399	77	33	651	38	34

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	478	0	817	202
Stage 1	-	-	-	-	401	-
Stage 2	-	-	-	-	416	-
Critical Hdwy	-	-	4.1	-	6.92	6.96
Critical Hdwy Stg 1	-	-	-	-	5.92	-
Critical Hdwy Stg 2	-	-	-	-	5.92	-
Follow-up Hdwy	-	-	2.2	-	3.56	3.33
Pot Cap-1 Maneuver	-	-	1095	-	307	802
Stage 1	-	-	-	-	633	-
Stage 2	-	-	-	-	622	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1093	-	292	801
Mov Cap-2 Maneuver	-	-	-	-	292	-
Stage 1	-	-	-	-	632	-
Stage 2	-	-	-	-	592	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0.4	14.7
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	292	801	-	-	1093	-
HCM Lane V/C Ratio	0.129	0.043	-	-	0.03	-
HCM Control Delay (s/veh)	19.2	9.7	-	-	8.4	-
HCM Lane LOS	C	A	-	-	A	-
HCM 95th %tile Q (veh)	0.4	0.1	-	-	0.1	-

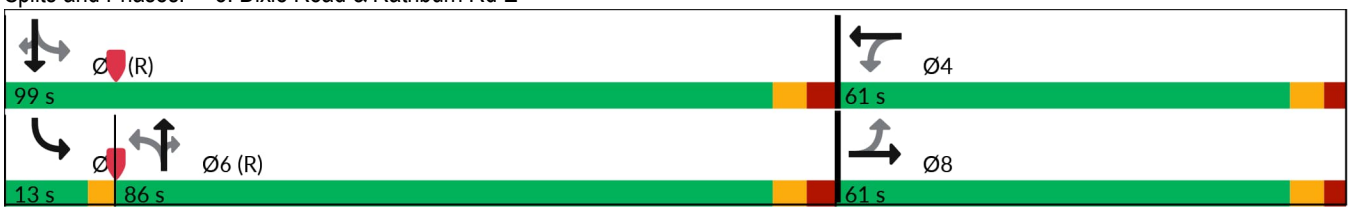


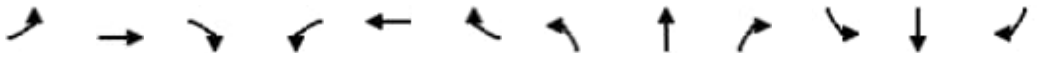
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	82	167	112	149	42	1323	78	179	1046	47
Future Volume (vph)	82	167	112	149	42	1323	78	179	1046	47
Lane Group Flow (vph)	89	310	122	541	46	1438	85	195	1137	51
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	pm+pt	NA	Perm
Protected Phases		8		4		6		5	2	
Permitted Phases	8		4		6		6	2		2
Detector Phase	8	8	4	4	6	6	6	5	2	2
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	41.6	41.6	41.6	41.6	48.3	48.3	48.3	10.0	48.3	48.3
Total Split (s)	61.0	61.0	61.0	61.0	86.0	86.0	86.0	13.0	99.0	99.0
Total Split (%)	38.1%	38.1%	38.1%	38.1%	53.8%	53.8%	53.8%	8.1%	61.9%	61.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	2.6	2.6	2.6	2.6	3.3	3.3	3.3	0.0	3.3	3.3
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.6	6.6	6.6	6.6	7.3	7.3	7.3	3.0	7.3	7.3
Lead/Lag					Lag	Lag	Lag	Lead		
Lead-Lag Optimize?										
Recall Mode	Max	Max	Max	Max	C-Max	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	54.4	54.4	54.4	54.4	78.7	78.7	78.7	96.0	91.7	91.7
Actuated g/C Ratio	0.34	0.34	0.34	0.34	0.49	0.49	0.49	0.60	0.57	0.57
v/c Ratio	0.45	0.28	0.42	0.48	0.23	0.60	0.11	0.98	0.41	0.06
Control Delay (s/veh)	50.3	29.7	48.4	33.6	27.1	30.6	4.3	88.2	21.2	7.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	50.3	29.7	48.4	33.6	27.1	30.6	4.3	88.2	21.2	7.3
LOS	D	C	D	C	C	C	A	F	C	A
Approach Delay (s/veh)		34.3		36.3		29.1			30.1	
Approach LOS		C		D		C			C	
Queue Length 50th (m)	23.3	30.1	33.9	60.8	8.7	124.9	0.0	29.3	75.4	0.0
Queue Length 95th (m)	43.7	43.3	57.3	83.2	19.0	140.6	9.8	#71.3	91.7	11.4
Internal Link Dist (m)		145.2		95.0		286.2			319.0	
Turn Bay Length (m)	37.0		73.0		107.0		90.0	112.0		140.0
Base Capacity (vph)	196	1113	289	1136	202	2402	750	200	2773	845
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.45	0.28	0.42	0.48	0.23	0.60	0.11	0.98	0.41	0.06

Intersection Summary		
Cycle Length: 160		
Actuated Cycle Length: 160		
Offset: 12 (8%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green		
Natural Cycle: 100		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.98		
Intersection Signal Delay (s/veh): 31.1	Intersection LOS: C	
Intersection Capacity Utilization 103.2%	ICU Level of Service G	
Analysis Period (min) 15		

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: Dixie Road & Rathburn Rd E





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	82	167	118	112	149	349	42	1323	78	179	1046	47
Future Volume (veh/h)	82	167	118	112	149	349	42	1323	78	179	1046	47
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		1.00	0.99		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1767	1767	1810	1710	1870	1796	1796	1826	1796	1753	1811	1796
Adj Flow Rate, veh/h	89	182	0	122	162	0	46	1438	0	195	1137	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	9	1	8	2	2	2	5	2	5	6	2
Cap, veh/h	400	1141		375	1208		256	2452		249	2834	
Arrive On Green	0.34	0.34	0.00	0.34	0.34	0.00	0.49	0.49	0.00	0.06	0.57	0.00
Sat Flow, veh/h	1149	3445	0	1093	3647	0	474	4985	1522	1669	4944	1522
Grp Volume(v), veh/h	89	182	0	122	162	0	46	1438	0	195	1137	0
Grp Sat Flow(s),veh/h/ln	1149	1678	0	1093	1777	0	474	1662	1522	1669	1648	1522
Q Serve(g_s), s	9.3	6.1	0.0	14.0	5.0	0.0	9.5	33.0	0.0	9.2	20.4	0.0
Cycle Q Clear(g_c), s	14.3	6.1	0.0	20.1	5.0	0.0	16.9	33.0	0.0	9.2	20.4	0.0
Prop In Lane	1.00		0.00	1.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	400	1141		375	1208		256	2452		249	2834	
V/C Ratio(X)	0.22	0.16		0.33	0.13		0.18	0.59		0.78	0.40	
Avail Cap(c_a), veh/h	400	1141		375	1208		256	2452		249	2834	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	41.5	36.8	0.0	43.9	36.5	0.0	27.2	29.0	0.0	25.7	18.9	0.0
Incr Delay (d2), s/veh	1.3	0.3	0.0	2.3	0.2	0.0	1.5	1.0	0.0	15.0	0.4	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	1.8	0.0	3.0	1.6	0.0	0.8	7.9	0.0	2.8	3.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	42.8	37.1	0.0	46.2	36.7	0.0	28.8	30.1	0.0	40.7	19.4	0.0
LnGrp LOS	D	D		D	D		C	C		D	B	
Approach Vol, veh/h		271			284			1484			1332	
Approach Delay, s/veh		39.0			40.8			30.0			22.5	
Approach LOS		D			D			C			C	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		99.0		61.0	13.0	86.0		61.0				
Change Period (Y+Rc), s		7.3		6.6	3.0	7.3		6.6				
Max Green Setting (Gmax), s		91.7		54.4	10.0	78.7		54.4				
Max Q Clear Time (g_c+I1), s		22.4		22.1	11.2	35.0		16.3				
Green Ext Time (p_c), s		13.7		2.1	0.0	19.1		2.1				

Intersection Summary		
HCM 6th Ctrl Delay, s/veh	28.7	
HCM 6th LOS	C	

Notes

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

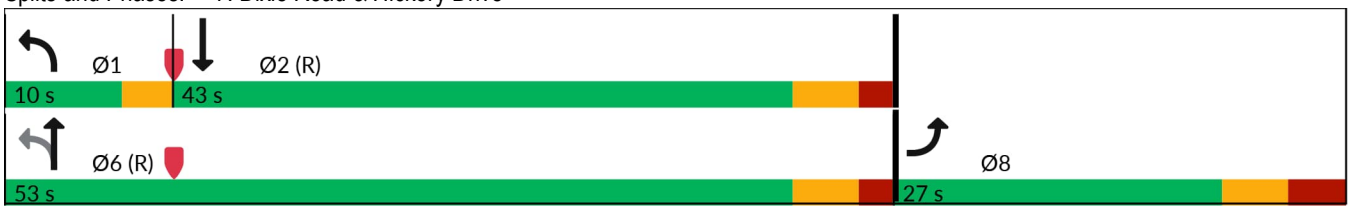


Lane Group	EBL	NBL	NBT	SBT
Lane Configurations				
Traffic Volume (vph)	36	13	1752	1258
Future Volume (vph)	36	13	1752	1258
Lane Group Flow (vph)	82	14	1925	1402
Turn Type	Prot	pm+pt	NA	NA
Protected Phases	8	1	6	2
Permitted Phases		6		
Detector Phase	8	1	6	2
Switch Phase				
Minimum Initial (s)	10.0	7.0	10.0	10.0
Minimum Split (s)	46.4	10.0	31.0	31.0
Total Split (s)	27.0	10.0	53.0	43.0
Total Split (%)	33.8%	12.5%	66.3%	53.8%
Yellow Time (s)	4.0	3.0	4.0	4.0
All-Red Time (s)	3.4	0.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.4	3.0	6.0	6.0
Lead/Lag		Lead		Lag
Lead-Lag Optimize?				
Recall Mode	None	None	C-Max	C-Max
Act Effct Green (s)	10.4	62.7	60.9	58.9
Actuated g/C Ratio	0.13	0.78	0.76	0.74
v/c Ratio	0.36	0.04	0.51	0.39
Control Delay (s/veh)	22.9	5.7	14.4	6.2
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	22.9	5.7	14.4	6.2
LOS	C	A	B	A
Approach Delay (s/veh)	22.9		14.3	6.2
Approach LOS	C		B	A
Queue Length 50th (m)	5.9	1.2	152.0	27.9
Queue Length 95th (m)	18.4	m2.1	171.5	58.9
Internal Link Dist (m)	166.6		319.0	244.6
Turn Bay Length (m)		100.0		
Base Capacity (vph)	392	314	3791	3557
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.21	0.04	0.51	0.39

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 0 (0%), Referenced to phase 2:SBT and 6:NBTL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.51	
Intersection Signal Delay (s/veh): 11.2	Intersection LOS: B
Intersection Capacity Utilization 54.1%	ICU Level of Service A
Analysis Period (min) 15	

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 7: Dixie Road & Hickory Drive





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	36	38	13	1752	1258	18
Future Volume (veh/h)	36	38	13	1752	1258	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	0.98	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1739	1668	1710	1856	1811	1824
Adj Flow Rate, veh/h	40	42	14	1925	1382	20
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	6	11	8	3	6	0
Cap, veh/h	79	83	390	3676	3016	44
Arrive On Green	0.11	0.11	0.09	0.73	0.60	0.60
Sat Flow, veh/h	744	781	1629	5233	5184	73
Grp Volume(v), veh/h	83	0	14	1925	907	495
Grp Sat Flow(s),veh/h/ln	1544	0	1629	1689	1648	1798
Q Serve(g_s), s	4.1	0.0	0.2	13.5	12.1	12.1
Cycle Q Clear(g_c), s	4.1	0.0	0.2	13.5	12.1	12.1
Prop In Lane	0.48	0.51	1.00			0.04
Lane Grp Cap(c), veh/h	165	0	390	3676	1980	1080
V/C Ratio(X)	0.50	0.00	0.04	0.52	0.46	0.46
Avail Cap(c_a), veh/h	378	0	390	3676	1980	1080
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.7	0.0	4.6	4.9	8.8	8.8
Incr Delay (d2), s/veh	2.4	0.0	0.0	0.5	0.8	1.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	0.0	0.2	0.2	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	36.1	0.0	4.7	5.4	9.6	10.2
LnGrp LOS	D		A	A	A	B
Approach Vol, veh/h	83			1939	1402	
Approach Delay, s/veh	36.1			5.4	9.8	
Approach LOS	D			A	A	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	10.0	54.1				64.1	15.9
Change Period (Y+Rc), s	3.0	6.0				6.0	7.4
Max Green Setting (Gmax), s	7.0	37.0				47.0	19.6
Max Q Clear Time (g_c+I1), s	2.2	14.1				15.5	6.1
Green Ext Time (p_c), s	0.0	12.1				21.6	0.2

Intersection Summary	
HCM 6th Ctrl Delay, s/veh	7.9
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	64	113	119	95	16
Future Vol, veh/h	0	64	113	119	95	16
Conflicting Peds, #/hr	0	0	5	0	0	5
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	0	0	0	1	2	0
Mvmt Flow	0	77	136	143	114	19

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	544	129	138	0	-	0
Stage 1	129	-	-	-	-	-
Stage 2	415	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	504	926	1458	-	-	-
Stage 1	902	-	-	-	-	-
Stage 2	671	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	449	923	1453	-	-	-
Mov Cap-2 Maneuver	449	-	-	-	-	-
Stage 1	806	-	-	-	-	-
Stage 2	668	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	9.3	3.8	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1453	-	923	-	-
HCM Lane V/C Ratio	0.094	-	0.084	-	-
HCM Control Delay (s/veh)	7.7	0	9.3	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q (veh)	0.3	-	0.3	-	-

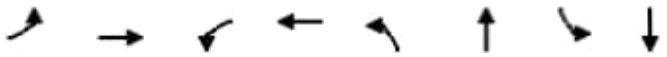
Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	0	48	19	0	6	51	225	29	4	155	0
Future Vol, veh/h	1	0	48	19	0	6	51	225	29	4	155	0
Conflicting Peds, #/hr	1	0	1	1	0	1	4	0	9	9	0	4
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	0	0	0	0	0	0	0	1	0	0	2	0
Mvmt Flow	1	0	58	23	0	7	61	271	35	5	187	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	616	638	192	647	621	299	191	0	0	315	0	0
Stage 1	201	201	-	420	420	-	-	-	-	-	-	-
Stage 2	415	437	-	227	201	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	406	397	855	387	406	745	1395	-	-	1257	-	-
Stage 1	805	739	-	615	593	-	-	-	-	-	-	-
Stage 2	619	583	-	780	739	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	383	371	852	342	379	739	1391	-	-	1248	-	-
Mov Cap-2 Maneuver	383	371	-	342	379	-	-	-	-	-	-	-
Stage 1	760	734	-	578	557	-	-	-	-	-	-	-
Stage 2	580	548	-	724	734	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	9.7	14.9	1.3	0.2
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1391	-	-	831	393	1248	-	-
HCM Lane V/C Ratio	0.044	-	-	0.071	0.077	0.004	-	-
HCM Control Delay (s/veh)	7.7	0	-	9.7	14.9	7.9	0	-
HCM Lane LOS	A	A	-	A	B	A	A	-
HCM 95th %tile Q (veh)	0.1	-	-	0.2	0.2	0	-	-



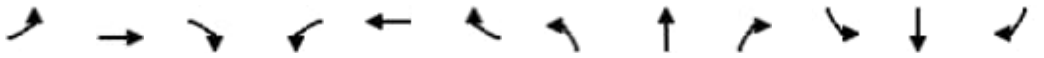
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	210	370	32	392	86	39	35	36
Future Volume (vph)	210	370	32	392	86	39	35	36
Lane Group Flow (vph)	228	534	35	488	93	75	38	203
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		2		6		4		8
Permitted Phases	2		6		4		8	
Detector Phase	2	2	6	6	4	4	8	8
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	29.5	29.5	29.5	29.5	37.0	37.0	37.0	37.0
Total Split (s)	37.0	37.0	37.0	37.0	43.0	43.0	43.0	43.0
Total Split (%)	46.3%	46.3%	46.3%	46.3%	53.8%	53.8%	53.8%	53.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.0	3.0	3.0	3.0
All-Red Time (s)	3.0	3.0	3.0	3.0	5.0	5.0	5.0	5.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5	6.5	8.0	8.0	8.0	8.0
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None	None	None
Act Effct Green (s)	52.4	52.4	52.4	52.4	13.1	13.1	13.1	13.1
Actuated g/C Ratio	0.66	0.66	0.66	0.66	0.16	0.16	0.16	0.16
v/c Ratio	0.42	0.24	0.07	0.22	0.54	0.24	0.19	0.51
Control Delay (s/veh)	9.4	4.9	6.5	6.0	42.0	19.3	29.4	12.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	9.4	4.9	6.5	6.0	42.0	19.3	29.4	12.5
LOS	A	A	A	A	D	B	C	B
Approach Delay (s/veh)		6.2		6.0		31.9		15.2
Approach LOS		A		A		C		B
Queue Length 50th (m)	23.1	15.0	1.7	13.0	14.0	5.9	5.4	5.5
Queue Length 95th (m)	m35.4	m27.9	6.1	24.6	26.7	16.1	12.7	22.1
Internal Link Dist (m)		65.1		84.3		120.2		58.6
Turn Bay Length (m)	33.0		40.0		27.0		11.0	
Base Capacity (vph)	539	2218	519	2251	458	768	543	789
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.42	0.24	0.07	0.22	0.20	0.10	0.07	0.26

Intersection Summary			
Cycle Length: 80			
Actuated Cycle Length: 80			
Offset: 35 (44%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 70			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.54			
Intersection Signal Delay (s/veh): 10.0		Intersection LOS: A	
Intersection Capacity Utilization 82.7%		ICU Level of Service E	
Analysis Period (min) 15			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Bough Beeches Blvd & Rathburn Rd E





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	210	370	121	32	392	57	86	39	30	35	36	151
Future Volume (veh/h)	210	370	121	32	392	57	86	39	30	35	36	151
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.96	0.99		0.98	0.98		0.96	0.98		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1810	1885	1796	1824	1870	1824	1810	1900	1781	1824	1900	1810
Adj Flow Rate, veh/h	228	402	132	35	426	62	93	42	33	38	39	164
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	1	1	2	0	2	0	1	0	3	0	0	1
Cap, veh/h	497	1420	460	474	1677	242	286	270	212	401	86	362
Arrive On Green	0.54	0.54	0.54	0.54	0.54	0.54	0.28	0.28	0.28	0.28	0.28	0.28
Sat Flow, veh/h	873	2633	852	844	3108	449	1122	967	759	1262	308	1295
Grp Volume(v), veh/h	228	272	262	35	242	246	93	0	75	38	0	203
Grp Sat Flow(s),veh/h/ln	873	1791	1694	844	1777	1781	1122	0	1726	1262	0	1603
Q Serve(g_s), s	15.1	6.6	6.8	1.9	5.8	5.9	6.0	0.0	2.6	1.9	0.0	8.4
Cycle Q Clear(g_c), s	21.0	6.6	6.8	8.6	5.8	5.9	14.3	0.0	2.6	4.5	0.0	8.4
Prop In Lane	1.00		0.50	1.00		0.25	1.00		0.44	1.00		0.81
Lane Grp Cap(c), veh/h	497	966	914	474	959	961	286	0	482	401	0	448
V/C Ratio(X)	0.46	0.28	0.29	0.07	0.25	0.26	0.33	0.00	0.16	0.09	0.00	0.45
Avail Cap(c_a), veh/h	497	966	914	474	959	961	464	0	755	601	0	701
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	15.4	10.0	10.0	12.4	9.8	9.8	29.7	0.0	21.7	23.4	0.0	23.8
Incr Delay (d2), s/veh	3.0	0.7	0.8	0.3	0.6	0.6	0.7	0.0	0.1	0.1	0.0	0.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.2	0.2	0.1	0.2	0.2	1.0	0.0	0.5	0.3	0.0	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	18.5	10.7	10.8	12.7	10.5	10.5	30.4	0.0	21.9	23.5	0.0	24.5
LnGrp LOS	B	B	B	B	B	B	C		C	C		C
Approach Vol, veh/h		762			523			168			241	
Approach Delay, s/veh		13.1			10.6			26.6			24.4	
Approach LOS		B			B			C			C	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		49.7		30.3		49.7		30.3				
Change Period (Y+Rc), s		6.5		8.0		6.5		8.0				
Max Green Setting (Gmax), s		30.5		35.0		30.5		35.0				
Max Q Clear Time (g_c+I1), s		23.0		16.3		10.6		10.4				
Green Ext Time (p_c), s		3.2		0.9		3.7		1.9				

Intersection Summary												
HCM 6th Ctrl Delay, s/veh			15.3									
HCM 6th LOS			B									

Intersection	
Int Delay, s/veh	6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	626	140	60	573	106	80
Future Vol, veh/h	626	140	60	573	106	80
Conflicting Peds, #/hr	0	6	6	0	13	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	22	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	1	1	0	1	3	0
Mvmt Flow	711	159	68	651	120	91

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	876	0	1192	362
Stage 1	-	-	-	-	717	-
Stage 2	-	-	-	-	475	-
Critical Hdwy	-	-	4.1	-	6.86	6.9
Critical Hdwy Stg 1	-	-	-	-	5.86	-
Critical Hdwy Stg 2	-	-	-	-	5.86	-
Follow-up Hdwy	-	-	2.2	-	3.53	3.3
Pot Cap-1 Maneuver	-	-	779	-	178	641
Stage 1	-	-	-	-	442	-
Stage 2	-	-	-	-	589	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	776	-	160	638
Mov Cap-2 Maneuver	-	-	-	-	160	-
Stage 1	-	-	-	-	440	-
Stage 2	-	-	-	-	532	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	1	48
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	160	638	-	-	776	-
HCM Lane V/C Ratio	0.753	0.142	-	-	0.088	-
HCM Control Delay (s/veh)	75.4	11.6	-	-	10.1	-
HCM Lane LOS	F	B	-	-	B	-
HCM 95th %tile Q (veh)	4.7	0.5	-	-	0.3	-

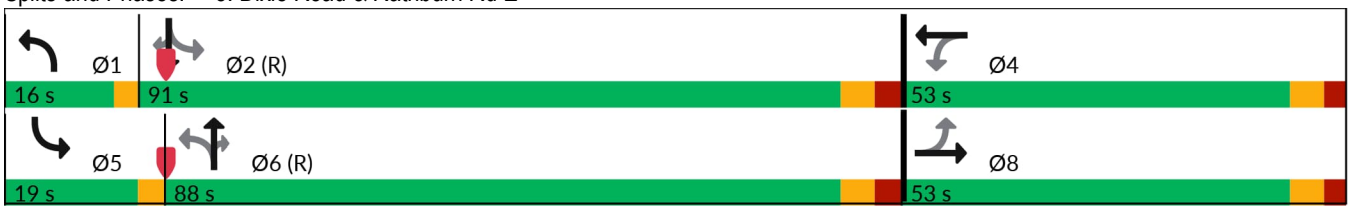


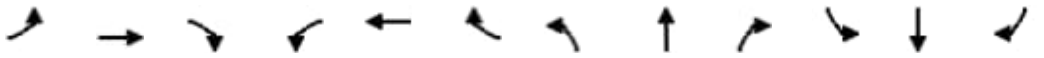
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	40	221	126	274	176	1044	161	375	1920	183
Future Volume (vph)	40	221	126	274	176	1044	161	375	1920	183
Lane Group Flow (vph)	41	371	129	557	180	1065	164	383	1959	187
Turn Type	Perm	NA	Perm	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		8		4	1	6		5	2	
Permitted Phases	8		4		6		6	2		2
Detector Phase	8	8	4	4	1	6	6	5	2	2
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	10.0	7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	41.6	41.6	41.6	41.6	11.5	48.3	48.3	11.5	48.3	48.3
Total Split (s)	53.0	53.0	53.0	53.0	16.0	88.0	88.0	19.0	91.0	91.0
Total Split (%)	33.1%	33.1%	33.1%	33.1%	10.0%	55.0%	55.0%	11.9%	56.9%	56.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	2.6	2.6	2.6	2.6	0.0	3.3	3.3	0.0	3.3	3.3
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.6	6.6	6.6	6.6	3.0	7.3	7.3	3.0	7.3	7.3
Lead/Lag					Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?										
Recall Mode	Max	Max	Max	Max	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	46.4	46.4	46.4	46.4	98.0	80.7	80.7	104.0	83.7	83.7
Actuated g/C Ratio	0.29	0.29	0.29	0.29	0.61	0.50	0.50	0.65	0.52	0.52
v/c Ratio	0.28	0.37	0.59	0.54	0.99	0.43	0.21	1.06	0.74	0.22
Control Delay (s/veh)	50.1	34.7	59.5	34.2	108.1	25.7	3.4	83.8	41.1	9.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	50.1	34.7	59.5	34.2	108.1	25.7	3.4	83.8	41.1	9.4
LOS	D	C	E	C	F	C	A	F	D	A
Approach Delay (s/veh)		36.2		38.9		33.6			45.2	
Approach LOS		D		D		C			D	
Queue Length 50th (m)	10.7	39.0	37.8	55.8	44.6	81.0	0.0	~73.1	253.9	12.8
Queue Length 95th (m)	23.3	54.8	64.8	73.5	#99.1	93.3	12.7	#142.8	268.5	m25.7
Internal Link Dist (m)		145.2		95.0		286.2			319.0	
Turn Bay Length (m)	37.0		73.0		107.0		90.0	112.0		140.0
Base Capacity (vph)	149	993	220	1028	182	2487	797	363	2630	839
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.37	0.59	0.54	0.99	0.43	0.21	1.06	0.74	0.22

Intersection Summary		
Cycle Length: 160		
Actuated Cycle Length: 160		
Offset: 6 (4%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green		
Natural Cycle: 105		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 1.06		
Intersection Signal Delay (s/veh): 40.4	Intersection LOS: D	
Intersection Capacity Utilization 112.9%	ICU Level of Service H	
Analysis Period (min) 15		

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: Dixie Road & Rathburn Rd E





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	221	142	126	274	271	176	1044	161	375	1920	183
Future Volume (veh/h)	40	221	142	126	274	271	176	1044	161	375	1920	183
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		1.00	0.97		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1824	1870	1796	1810	1870	1796	1810	1841	1824	1824	1870	1824
Adj Flow Rate, veh/h	41	226	0	129	280	0	180	1065	0	383	1959	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	2	2	1	2	2	1	4	0	0	2	0
Cap, veh/h	285	1031		308	1031		210	2535		410	2759	
Arrive On Green	0.29	0.29	0.00	0.29	0.29	0.00	0.06	0.50	0.00	0.10	0.54	0.00
Sat Flow, veh/h	1047	3647	0	1088	3647	0	1724	5025	1546	1737	5106	1546
Grp Volume(v), veh/h	41	226	0	129	280	0	180	1065	0	383	1959	0
Grp Sat Flow(s),veh/h/ln	1047	1777	0	1088	1777	0	1724	1675	1546	1737	1702	1546
Q Serve(g_s), s	5.0	7.7	0.0	16.3	9.7	0.0	8.1	21.3	0.0	16.0	45.8	0.0
Cycle Q Clear(g_c), s	14.7	7.7	0.0	24.0	9.7	0.0	8.1	21.3	0.0	16.0	45.8	0.0
Prop In Lane	1.00		0.00	1.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	285	1031		308	1031		210	2535		410	2759	
V/C Ratio(X)	0.14	0.22		0.42	0.27		0.86	0.42		0.93	0.71	
Avail Cap(c_a), veh/h	285	1031		308	1031		240	2535		410	2759	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	49.5	43.1	0.0	52.2	43.8	0.0	30.8	24.9	0.0	24.0	27.4	0.0
Incr Delay (d2), s/veh	1.1	0.5	0.0	4.1	0.7	0.0	22.8	0.5	0.0	28.5	1.6	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	2.6	0.0	3.7	3.3	0.0	2.9	5.0	0.0	6.1	10.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	50.5	43.6	0.0	56.3	44.4	0.0	53.5	25.5	0.0	52.5	29.0	0.0
LnGrp LOS	D	D		E	D		D	C		D	C	
Approach Vol, veh/h		267			409			1245			2342	
Approach Delay, s/veh		44.6			48.2			29.5			32.8	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.2	93.8		53.0	19.0	88.0		53.0				
Change Period (Y+Rc), s	3.0	7.3		6.6	3.0	7.3		6.6				
Max Green Setting (Gmax), s	13.0	83.7		46.4	16.0	80.7		46.4				
Max Q Clear Time (g_c+I1), s	10.1	47.8		26.0	18.0	23.3		16.7				
Green Ext Time (p_c), s	0.2	24.1		2.8	0.0	12.1		2.1				

Intersection Summary			
HCM 6th Ctrl Delay, s/veh		34.1	
HCM 6th LOS		C	

Notes

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

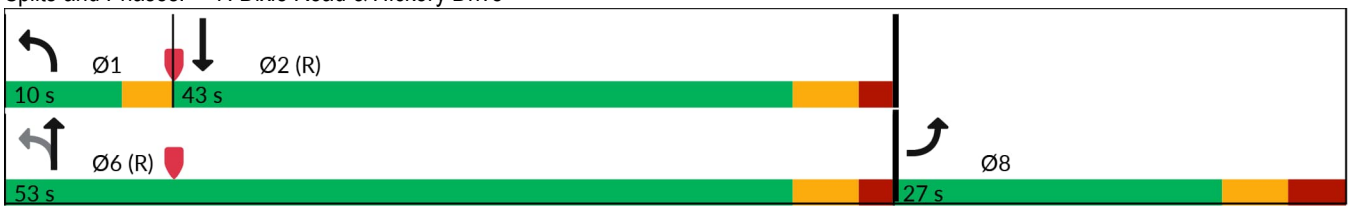


Lane Group	EBL	NBL	NBT	SBT
Lane Configurations				
Traffic Volume (vph)	27	46	1311	2440
Future Volume (vph)	27	46	1311	2440
Lane Group Flow (vph)	66	47	1338	2528
Turn Type	Prot	pm+pt	NA	NA
Protected Phases	8	1	6	2
Permitted Phases		6		
Detector Phase	8	1	6	2
Switch Phase				
Minimum Initial (s)	10.0	7.0	10.0	10.0
Minimum Split (s)	46.4	10.0	31.0	31.0
Total Split (s)	27.0	10.0	53.0	43.0
Total Split (%)	33.8%	12.5%	66.3%	53.8%
Yellow Time (s)	4.0	3.0	4.0	4.0
All-Red Time (s)	3.4	0.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.4	3.0	6.0	6.0
Lead/Lag		Lead		Lag
Lead-Lag Optimize?				
Recall Mode	None	None	C-Max	C-Max
Act Effct Green (s)	10.1	63.0	61.2	55.2
Actuated g/C Ratio	0.13	0.79	0.77	0.69
v/c Ratio	0.29	0.20	0.35	0.73
Control Delay (s/veh)	20.7	9.8	9.7	12.8
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	20.7	9.8	9.7	12.8
LOS	C	A	A	B
Approach Delay (s/veh)	20.7		9.7	12.8
Approach LOS	C		A	B
Queue Length 50th (m)	4.1	5.2	68.8	113.3
Queue Length 95th (m)	15.5	m13.4	85.3	140.7
Internal Link Dist (m)	166.6		319.0	244.6
Turn Bay Length (m)		100.0		
Base Capacity (vph)	410	239	3773	3461
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.16	0.20	0.35	0.73

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 79 (99%), Referenced to phase 2:SBT and 6:NBTL, Start of Green	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay (s/veh): 11.9	Intersection LOS: B
Intersection Capacity Utilization 68.3%	ICU Level of Service C
Analysis Period (min) 15	

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 7: Dixie Road & Hickory Drive





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	27	37	46	1311	2440	37
Future Volume (veh/h)	27	37	46	1311	2440	37
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	0.97	1.00			0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1767	1824	1824	1841	1870	1781
Adj Flow Rate, veh/h	28	38	47	1338	2490	38
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	4	0	0	4	2	3
Cap, veh/h	65	88	226	3680	3305	50
Arrive On Green	0.10	0.10	0.06	0.73	0.64	0.64
Sat Flow, veh/h	647	878	1737	5191	5347	79
Grp Volume(v), veh/h	67	0	47	1338	1634	894
Grp Sat Flow(s),veh/h/ln	1548	0	1737	1675	1702	1854
Q Serve(g_s), s	3.3	0.0	0.6	7.8	26.7	27.0
Cycle Q Clear(g_c), s	3.3	0.0	0.6	7.8	26.7	27.0
Prop In Lane	0.42	0.57	1.00			0.04
Lane Grp Cap(c), veh/h	155	0	226	3680	2172	1183
V/C Ratio(X)	0.43	0.00	0.21	0.36	0.75	0.76
Avail Cap(c_a), veh/h	379	0	279	3680	2172	1183
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.9	0.0	11.7	3.9	10.1	10.1
Incr Delay (d2), s/veh	1.9	0.0	0.5	0.3	2.5	4.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	0.0	0.1	0.7	1.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	35.8	0.0	12.1	4.2	12.5	14.6
LnGrp LOS	D		B	A	B	B
Approach Vol, veh/h	67			1385	2528	
Approach Delay, s/veh	35.8			4.5	13.3	
Approach LOS	D			A	B	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	7.5	57.1				64.6	15.4
Change Period (Y+Rc), s	3.0	6.0				6.0	7.4
Max Green Setting (Gmax), s	7.0	37.0				47.0	19.6
Max Q Clear Time (g_c+I1), s	2.6	29.0				9.8	5.3
Green Ext Time (p_c), s	0.0	7.6				15.1	0.2

Intersection Summary	
HCM 6th Ctrl Delay, s/veh	10.6
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.