

2655 Queensview Drive - Traffic Impact Assessment

TIA for development at 2655 Queensview Drive

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Westrich Pacific

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1 Screening

1.1 Summary of Development

Municipal Address		2655 Queensview Drive, Ottawa, ON K2B 8K2
Description of Location	The development is located along Queensview Drive, a key connector Local road situated within an established urban corridor in Ottawa's west end. The site is positioned north of Highway 417, in proximity to major arterial Greenbank Road. This area is designated as a Transit-Oriented Development Zone, benefiting from its strategic location near the future Queensview LRT Station (approximately 400m away). The surrounding environment consists of a mix of residential, commercial, and light industrial properties, contributing to a high-activity urban setting with strong multimodal connectivity. The site's direct access to major transportation infrastructure, including Queensview Drive's links to Greenbank Road and Highway 417, enhances its accessibility and suitability for a high-density residential project.	
Land Use Classification	MC20[3014] S507 – Mixed-Use Centre Subzone 20, Urban Exception 3014, Schedule 507. This zoning designation supports high-density, transit-oriented developments that encourage a mix of residential, commercial, and institutional uses. The MC20 zone permits apartment dwellings (low-rise, mid-rise, and high-rise), retail stores, personal service businesses, medical facilities, restaurants, and offices, fostering a vibrant, pedestrian-friendly urban environment. The Schedule 507 overlay applies specific site-related zoning provisions, ensuring compatibility with surrounding developments and transit infrastructure. The Urban Exception 3014 provides additional zoning flexibility tailored to this specific location. The proposed 335-unit mixed-use development aligns with the zoning intent, supporting multimodal access and urban intensification goals near rapid transit corridors.	
Development Size (units)	335 Residential Units	
Development Size (m ²)	21,329 m ² (229,587 sq. ft.)	
Number of Accesses and Locations	One vehicular parking access point along Queensview Drive	
Phase of Development	1	
Buildout Year	2027	

If available, please attach a sketch of the development or site plan to this form.



1.2 Trip Generation Trigger

Considering the Development's Land Use type and Size (as filled out in the previous section), please refer to the Trip Generation Trigger checks below.

Land Use Type	Min. Dev. Size (60 Trips)	Triggered
Single-Detached	60 units	✗
Multi-Use Family (Low-Rise)	90 units	✗
Multi-Use Family (High-Rise)	150 units	✓
Office	1,400 m ²	✗
Industrial (Lab)	7,000 m ²	✗
Fast-food restaurant or coffee shop	110 m ²	✗
Destination retail	1,800 m ²	✗
Gas station or convenience market	90 m ²	✗

* If the development has a land use type other than what is presented in the table above, estimates of person-trip generation may be made based on average trip generation characteristics represented in the current edition of the Institute of Transportation Engineers (ITE) Trip Generation Manual.

If the proposed development size is greater than the sizes identified above, **the Trip Generation Trigger is satisfied.**

1.3 Location Triggers

	Yes	No
Does the development propose a new driveway to a boundary street that is designated as part of the City's Transit Priority, Rapid Transit or Cross-Town Bikeway Networks?		✗
Is the development in a Design Priority Area (DPA), Transit-oriented Development (TOD) zone, or Protected Major Transit Station Area (PMTSA)? *	✓	

*DPA and TOD are identified in the City of Ottawa Official Plan (DPA in Section 2.5.1 and Schedules A and B; TOD in Annex 6). See Chapter 4 for a list of City of Ottawa Planning and Engineering documents that support the completion of TIA). PMTSAs are identified in Schedule C1 – Protected Major Transit Station Areas (PMTSA).

If any of the above questions were answered with 'Yes,' **the Location Trigger is satisfied.**



1.4 Safety Triggers

	Yes	No
Are posted speed limits on a boundary street are 80 km/hr or greater?		✗
Are there any horizontal/vertical curvatures on a boundary street limits sight lines at a proposed driveway?		✗
Is the proposed driveway within the area of influence of an adjacent traffic signal or roundabout (i.e. within 300 m of intersection in rural conditions, or within 150 m of intersection in urban/ suburban conditions)?		✗
Is the proposed driveway within auxiliary lanes of an intersection?		✗
Does the proposed driveway make use of an existing median break that serves an existing site?		✗
Is there a documented history of traffic operations or safety concerns on the boundary streets within 500 m of the development?	✓	
Does the development include a drive-thru facility?		✗

If any of the above questions were answered with 'Yes,' the Safety Trigger is satisfied.

1.5 Summary

	Yes	No
Does the development satisfy the Trip Generation Trigger?	✓	
Does the development satisfy the Location Trigger?	✓	
Does the development satisfy the Safety Trigger?	✓	

If none of the triggers are satisfied, the TIA Study is complete. If one or more of the triggers is satisfied, the TIA Study must continue into the next stage (Screening and Scoping).



2 Scoping

2.1 Existing and Planned Conditions

2.1.1 Proposed Development

This Transportation Impact Assessment (TIA) has been prepared in support of the site plan application for a proposed mixed-use redevelopment located at 2655 Queensview Drive, situated in the west end of Ottawa, Ontario. The site lies along Queensview Drive, which is currently classified as local, and will have a future collector road designation that connects to Pinecrest Road, a major arterial, and is located directly north of Highway 417. The site benefits from its location within a Transit-Oriented Development (TOD) Zone, with Queensview Station (LRT Stage 2) located approximately 400 metres to the east and Pinecrest Station located approximately 600 metres to the west. The Stage 2 LRT project along Highway 417 is currently under construction, reinforcing the area's future integration with rapid transit. The surrounding land uses include a mix of residential, commercial, and light industrial properties, contributing to a high-activity urban corridor with strong multimodal accessibility. The site, along with nearby parcels, is subject to the Pinecrest and Queensview Stations Secondary Plan, including select site-specific Queensview Sector policies.

The site is currently occupied by a single-storey fitness centre, Goodlife Fitness Ottawa Queensview, which provides for co-ed and women's only weight and cardio training areas, squash courts, group fitness studios and supporting facilities (change rooms, showers, sauna/steam room). It is understood that this location will be closed upon the site's redevelopment and all traffic attributed to the existing fitness centre can be assumed to be removed from the study area network.

The subject site is zoned MC20[3014] S507 under the current City of Ottawa Zoning By-law (2008-250). The MC – Mixed-Use Centre zone is intended to:

- Accommodate a mix of transit-supportive uses, including high- and medium-density residential, office, institutional, commercial, and service uses;
- Encourage pedestrian-oriented built form and transit integration;
- Enable intensification while ensuring compatibility with adjacent areas.

The new City of Ottawa Zoning by-law (2026-50), which was approved by council on January 28, 2026 and formally enacted on March 11, 2026 designates the site zoning as H2E[3014] S507. The H2E – Hub 2 Subzone E is intended to permit a broad range of uses and promote mid-to-high density built environment.

The proposed development includes two six-storey mixed-use buildings, offering a total of 335 residential apartment units and approximately 142 m² (1,530 sq. ft.) of ground-floor commercial space (one unit in each building). The two buildings total approximately 21,329 m² (229,587 sq. ft.) of Gross Floor Area (GFA). A total of 347 vehicular parking spaces will be provided. The development includes a single full-movement vehicular



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access on Queensview Drive, and features a central courtyard, plaza, and landscaped amenities, contributing to an attractive and pedestrian-friendly site design.

The proposed land-use used for trip generation, based on the TRANS Trip Generation Manual (2020), using Land Use Code 221 – Multi-Unit (Mid-Rise). The project is planned as a single-phase development, with full build-out and occupancy expected by 2027.

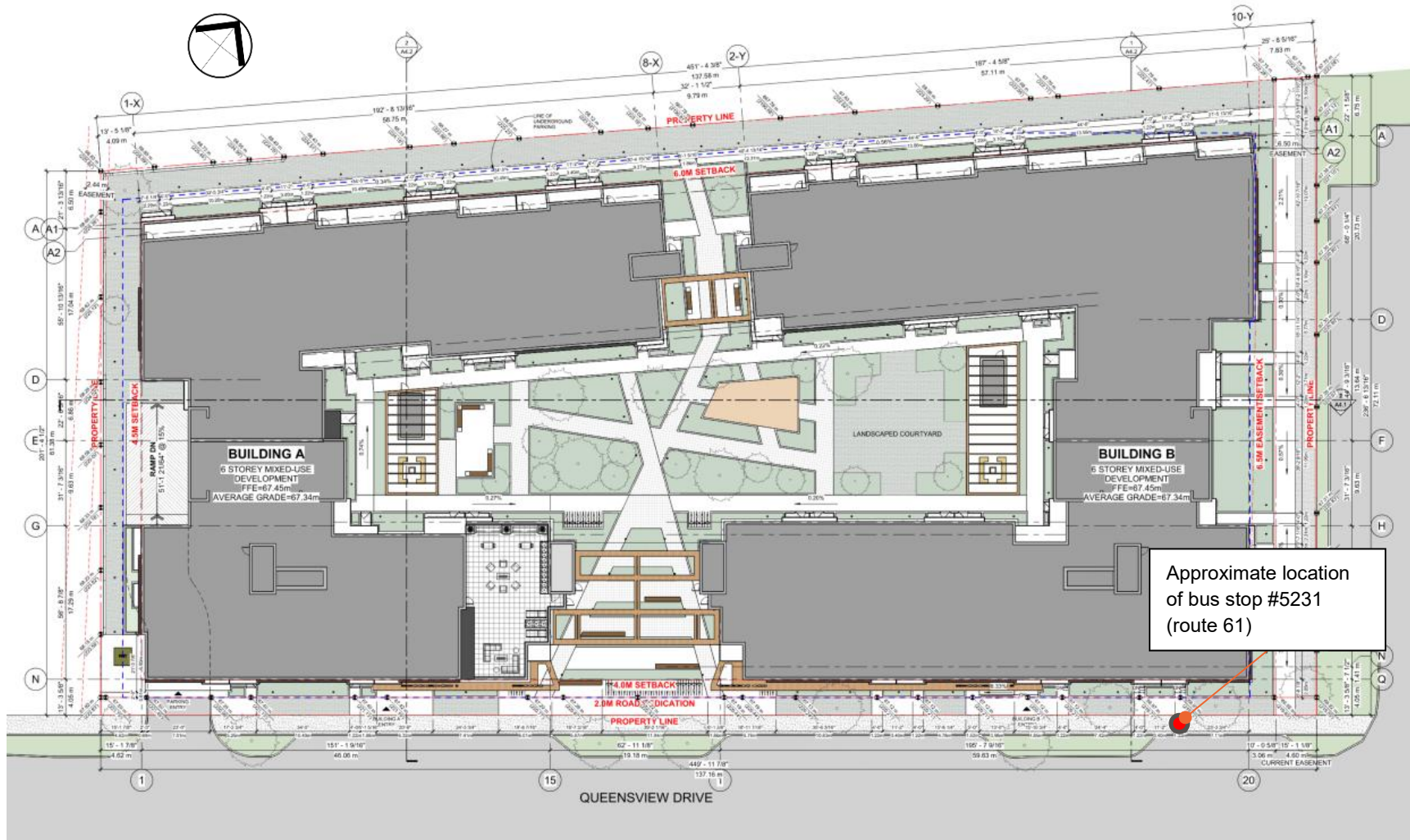
Figure 1 illustrates the site location, while **Figure 2** presents the concept site plan.

Figure 1 - Site Location



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Figure 2 - Proposed Development Site Plan



2.1.2 Existing Conditions

2.1.2.1 Roads and Traffic Control

The roadways and intersections under consideration in the study area are described as follows:

Queensview Drive is a two-lane roadway under the jurisdiction of the City of Ottawa, running in an east-west direction starting east of Pinecrest Road. The roadway currently has a local classification, however, it is proposed to be re-classified to a collector roadway as per the Pinecrest and Queensview Stations Secondary Plan. It serves a mixed-use corridor situated north of Highway 417 and provides access to several commercial, industrial, and institutional developments, including ProSlide Technology, WSP, Leon's Furniture, and the OC Transpo Pinecrest Garage, located near its eastern terminus.

In the vicinity of the proposed development at 2655 Queensview Drive, the roadway provides one travel lane in each direction with a posted speed limit of 50 km/h. On-street parking is prohibited on both sides of Queensview Drive. Sidewalks are provided on the south side only, enabling pedestrian access along the corridor. Uni-directional cycling lanes along each side of the corridor were implemented in 2025, enhancing cycling levels of service along the corridor.

According to the City of Ottawa's Official Plan, Queensview Drive is located within the Inner Urban Area and is designated as an Evolving Neighbourhood, Hub, and Corridor – Minor. These designations promote intensification and the development of compact, mixed-use communities that support sustainable transportation modes such as transit, walking, and cycling.

The intersections at Queensview Drive and Pinecrest Road is signalized, providing full-movement access to and from the arterial road network and facilitating connections to Highway 417. Other local intersections and site driveways along Queensview Drive are controlled by stop signs and primarily serve adjacent commercial uses.

Queensview Drive has an existing protected ROW of 20 metres. According to Schedule C16 of the Official Plan, Queensview Drive is subject to future protected ROW of 24 metres from Pinecrest Road in the west to street terminus approximately 800 metres east of Pinecrest Road. This indicates a total increase in ROW width of 4 meters, to be taken equally (2 metres) from both sides of the roadway compared to existing conditions. The required 2 metre right-of-way is indicated on Figure 2.

Pinecrest Road located west of the development, is a four-lane arterial roadway that runs in a north-south direction. It provides two through lanes in each direction with dedicated turn lanes at major intersections. The roadway facilitates access to Highway 417, the Pinecrest OC Transpo Garage, and other destinations. The posted speed limit is 50 km/h. Sidewalks are present on both sides, but designated cycling lanes are not provided along this corridor. South of Highway 417, Pinecrest continues as Greenbank Road.

Dumaurier Avenue is a two-lane collector roadway located west of Pinecrest Road. Within the study area, Dumaurier Avenue has a posted speed limit of 50 km/h, and accommodates local and collector-level traffic volumes. The roadway features sidewalks on both



sides, enhancing pedestrian connectivity throughout the surrounding residential neighbourhood, but designated cycling lanes are not provided along this corridor. On-street parking is permitted on the north side of Dumaurier Avenue.

Highway 417

located immediately south of the development site, is a controlled-access provincial freeway operated by the Ministry of Transportation of Ontario (MTO). While the site has no direct connection to the highway, nearby interchanges at Greenbank Road and Pinecrest Road provide convenient regional access for motorists.

Driveway Access Along Queensview Drive

Queensview Drive accommodates a high concentration of driveway access points serving a diverse range of commercial, institutional, and industrial land uses. Driveways are present along both the north and south sides of the roadway and are generally spaced at regular intervals, providing site access to buildings with substantial parking and servicing needs. These access points are primarily configured as full-movement driveways and are unsignalized.

On the north side of Queensview Drive, beginning at the intersection with Pinecrest Road, the following driveway connections are observed:

- 1037 Pinecrest Road (Roy Rump & Sons Tire & Auto Centre) – Located approximately 20 metres west of the Pinecrest intersection, this site features a combined entrance and exit driveway.
- 2725 Queensview Drive (Financial Health Partners) – This property is served by two driveways located approximately 40 metres and 100 metres west of the intersection.
- 2705 Queensview Drive (CAUT) – Two one-way driveways are located at approximately 120 metres (exit) and 170 metres (entrance) from the intersection.
- 2685 Queensview Drive (Leonardo Canada - Electronics) – Two one-way access points are provided at approximately 190 metres (entrance) and 255 metres (exit) west of the intersection.
- 2675 Queensview Drive (Youth Services Bureau of Ottawa) – This property has a single driveway located 275 metres west of the intersection.
- 2655 Queensview Drive (Proposed mixed-use Development) – A new driveway is anticipated at approximately 340 metres west of the intersection, providing entrance and exit to an underground parking garage.
- 2625 Queensview Drive (Access Healthcare Services) – Two driveways are located at approximately 470 metres and 585 metres from the intersection.
- 2611 Queensview Drive (WSP) – One full-movement driveway is located approximately 734 metres west of the intersection.
- 2550 Queensview Drive (OC Transpo Pinecrest Garage) – This large municipal facility is located at the western end of Queensview Drive, approximately 780 metres from the intersection, with a dedicated entrance/exit driveway.

On the south side of Queensview Drive, the following access points are noted:

- 1061 Pinecrest Road (All Saints Evangelical Lutheran Church and St. Timothy's Classical Academy) – Served by two driveways at approximately 40 metres and 89 metres from the Pinecrest intersection.
- 2740 Queensview Drive (Granite Curling Club) – Two driveways located at 108 metres (all-movement) and 150 metres west (exit only) of the intersection.



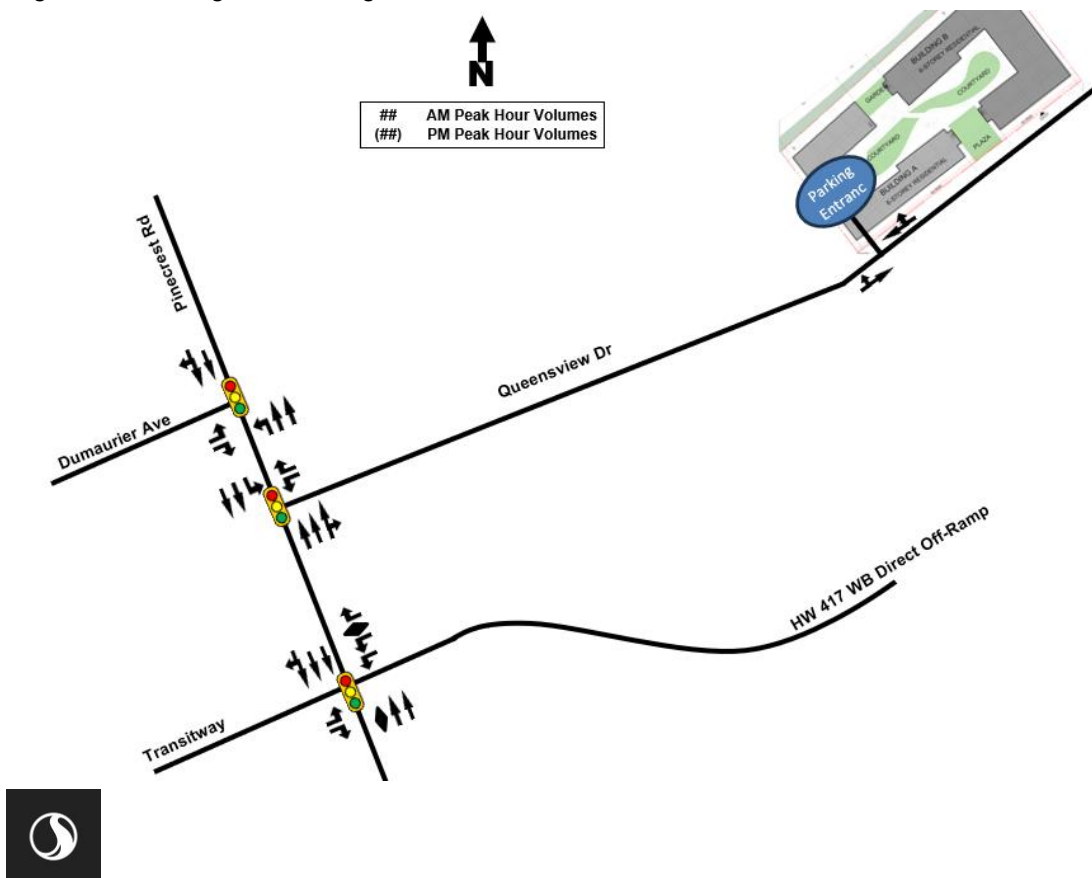
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- 2720 Queensview Drive (multi-tenant commercial building) – Features one entrance at 160 metres and a separate exit at 199 metres from the intersection.
- 2700 Queensview Drive (Leadmark) – A combined entrance and exit is located approximately 216 metres west of the intersection.
- 2680 Queensview Drive (EllisDon) – This site is served by two driveways at 258 metres and 318 metres.
- 2670 Queensview Drive (Ottawa Police Service Records Management Service Centre) – Located directly across from the proposed development, with two access points at 322 metres and 437 metres.
- 2650 Queensview Drive (ProSlide Technology) – Two driveways located at 457 metres and 553 metres.
- 2600 Queensview Drive (Leon's Furniture) – A large-format retail site with two driveways located at 596 metres and 767 metres from the Pinecrest intersection.

Overall, the corridor exhibits a high frequency of access points, with most sites having dual driveways for separate ingress and egress movements. The driveway configuration plays an important role in determining turning movement patterns and access management within the study area and will be considered in the operational analysis of the development's traffic impacts. **Figure 3** illustrates the existing lane configuration and traffic control. It should be noted that the intersection of Pinecrest / Highway 417 off-ramp is currently under construction as part of the Stage 2 LRT project. The configuration shown below is the proposed design for after LRT construction is complete.

Figure 3 - Existing Lane Configuration and Traffic Control



2.1.2.2 Walking and Cycling

The active transportation network in the study area surrounding 2655 Queensview Drive provides robust infrastructure to support walking and cycling, promoting safe and sustainable travel options. The existing facilities ensure seamless connectivity to the site and surrounding neighborhoods.

Walking Network

The pedestrian network within the study area includes continuous sidewalks along key collector and arterial roadways, offering accessible and safe walking routes to nearby destinations, services, and transit infrastructure. The network is well-integrated and supports multimodal transportation objectives in line with the City's urban intensification goals. Key pedestrian facilities are described below:

- **Queensview Drive:** Equipped with a sidewalk on the south side only, Queensview Drive supports east-west pedestrian movement within the corridor. The sidewalk connects the proposed development to surrounding businesses, institutional facilities, and transit access points, including the future Queensview LRT Station, located approximately 400 metres east of the site.
- **Pinecrest Road / Greenbank Road:** This multi-lane arterial roadway features sidewalks on both sides, supporting north-south pedestrian activity. It provides direct access to the future Pinecrest LRT Station and nearby commercial uses. Crosswalks and signalized pedestrian crossings are available at the intersection with Queensview Drive.
- **Dumaurier Avenue:** Located west of Pinecrest Road, Dumaurier Avenue includes sidewalks on both sides and offers safe pedestrian access from surrounding residential areas to the Pinecrest LRT Station.

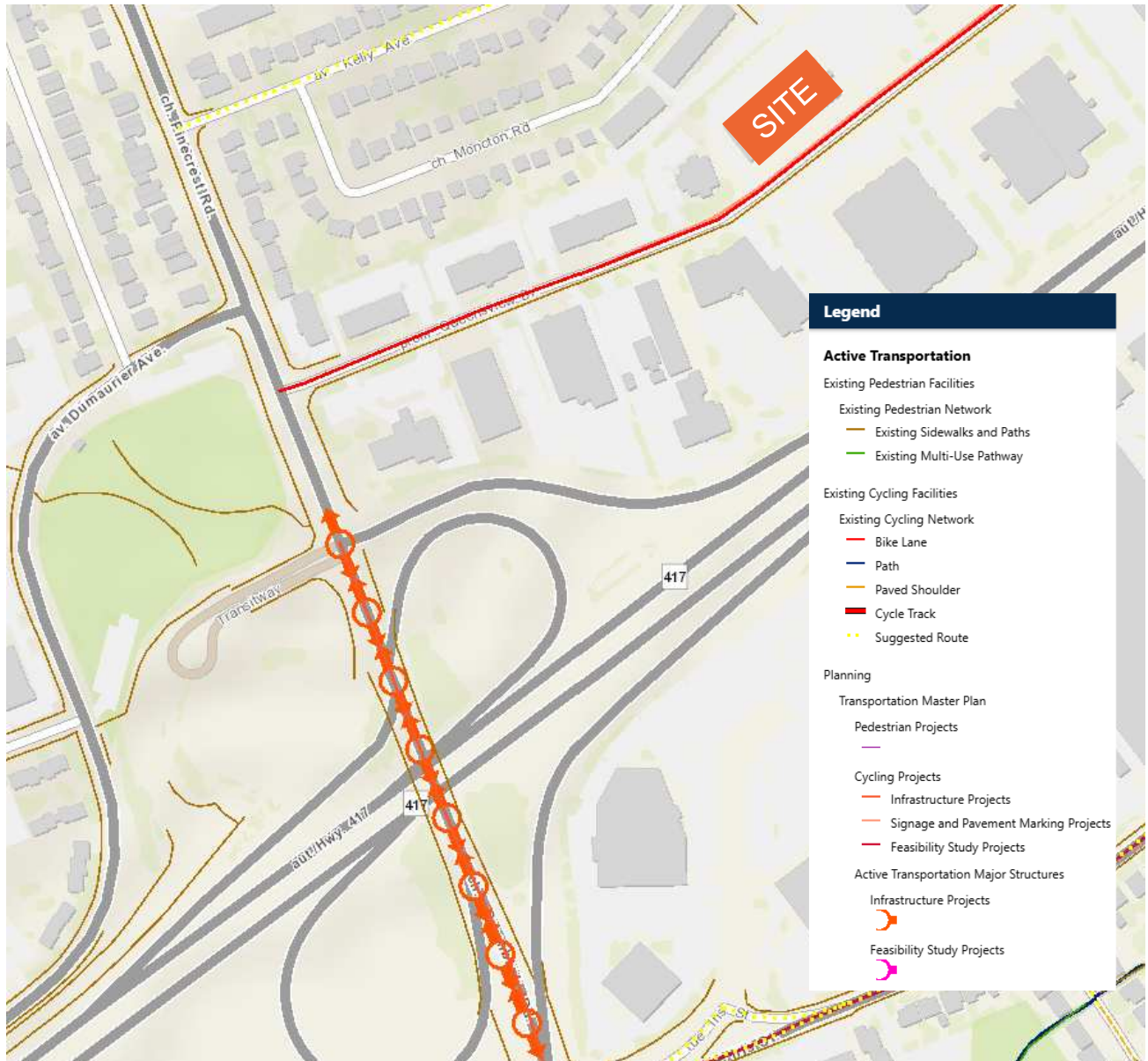
The proposed development is located within 400 metres of Queensview Station and approximately 600 metres of Pinecrest Station, making the site highly accessible on foot to major transit stations. The presence of continuous sidewalks and signalized crossings, combined with future LRT infrastructure, ensures a strong pedestrian connection between the site and Ottawa's broader transportation network.

Cycling Network

Curbside uni-directional bicycle lanes have been implemented along Queensview Drive in 2025. Additional planned facilities along Pinecrest / Greenbank Road are identified in the City of Ottawa's Transportation Master Plan (TMP) which will significantly improve cycling connectivity in the near future. These recent and planned upgrades, combined with existing low-volume corridors, will support safe and convenient cycling access to the proposed development and nearby destinations. Section 2.1.3. identifies these recent and planned improvements. **Figure 4** illustrates the existing pedestrian and cycling facilities within the vicinity of the subject site.



Figure 4 - Existing Pedestrian and Cycling Network



Source: geoOttawa, accessed April 2026



2.1.2.3 Transit

The study area is served by OC Transpo Routes 60, 61, 62, 63, 66, 67, 81, and 82, providing essential transit connections for residents, commuters, and visitors. These routes support accessibility to key destinations across the city, linking the study area with surrounding neighborhoods, major commercial areas, and institutional hubs. Additionally, the area will benefit from Stage 2 LRT infrastructure, with Queensview Station located within 400 metres and Pinecrest Station within 600 metres of the site. **Figure 5** illustrates the existing transit routes and stops.

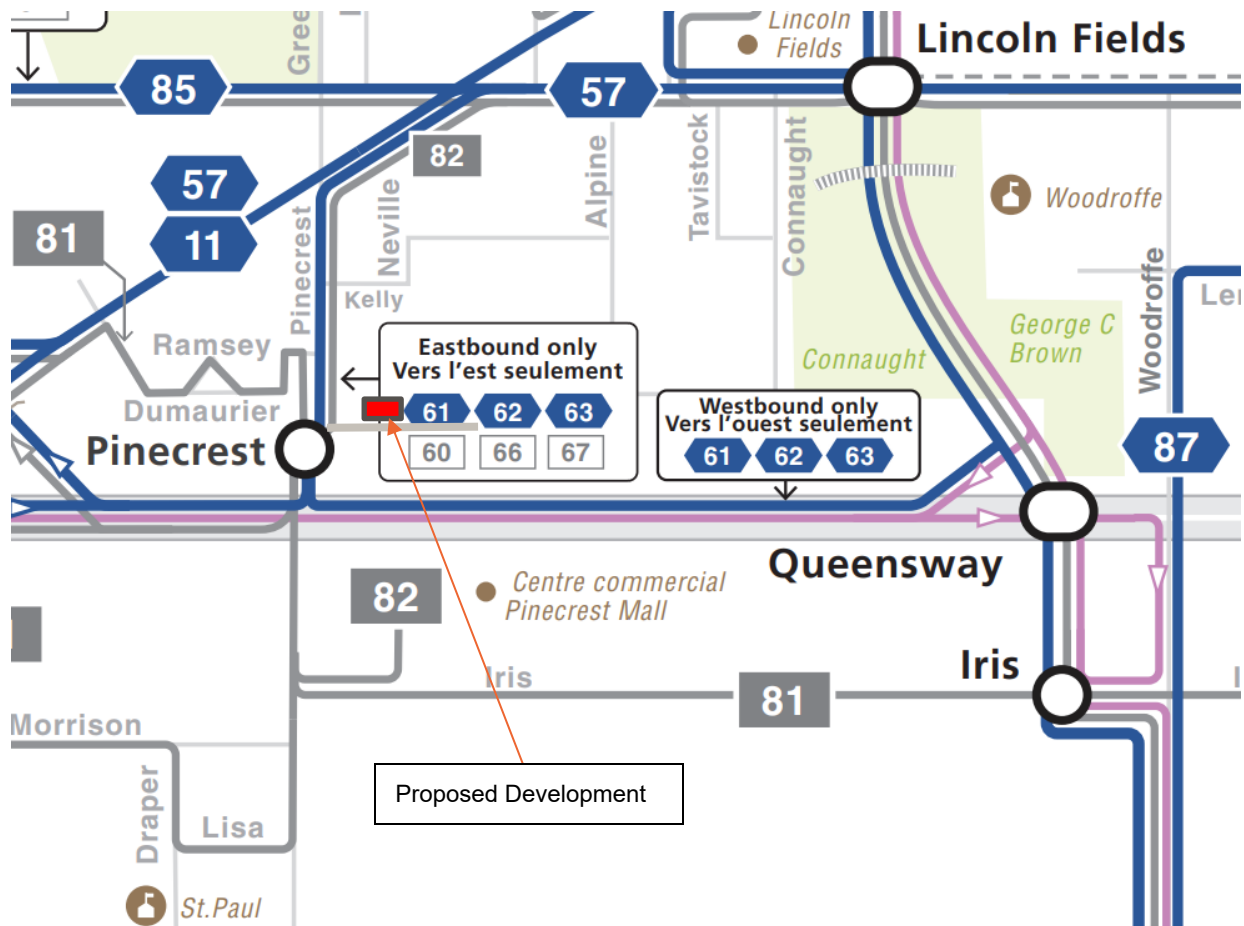
- **Route 60** offers weekday local service between Terry Fox Station and Tunney's Pasture, connecting the study area to employment hubs and shopping centers along Richmond Road, Carling Avenue, and the Transitway. The route is accessible via nearby Pinecrest Station.
- **Route 61** is a frequent transit service operating seven days a week, running between Stittsville, Terry Fox, and Tunney's Pasture Station. It passes directly in front of the site at Stop 5231, and also serves Pinecrest Station, providing rapid east-west connectivity. During overnight periods, it extends to Rideau Station when O-Train Line 1 is not in service.
- **Route 62** also provides frequent, all-day service between Stittsville and Tunney's Pasture, with stops at Pinecrest Station. It ensures reliable access to Ottawa's central transit corridor for residents and commuters near the study area.
- **Route 63** is a frequent route linking Briarbrook, Innovation Station, and Tunney's Pasture, with access via Pinecrest Station. This route enhances connectivity to Kanata North's high-tech employment area and major city corridors.
- **Route 66** operates during weekday peak periods between Innovation Station and Tunney's Pasture, providing an additional commuter option for users traveling to and from the west end. The route is accessible from Pinecrest Station.
- **Route 67**, also a peak period route, connects Bells Corners and Tunney's Pasture, enhancing direct transit options from western neighborhoods. It stops at Pinecrest Station and supplements the broader rapid transit network during high-demand times.
- **Route 81** is a local route traveling between Bayshore Station and Tunney's Pasture, serving the Dumaourier Avenue / Pinecrest Road intersection, just west of the site. This route provides convenient access to local residential areas and shopping destinations.
- **Route 82** operates between Bayshore Station and Lincoln Fields Station, traveling along Pinecrest Road and Carling Avenue. It stops near the Dumaourier / Pinecrest intersection and serves local commercial and community amenities.

In addition to these bus routes, the site will benefit from proximity to two future Stage 2 Confederation Line LRT Stations:



- **Queensview Station**, located within 400 metres of the site, will include pedestrian connections, bicycle parking, and a fare-controlled entrance on Queensview Drive.
- **Pinecrest Station**, approximately 600 metres from the site, will integrate LRT and bus services, providing seamless access to the city's broader rapid transit network.

Figure 5 - Study Area Transit Routes and Stops



Source: OC Transpo System Map [Accessed April 2026]

2.1.2.4 Traffic Management Measures

There are currently no traffic management measures in the vicinity of the subject development.



2.1.2.5 Traffic Volumes

Turning movement count (TMC) data was obtained from the City of Ottawa for key intersections within the study area. The most recent counts were collected on the following dates:

- Pinecrest Road at Queensview Drive: June 13, 2024
- Pinecrest Road at Highway 417 Westbound Off-Ramp / Transitway Access: January 22, 2019
- Pinecrest Road at Dumaaurier Avenue: August 25, 2016

For analysis consistency, traffic volumes were projected to a 2025 existing condition using the following adjustments:

- A 1% per year growth rate was applied to all available traffic counts to account for background traffic growth.
- The 2019 and 2016 counts were projected forward six and nine years, respectively, to align with a 2025 base year.
- Traffic volumes between intersections were balanced to align with current travel patterns.
- Heavy vehicle (HV) percentages were incorporated into the analysis to reflect the influence of commercial and service vehicle traffic within the study area.

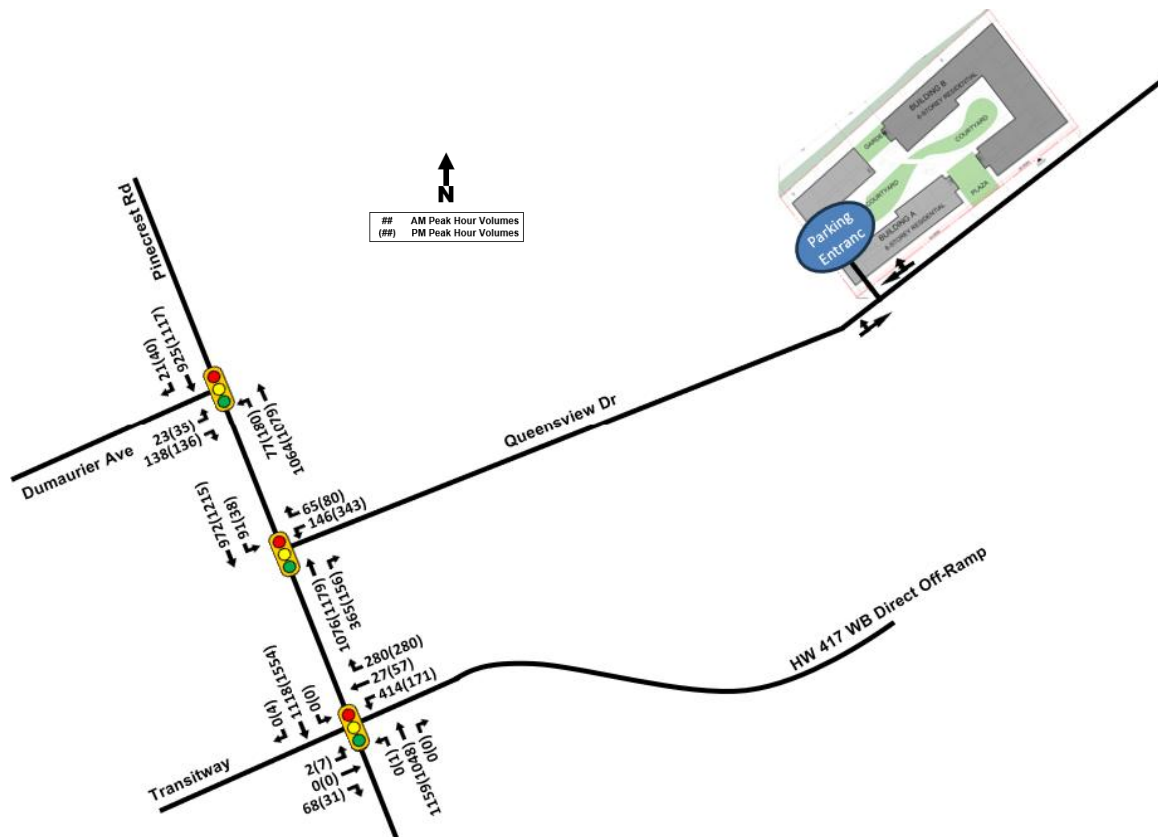
This comprehensive traffic volume assessment ensures accurate representation of existing (2025) conditions to inform the planning, design, and impact evaluation associated with the proposed development.

The turning movement counts were in the operational analysis at key study intersections, including the proposed site access along Queensview Drive. Detailed traffic count data and associated signal timing plans are included in Appendix B.

The 2025 existing traffic volumes can be seen in **Figure 6** for the AM and PM peak hours.



Figure 6 - 2025 Existing Traffic Volumes



2.1.2.6 Collision History

Collision data for the study area was reviewed for key intersections, focusing on the 6-year period between 2017 and 2022. A total of 82 collisions were reported across the three main intersections during this time. The majority of these incidents, 68 (83%), resulted in property damage only, 14 (17%) involved non-fatal injuries, and no fatal injuries were recorded.

The Pinecrest Road and Highway 417 Westbound Off-Ramp / Transitway intersection accounted for the highest number of collisions, with 35 reported incidents (43% of the total). Of these, 30 were property damage only, 5 resulted in non-fatal injuries, and no fatal injuries occurred. Rear-end collisions (12 incidents) were the most common collision type at this location.

The Pinecrest Road and Queensview Drive intersection recorded 25 collisions (30% of total collisions). Of these, 19 (76%) were property damage only and 6 (24%) resulted in non-fatal injuries. A significant portion of collisions were angle/turning type (9 incidents) and rear-end collisions (8 incidents), reflecting conflicts typical at signalized intersections with significant turning volumes.



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The Pinecrest Road and Dumaurier Avenue intersection experienced 22 collisions (27% of the total). Of these, 19 (86%) were property damage only and 3 (14%) involved non-fatal injuries. Rear-end collisions (11 incidents) and angle/turning collisions (7 incidents) were the predominant types recorded at this intersection.

Across all intersections, the majority of collisions occurred under clear weather conditions (58 collisions, 71%), with smaller proportions occurring during rain (11 collisions, 13%) and snow (12 collisions, 15%).

A few collisions involved vulnerable road users, including one cyclist collision at Queensview Drive and three pedestrian-involved collisions (two at Queensview Drive and one at the Highway 417 off-ramp).

A summary of the detailed historical collision records, including collision types, environmental conditions, and collision counterparts, is provided in Appendix C. **Table 1** below summarizes the collision statistics for each intersection in the study area.

Table 1 - Collision Statistics

		Pinecrest Road at Dumaurier Avenue	Pinecrest Road at Queensview Drive	Pinecrest Road at Highway 417 Westbound Off- Ramp / Transitway
Classification	Property Damage Only	19	19	30
	Non-Fatal Injury	3	6	5
	Fatal Injury	--	--	--
Collision Type	Sideswipe	3	4	6
	Angle / Turning	7	9	7
	Rear End	11	8	12
	Single Motor Vehicle	1	4	10
	Other	--	--	--
Environmental Condition	Clear	17	17	24
	Rain	3	4	4
	Snow	2	3	7
	Freezing Rain	--	1	--
Collision Counterpart	Other Motor Vehicle	20	21	25
	Motorcycles	1	--	--
	Cyclist	--	1	--
	Pedestrian	--	2	1



2.1.3 Planned Conditions

2.1.3.1 Road Network Modifications

The City of Ottawa's Part 2 – Capital Infrastructure Plan of the new TMP, was approved by Council in July 2025. The LRT Stage 2 extension, currently under construction, includes the extension of the Confederation Line west from Tunney's Pasture to Moodie Station. Queensview Station and Pinecrest Station are both located near the subject site. This extension was identified as part of the Rapid Transit and Transit Priority Network – 2031 Affordable Network in the City of Ottawa's 2013 Transportation Master Plan. The following projects are associated with increasing connectivity to Stage 2 LRT stations, and will benefit the transportation network within the study area:

- **A pedestrian and cycling bridge at Queensview Station**, which will span Highway 417 and connect Queensview Drive with Baxter Road. Bicycle parking will be available at both ends of the bridge, supporting station access for cyclists.
- **A MUP on the west side of Pinecrest Road**, extending from the intersection of Pinecrest / Queensview to the Highway 417 N-W on-ramp. This MUP will also provide a direction connection to the Pinecrest LRT Station from the southwest corner of the Pinecrest / Highway 417 intersection, as well as east-west crossrides at the intersection of Pinecrest / Queensview.
- **A sidewalk extending from Queensview Station to Queensview Drive**, located between 2650 and 2600 Queensview Drive. This connection makes the walk from Queensview Station to this site less than 500m.
- **A MUP extending from Queensview Station to Connaught Park**, connecting to Connaught Avenue and the greater Pinecrest Creek Pathway.
- **A MUP from Dumaaurier Avenue to Pinecrest Station**, offering a safe and direct cycling link from the neighbourhood to a mass-transit station.

In addition to the above TMP projects, **Table 2** summarizes other local infrastructure works identified through the City of Ottawa's Capital Construction Forecast Map.

Table 2 - Planned Local Infrastructure Works

Street	Planned Work	Targeted Start
Dumaaurier Avenue	Sidewalk renewal	Within 1–2 years
Pinecrest Road (north of Queensview Drive)	Road resurfacing	Within 2–3 years



Additional Cycling Network Modifications

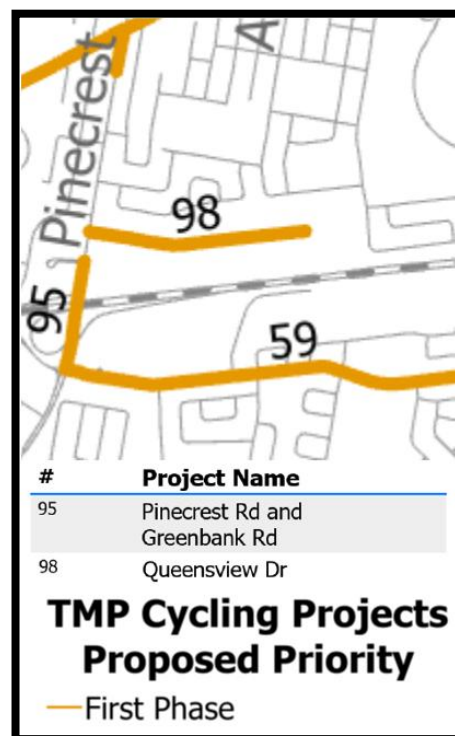
Queensview Drive is identified in the City of Ottawa's TMP Cycling Projects Prioritization Plan as part of the First Phase of planned cycling projects. The following project was identified:

- **Pinecrest Road / Greenbank Road:** These four-lane arterial roadways currently do not include cycling lanes, but the **TMP includes planned cycling facilities** from the **Highway 417 westbound offramp to Iris Street**, incorporating the MTO structure over Highway 417. These future upgrades will provide continuous north-south cycling connections through the study area and enhance multimodal access to the Pinecrest LRT Station and adjacent neighbourhoods.

These planned cycling investments will establish a comprehensive and connected network in the study area, encouraging active transportation and enabling safe, efficient first-mile/last-mile trips to key destinations.

Figure 7 illustrates planned and recently implemented TMP Cycling Projects.

Figure 7 - Planned TMP Cycling Projects Proposed Priority



Source: City of Ottawa TMP Update April 2025, accessed April 2025



Pinecrest and Queensview Stations Secondary Plan

The proposed development site is subject to the Pinecrest and Queensview Stations Secondary Plan, including select site-specific Queensview Sector policies. In particular, the following transportation-related provision within the Secondary Plan is applicable to this development:

- *“An active transportation connection shall be pursued between the west-central portion of Queensview Drive and Moncton Road, as follows: 12) Upon the redevelopment of properties at 2625, 2655, 2675, 2685, 2705, and 2725 Queensview Drive, a publicly accessible north-south active transportation connection may be required from the north to the south property lines.”*

According to the proposed site plan, the site is formed by two mid-rise buildings and includes a publicly accessible plaza with a potential to implement a continuous north-south pathway connecting Queensview Drive and Moncton Road. This is consistent with the provision of the area Secondary Plan

2.1.3.2 Future Background Developments

2829 Dumaaurier Avenue Development

The 2829 Dumaaurier Avenue project proposes a 40-storey mixed-use residential building comprising approximately 422 apartment units and 3,230 ft² of commercial space. The development includes 204 parking spaces (198 underground and 6 at-grade) and over 310 bicycle parking spaces, exceeding minimum requirements. The site will be accessed via a new full-movement driveway connecting to Dumaaurier Avenue.

The project is anticipated to generate approximately 26 new two-way vehicle trips and approximately 113 new two-way transit trips during the weekday morning and afternoon peak hours, based on trip generation estimates from the Transportation Impact Assessment (TIA) prepared for the development. These projections reflect the site's proximity to the future Pinecrest LRT Station.

Given the relatively low trip generation and high reliance on transit modes, the impact of this development on the local road network is expected to be minimal. The future background traffic conditions considered the addition of trips from the 2829 Dumaaurier Avenue development layered onto the baseline 2025 traffic projections to assess cumulative impacts.

1101 Baxter Road

The City of Ottawa has received a Draft Plan of subdivision application pertaining to lands currently located on a municipal parcel known as 1101 Baxter Road. This proposed development envisions a redevelopment of existing office / commercial building into six mixed-use towers totalling 1,400 residential dwellings and approximately 100,640 sqft of gross floor area. A TIA has been prepared which indicated that the development will generate 102 vehicle trips, 434 transit trips, and 105 non-auto trips during the AM peak hour; 145 vehicle trips, 495 transit trips, and 130 non-auto trips during the PM peak hour; and 175 vehicle trips, 573 transit trips, and 154 non-auto trips during the Saturday peak hour.



The full build-out of this development is projected to be in 2035, which is beyond the ultimate horizon of this study. Given that the projected build-out is outside of the study's horizon, and only a portion of the trips will have an impact on the study area along Pinecrest Road north of Highway 417, this development was not accounted for separately within the traffic forecasts. It is assumed that any partial development of the site, should it occur before 2035, is within the 1% background growth rate assumption.

Figure 8 illustrates the location of the 2829 Dumauiier Avenue and 1101 Baxter Road developments relative to the proposed 2655 Queensview Drive site.

Figure 8 - Other Area Developments



2.2 Study Area and Time Periods

2.2.1 Study Area

The study area for the Transportation Impact Assessment includes the following intersections:



1. Pinecrest Road at Queensview Drive
2. Pinecrest Road at Highway 417 Westbound Off-Ramp / Transitway
3. Dumaurier Avenue at Queensview Drive
4. Site access intersection to Queensview Drive, as shown in Figure 2.

2.2.2 Time Periods

The scope of the transportation assessment includes the following analysis time periods:

- Weekday AM peak hour of roadway; and
- Weekday PM peak hour of roadway.

2.2.3 Horizon Years

The scope of the transportation assessment includes the following horizon years:

- 2025 existing conditions;
- 2027 future background conditions (anticipated site build-out year);
- 2027 total future conditions (background plus site-generated traffic); and
- 2032 future background conditions (5 years beyond build-out)
- 2032 total future conditions (5 years beyond build-out).

2.3 Development Generated Travel Demand

2.3.1 Trip Generation

2.3.1.1 Existing Land Use Trip Generation

The 2655 Queensview Drive is currently occupied by an operational fitness centre (Goodlife Fitness) facility. The facility provides for co-ed and women's only weight and cardio training areas, squash courts, group fitness studios and supporting facilities (change rooms, showers, sauna/steam rooms). Upon the redevelopment of the site, the fitness centre facility will be closed, and any trips attributable to the existing fitness centre are assumed to be removed from the study area network.

Based on a review of the of the building footprint using aerial photography, the gross floor area of the existing building was estimated at 23,000 sqft (~2,140 sqm). Existing parking lot on-site provides for 125 parking spaces.



ITE Trip Generation Manual, 12th Edition was used to estimate the existing vehicle trips generated by the fitness centre facility. Based on a review of available trip generation rates, ITE Land Use Code 492 – Health/Fitness Club was selected. The following trip generation profile was estimated for the existing site:

Table 3 - Trip Generation Rate Attributable to the Existing Fitness Centre Facility

Land Use	Land Use Code (ITE)	Independent Variable	Vehicle Trip Generation Rates	
			AM Peak Hour	PM Peak Hour
Fitness Centre	492: Health/Fitness Club	1000s SQFT GFA	Average: $(T) = 1.79(X)$ Fitted: $\ln(T) = 0.68 \ln(X) + 1.70$	Average: $(T) = 1.79(X)$ Fitted: $\ln(T) = 0.79 \ln(X) + 2.02$

Table 4 - Vehicle Trips Generated by the Existing Fitness Centre Facility

ITE Land Use	Size	Peak Hour Vehicle Trips			
		AM Peak Hour		PM Peak Hour	
		In	Out	In	Out
492: Health/Fitness Club (Average Rate)	23,000 sqft (2,140 sqm)	21	20	49	38
492: Health/Fitness Club (Fitted Curve)		24	22	51	39

In transportation engineering, a more conservative assumption of trip generation is typically applied by adopting a trip rate that yields the greatest number of trips. However, given that the facility in question produces existing trips which would be removed from the study area network upon site's redevelopment, a more "conservative" assumption in this case is the one that yields a lower number of trips to avoid overestimating existing site's impacts. As such, an average trip generation assumptions were adopted for the existing fitness facility as follows:

- Morning Peak Hour: 21 inbound vehicle trips, 20 outbound vehicle trips
- Afternoon Peak Hour: 49 inbound vehicle trips, 38 outbound vehicle trips

Existing Fitness Centre Facility Demand Rationalization

Fitness facilities generate a considerable amount of traffic during the peak commuting hours, with a significant number of patrons opting to visit either immediately before or after working hours. Therefore, a significant overlap between facility's peak hour and adjacent roadway peak hours should be expected.



A review of historical aerial imagery consistently shows parking lot utilization of around 50% and above. Considering the existing parking supply of 125 spaces, an assumed average visit (workout) time between 1-1.5 hours, and some proportion of visitors arriving by way of rideshare/drop-off, the assumed existing facility's trip generation of up to 50 vehicles in the peak direction appears to line up with parking utilization snapshots evidenced by historical imagery. Therefore, the vehicle trip generation assumptions stated above are considered reasonable based on existing land use and site characteristics.

2.3.1.2 Future Proposed Land Use Trip Generation

The trip generation and mode share analysis evaluates the number of trips generated by the proposed mixed-use development at 2655 Queensview Drive and the distribution of these trips across various modes of transportation. This analysis is critical for understanding the travel demand created by the development and ensuring that the surrounding transportation network can accommodate these trips effectively.

The analysis is based on the TRANS Trip Generation Manual (2020), which provides Ottawa-specific methodologies for estimating trips for residential land uses. The development includes **335 mid-rise residential units**, categorized under Land Use Code 221 - Multi-Unit (Mid-Rise).

In addition, the development envisions a small ground floor commercial component comprising of two units totalling 142 m² (1,530 sq. ft.) of Gross Floor Area (GFA). Given the size of the commercial component and its nature within the mixed-use development context, it is not expected to generate a significant amount of external or pass-by/diverted trips. Commercial components within modern mixed-use buildings typically serve the residents within the building itself and the immediate community within walking distance (i.e., coffee shops, quick service restaurants, nail/hair salons, etc.). As such, no additional trip generation surcharges were applied to account for trips generated by the commercial component of the site. To remain conservative, no reductions for internal trips were applied either.

Key steps in the trip generation analysis include:

1. Calculating person-trips for the residential component during the AM and PM peak period by applying relevant trip generation rates.
2. Applying directional trip distribution factors for AM and PM peak periods to determine the inbound and outbound person-trip volumes.
3. Applying mode share distributions to determine the breakdown of trips across driving, transit, cycling, walking, and other modes.
4. Applying appropriate peak period-to-peak hour conversion factors for each mode of travel.
5. Subtracting existing vehicular peak hour travel demands (identified in Section 2.3.1.1) from the forecast peak hour vehicle trips to identify the net-impact of site redevelopment on the area's traffic volumes.



This section provides a detailed overview of the trips generated by the proposed development and their allocation by mode, highlighting the anticipated impacts on the surrounding transportation network. The analysis also considers the development's alignment with sustainable transportation goals, emphasizing active and public transit options. The following

Table 5 outlines the peak period trip generation rates used in this forecast.

Table 5 - Trip Generation Rates

Land Use	Land Use Code (ITE)	AM Peak Period	PM Peak Period
Residential - Person-Trip Rates for Mid-Rise (X= Number of units) (TRANS Trip Generation Manual 2020)	221 - Multi-Unit (Mid-Rise)	$T = 0.80(X)$	$T = 0.90(X)$

Note: T = Average Person Trip Ends. Referenced from TRANS 2020 Trip Generation Manual Summary Report, Table 3

The resulting peak period person-trip generation for the development and the directional split distribution (inbound / outbound) is summarized in **Table 6**.

Table 6 - Total Trips Generated by the Development

Land Use	Development Size	AM Peak Period			PM Peak Period		
		Inbound	Outbound	Total	Inbound	Outbound	Total
221 - Multi-Unit (Mid-Rise)	335	31%	69%	100%	58%	42%	100%
		83	185	268	175	127	302

Note: Directional Splits Referenced from TRANS 2020 Trip Generation Manual Summary Report, Table 9

Recommended Residential Mode Shares and Peak Period Trips

Based on Residential Mode Share for High-Rise Multifamily Housing (Bayshore/Cedarview District), the mode share percentages were applied to the residential person-trips for both peak periods. The results are presented in Table 7 for each considered mode of travel. It is understood that the referenced mode shares represent existing modal split as of the 2011 O-D survey. This data was used to forecast a “worst-case” scenario pertaining to auto driver mode. Upon commencement of Stage 2 LRT revenue service at the nearby Queensview station, the target mode shares would better align with the City’s targets for TOD zone. Further discussion on future mode shares is provided in section 3.5.1.



Table 7 - Peak Period Trips by Mode Share

Mode	AM Peak Period				PM Peak Period			
	Mode Share (%)	Inbound Trips	Outbound Trips	Total Trips	Mode Share (%)	Inbound Trips	Outbound Trips	Total Trips
Auto Driver	40%	33	74	107	40%	70	51	121
Auto Passenger	12%	10	23	33	15%	26	19	45
Transit	38%	32	70	102	33%	58	42	100
Cycling	2%	2	3	5	1%	2	1	3
Walking	8%	7	14	21	11%	19	14	33
Total Person Trips	100%	83	185	268	100%	175	127	302

Peak Hour Trips

Peak hour trips were determined for each mode of travel by applying appropriate peak period (Pk.Pd.)-to-peak hour (Pk.Hr.) conversion factors referenced from the TRANS Trip Generation Manual (2020) Summary Report. The resulting peak hour trips by mode are summarized in Table 8.

Table 8 - Peak Hour Trips by Mode Share

Mode	AM Peak Hour					PM Peak Hour				
	Mode Share (%)	Pk.Pd. to Pk.Hr. Conv. Factor	Inbound Trips	Outbound Trips	Total Trips	Mode Share (%)	Pk.Pd. to Pk.Hr. Conv. Factor	Inbound Trips	Outbound Trips	Total Trips
Auto Driver	40%	0.48	16	36	52	40%	0.44	31	22	53
Auto Passenger	12%	0.48	5	11	16	15%	0.44	11	8	19
Transit	38%	0.55	18	39	57	33%	0.47	27	20	47
Cycling	2%	0.58	1	2	3	1%	0.48	1	0	1
Walking	8%	0.58	4	8	12	11%	0.52	10	7	17
Total Person Trips	100%		44	96	140	100%		80	57	137

Peak Hour Reduction in Vehicle Trips from Existing Land Use Redevelopment

When considering effects of redevelopment of an existing site, it is prudent to consider not only the newly generated site trips, but also any effects that removal of legacy on-site land uses will have on the study area network. As previously discussed in Section 2.3.1.1, the existing fitness centre land use on site is a



generator of motor vehicle traffic during the peak hours of study area intersections. Table 9 provides the summary of net impacts to the peak hour site-generated traffic upon its redevelopment.

It is noted that the net impacts of the redevelopment were found to result in an overall decrease in the site-generated trips during the afternoon peak hour, and only a marginal increase in site-generated trips during the morning peak hour compared to existing conditions (even despite assuming a conservative 40% auto driver mode). The outbound morning peak increase is largely driven by an increase in the amount of outbound commuter demands generated by the residential land use.

Table 9 - Impacts of Site Redevelopment on Motor Vehicle Traffic

Mode	AM Peak Hour			PM Peak Hour		
	Inbound Trips	Outbound Trips	Total Trips	Inbound Trips	Outbound Trips	Total Trips
Proposed Development's Vehicle Trips (Table 8)	16	36	52	31	22	53
Existing Fitness Centre Vehicle Trips (Table 4)	-21	-20	-41	-49	-38	-87
Net Site Redevelopment Impact on Peak Hour Vehicle Traffic	-5	+16	+11	-18	-16	-34

2.3.2 Trip Distribution and Assignment

The distribution of traffic to and from the proposed development at 2655 Queensview Drive was determined through examination of the TRANS Committee's 2011 Origin-Destination (O-D) Survey for the Bayshore/Cedarview District. This survey provided insight into prevailing travel patterns within the broader Ottawa area, including the directional distribution of trips originating from and destined to the study area. Table 10 provides a summary of the estimated distribution for the traffic generated by the proposed development, reflecting logical travel routes, the site's proximity to major transportation infrastructure (such as Highway 417), and accessibility to local residential and commercial areas.

It is noted that the 2022 Origin-Destination (O-D) Survey has been conducted and the travel analysis report has been released by the TRANS committee, however the district summary sheets required to produce a site traffic distribution matrix are not yet available at the time of writing this report. Therefore, the 2011 data was used to derive traffic distribution assumptions.

Site-generated trips were assigned to the surrounding study area road network based on the trip distribution assumptions outlined in **Table 10**. Traffic was proportionally allocated to key corridors, including Queensview Drive, Pinecrest Road, Greenbank Road, and Highway 417 ramps.



Table 10 - Traffic Distribution Assumptions

Cardinal Direction		Via (to / from)			
		Pinecrest Rd	Pinecrest Rd	HWY 417	HWY 417
		North	South	West	East
North	4%	2%			2%
South	3%		2%	1%	
West	7%			7%	
East	49%	12%	12%		25%
Internal (Bayshore/Cedarview)	37%	6%	10%	16%	5%
Total	100%	20%	24%	26%	32%

Figure 9 outlines the site traffic assignment assumptions used in this study. It should be noted that the **red** values represent outbound trips and the **black** values represent inbound trips during the peak hours.

Based on the above assumed distribution, the projected site-generated traffic volumes were assigned to the study area network for both AM and PM peak hours. The full assignment of site-generated traffic (excluding the impacts of the redevelopment of existing fitness centre) is illustrated in **Figure 10**.

Figure 11 illustrates the net-impact of site's redevelopment, resulting from subtracting the existing fitness centre land use volumes with the site-generated volumes. Traffic distribution assumptions for the existing fitness facility traffic were assumed to be the same as the distribution of future residential development's traffic. Negative values indicate a net removal of vehicle trips as a result of redevelopment of the existing fitness centre land use.

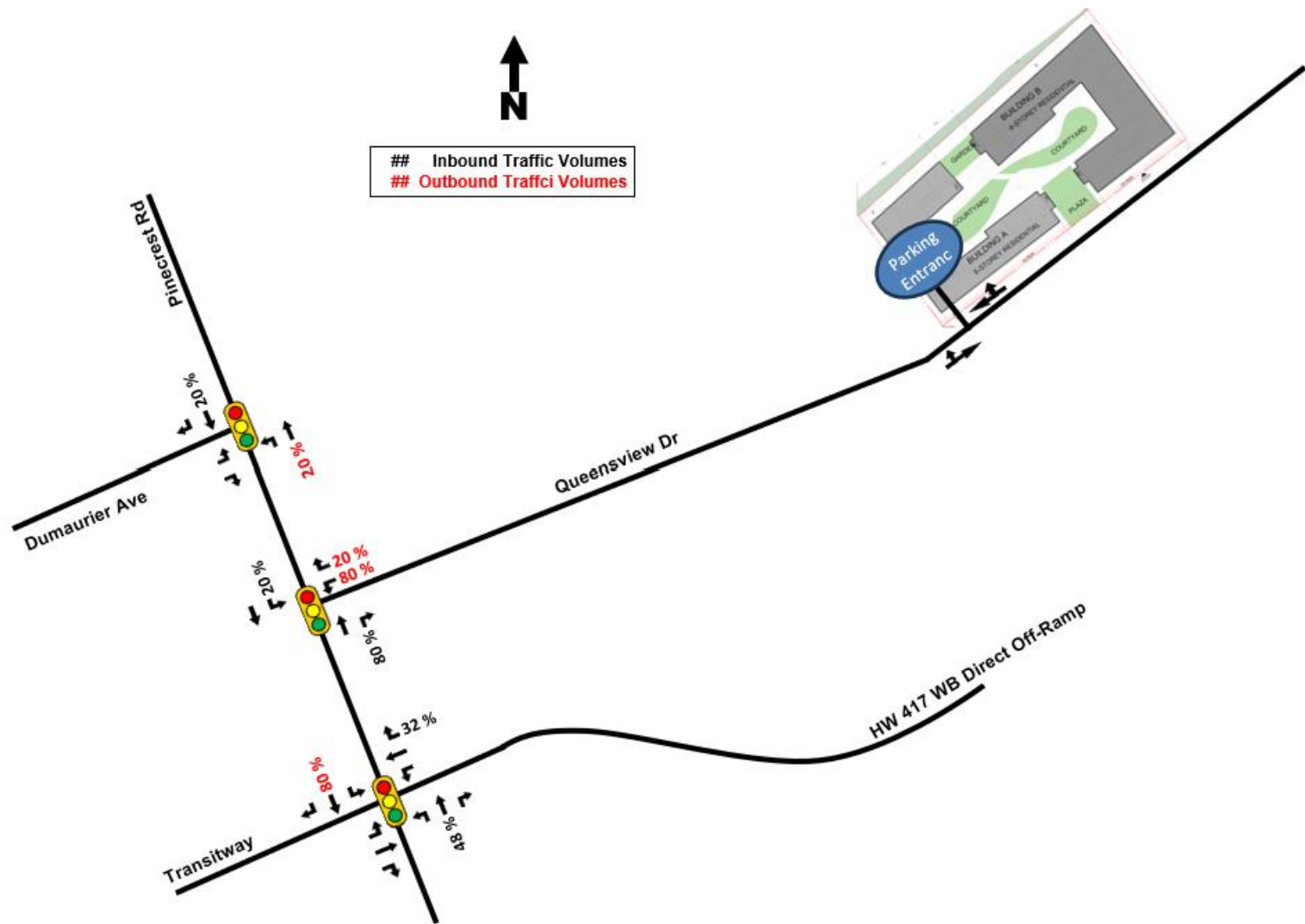
In addition, **Figure 12** presents the Total Traffic Volumes, which include the combination of:

- Existing background traffic (grown to 2025 conditions),
- Site-generated traffic from the proposed development, less existing fitness centre trips
- Traffic associated with other planned developments, including the 2829 Dumaurier Avenue residential project.



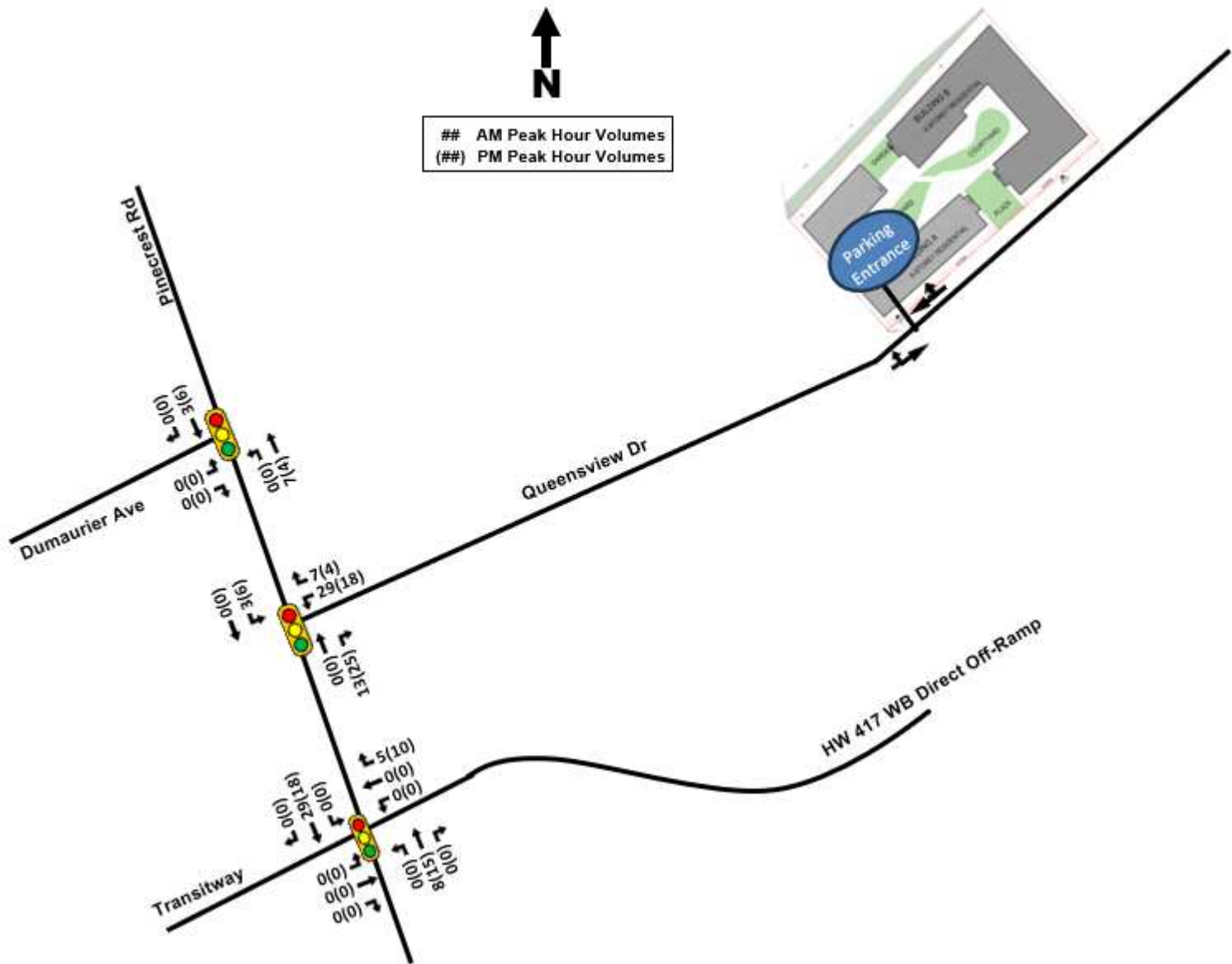
2655 Queensview Drive - Traffic Impact Assessment
2 - Scoping

Figure 9 - Site Traffic Assignment



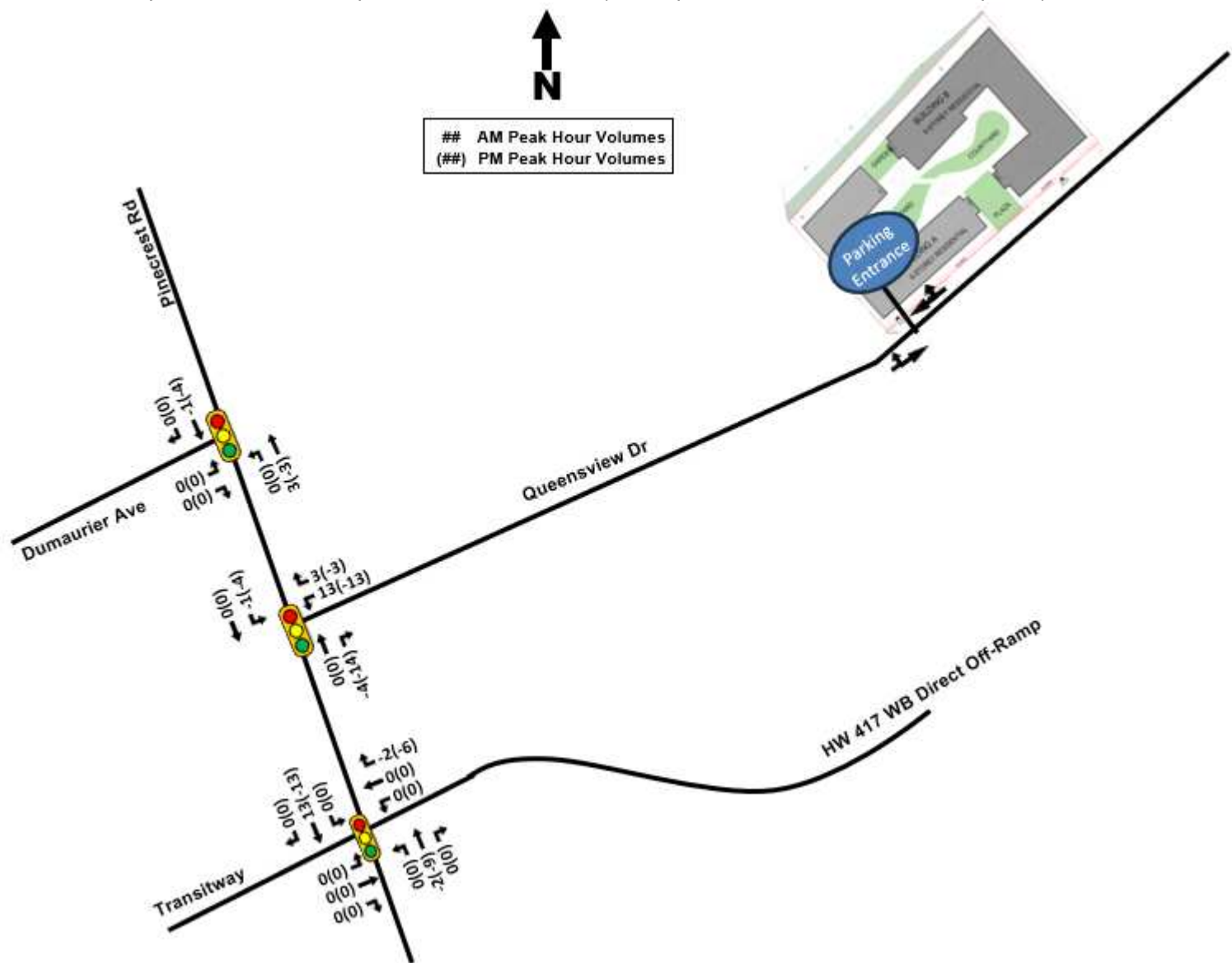
2655 Queensview Drive - Traffic Impact Assessment
2 - Scoping

Figure 10 - Projected New Site-Generated Vehicle Traffic (without subtracting fitness centre trips)



2655 Queensview Drive - Traffic Impact Assessment
2 - Scoping

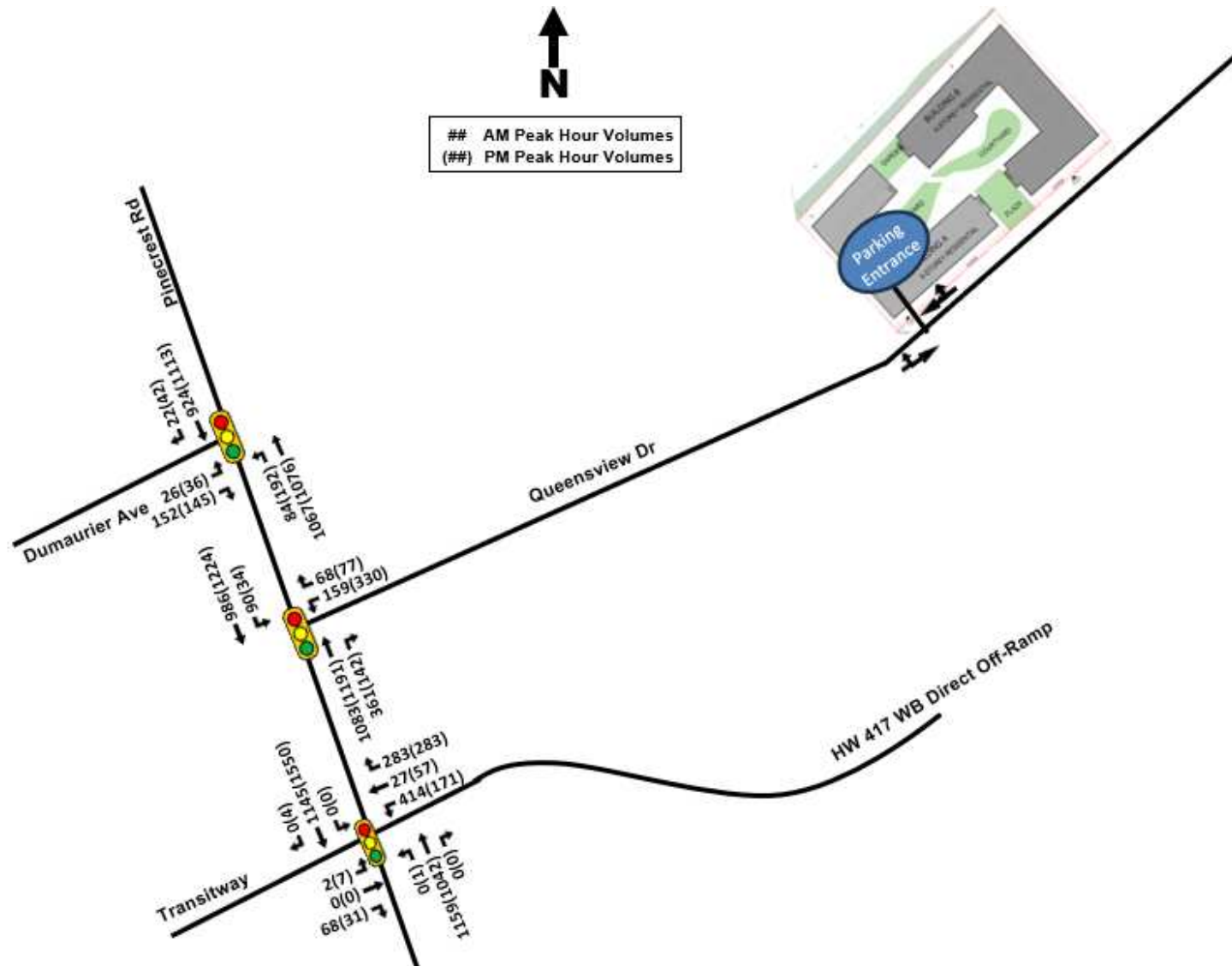
Figure 11 - Net Impact of Site Redevelopment on Vehicle Traffic (with impacts of fitness centre redevelopment)



2655 Queensview Drive - Traffic Impact Assessment

2 - Scoping

Figure 12 - Total Traffic with Projected New Site-Generated Traffic & Other Planned Developments Generated Traffic (includes impacts of fitness centre redevelopment; Existing 2025 Horizon)



2.4 Exemptions Review

Table 11 summarizes the Exemptions Review table from the City of Ottawa's 2017 Transportation Impact Assessment Guidelines with revisions effective June 2023.

Table 11 - Exemptions Review

Module	Element	Exemption Considerations	Status
Design Review Component			
4.1 Development Design	4.1.2 Circulation and Access	Only required for site plans	Not Exempt
	4.1.3 New Street Networks	Only required for plans of subdivision	Exempt
4.2 Parking	4.2.1 Parking Supply	Only required for site plans	Not Exempt
	4.2.2 Spillover Parking	Eliminated in 2023 TIA Update	N/A
Network Impact Component			
4.5 Transportation Demand Management	All Elements	Not required for site plans expected to have fewer than 60 employees and/or students on location at any given time	Not Exempt
4.6 Neighbourhood Traffic Calming	All Elements	Required if the development meets all of the following criteria along the route(s) site generated traffic is expected to utilize between an arterial road and the site's access: 1) Access to Collector or Local 2) "Significant sensitive land use presence" 3) Zoning or Subdivision application 4) At least 75 site-generated auto trips 5) Site Trip Infiltration is expected	Exempt
4.7 Transit	4.7.1 Transit Route Capacity	>75 site transit trips	Exempt
	4.7.2 Transit Priority Requirements	>75 site auto trips	Exempt
4.8 Network Concept	All Elements	Only required when proposed development generates more than 200 person-trips during the peak hour in excess of the equivalent volume permitted by established zoning	Exempt
4.9 Intersection Design	4.9.1 Intersection Controls (including site accesses)	>75 site auto trips	Exempt
	4.9.2 Intersection Design	>75 site auto trips	Exempt



2.5 Background Network Traffic

2.5.1 Changes to the Background Transportation Network

Section 2.1.3.1 provides information on changes in the area transportation network. The identified changes represent improvements to the area's pedestrian and cycling connectivity, particularly in context of providing better neighbourhood connections to LRT Phase 2 Pinecrest and Queensview stations. The proposed changes will not have a significant effect on vehicle travel lanes and roadway capacity, aside from signal timing changes at the intersections along Pinecrest Road to accommodate future pedestrian and cyclist movements. Since the future traffic operations analysis is excluded from the scope of this study (see section 2.4, Table 11), detailed analysis of the impacts of these traffic signal timing changes is also excluded from this study, and should be addressed separately as part of LRT Phase 2 studies.

2.5.2 General Background Growth Rates

A 1% compounded background traffic growth rate has been applied to forecast the future horizon years (2027 and 2032).

2.5.3 Other Area Developments

2829 Dumaaurier Avenue

Section 2.1.3.2 provides information on a residential redevelopment of the 2829 Dumaaurier Avenue development which proposes a 40-storey mixed-use residential building comprising approximately 422 apartment units and 3,230 ft² of commercial space. The traffic impacts associated with this site have been incorporated into the future background network.

1101 Baxter Road

The City of Ottawa has received a Draft Plan of subdivision application pertaining to lands currently located on a municipal parcel known as 1101 Baxter Road. This proposed development envisions a redevelopment of existing office / commercial building into six mixed-use towers totalling 1,400 residential dwellings and approximately 100,640 sqft of gross floor area. The full build-out of this development is projected to be in 2035, which is beyond the ultimate horizon of this study, therefore the traffic impacts of this development were not accounted for separately within the traffic forecasts. It is assumed that any partial development of the site, should it occur before 2035, is within the 1% background growth rate assumption.

There were no other adjacent proposed developments identified at this time.



2.6 Existing (2025) Traffic Operations

Table 12 provides an analysis of existing (2025) traffic operations conducted using Synchro 12 software. The analysis adopts traffic volumes presented in Figure 6 and existing City of Ottawa traffic signal timings. Analysis software inputs follow the methodology outlined in the City of Ottawa's TIA guidelines, including a 0.90 peak hour factor (PHF) and an 1,800 vehicles-per-hour maximum saturated flow. The City of Ottawa uses volume-to-capacity level of service methodology, based on which, all study area intersection movements were found to operate at a LOS "D", or better, which meets the City of Ottawa's Auto LOS target 'LOS E' within 600 metres of rapid transit station (per the 2025 MMLOS guidelines). Appendix D provides the intersection capacity results.

Table 12 - Existing Conditions Traffic Operations Analysis

Intersection	Movement	Capacity Analysis Results, AM Peak Hour (PM Peak Hour)			
		Delay (s)	v/c Ratio	LOS (v/c based)	95th Queue (m)
Pinecrest Road / Dumaurier Avenue	NBT	1 (1)	0.43 (0.44)	A (A)	6 (5)
	SBT	9 (16)	0.46 (0.63)	A (B)	75 (126)
	EBL	48 (50)	0.20 (0.30)	A (A)	13 (17)
Pinecrest Road / Queensview Drive	NBT	5 (8)	0.58 (0.59)	A (A)	27 (30)
	SBT	1 (3)	0.43 (0.63)	A (B)	11 (12)
	WBL	54 (58)	0.65 (0.87)	B (D)	50 (115)
Pinecrest Road / Highway 417 WB Off-Ramp / Transitway	NBT	29 (25)	0.79 (0.69)	C (B)	169 (137)
	SBT	20 (22)	0.56 (0.75)	A (C)	107 (184)
	WBT	25 (30)	0.72 (0.78)	C (C)	74 (93)
	WBL	58 (33)	0.89 (0.37)	D (A)	142 (49)



2.6.1 Existing Traffic Operations Summary

A review of Table 12 indicated that all study area intersections were found to operate at an acceptable Level of Service (LOS) “D” or better based on the City of Ottawa’s v/c metrics. However, the following existing operational constraints were noted, indicating moderately congested conditions:

- Southbound through movement at the Pinecrest Road / Highway 417 WB Off-Ramp / Transitway intersection was found to exhibit a 95th percentile queue length of 184 metres during the afternoon peak hour, which exceeds available distance between the adjacent intersections of Queensview Dr. and Dumaaurier Ave and would cause spillover.
- Westbound left turn movement from Queensview Drive to Pinecrest Road was found to exhibit a 95th percentile queue length of 104 metres during the afternoon peak hour which exceeds the available auxiliary left turn lane storage length of approximately 40 metres and will cause spillover into the general purpose westbound travel lane along the Queensview Drive corridor.
- Eastbound left turn movement from Dumaaurier Avenue to Pinecrest Road was found to exhibit a 95th percentile queue length of 50 metres during the afternoon peak hour which exceeds the available auxiliary left turn lane storage length of approximately 30 metres and will cause spillover into the general purpose eastbound travel lane along the Dumaaurier Avenue corridor.

2.7 Future Traffic Forecasts

This section provides future background (without the development) and total (with the development) traffic forecasts associated with the redevelopment of the 2655 Queensview Drive parcel. The forecasts are provided for 2027 (envisioned build-out year) and 2032 (5 years after build-out).

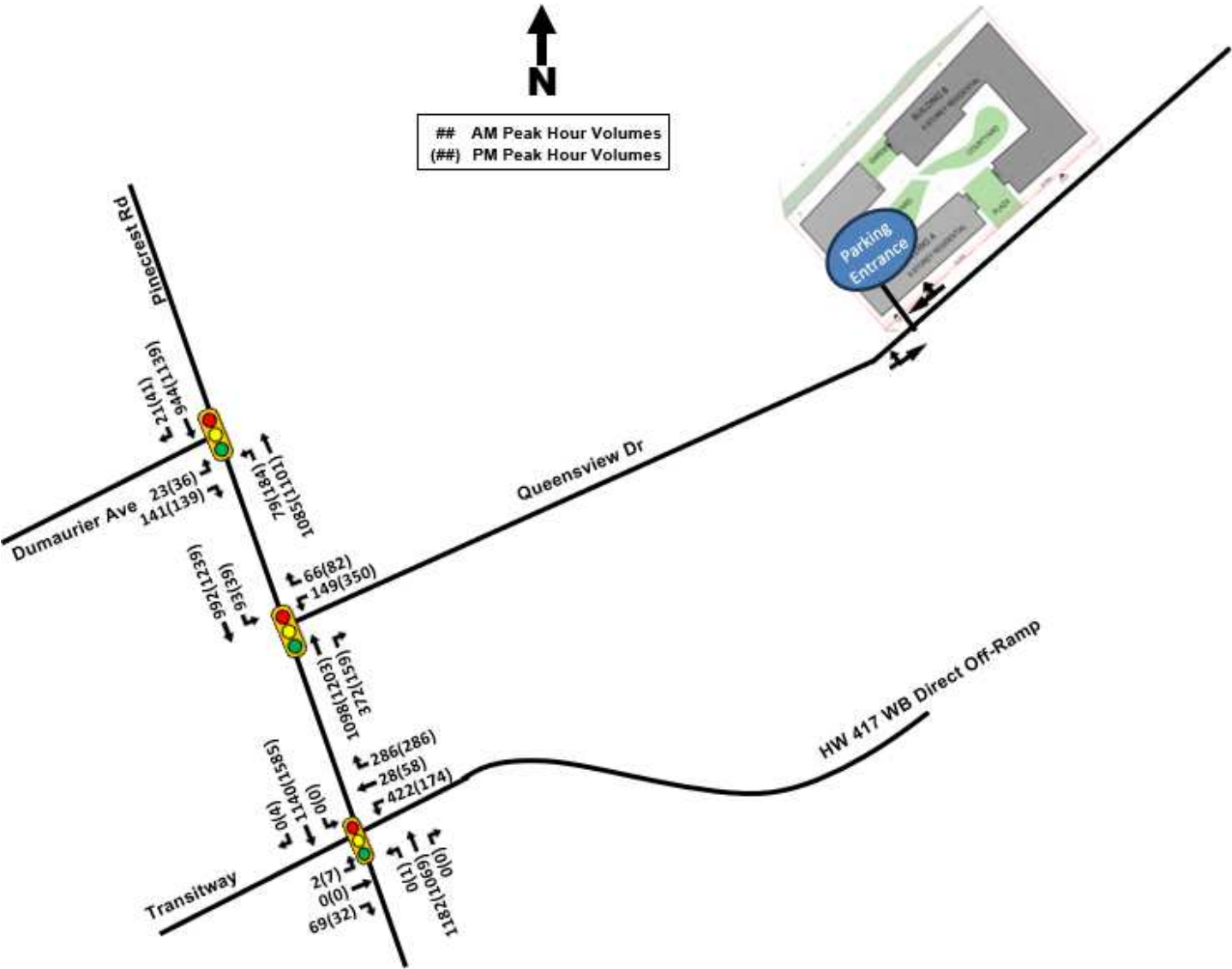
- Figure 13 provides the background traffic forecast for 2027 horizon year
- Figure 14 provides the background traffic forecast for 2032 horizon year
- Figure 15 provides the total traffic forecast for 2027 horizon year
- Figure 16 provides the total traffic forecast for 2032 horizon year

Note that according to the exemption table (Table 11), and given that the proposed site generates fewer than 75 auto driver trips per hour, the analysis of future background and total conditions is excluded from this report. The site’s traffic is anticipated to have a low-to-negligible effect on the study area compared to existing operational conditions.



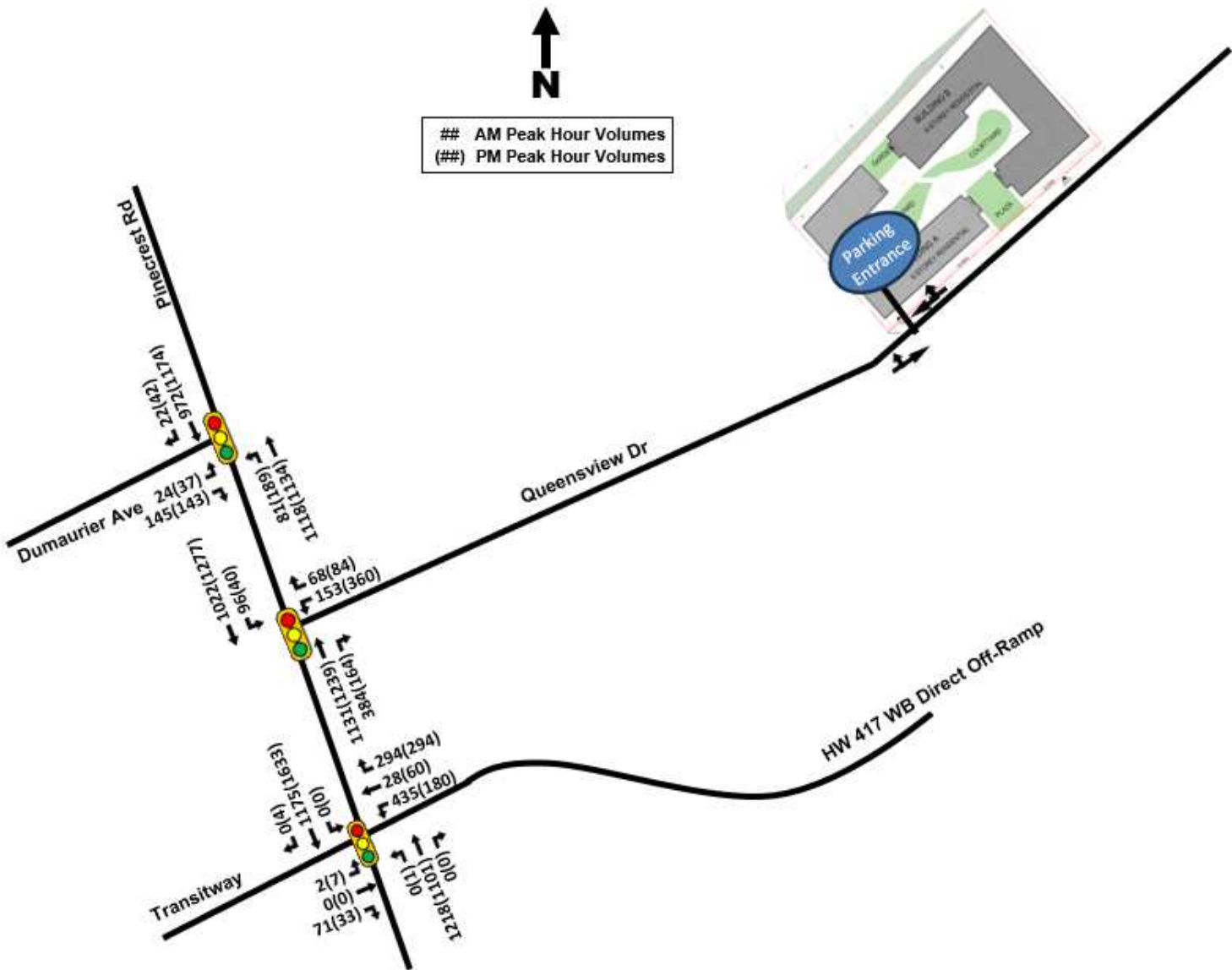
2655 Queensview Drive - Traffic Impact Assessment
3 - Strategy

Figure 13 - Background 2027 Traffic Forecast



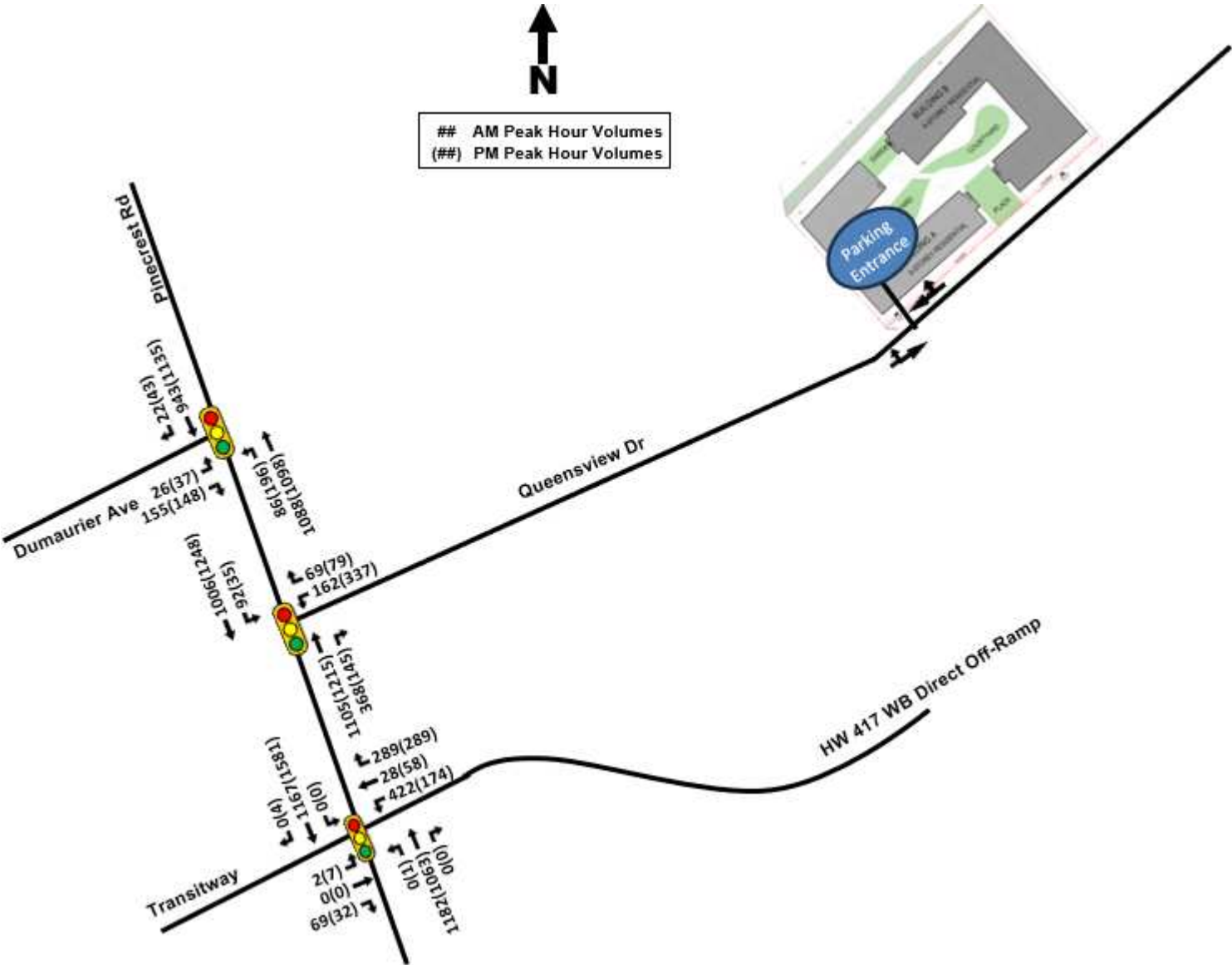
2655 Queensview Drive - Traffic Impact Assessment
3 - Strategy

Figure 14 - Background 2032 Traffic Forecast



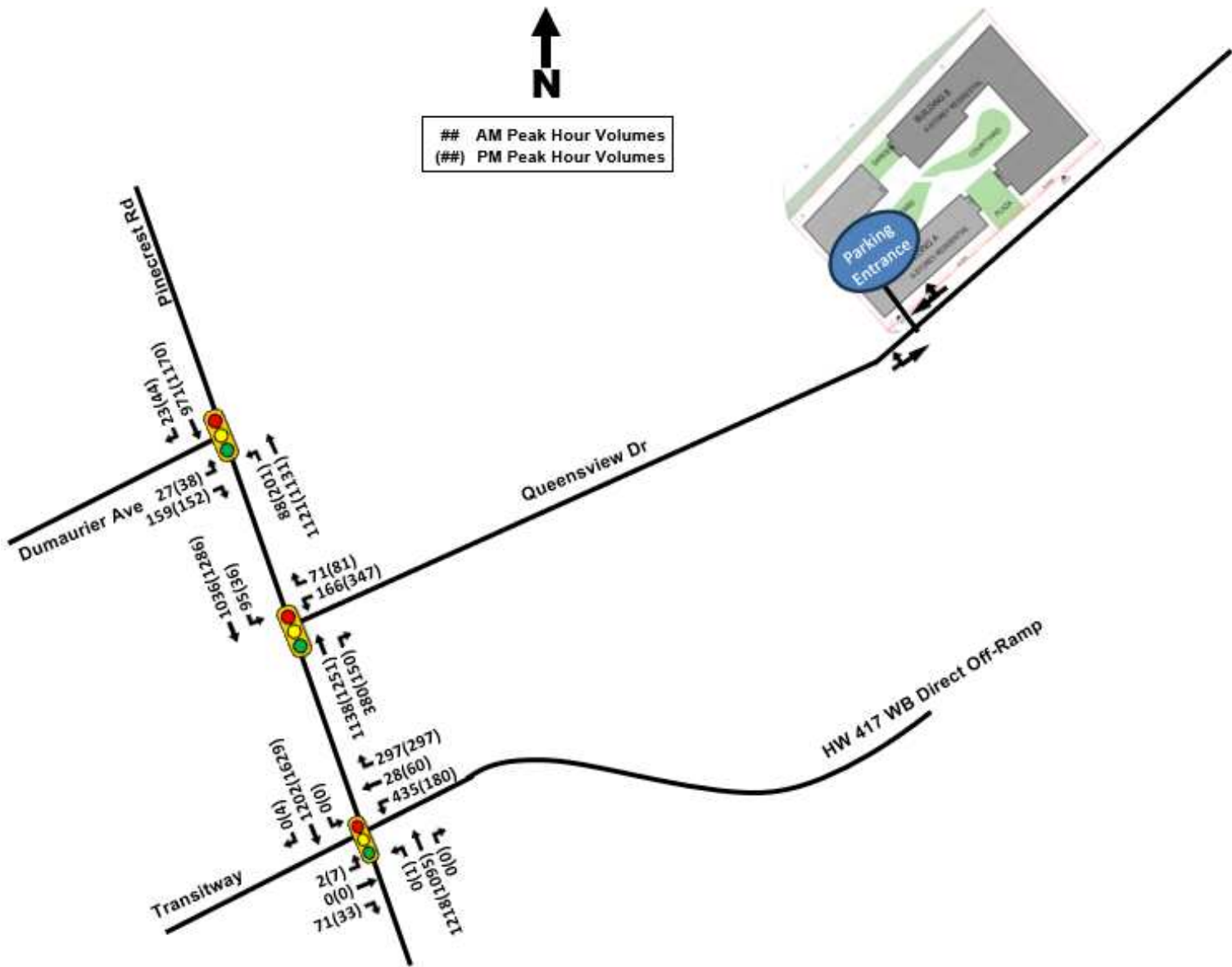
2655 Queensview Drive - Traffic Impact Assessment
3 - Strategy

Figure 15 - Total 2027 Traffic Forecast



2655 Queensview Drive - Traffic Impact Assessment
3 - Strategy

Figure 16 - Total 2032 Traffic Forecast



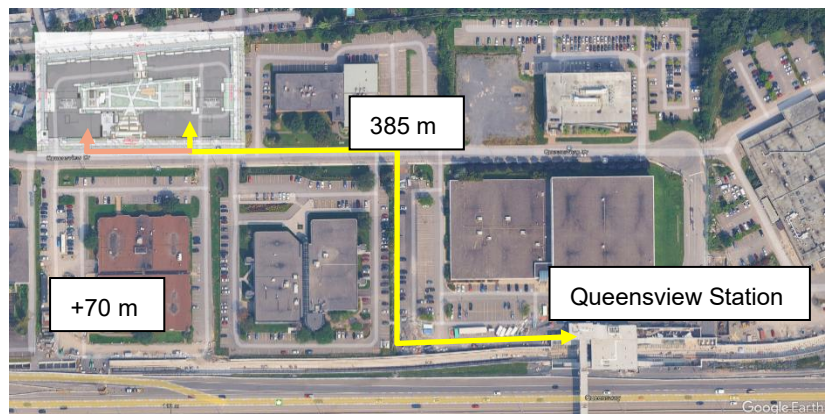
3 Strategy

3.1 Development Design

3.1.1 Design for Sustainable Modes

Figure 18 illustrates the proposed access provisions to the proposed residential development.

- Main vehicular access to the underground parking garage is provided on the western edge of the site. The proposed access retains the location of existing west access to the parcel and is located across from the 2670 Queensview Drive (OPS Records Management) access.
- Two pedestrian entrances to the buildings are provided from Queensview Drive. These entrances are spaced approximately 70 metres apart
- A publicly accessible plaza / courtyard with a potential for future through connection north to Moncton Road are provided
- The existing east access to the site is envisioned to be closed.
- An existing OC Transpo bus stop #5231 is provided maintained on the east side of the parcel.
- Figure 17 illustrates that the future Queensview LRT station is located approximately 385 metres from the east building access and 455 metres from the west building access by way of existing and proposed public sidewalks. A pedestrian crossing treatment would be required.
- The City of Ottawa's TDM-Supportive Development Design and Infrastructure Checklist, provided in Appendix E, indicates that the proposed development meets all of the required measures. The development's design prioritizes active transportation connections and strategically allocates lot space to people instead of cars, which is evidenced by the proposed car-free interior courtyard. Vehicle access is limited to one point and all vehicle parking space is located underground. This people-centric design aligns well to the City's objectives for new developments in TOD zones.



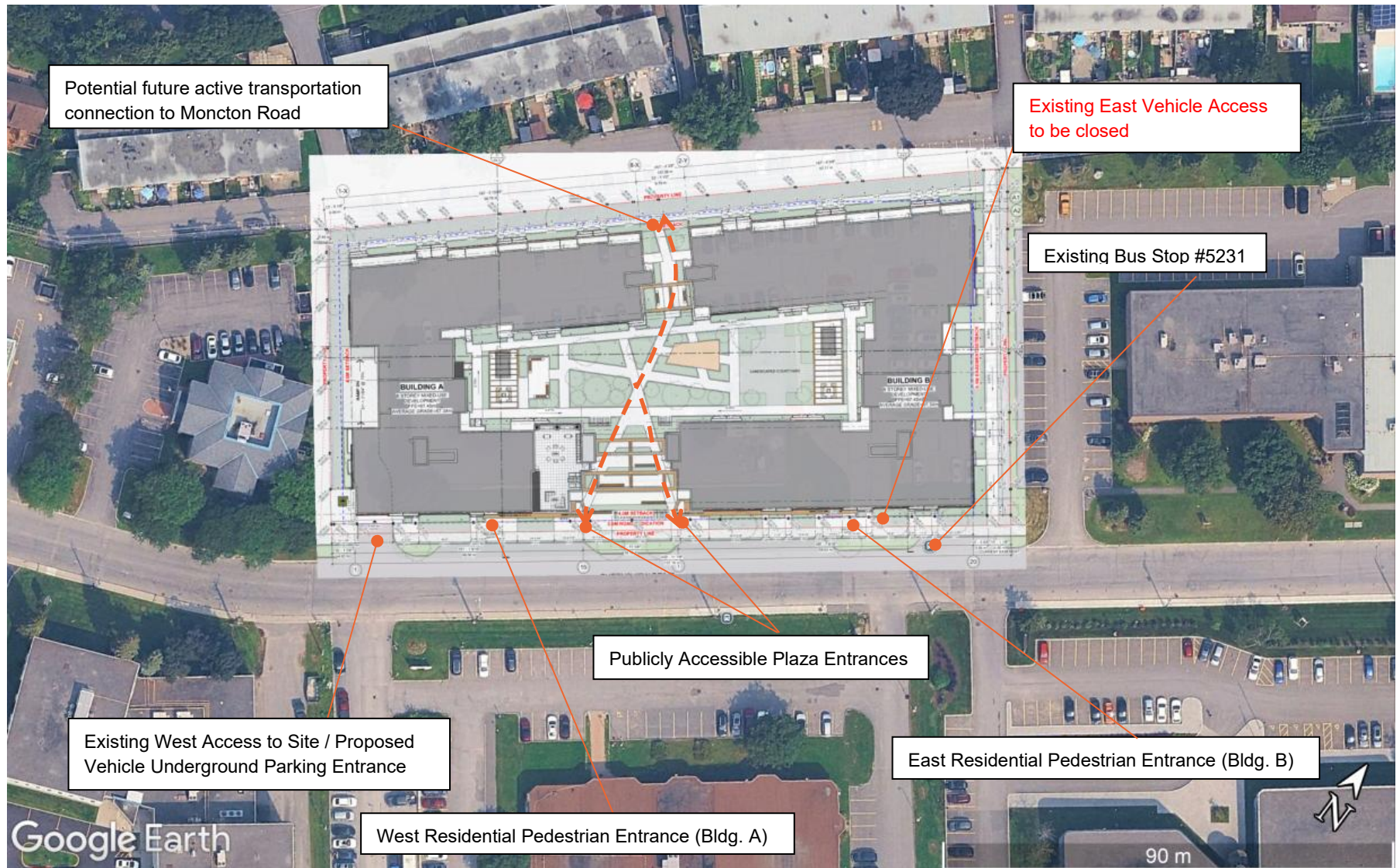
Imagery source: Google Earth

Figure 17 - Walking Distance to Queensview LRT



2655 Queensview Drive - Traffic Impact Assessment
3 - Strategy

Figure 18 - Site Access Summary



3.1.2 Circulation and Access

One vehicle access to the underground parking garage is proposed. The access is located directly across from the 2670 Queensview Drive (OPS Records Management) access.

Municipal services, such as garbage pickup, move-in / move out activities and deliveries are envisioned to be accommodated curbside along Queensview Drive due to lack of proposed interior ground level drive aisles. Given the relatively low traffic volumes on Queensview Drive, there is minimal concern with these activities impacting traffic operations on the street.

3.2 Parking

3.2.1 Vehicle Parking Supply

A review of the proposed site plan indicates that the site is envisioned to provide for a total of 347 parking spaces. A total of 34 parking spaces are envisioned to be assigned to visitors, while the remaining 313 will be for use by residents. The following sections provide a breakdown of the City's current and new (upcoming) zoning by-law requirements.

3.2.1.1 Resident Parking Requirements

A review of the current (2008-250) and new (2026-50) City of Ottawa Zoning by-laws indicated that:

- According to the section 101 of the current by-law (Part 4 - Parking, Queuing and Loading Provisions), the site is located within the Area B (outer urban / inner suburban) within schedule 1A. However, according to clause 101 (5) (d), the walking distance between the active entrance of the development and future Queensview LRT station is estimated to be approximately 400 metres, indicating that Area X calculations (0.5 spaces / dwelling unit) should be applied.
- Additionally, the site is subject to section 103 of the by-law limiting the maximum number of parking spaces in Area B near rapid transit stations to 1.75 / dwelling unit
 - Therefore, **a minimum of 168 residential parking spaces are required.**
 - **A maximum of 587 residential parking spaces are permitted.**
- According to the new by-law, the site is subject to Section 602 of the by-law, which dictates the maximum number of parking spaces that can be provided in areas near existing and future rapid transit stations (i.e. Queensview Station). The site is located in the Inner Urban transect (Area B), subject to a maximum parking provision of 1.25 spaces per dwelling unit.
 - There is **no prescribed minimum** residential parking requirements.
 - Therefore, **a maximum of 419 parking spaces are permitted on the lot.**



3.2.1.2 Visitor Parking Requirements

A review of the current (2008-250) and new (2026-50) City of Ottawa Zoning by-laws indicated that:

- According to the current by-law, Section 102, the site is located within the Area B, however given the proximity to rapid transit, Area X is assumed for calculation purposes per clause 102 (5) and 101 (5) (d), which requires that visitor parking spaces are provided at a rate of 0.1 spaces / dwelling unit, excluding the first 12 units on the lot, with “no more than thirty visitor parking spaces required per building” [102 (3)]. Given that the site is comprised of two buildings, **32 visitor parking spaces would be required.**
- According to the new by-law, Section 603, visitor parking spaces are not required in Area A (Areas for Visitor Parking Requirements, Area A includes all PMTSAs) Therefore, **no minimum visitor parking requirement applies**

3.2.1.3 Commercial Parking Requirements

A review of the site plan indicates that a total of 142 m² of commercial space is proposed within two units on ground floor. The exact tenants occupying this space are not known at the time. For the purposes of calculating the required parking provisions, a “retail store” use has been assumed. A review of the current (2008-250) and new (2026-50) City of Ottawa Zoning by-laws indicated that:

- According to the current by-law, Section 102, the site is located within the Area B, however given the proximity to rapid transit, Area X is assumed for calculation purposes. The by-law indicated that parking is to be provided at a rate of 1.25 spaces per 100 m² of gross floor area, therefore 2 spaces would be required
- According to the new by-law, Section 602, the site is subject to a maximum parking space rate of 3.6 m² per 100 m², therefore a maximum of 5 spaces related to the commercial use are permitted. There is no prescribed minimum parking rate.

3.2.1.4 Vehicle Parking Requirements Summary

Table 13 provides a summary of the aforementioned sections and indicates that:

- According to the current by-law, between 191 and 587 total parking spaces, including at least 32 visitor spaces, are permitted on this site.
- According to the upcoming new by-law, between 0 and 424 total parking spaces are permitted on this site with no set minimum residential, visitor or commercial parking requirements.

The proposed site’s parking supply of 313 residential and 34 visitor parking spaces satisfies the requirements of both the current and new zoning by-laws. The envisioned parking supply is considered adequate to support the development’s projected mode shares without causing any parking spillover onto adjacent streets.



Table 13 - Vehicle Parking Requirements and Provisions Summary

Zoning By-Law Requirements	Minimum Residential Spaces	Minimum Visitor Spaces	Minimum Commercial Spaces (assuming Retail Store use)	Total Minimum Required	Maximum Spaces Permitted on Site	Proposed Total Parking Supply
Current By-Law (2008-250)	160	32	2	194	587	34 visitor + 313 residential = 347
New By-Law (2026-50)	N/A	N/A	N/A	0	419 (res) + 5 (comm) = 424	

3.2.2 Bicycle Parking Supply

A review of the current (2008-250) and new (2026-50) City of Ottawa Zoning by-laws indicated that:

According to the current by-law, bicycle parking for residential multifamily land uses must be provided at a minimum rate of 0.50 spaces / dwelling unit, indicating that **160 spaces would be required**.

According to the new by-law, bicycle parking in buildings with 13 or more residential units must provide both “short term” and “long term” bicycle spaces:

- “Short term” bicycle spaces be provided at a minimum rate of 2 spaces + 1 space / 20 units above 20 residential units, **therefore 18 short-term bicycle spaces are required**
- “Long term” bicycle spaces be provided at a minimum rate of 1 space / unit in lands within the “Area B – Inner Urban Transect”, **therefore 335 long-term bicycle spaces are required**
- Short-term and long-term bicycle provisions are subject to additional requirements in section 613 of the by-law pertaining to separation distance from access, weather-protection and minimum proportion of horizontal spaces.

Table 14 provides a summary of bicycle parking requirements and provisions, indicating that the development’s bicycle parking supply meets the requirements of both the current and new City by-laws.



Table 14 - Bicycle Parking Requirements and Provisions Summary

Zoning By-Law Requirements	Minimum “Short-Term” Spaces	Minimum “Long-Term” Spaces	Total Minimum Bicycle Spaces Required	Bicycle Spaces Provided on Site
Current By-Law (2008-250)	N/A – not defined in the by-law		160	341 long-term 20 short-term
New By-Law (2026-50)	18 (res.) + 2 (comm.) = 20	335	355	

3.3 Boundary Street

The boundary street analysis in context of the subject development will focus on the segment of Queensview Drive between Pinecrest Road and cul-de-sac approximately 750 metres east of Pinecrest Road. The City of Ottawa, together with Alta Planning + Design have prepared a complete street concept for future cross-section of Queensview Drive, as illustrated on Figure 20. The concept cross-section in the vicinity of the proposed development corresponds to the City of Ottawa’s pre-approved cross-section 24A referenced from the “Designing Neighborhood Collector Streets” guideline. The following cross-section elements within the proposed 24 metre ROW of Queensview Drive are identified:

- One 3.5-metre-wide vehicle travel lane on each side of the roadway
- 2.0-2.8-metre-wide inner boulevard on each side providing physical separation for pedestrian and cycling facilities.
- 2.0-metre-wide cycle tracks in both directions of travel
- 2.0-metre-wide concrete sidewalks in both directions of travel
- In addition to the single vehicle travel lane in each direction, one of the following is present:
 - A 2.4-metre-wide parking lane “on one side of the street” further east, including at interface with the proposed development’s access. The concept plan shows north side parking lane, however the report mentions that parking and bulb-outs are recommended to alternate between north and south sides of the street, or
 - A 3.25-metre-wide westbound left-turn lane is present at the approach to Pinecrest Road / Queensview Drive intersection.

Overall, the proposed 2655 Queensview Drive development concept supports seamless integration into the proposed new cross-section along Queensview Drive. The development envisions only a single vehicle access point and multiple opportunities for pedestrian / bicycle connectivity. The following considerations

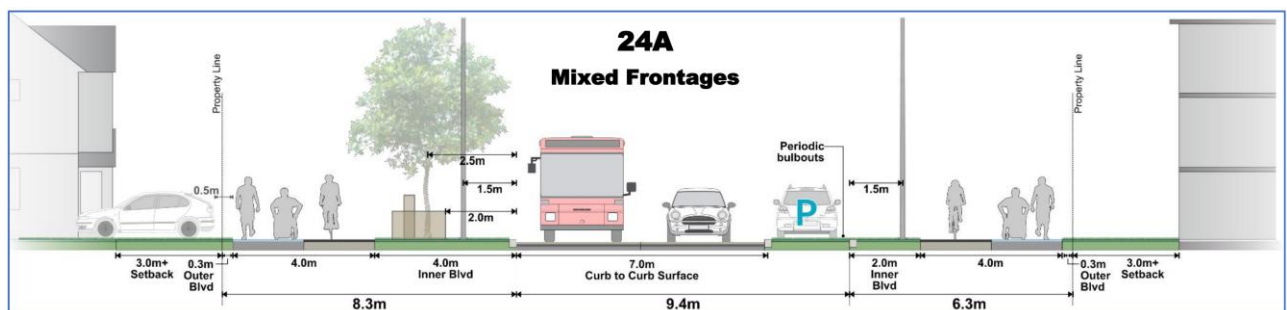


can be made for the development access and frontage upon detailed design stage without requiring major changes to the concept:

- **Curb bulb-outs:** Curb bulb-outs can be implemented at the vehicular site access to the parking lot over the proposed parking lane. These bulb-outs will provide additional landscaping space, which will increase the public realm appeal of the street, and act as natural traffic calming features.
- **Curbside parking management:** Given the ample parking supply envisioned by the proposed development, the parking lane fronting the development could be re-designated to either short-term (<1 hour) parking, or a loading area. This would help manage short-term curbside layup demand consisting of parcel and food deliveries, rideshare, taxi and ParaTranspo vehicles. Meanwhile, residents and visitors to the development can use the dedicated underground parking lot for longer-term vehicle storage purposes.
- **Pedestrian connectivity:** Direct pedestrian connections between the two proposed pedestrian entrances, as well as the proposed publicly accessible plaza / courtyard should be provided by way of connecting the proposed development entrances and interior courtyard pathway to the City's future sidewalks. Ensuring that the sidewalk on Queensview Drive is continuous across the driveway entrance (i.e., driveway entrance raises from roadway to meet sidewalk level) will also reinforce the priority of pedestrians over vehicles around this development.
- **Pedestrian crossovers:** Consideration should be given to provide a pedestrian crossover treatment near the site in order to facilitate demands of pedestrians accessing the nearby Queensview LRT Station (or any other existing / future developments on the south side of Queensview Drive corridor or south of Highway 417).

Figure 19 illustrates the proposed cross-section 24A from the City's reference document. Figure 20 illustrates the proposed concept design prepared as part of the Secondary Plan, which focuses on the approach to the intersection of Pinecrest Road / Queensview Drive.

Figure 19 - Cross-Section 24A

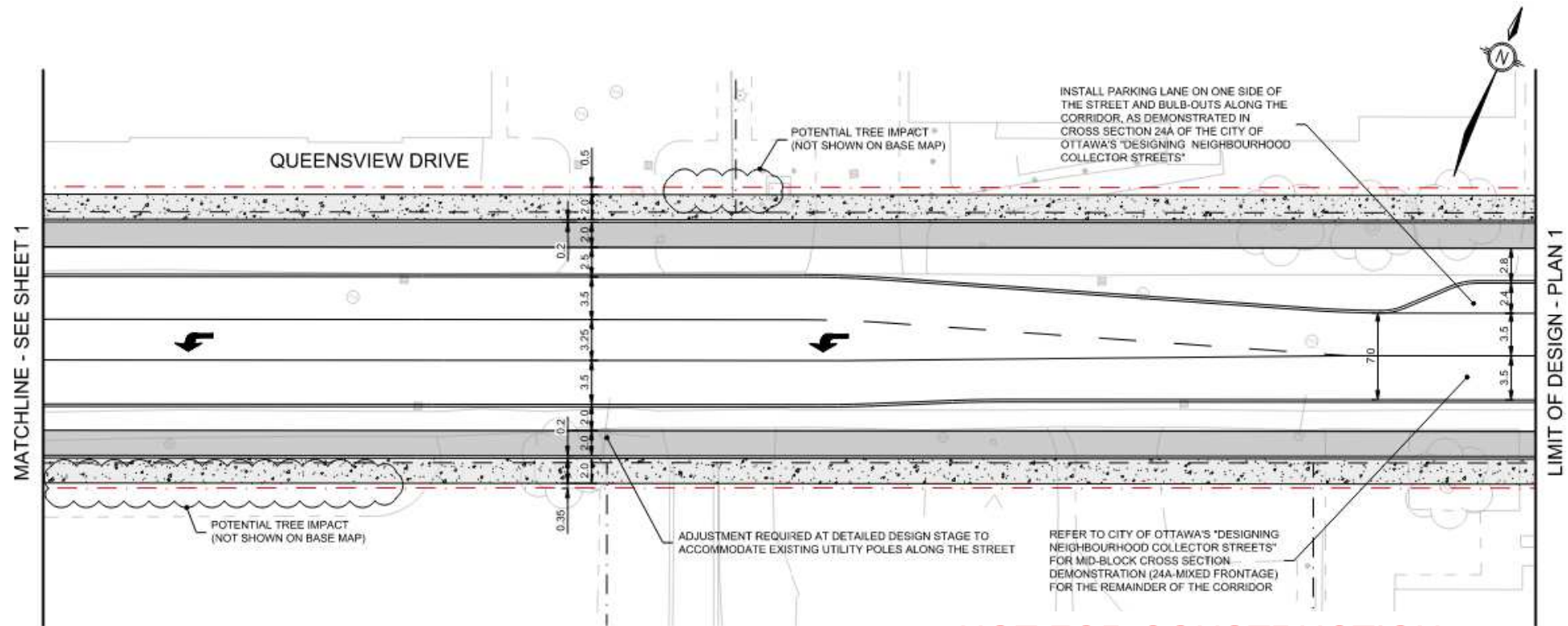


Source: Designing Neighborhood Collector Streets, December 2019. City of Ottawa / Parsons



3 - Strategy

Figure 20 - Proposed Concept Cross-Section of Queensview Drive East of Pinecrest Road



NOT FOR CONSTRUCTION

Source: City of Ottawa Official Plan, Pinecrest and Queensview Stations Secondary Plan; Annex E: Pinecrest-Queensview Secondary Plan Transportation Review – Technical Report, Alta Planning + Design Canada, Inc. September 29, 2023

LEGEND:

- | | |
|---|--|
|  | PROPERTY LINE |
|  | FUTURE PROPERTY LINE* |
|  | PROPOSED HALF-HEIGHT / FULL-HEIGHT CONCRETE CURB |
|  | PROPOSED DEPRESSED CONCRETE CURB |
|  | PROPOSED 2.0 m CONCRETE SIDEWALK |
|  | PROPOSED CYCLE TRACK |
|  | PROPOSED TACTILE WALKING SURFACE INDICATOR |
|  | PROPOSED TRAFFIC POLE LOCATION |

3.4 Access Intersection Design

3.4.1 Location and Design of Access

Main vehicular access to the underground parking garage is provided on the western edge of the site.

- This access is effectively in the same location as the existing west access to the parcel and is located directly across from the 2670 Queensview Drive (OPS Records Management) access.
- This access would be located approximately 55 metres east of the existing access to 2675 Queensview Drive (Youth Services Bureau) and approximately 140 metres west of the western access to 2625 Queensview Drive. This spacing to driveways on the same side of the corridor is acceptable per the Private Approach By-Law.
- The access is located approximately 320 metres east of the STOP bar of the Queensview Drive / Pinecrest Road intersection, well outside its area of influence.
- The access is 7 metres wide and provides for approximately 42 metres of clear throat length along the entrance/exit ramp. This well exceeds TAC standards for a minimum throat length of 25 metres for driveways to collector roads servicing 200+ unit apartment developments.
- The parking garage ramp is provided with a transition slope of 5%-to-15%-to-10% from the ground level to P1.

The existing east access to the site is envisioned to be closed.

3.4.2 Intersection Control

Given the low development-generated vehicular volumes, the vehicular site access is envisioned to operate under a minor leg – STOP control condition. Neither a roundabout nor a signalized intersection are considered warranted or feasible.

3.4.3 Intersection Design

The proposed access will operate as an all-movement minor leg – STOP control access. No auxiliary lanes or medians are proposed.

Given that a complete street concept has already been prepared for Queensview Drive, and protected intersection treatments are being implemented along Pinecrest Road as part of the LRT Stage 2 extension work, no detailed future MMLOS analysis of study area intersections was performed as part of this study's scope



3.5 Transportation Demand Management

3.5.1 Context for TDM

The proposed development consists of 335 residential units across two mid-rise buildings. The breakdown of units is provided within Table 15. Notably, over half the units provide for 2 bedrooms or more.

Table 15 - Breakdown of Units by Type

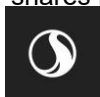
Unit Type	Building A	Building B	Total	Percent Breakdown
Studio	-	1	1	< 1%
1 Bed	47	77	124	37%
1 Bed + Den	15	18	33	10%
2 Bed	80	86	166	50%
3 Bed	5	6	11	3%
Total	147	188	335	100%

The proposed residential development will primarily generate typical commuter traffic flows during the morning and afternoon peak hours (i.e. going to work in the morning and coming back in the afternoon). The development's forecast mode shares were adopted from the City of Ottawa's 2011 O-D Survey and are summarized in Table 7 and Table 8.

The adopted mode shares consider a 40% auto driver share for traffic forecasting purposes. This mode share is considered very conservative given the future proposed transportation network changes in the area intended to boost transit and active transportation connections.

The City of Ottawa's target mode shares for the TOD (Transit-Oriented Development) are 65% transit, 15% auto driver and 20% other modes. However, it's important to note that these targets depend on the future operational performance, reliability, and public uptake of the extended LRT network. As these variables remain subject to future implementation and behavioral shifts, this study applies a conservative approach based on existing, verified data. Even assuming the conservative 40% auto drive mode share, the net-result of the redevelopment indicates an overall decrease in the peak hour area traffic volumes during the afternoon peak hour, and a marginal increase during the AM peak hours, thanks to the redevelopment of existing relatively high traffic turnover fitness centre land use.

Even though the traffic forecasts indicate a near negligible increase in traffic volumes even at the 40% mode share, efforts should be made by the developer to achieve a further decrease in auto driver mode shares by promoting sustainable transportation modes.



3.5.2 Need and Opportunity

The subject site, along with adjacent properties fronting the Queensview Drive corridor, is designated as a 'Hub' in the City's Official Plan. As noted previously, the City's sustainable mode share targets for transit-oriented areas are 65% transit and 15% walking and cycling, for a total of 80% sustainable modes. Achieving these targets is critical to ensuring that the transportation network operates efficiently and that the development aligns with broader City-building objectives.

3.5.2.1 Need

Failure to achieve the proposed sustainable mode share targets would result in several adverse impacts:

Development site users (owner, tenants, occupants, visitors):

The proposed on-site parking supply may encourage higher-than-anticipated auto ownership and usage, increasing internal circulation, conflicts, and inefficiencies within the site. Over time, this could reduce the effectiveness of the development's transit-oriented design and limit the uptake of more sustainable travel options.

Other land uses in the study area:

Higher vehicle trip generation would contribute to increased traffic volumes along Queensview Drive and at key intersections, including the Pinecrest Road corridor. This could lead to longer travel times, increased congestion, and reduced accessibility for adjacent existing and future developments within the Hub area.

Other transportation network users:

Increased vehicular traffic may degrade conditions for other road users, including transit operations, pedestrians, and cyclists. This would negatively affect the reliability and attractiveness of sustainable modes, further compounding mode share challenges and undermining the City's long-term mobility objectives.

Even where the external road network has capacity to accommodate additional traffic, increased demand may result in localized operational issues such as on-site queuing, delays at access points, and conflicts between different user groups.

3.5.2.2 Opportunity

A comprehensive post-occupancy Transportation Demand Management (TDM) program represents a key opportunity to improve the likelihood of achieving the City's sustainable mode share targets and to mitigate the risks identified above.

The development benefits from several supportive elements, including:



- Its designation within a planned Hub with proximity to rapid transit,
- Proximity to existing and planned pedestrian and cycling infrastructure along Queensview Drive, and
- A built form and site design that can support walking, cycling, and transit use

Building on these elements, a robust TDM program would help shift travel behaviour away from single-occupant vehicle use. Overall, implementing TDM measures will:

- Reduce peak period vehicle trips and associated congestion impacts,
- Improve site accessibility and user experience,
- Support efficient operation of the surrounding transportation network, and
- Align the development with City policies related to sustainable mobility and intensification.

3.5.3 TDM Program

A review of the City of Ottawa's TDM Measures Checklist was conducted, and the following measures were selected for the development proponent's consideration. These measures are intended to support the development's integration with the future land uses and proposed active transportation measures along Queensview Drive corridor. The TDM Measures Checklist is provided in Appendix F.

The following measures were considered:

- Designate an internal TDM coordinator (this role can be fulfilled by the building superintendent),
- Display local area maps with walking/cycling access routes and key destinations at major entrances,
- Display relevant transit schedules and route maps at entrances,
- Offer preloaded PRESTO cards on move-in to encourage residents to use transit,
- Unbundle parking cost from rent/purchase price, and
- Provide a multimodal travel option information package to new residents.



Appendix A TIA Screening Form



City of Ottawa 2017 TIA Guidelines Screening Form

1. Description of Proposed Development

Municipal Address	2655 Queensview Drive, Ottawa, ON K2B 8K2
Description of Location	The development is located along Queensview Drive, a key Local road situated within an established urban corridor in Ottawa's west end. The site is positioned north of Highway 417, in proximity to major arterial Pinecrest Road. This area is designated as a Transit-Oriented Development Zone, benefiting from its strategic location near the future Queensview LRT Station (approximately 400m away). The surrounding environment consists of a mix of residential, commercial, and light industrial properties, contributing to a high-activity urban setting with strong multimodal connectivity. The site's direct access to major transportation infrastructure, including Queensview Drive's links to Pinecrest Road and Highway 417, enhances its accessibility and suitability for a high-density residential project.
Land Use Classification	MC20[3014] S507 – Mixed-Use Centre Subzone 20, Urban Exception 3014, Schedule 507. This zoning designation supports high-density, transit-oriented developments that encourage a mix of residential, commercial, and institutional uses. The MC20 zone permits apartment dwellings (low-rise, mid-rise, and high-rise), retail stores, personal service businesses, medical facilities, restaurants, and offices, fostering a vibrant, pedestrian-friendly urban environment. The Schedule 507 overlay applies specific site-related zoning provisions, ensuring compatibility with surrounding developments and transit infrastructure. The Urban Exception 3014 provides additional zoning flexibility tailored to this specific location. The proposed 320-unit residential development aligns with the zoning intent, supporting multimodal access and urban intensification goals near rapid transit corridors.
Development Size (units)	320 Residential Units
Development Size (m ²)	28,102 m ² (302,500 sq. ft.)
Number of Accesses and Locations	One vehicular subgrade parking access point along Queensview Drive
Phase of Development	1
Buildout Year	2027

If available, please attach a sketch of the development or site plan to this form.

2. Trip Generation Trigger

Considering the Development's Land Use type and Size (as filled out in the previous section), please refer to the Trip Generation Trigger checks below.

Land Use Type	Minimum Development Size (60 trips)
Single-Detached ¹	60 units
Multi-Use Family (Low-Rise) ¹	90 units
Multi-Use Family (High-Rise) ¹	150 units
Office ²	1,400 square meters (m ²)
Industrial ²	7,000 m ²
Fast-food restaurant or coffee shop ²	110 m ²
Destination retail ²	1800 m ²
Gas station or convenience market ²	90 m ²

** If the development has a land use type other than what is presented in the table above, estimates of person-trip generation may be made based on average trip generation characteristics represented in the current edition of the Institute of Transportation Engineers (ITE) Trip Generation Manual.*

If the proposed development size is greater than the sizes identified above, the Trip Generation Trigger is satisfied.

3. Location Triggers

	Yes	No
Does the development propose a new driveway to a boundary street that is designated as part of the City's Transit Priority, Rapid Transit or Cross-Town Bikeways Networks?		No
Is the development in a Design Priority Area (DPA) , Transit-Oriented Development (TOD) zone, or Protected Major Transit Station Area (PMTSA)?*	Yes	

*DPA and TOD are identified in the City of Ottawa Official Plan (DPA in Section 2.5.1 and Schedules A and B; TOD in Annex 6). See Chapter 4 for a list of City of Ottawa Planning and Engineering documents that support the completion of TIA). PMTSAs are identified in Schedule C1 - Protected Major Transit Station Areas (PMTSA).

If any of the above questions were answered with 'Yes,' the Location Trigger is satisfied.

4. Safety Triggers

	Yes	No
Are posted speed limits on a boundary street are 80 km/hr or greater?		No
Are there any horizontal/vertical curvatures on a boundary street limits sight lines at a proposed driveway?		No
Is the proposed driveway within the area of influence of an adjacent traffic signal or roundabout (i.e. within 300 m of intersection in rural conditions, or within 150 m of intersection in urban/ suburban conditions)?		No
Is the proposed driveway within auxiliary lanes of an intersection?		No
Does the proposed driveway make use of an existing median break that serves an existing site?		No
Is there is a documented history of traffic operations or safety concerns on the boundary streets within 500 m of the development?	Yes	
Does the development include a drive-thru facility?		No

If any of the above questions were answered with 'Yes,' the Safety Trigger is satisfied.

5. Summary

	Yes	No
Does the development satisfy the Trip Generation Trigger?	Yes	
Does the development satisfy the Location Trigger?	Yes	
Does the development satisfy the Safety Trigger?	Yes	

If none of the triggers are satisfied, the TIA Study is complete. If one or more of the triggers is satisfied, the TIA Study must continue into the next stage (Screening and Scoping).



Certification Form for TIA Study PM

TIA Plan Reports

On April 14, 2022, the Province's Bill 109 received Royal Assent providing legislative direction to implement the More Homes for Everyone Act, 2022 aiming to increase the supply of a range of housing options to make housing more affordable. Revisions have been made to the TIA guidelines to comply with Bill 109 and streamline the process for applicants and staff.

Individuals submitting TIA reports will be responsible for all aspects of development-related transportation assessment and reporting, and undertaking such work, in accordance and compliance with the City of Ottawa's Official Plan, the Transportation Master Plan and the Transportation Impact Assessment (2017) Guidelines.

By submitting the attached TIA report (and any associated documents) and signing this document, the individual acknowledges that they meet the four criteria listed below.

CERTIFICATION



I have reviewed and have a sound understanding of the objectives, needs and requirements of the City of Ottawa's Official Plan, Transportation Master Plan and the Transportation Impact Assessment (2017) Guidelines; (Update effective July 2023)



I have a sound knowledge of industry standard practice with respect to the preparation of transportation impact assessment reports, including multi modal level of service review;



I have substantial experience (more than 5 years) in undertaking and delivering transportation impact studies (analysis, reporting and geometric design) with strong background knowledge in transportation planning, engineering or traffic operations; and



I am either a licensed or registered¹ professional in good standing, whose field of expertise



is either transportation engineering



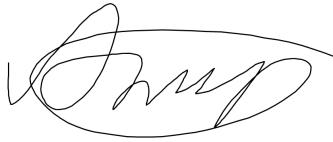
or transportation planning.

¹ License of registration body that oversees the profession is required to have a code of conduct and ethics guidelines that will ensure appropriate conduct and representation for transportation planning and/or transportation engineering works.

Dated at Ottawa this 25 day of May, 20 26.
(City)

Name : Andrey Kirillov

Professional title: Transportation Engineer



Signature of individual certifier that s/he/they meet the above criteria

Office Contact Information (Please Print)

Address: 1331 Clyde Avenue #300

City / Postal Code: Ottawa, ON, K2C 3G4

Telephone / Extension: 613-703-5503

Email Address: andrey.kirillov@stantec.com

Stamp



Revision Date: June 2023

Appendix B Traffic Count and Signal Timing Data



Survey Date: Thursday, August 25, 2016

Start Time: 07:00

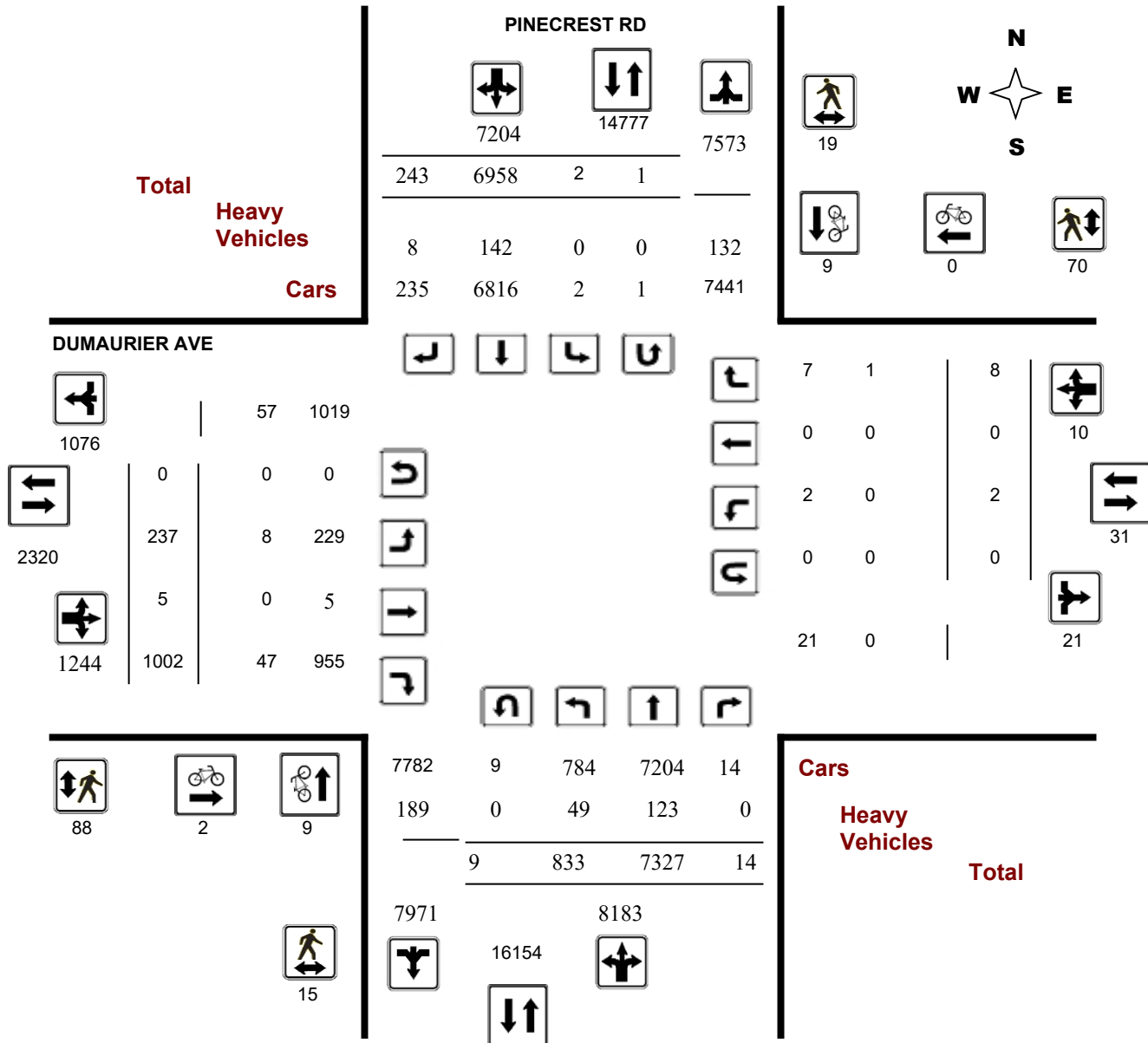
WO No:

36164

Device:

Miovision

Full Study Diagram



Turning Movement Count - Study Results

DUMAURIER AVE @ PINECREST RD

Survey Date: Thursday, August 25, 2016

WO No:

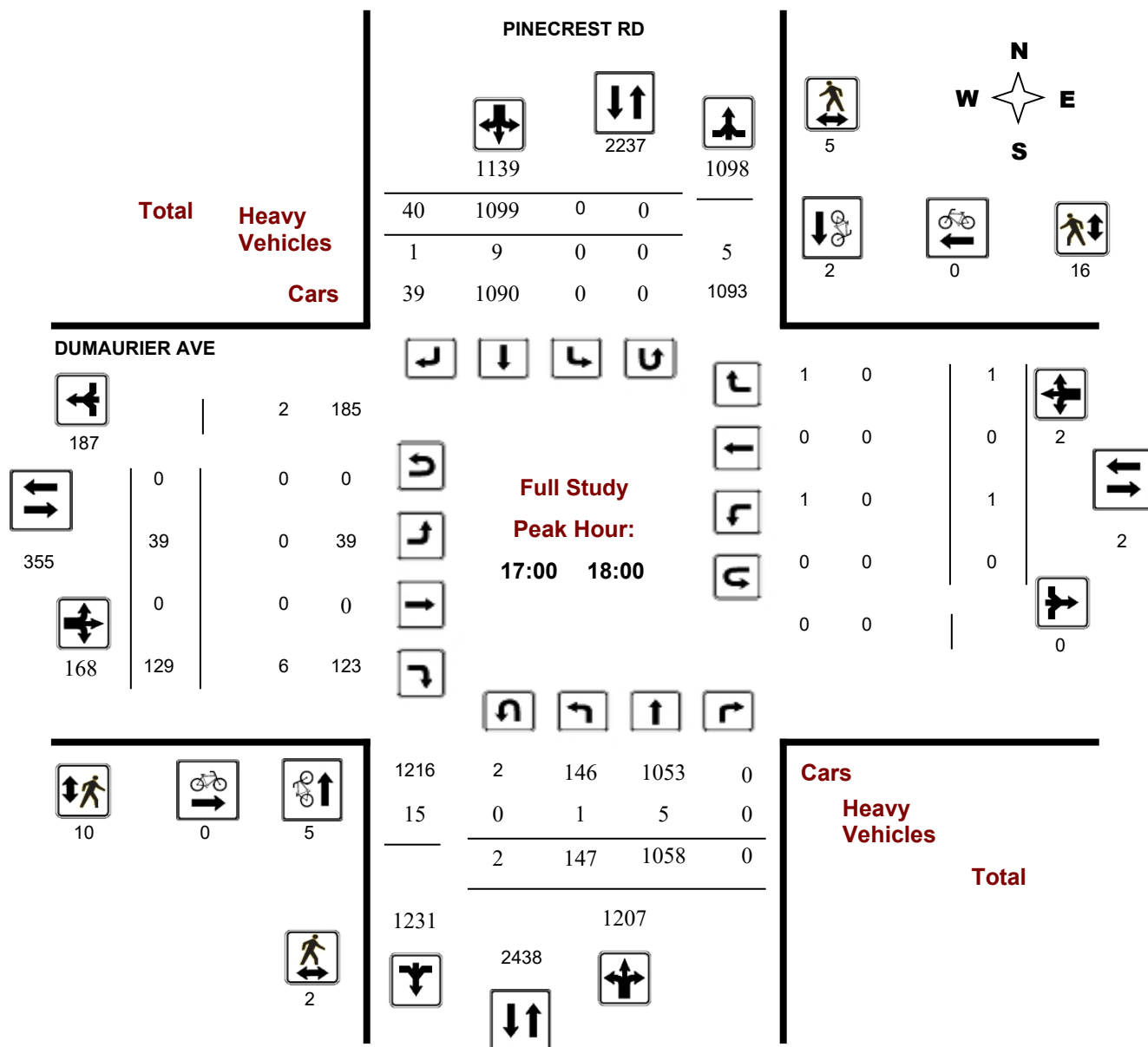
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Start Time: 07:00

Device:

Miovision

Full Study Peak Hour Diagram



Turning Movement Count - Peak Hour Diagram

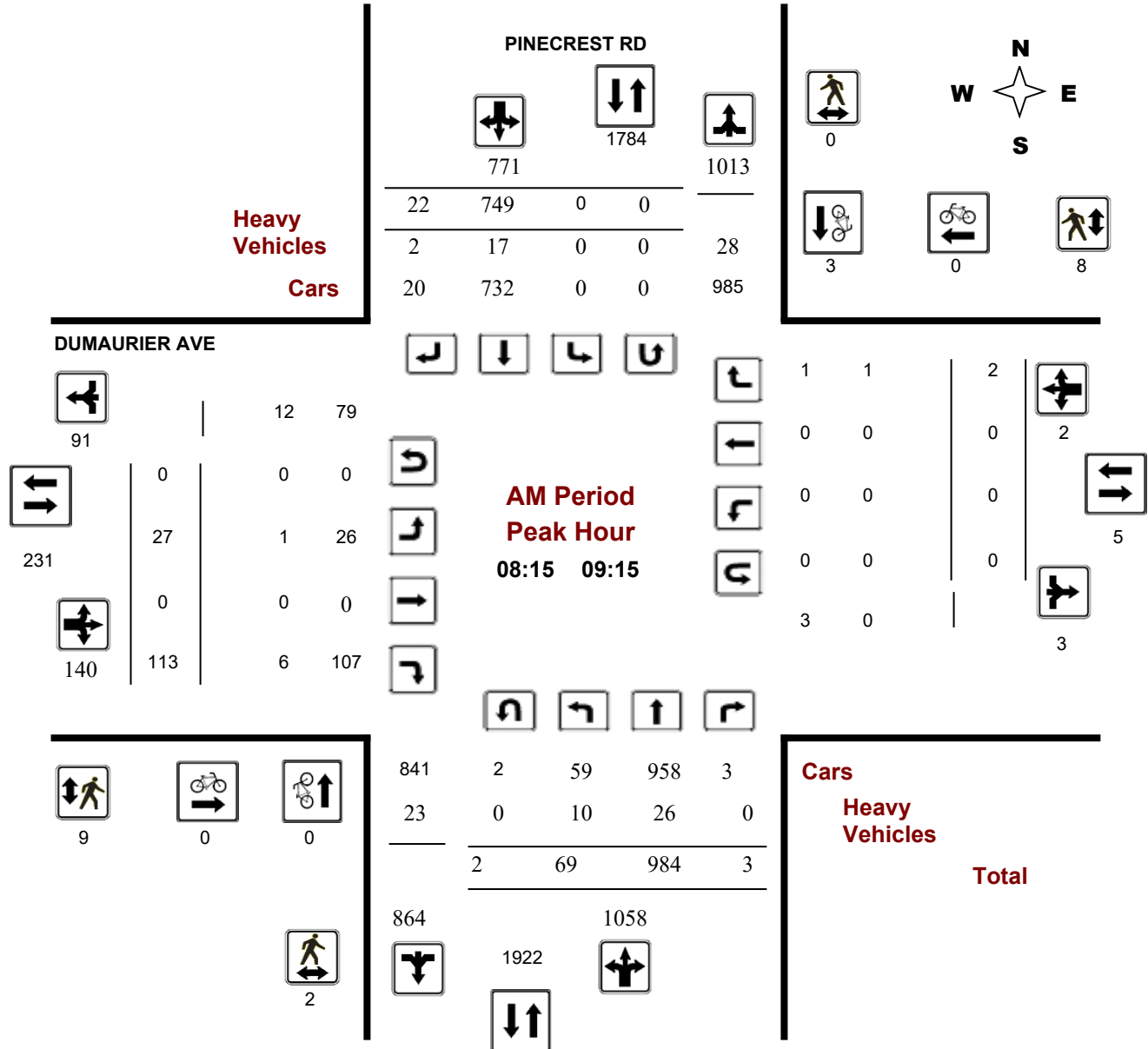
DUMAURIER AVE @ PINECREST RD

Survey Date: Thursday, August 25, 2016

Start Time: 07:00

WO No: 36164

Device: Miovision



Turning Movement Count - Peak Hour Diagram

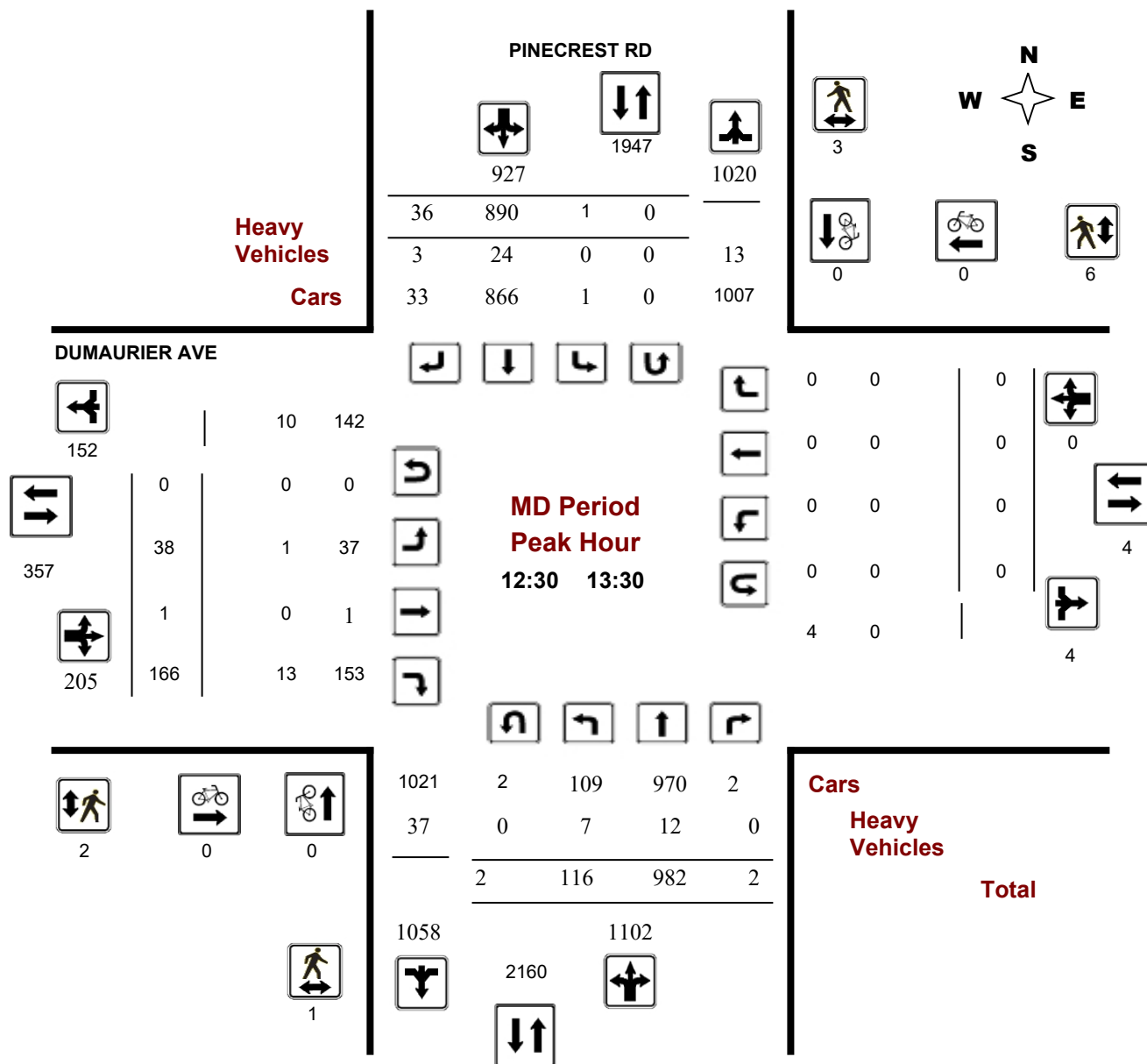
DUMAURIER AVE @ PINECREST RD

Survey Date: Thursday, August 25, 2016

Start Time: 07:00

WO No: 36164

Device: Miovision



Turning Movement Count - Peak Hour Diagram

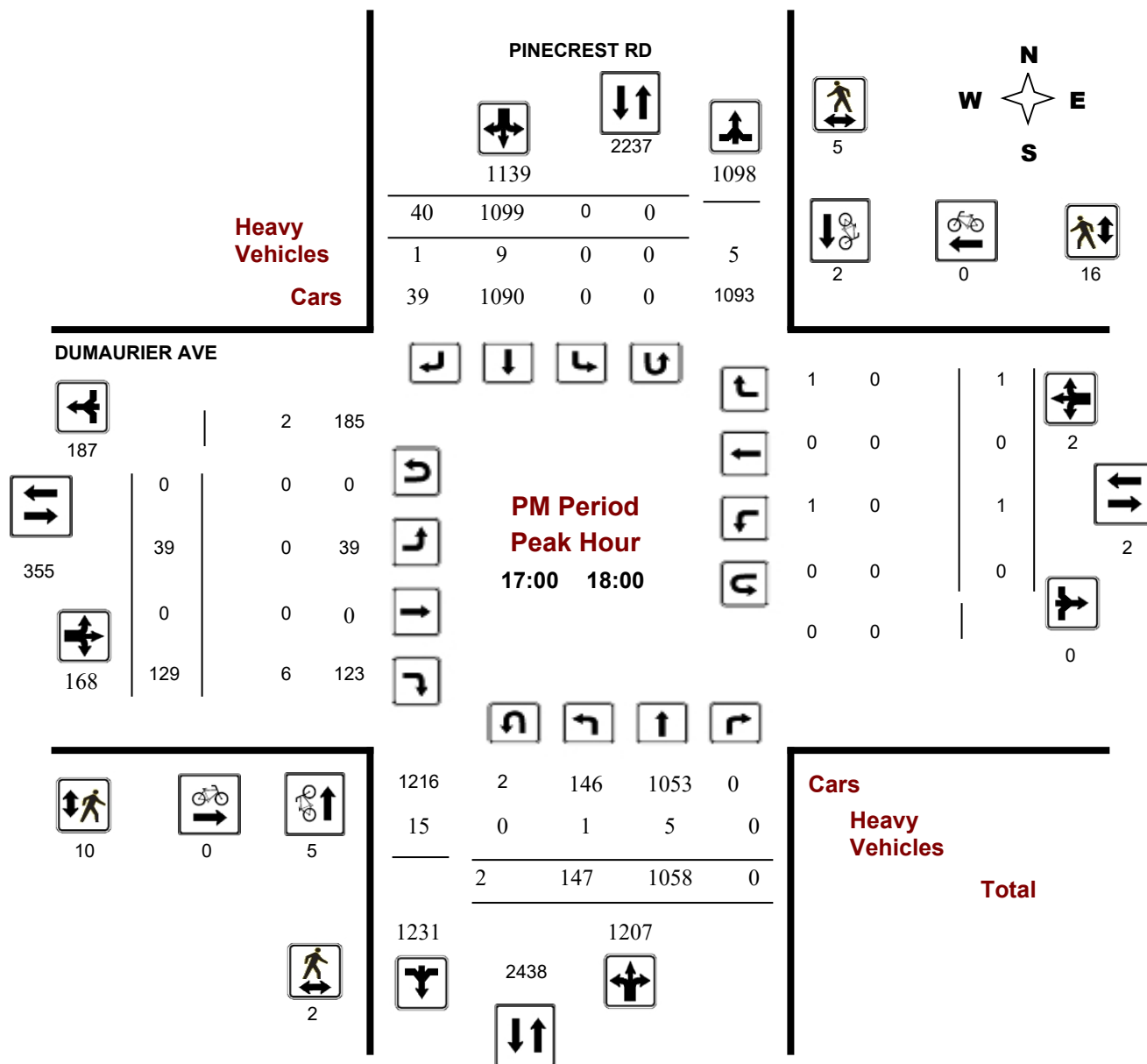
DUMAUER AVE @ PINECREST RD

Survey Date: Thursday, August 25, 2016

Start Time: 07:00

WO No: 36164

Device: Miovision



Comments



Transportation Services - Traffic Services

Turning Movement Count - Study Results

DUMAURIER AVE @ PINECREST RD

Survey Date: Thursday, August 25, 2016

WO No: 36164

Start Time: 07:00

Device: Miovision

Full Study Summary (8 HR Standard)

Survey Date: Thursday, August 25, 2016

Total Observed U-Turns

Northbound: 9 Southbound: 1
Eastbound: 0 Westbound: 0

AADT Factor

.90

PINECREST RD

DUMAURIER AVE

Period	Northbound				Southbound				STR TOT	Eastbound				Westbound				STR TOT	Grand Total
	LT	ST	RT	NB TOT	LT	ST	RT	SB TOT		LT	ST	RT	EB TOT	LT	ST	RT	WB TOT		
07:00 08:00	53	744	2	799	0	590	9	599	1398	10	0	98	108	1	0	0	1	109	1507
08:00 09:00	68	981	3	1052	0	732	19	751	1803	21	1	110	132	0	0	2	2	134	1937
09:00 10:00	70	776	2	848	0	679	25	704	1552	37	2	114	153	0	0	0	0	153	1705
11:30 12:30	98	912	3	1013	1	793	32	826	1839	27	0	108	135	0	0	3	3	138	1977
12:30 13:30	116	982	2	1100	1	890	36	927	2027	38	1	166	205	0	0	0	0	205	2232
15:00 16:00	127	955	1	1083	0	1013	45	1058	2141	33	1	135	169	0	0	1	1	170	2311
16:00 17:00	154	919	1	1074	0	1162	37	1199	2273	32	0	142	174	0	0	1	1	175	2448
17:00 18:00	147	1058	0	1205	0	1099	40	1139	2344	39	0	129	168	1	0	1	2	170	2514
Sub Total	833	7327	14	8174	2	6958	243	7203	15377	237	5	1002	1244	2	0	8	10	1254	16631
U Turns	9			9	1			1	10	0			0	0			0	0	10
Total	842	7327	14	8183	3	6958	243	7204	15387	237	5	1002	1244	2	0	8	10	1254	16641
EQ 12Hr	1170	10185	19	11374	4	9672	338	10014	21388	329	7	1393	1729	3	0	11	14	1743	23131
Note: These values are calculated by multiplying the totals by the appropriate expansion factor.																		1.39	
AVG 12Hr	1053	9166	17	10236	4	8705	304	9013	19249	296	6	1254	1556	3	0	10	13	1569	20818
Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor.																		.90	
AVG 24Hr	1379	12007	22	13408	5	11404	398	11807	25215	388	8	1643	2039	4	0	13	17	2056	27271

Note: These volumes are calculated by multiplying the Average Daily 12 hr. totals by 12 to 24 expansion factor.

1.31

Note: U-Turns provided for approach totals. Refer to 'U-Turn' Report for specific breakdown.



Transportation Services - Traffic Services

Turning Movement Count - Study Results

DUMAURIER AVE @ PINECREST RD

Survey Date: Thursday, August 25, 2016

WO No:

36164

Start Time: 07:00

Device:

Miovision

Full Study 15 Minute Increments

PINECREST RD

DUMAURIER AVE

Northbound

Southbound

Eastbound

Westbound

Time Period	LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total	
07:00	07:15	7	169	0	176	0	129	4	133	309	3	0	22	25	0	0	0	25	334	
07:15	07:30	10	158	1	169	0	143	2	145	314	2	0	20	22	0	0	0	22	336	
07:30	07:45	17	212	1	230	0	176	1	177	407	3	0	32	35	1	0	0	36	443	
07:45	08:00	19	205	0	224	0	142	2	144	368	2	0	24	26	0	0	0	26	394	
08:00	08:15	21	227	0	248	0	177	3	180	428	4	1	28	33	0	0	0	33	461	
08:15	08:30	13	239	0	252	0	179	4	183	435	5	0	35	40	0	0	2	42	477	
08:30	08:45	21	244	1	266	0	180	3	183	449	7	0	24	31	0	0	0	31	480	
08:45	09:00	15	271	2	288	0	196	9	205	493	5	0	23	28	0	0	0	28	521	
09:00	09:15	22	230	0	252	0	194	6	200	452	10	0	31	41	0	0	0	41	493	
09:15	09:30	17	242	0	259	0	168	8	176	435	5	0	23	28	0	0	0	28	463	
09:30	09:45	13	147	0	160	1	168	6	175	335	13	2	35	50	0	0	0	50	385	
09:45	10:00	18	157	2	177	0	149	5	154	331	9	0	25	34	0	0	0	34	365	
11:30	11:45	24	224	0	248	0	169	5	174	422	7	0	33	40	0	0	1	41	463	
11:45	12:00	18	221	1	240	0	212	10	222	462	8	0	29	37	0	0	1	38	500	
12:00	12:15	23	236	2	261	1	218	8	227	488	6	0	22	28	0	0	0	28	516	
12:15	12:30	34	231	0	265	0	194	9	203	468	6	0	24	30	0	0	1	31	499	
12:30	12:45	32	230	0	262	0	209	10	219	481	14	0	48	62	0	0	0	62	543	
12:45	13:00	30	241	0	271	1	237	8	246	517	12	1	43	56	0	0	0	56	573	
13:00	13:15	28	247	1	276	0	232	8	240	516	9	0	37	46	0	0	0	46	562	
13:15	13:30	28	264	1	293	0	212	10	222	515	3	0	38	41	0	0	0	41	556	
15:00	15:15	33	267	0	300	0	208	9	217	517	10	1	33	44	0	0	0	44	561	
15:15	15:30	43	224	0	267	0	245	12	257	524	7	0	30	37	0	0	0	37	561	
15:30	15:45	41	219	0	260	0	266	5	271	531	9	0	30	39	0	0	0	39	570	
15:45	16:00	12	245	1	258	0	294	19	313	571	7	0	42	49	0	0	1	50	621	
16:00	16:15	44	211	0	255	0	291	8	299	554	8	0	30	38	0	0	0	38	592	
16:15	16:30	38	231	0	269	0	320	10	330	599	9	0	38	47	0	0	0	47	646	
16:30	16:45	42	223	1	266	0	265	14	279	545	7	0	43	50	0	0	1	51	596	
16:45	17:00	30	254	0	284	0	286	5	291	575	8	0	31	39	0	0	0	39	614	
17:00	17:15	30	244	0	274	0	271	8	279	553	8	0	34	42	0	0	1	43	596	
17:15	17:30	37	264	0	301	0	248	20	268	569	14	0	27	41	1	0	0	42	611	
17:30	17:45	36	293	0	329	0	298	9	307	636	9	0	26	35	0	0	0	35	671	
17:45	18:00	46	257	0	303	0	282	3	285	588	8	0	42	50	0	0	0	50	638	
Total:		842	7327	14	8183	3	6958	243	7204	15387	237	5	1002	1244	2	0	8	10	15387	16,641

Note: U-Turns are included in Totals.



Transportation Services - Traffic Services

Turning Movement Count - Study Results

DUMAURIER AVE @ PINECREST RD

Survey Date: Thursday, August 25, 2016

WO No: 36164

Start Time: 07:00

Device: Miovision

Full Study Cyclist Volume

		PINECREST RD			DUMAURIER AVE			Grand Total
Time Period		Northbound	Southbound	Street Total	Eastbound	Westbound	Street Total	
07:00	07:15	0	0	0	0	0	0	0
07:15	07:30	0	0	0	1	0	1	1
07:30	07:45	0	1	1	0	0	0	1
07:45	08:00	0	0	0	0	0	0	0
08:00	08:15	0	1	1	0	0	0	1
08:15	08:30	0	1	1	0	0	0	1
08:30	08:45	0	0	0	0	0	0	0
08:45	09:00	0	2	2	0	0	0	2
09:00	09:15	0	0	0	0	0	0	0
09:15	09:30	0	0	0	0	0	0	0
09:30	09:45	0	0	0	0	0	0	0
09:45	10:00	1	0	1	0	0	0	1
11:30	11:45	0	0	0	0	0	0	0
11:45	12:00	0	0	0	0	0	0	0
12:00	12:15	0	0	0	0	0	0	0
12:15	12:30	0	0	0	0	0	0	0
12:30	12:45	0	0	0	0	0	0	0
12:45	13:00	0	0	0	0	0	0	0
13:00	13:15	0	0	0	0	0	0	0
13:15	13:30	0	0	0	0	0	0	0
15:00	15:15	0	1	1	0	0	0	1
15:15	15:30	0	0	0	0	0	0	0
15:30	15:45	1	0	1	0	0	0	1
15:45	16:00	0	0	0	1	0	1	1
16:00	16:15	2	0	2	0	0	0	2
16:15	16:30	0	0	0	0	0	0	0
16:30	16:45	0	0	0	0	0	0	0
16:45	17:00	0	1	1	0	0	0	1
17:00	17:15	1	0	1	0	0	0	1
17:15	17:30	1	0	1	0	0	0	1
17:30	17:45	1	2	3	0	0	0	3
17:45	18:00	2	0	2	0	0	0	2
Total		9	9	18	2	0	2	20



Transportation Services - Traffic Services

Turning Movement Count - Study Results

DUMAURIER AVE @ PINECREST RD

Survey Date: Thursday, August 25, 2016

WO No: 36164

Start Time: 07:00

Device: Miovision

Full Study Pedestrian Volume

PINECREST RD

DUMAURIER AVE

Time Period	NB Approach (E or W Crossing)	SB Approach (E or W Crossing)	Total	EB Approach (N or S Crossing)	WB Approach (N or S Crossing)	Total	Grand Total
07:00 07:15	0	0	0	2	2	4	4
07:15 07:30	0	0	0	4	0	4	4
07:30 07:45	0	1	1	3	2	5	6
07:45 08:00	0	0	0	1	1	2	2
08:00 08:15	0	0	0	3	1	4	4
08:15 08:30	1	0	1	1	2	3	4
08:30 08:45	0	0	0	5	0	5	5
08:45 09:00	0	0	0	0	2	2	2
09:00 09:15	1	0	1	3	4	7	8
09:15 09:30	0	1	1	2	2	4	5
09:30 09:45	0	0	0	7	3	10	10
09:45 10:00	0	2	2	4	4	8	10
11:30 11:45	1	0	1	0	1	1	2
11:45 12:00	2	2	4	4	2	6	10
12:00 12:15	0	0	0	3	1	4	4
12:15 12:30	1	1	2	2	1	3	5
12:30 12:45	0	0	0	0	3	3	3
12:45 13:00	1	0	1	0	1	1	2
13:00 13:15	0	2	2	0	0	0	2
13:15 13:30	0	1	1	2	2	4	5
15:00 15:15	2	0	2	4	2	6	8
15:15 15:30	1	0	1	1	2	3	4
15:30 15:45	0	2	2	5	4	9	11
15:45 16:00	0	1	1	2	2	4	5
16:00 16:15	1	0	1	1	7	8	9
16:15 16:30	0	0	0	1	0	1	1
16:30 16:45	2	1	3	11	2	13	16
16:45 17:00	0	0	0	7	1	8	8
17:00 17:15	0	3	3	2	8	10	13
17:15 17:30	0	2	2	3	3	6	8
17:30 17:45	2	0	2	2	3	5	7
17:45 18:00	0	0	0	3	2	5	5
Total	15	19	34	88	70	158	192



Transportation Services - Traffic Services

Turning Movement Count - Study Results

DUMAUER AVE @ PINECREST RD

Survey Date: Thursday, August 25, 2016

WO No: 36164

Start Time: 07:00

Device: Miovision

Full Study Heavy Vehicles

PINECREST RD

DUMAUER AVE

Northbound

Southbound

Eastbound

Westbound

Time Period		Northbound			N TOT	Southbound			S TOT	STR TOT	Eastbound			E TOT	Westbound			W TOT	STR TOT	Grand Total
		LT	ST	RT		LT	ST	RT			LT	ST	RT		LT	ST	RT			
07:00	07:15	1	6	0	7	0	3	0	3	10	1	0	1	2	0	0	0	0	2	12
07:15	07:30	0	3	0	3	0	2	0	2	5	0	0	0	0	0	0	0	0	0	5
07:30	07:45	4	4	0	8	0	1	0	1	9	0	0	1	1	0	0	0	0	1	10
07:45	08:00	4	3	0	7	0	5	0	5	12	0	0	1	1	0	0	0	0	1	13
08:00	08:15	2	6	0	8	0	3	0	3	11	0	0	2	2	0	0	0	0	2	13
08:15	08:30	2	3	0	5	0	3	0	3	8	0	0	2	2	0	0	1	1	3	11
08:30	08:45	4	7	0	11	0	4	0	4	15	1	0	1	2	0	0	0	0	2	17
08:45	09:00	1	10	0	11	0	7	2	9	20	0	0	1	1	0	0	0	0	1	21
09:00	09:15	3	6	0	9	0	3	0	3	12	0	0	2	2	0	0	0	0	2	14
09:15	09:30	0	5	0	5	0	1	0	1	6	1	0	0	1	0	0	0	0	1	7
09:30	09:45	4	6	0	10	0	6	0	6	16	3	0	1	4	0	0	0	0	4	20
09:45	10:00	1	6	0	7	0	6	1	7	14	0	0	1	1	0	0	0	0	1	15
11:30	11:45	2	6	0	8	0	6	1	7	15	0	0	2	2	0	0	0	0	2	17
11:45	12:00	0	4	0	4	0	7	0	7	11	0	0	1	1	0	0	0	0	1	12
12:00	12:15	1	0	0	1	0	6	0	6	7	0	0	2	2	0	0	0	0	2	9
12:15	12:30	5	5	0	10	0	5	0	5	15	0	0	0	0	0	0	0	0	0	15
12:30	12:45	4	3	0	7	0	6	3	9	16	0	0	7	7	0	0	0	0	7	23
12:45	13:00	0	2	0	2	0	8	0	8	10	1	0	2	3	0	0	0	0	3	13
13:00	13:15	2	5	0	7	0	7	0	7	14	0	0	3	3	0	0	0	0	3	17
13:15	13:30	1	2	0	3	0	3	0	3	6	0	0	1	1	0	0	0	0	1	7
15:00	15:15	1	5	0	6	0	8	0	8	14	0	0	1	1	0	0	0	0	1	15
15:15	15:30	1	4	0	5	0	9	0	9	14	0	0	2	2	0	0	0	0	2	16
15:30	15:45	1	5	0	6	0	3	0	3	9	0	0	1	1	0	0	0	0	1	10
15:45	16:00	0	4	0	4	0	4	0	4	8	0	0	1	1	0	0	0	0	1	9
16:00	16:15	2	3	0	5	0	2	0	2	7	1	0	2	3	0	0	0	0	3	10
16:15	16:30	0	4	0	4	0	3	0	3	7	0	0	1	1	0	0	0	0	1	8
16:30	16:45	2	0	0	2	0	4	0	4	6	0	0	2	2	0	0	0	0	2	8
16:45	17:00	0	1	0	1	0	8	0	8	9	0	0	0	0	0	0	0	0	0	9
17:00	17:15	1	0	0	1	0	3	1	4	5	0	0	1	1	0	0	0	0	1	6
17:15	17:30	0	1	0	1	0	3	0	3	4	0	0	1	1	0	0	0	0	1	5
17:30	17:45	0	3	0	3	0	2	0	2	5	0	0	3	3	0	0	0	0	3	8
17:45	18:00	0	1	0	1	0	1	0	1	2	0	0	1	1	0	0	0	0	1	3
Total:	None	49	123	0	172	0	142	8	150	322	8	0	47	55	0	0	1	1	56	378



Transportation Services - Traffic Services

Turning Movement Count - Study Results

DUMAURIER AVE @ PINECREST RD

Survey Date: Thursday, August 25, 2016

WO No: 36164

Start Time: 07:00

Device: Miovision

Full Study 15 Minute U-Turn Total

PINECREST RD

DUMAURIER AVE

Time Period		Northbound U-Turn Total	Southbound U-Turn Total	Eastbound U-Turn Total	Westbound U-Turn Total	Total
07:00	07:15	0	0	0	0	0
07:15	07:30	0	0	0	0	0
07:30	07:45	0	0	0	0	0
07:45	08:00	0	0	0	0	0
08:00	08:15	0	0	0	0	0
08:15	08:30	0	0	0	0	0
08:30	08:45	1	0	0	0	1
08:45	09:00	1	0	0	0	1
09:00	09:15	0	0	0	0	0
09:15	09:30	0	0	0	0	0
09:30	09:45	0	1	0	0	1
09:45	10:00	0	0	0	0	0
11:30	11:45	0	0	0	0	0
11:45	12:00	0	0	0	0	0
12:00	12:15	1	0	0	0	1
12:15	12:30	0	0	0	0	0
12:30	12:45	0	0	0	0	0
12:45	13:00	1	0	0	0	1
13:00	13:15	0	0	0	0	0
13:15	13:30	1	0	0	0	1
15:00	15:15	1	0	0	0	1
15:15	15:30	0	0	0	0	0
15:30	15:45	1	0	0	0	1
15:45	16:00	0	0	0	0	0
16:00	16:15	0	0	0	0	0
16:15	16:30	0	0	0	0	0
16:30	16:45	0	0	0	0	0
16:45	17:00	0	0	0	0	0
17:00	17:15	1	0	0	0	1
17:15	17:30	0	0	0	0	0
17:30	17:45	0	0	0	0	0
17:45	18:00	1	0	0	0	1
Total		9	1	0	0	10

Turning Movement Count - Study Results

PINECREST RD @ HWY 417 PINECRE IC129R36/63

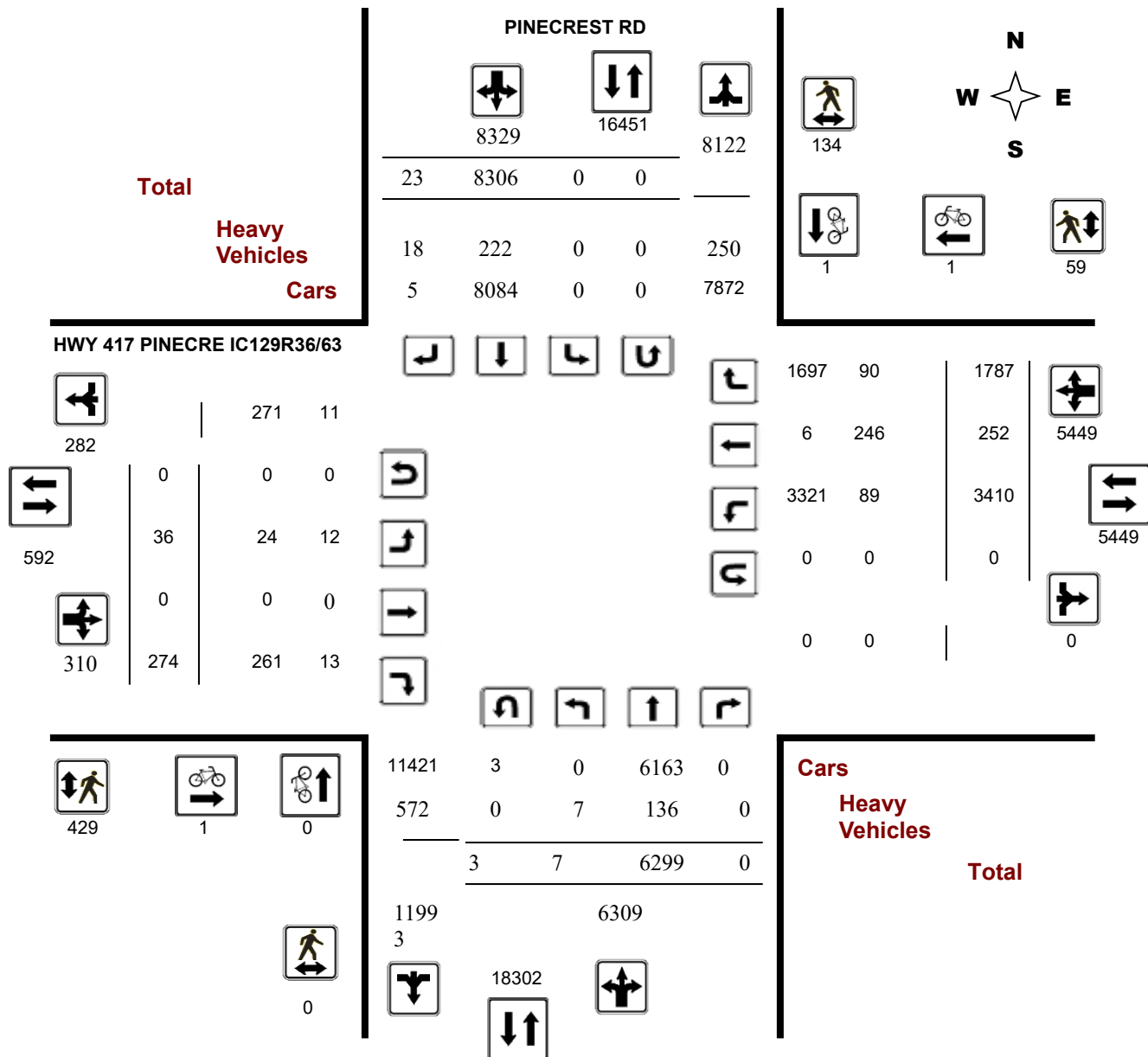
Survey Date: Tuesday, January 22, 2019

Start Time: 07:00

WO No: 38298

Device: Miovision

Full Study Diagram



Turning Movement Count - Study Results

PINECREST RD @ HWY 417 PINECRE IC129R36/63

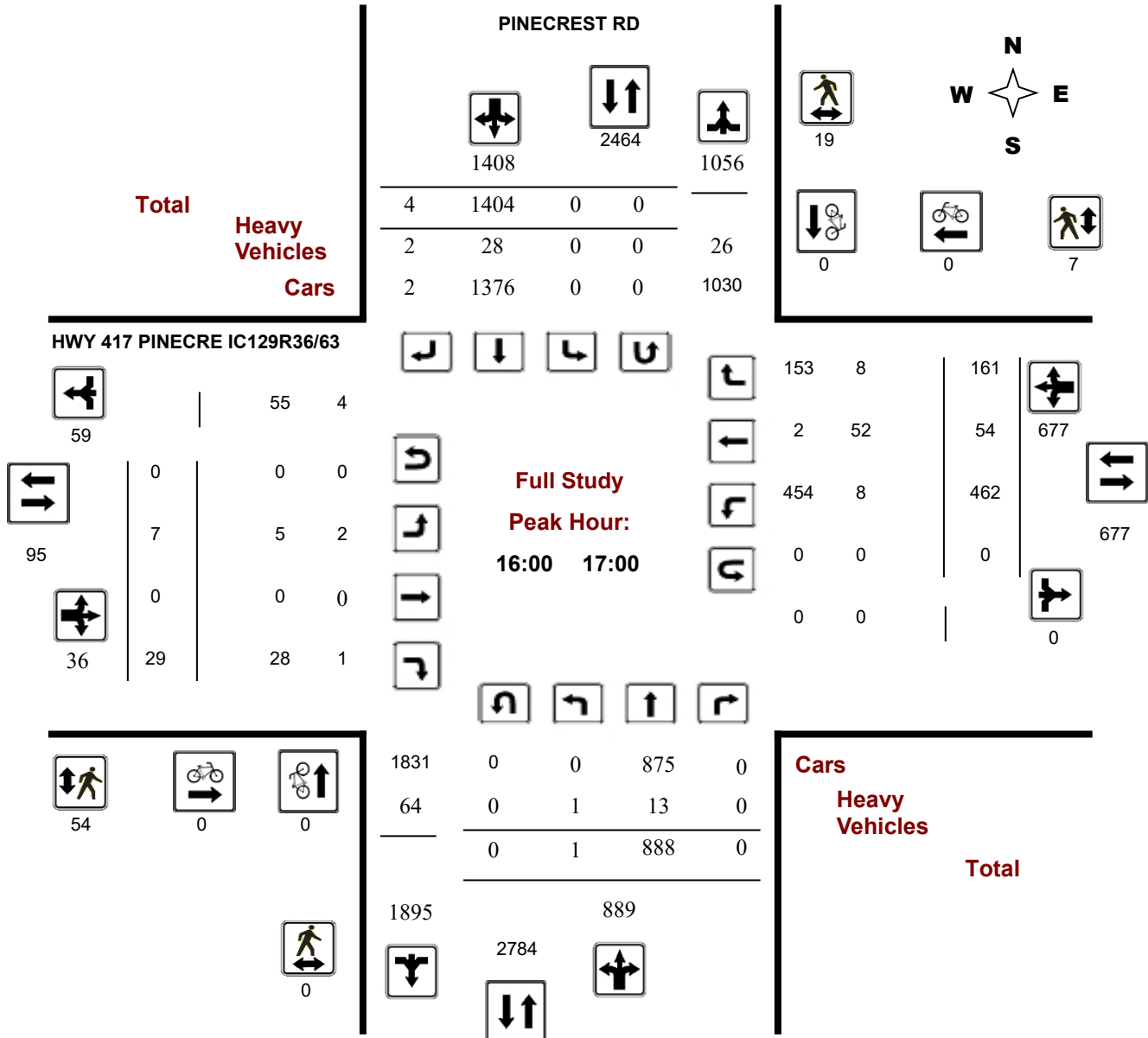
Survey Date: Tuesday, January 22, 2019

WO No: 38298

Start Time: 07:00

Device: Miovision

Full Study Peak Hour Diagram



Turning Movement Count - Study Results

PINECREST RD @ HWY 417 PINECRE IC129R36/63

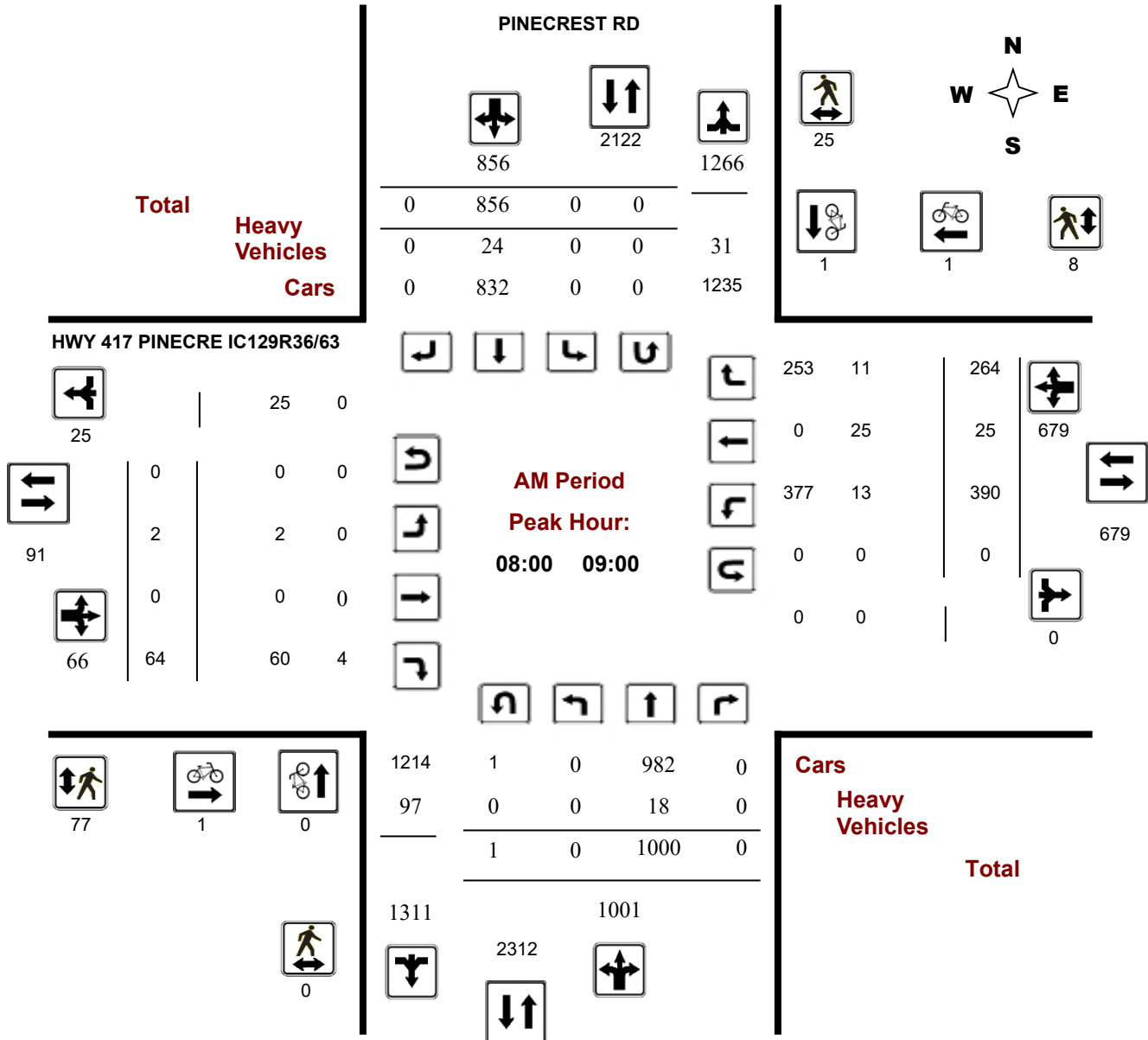
Survey Date: Tuesday, January 22, 2019

WO No: 38298

Start Time: 07:00

Device: Miovision

AM Period Peak Hour Diagram



Turning Movement Count - Study Results

PINECREST RD @ HWY 417 PINECRE IC129R36/63

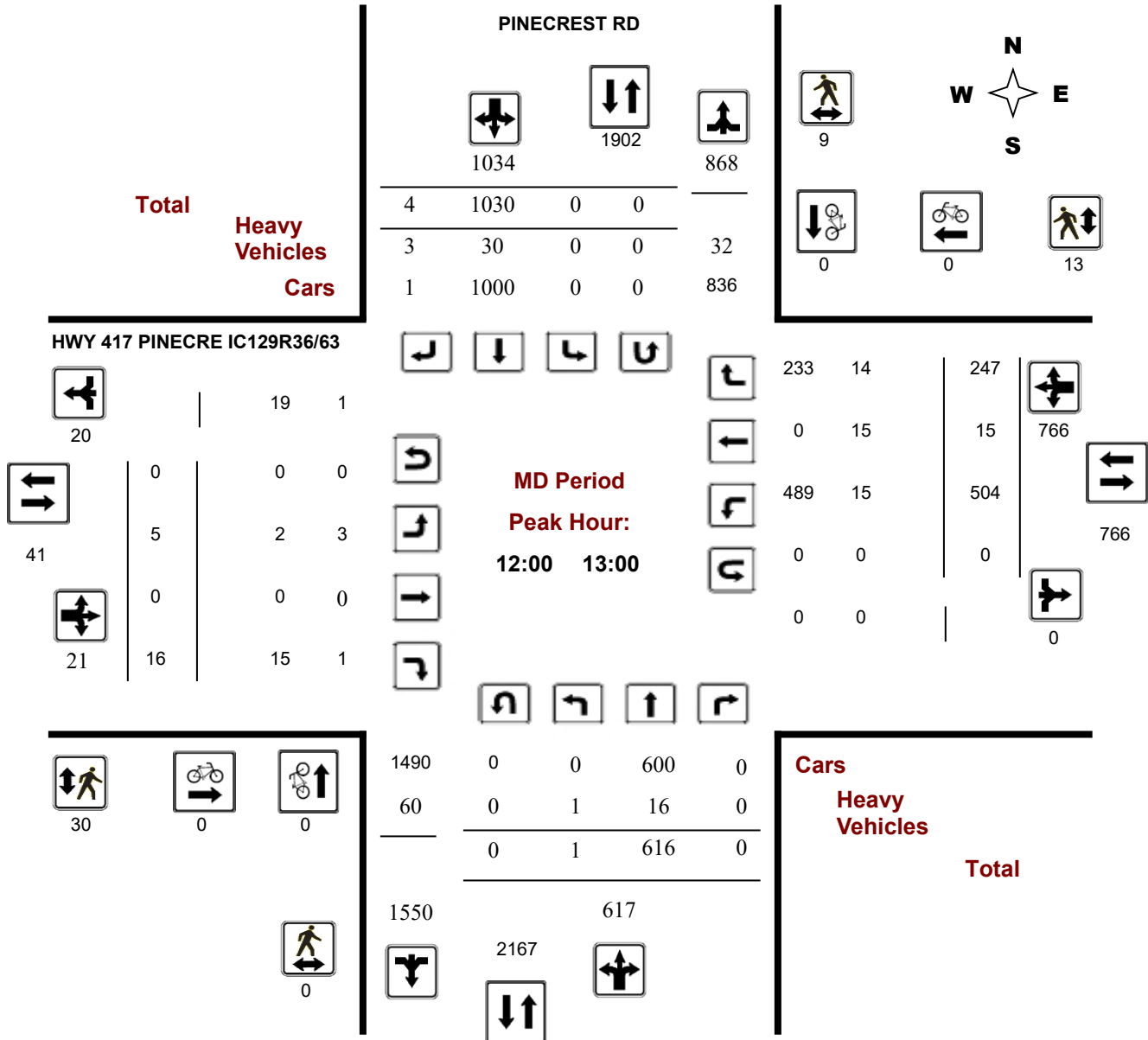
Survey Date: Tuesday, January 22, 2019

WO No: 38298

Start Time: 07:00

Device: Miovision

MD Period Peak Hour Diagram



Turning Movement Count - Study Results

PINECREST RD @ HWY 417 PINECRE IC129R36/63

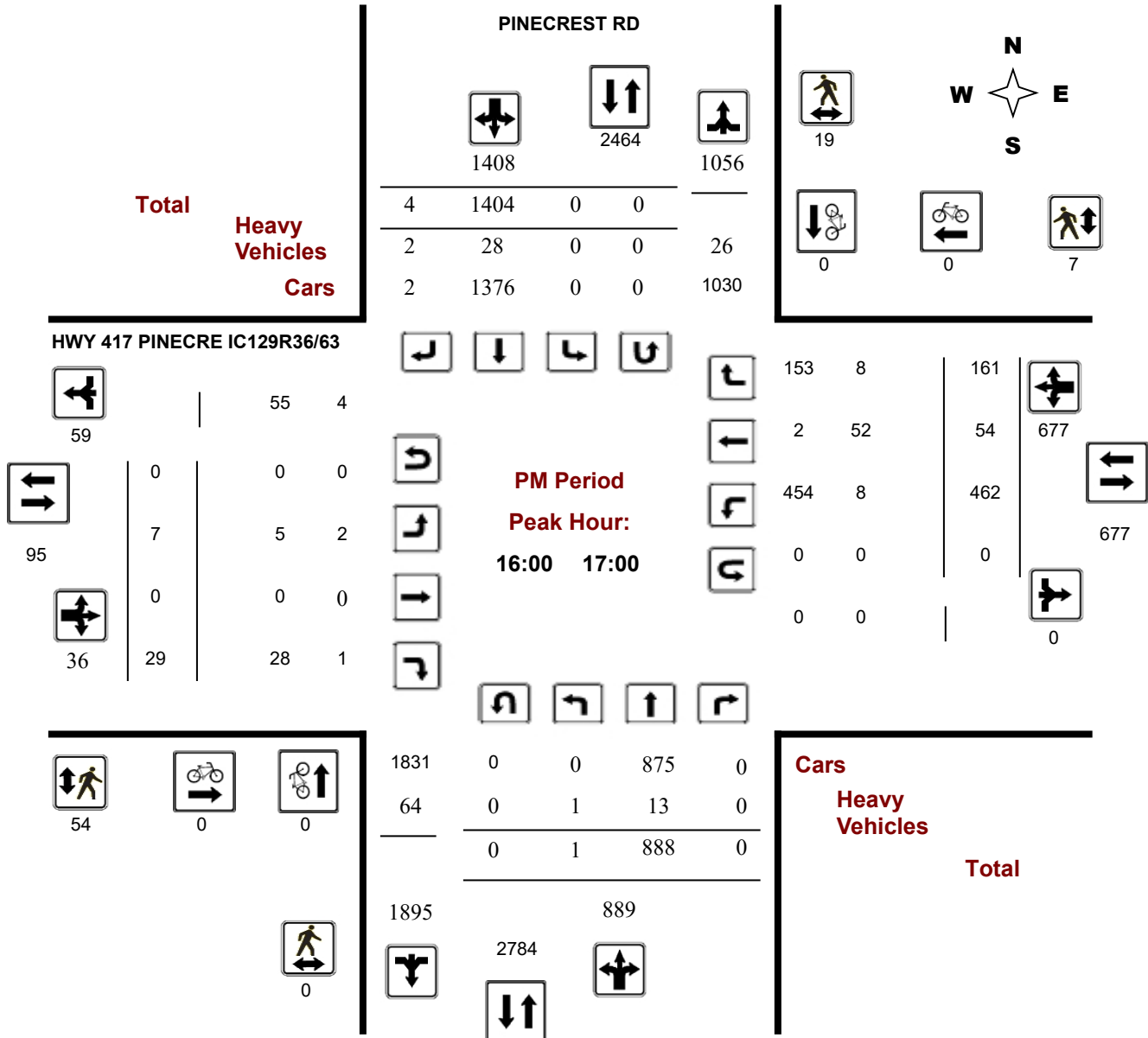
Survey Date: Tuesday, January 22, 2019

WO No: 38298

Start Time: 07:00

Device: Miovision

PM Period Peak Hour Diagram



Transportation Services - Traffic Services

Turning Movement Count - Study Results

PINECREST RD @ HWY 417 PINECRE IC129R36/63

Survey Date: Tuesday, January 22, 2019

WO No: 38298

Start Time: 07:00

Device: Miovision

Full Study Summary (8 HR Standard)

Survey Date: Tuesday, January 22, 2019

Total Observed U-Turns

AADT Factor

Northbound: 3 Southbound: 0
Eastbound: 0 Westbound: 0

1.10

PINECREST RD

HWY 417 PINECRE IC129R36/63

Period		Northbound				Southbound				Eastbound				Westbound				STR TOT	Grand Total				
		LT	ST	RT	NB TOT	LT	ST	RT	SB TOT	STR TOT	LT	ST	RT	EB TOT	WB TOT								
07:00	08:00	0	748	0	748	0	747	4	751	1499	5	0	61	66	326	31	163	520	586	2085			
08:00	09:00	0	1000	0	1000	0	856	0	856	1856	2	0	64	66	390	25	264	679	745	2601			
09:00	10:00	2	1014	0	1016	0	772	0	772	1788	7	0	33	40	376	31	278	685	725	2513			
11:30	12:30	0	592	0	592	0	971	5	976	1568	6	0	13	19	451	15	258	724	743	2311			
12:30	13:30	1	596	0	597	0	955	3	958	1555	4	0	18	22	484	15	268	767	789	2344			
15:00	16:00	1	752	0	753	0	1286	3	1289	2042	1	0	24	25	482	33	238	753	778	2820			
16:00	17:00	1	888	0	889	0	1404	4	1408	2297	7	0	29	36	462	54	161	677	713	3010			
17:00	18:00	2	709	0	711	0	1315	4	1319	2030	4	0	32	36	439	48	157	644	680	2710			
Sub Total		7	6299	0	6306	0	8306	23	8329	14635	36	0	274	310	3410	252	1787	5449	5759	20394			
U Turns		3				0				3				0				0				3	
Total		7	6299	0	6309	0	8306	23	8329	14638	36	0	274	310	3410	252	1787	5449	5759	20397			
EQ 12Hr		10	8756	0	8770	0	11545	32	11577	20347	50	0	381	431	4740	350	2484	7574	8005	28352			
Note: These values are calculated by multiplying the totals by the appropriate expansion factor.														1.39									
AVG 12Hr		11	9632	0	9647	0	16637	46	12735	22382	55	0	419	474	5214	385	2732	8331	8806	31187			
Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor.														1.10									
AVG 24Hr		14	12618	0	12638	0	21794	60	16683	29320	72	0	549	621	6830	504	3579	10914	11536	40855			
Note: These volumes are calculated by multiplying the Average Daily 12 hr. totals by 12 to 24 expansion factor.														1.31									
Note: U-Turns provided for approach totals. Refer to 'U-Turn' Report for specific breakdown.																							



Transportation Services - Traffic Services

Turning Movement Count - Study Results

PINECREST RD @ HWY 417 PINECRE IC129R36/63

Survey Date: Tuesday, January 22, 2019

WO No: 38298

Start Time: 07:00

Device: Miovision

Full Study 15 Minute Increments

PINECREST RD

HWY 417 PINECRE IC129R36/63

Northbound

Southbound

Eastbound

Westbound

Time Period	LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total
07:00 07:15	0	141	0	141	0	145	1	146	287	2	0	13	15	72	11	37	120	135	422
07:15 07:30	0	195	0	195	0	171	2	173	368	1	0	17	18	86	8	42	136	154	522
07:30 07:45	0	194	0	194	0	201	1	202	396	0	0	17	17	87	7	32	126	143	539
16:45 17:00	0	206	0	206	0	308	1	309	515	3	0	4	7	119	16	41	176	183	698
07:45 08:00	0	218	0	218	0	230	0	230	448	2	0	14	16	81	5	52	138	154	602
08:00 08:15	0	231	0	231	0	228	0	228	459	0	0	18	18	96	7	70	173	191	650
08:30 08:45	0	241	0	241	0	211	0	211	452	0	0	12	12	84	7	67	158	170	622
08:45 09:00	0	249	0	249	0	185	0	185	434	1	0	13	14	108	4	66	178	192	626
09:00 09:15	1	258	0	259	0	210	0	210	469	2	0	9	11	83	7	77	167	178	647
16:15 16:30	1	207	0	208	0	328	1	329	537	2	0	6	8	105	15	41	161	169	706
09:15 09:30	0	280	0	280	0	160	0	160	440	1	0	5	6	102	8	68	178	184	624
09:30 09:45	1	263	0	264	0	200	0	200	464	1	0	12	13	94	7	71	172	185	649
11:30 11:45	0	131	0	131	0	228	0	228	359	0	0	2	2	97	4	74	175	177	536
11:45 12:00	0	146	0	146	0	218	3	221	367	3	0	3	6	100	3	71	174	180	547
12:00 12:15	0	139	0	139	0	255	0	255	394	1	0	4	5	131	3	54	188	193	587
12:15 12:30	0	176	0	176	0	270	2	272	448	2	0	4	6	123	5	59	187	193	641
12:45 13:00	1	151	0	152	0	248	1	249	401	2	0	3	5	133	4	76	213	218	619
13:00 13:15	0	152	0	152	0	224	0	224	376	1	0	4	5	114	4	57	175	180	556
15:00 15:15	0	184	0	185	0	312	0	312	497	0	0	3	3	118	6	68	192	195	692
15:15 15:30	0	210	0	210	0	305	2	307	517	0	0	7	7	108	8	56	172	179	696
15:30 15:45	1	172	0	173	0	353	0	353	526	0	0	4	4	150	10	56	216	220	746
15:45 16:00	0	186	0	186	0	316	1	317	503	1	0	10	11	106	9	58	173	184	687
16:00 16:15	0	258	0	258	0	386	0	386	644	0	0	7	7	115	12	39	166	173	817
16:30 16:45	0	217	0	217	0	382	2	384	601	2	0	12	14	123	11	40	174	188	789
17:00 17:15	0	200	0	200	0	334	0	334	534	2	0	10	12	99	16	38	153	165	699
17:15 17:30	0	183	0	183	0	357	2	359	542	0	0	5	5	102	9	29	140	145	687
17:30 17:45	2	130	0	133	0	312	1	313	446	2	0	6	8	120	11	43	174	182	628
17:45 18:00	0	196	0	196	0	312	1	313	509	0	0	11	11	118	12	47	177	188	697
08:15 08:30	0	279	0	280	0	232	0	232	512	1	0	21	22	102	7	61	170	192	704
09:45 10:00	0	213	0	213	0	202	0	202	415	3	0	7	10	97	9	62	168	178	593
12:30 12:45	0	150	0	150	0	257	1	258	408	0	0	5	5	117	3	58	178	183	591
13:15 13:30	0	143	0	143	0	226	1	227	370	1	0	6	7	120	4	77	201	208	578
Total:	7	6299	0	6309	0	8306	23	8329	14638	36	0	274	310	3410	252	1787	5449	5759	20,397

Note: U-Turns are included in Totals, cyclist volume is not included in totals. For cyclist volumes refer to Cyclist Volume report.



Transportation Services - Traffic Services

Turning Movement Count - Study Results

PINECREST RD @ HWY 417 PINECRE IC129R36/63

Survey Date: Tuesday, January 22, 2019

WO No: 38298

Start Time: 07:00

Device: Miovision

Full Study Cyclist Volume

PINECREST RD

HWY 417 PINECRE IC129R36/63

Time Period		Northbound	Southbound	Street Total	Eastbound	Westbound	Street Total	Grand Total
07:00	07:15	0	0	0	0	0	0	0
07:15	07:30	0	0	0	0	0	0	0
07:30	07:45	0	0	0	0	0	0	0
16:45	17:00	0	0	0	0	0	0	0
07:45	08:00	0	0	0	0	0	0	0
08:00	08:15	0	1	1	1	0	1	2
08:30	08:45	0	0	0	0	0	0	0
08:45	09:00	0	0	0	0	0	0	0
09:00	09:15	0	0	0	0	0	0	0
16:15	16:30	0	0	0	0	0	0	0
09:15	09:30	0	0	0	0	0	0	0
09:30	09:45	0	0	0	0	0	0	0
11:30	11:45	0	0	0	0	0	0	0
11:45	12:00	0	0	0	0	0	0	0
12:00	12:15	0	0	0	0	0	0	0
12:15	12:30	0	0	0	0	0	0	0
12:45	13:00	0	0	0	0	0	0	0
13:00	13:15	0	0	0	0	0	0	0
15:00	15:15	0	0	0	0	0	0	0
15:15	15:30	0	0	0	0	0	0	0
15:30	15:45	0	0	0	0	0	0	0
15:45	16:00	0	0	0	0	0	0	0
16:00	16:15	0	0	0	0	0	0	0
16:30	16:45	0	0	0	0	0	0	0
17:00	17:15	0	0	0	0	0	0	0
17:15	17:30	0	0	0	0	0	0	0
17:30	17:45	0	0	0	0	0	0	0
17:45	18:00	0	0	0	0	0	0	0
08:15	08:30	0	0	0	0	1	1	1
09:45	10:00	0	0	0	0	0	0	0
12:30	12:45	0	0	0	0	0	0	0
13:15	13:30	0	0	0	0	0	0	0
Total		0	1	1	1	1	2	3



Transportation Services - Traffic Services

Turning Movement Count - Study Results

PINECREST RD @ HWY 417 PINECRE IC129R36/63

Survey Date: Tuesday, January 22, 2019

WO No: 38298

Start Time: 07:00

Device: Miovision

Full Study Pedestrian Volume

PINECREST RD

HWY 417 PINECRE IC129R36/63

Time Period	NB Approach (E or W Crossing)	SB Approach (E or W Crossing)	Total	EB Approach (N or S Crossing)	WB Approach (N or S Crossing)	Total	Grand Total
07:00 07:15	0	5	5	13	1	14	19
07:15 07:30	0	6	6	24	1	25	31
07:30 07:45	0	6	6	30	2	32	38
16:45 17:00	0	8	8	9	4	13	21
07:45 08:00	0	8	8	30	1	31	39
08:00 08:15	0	5	5	21	1	22	27
08:30 08:45	0	13	13	17	2	19	32
08:45 09:00	0	2	2	12	1	13	15
09:00 09:15	0	4	4	21	4	25	29
16:15 16:30	0	5	5	21	2	23	28
09:15 09:30	0	2	2	7	0	7	9
09:30 09:45	0	3	3	8	1	9	12
11:30 11:45	0	2	2	4	0	4	6
11:45 12:00	0	2	2	4	1	5	7
12:00 12:15	0	3	3	7	8	15	18
12:15 12:30	0	3	3	7	0	7	10
12:45 13:00	0	2	2	9	2	11	13
13:00 13:15	0	7	7	5	4	9	16
15:00 15:15	0	0	0	13	4	17	17
15:15 15:30	0	4	4	10	1	11	15
15:30 15:45	0	2	2	9	1	10	12
15:45 16:00	0	4	4	14	3	17	21
16:00 16:15	0	1	1	11	1	12	13
16:30 16:45	0	5	5	13	0	13	18
17:00 17:15	0	9	9	22	1	23	32
17:15 17:30	0	2	2	15	2	17	19
17:30 17:45	0	4	4	13	0	13	17
17:45 18:00	0	6	6	13	0	13	19
08:15 08:30	0	5	5	27	4	31	36
09:45 10:00	0	2	2	6	1	7	9
12:30 12:45	0	1	1	7	3	10	11
13:15 13:30	0	3	3	7	3	10	13
Total	0	134	134	429	59	488	622



Transportation Services - Traffic Services

Turning Movement Count - Study Results

PINECREST RD @ HWY 417 PINECRE IC129R36/63

Survey Date: Tuesday, January 22, 2019

WO No: 38298

Start Time: 07:00

Device: Miovision

Full Study Heavy Vehicles

PINECREST RD

HWY 417 PINECRE IC129R36/63

Northbound

Southbound

Eastbound

Westbound

Time Period	LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total
07:00 07:15	0	1	0	1	0	6	1	7	8	1	0	13	14	3	11	3	17	31	39
07:15 07:30	0	2	0	2	0	7	2	9	11	0	0	16	16	3	8	2	13	29	40
07:30 07:45	0	11	0	11	0	5	1	6	17	0	0	17	17	3	7	0	10	27	44
16:45 17:00	0	3	0	3	0	4	1	5	8	2	0	4	6	1	16	2	19	25	33
07:45 08:00	0	6	0	6	0	12	0	12	18	1	0	12	13	6	5	1	12	25	43
08:00 08:15	0	4	0	4	0	4	0	4	8	0	0	17	17	4	7	2	13	30	38
08:30 08:45	0	2	0	2	0	4	0	4	6	0	0	11	11	2	7	3	12	23	29
08:45 09:00	0	5	0	5	0	7	0	7	12	1	0	13	14	3	4	4	11	25	37
09:00 09:15	1	6	0	7	0	6	0	6	13	0	0	9	9	3	7	6	16	25	38
16:15 16:30	1	2	0	3	0	11	1	12	15	2	0	6	8	2	14	4	20	28	43
09:15 09:30	0	10	0	10	0	2	0	2	12	1	0	5	6	8	8	10	26	32	44
09:30 09:45	1	9	0	10	0	4	0	4	14	1	0	12	13	4	7	7	18	31	45
11:30 11:45	0	3	0	3	0	9	0	9	12	0	0	1	1	1	3	5	9	10	22
11:45 12:00	0	2	0	2	0	11	3	14	16	3	0	3	6	2	3	1	6	12	28
12:00 12:15	0	4	0	4	0	11	0	11	15	0	0	4	4	4	3	4	11	15	30
12:15 12:30	0	1	0	1	0	4	1	5	6	1	0	3	4	4	5	2	11	15	21
12:45 13:00	1	5	0	6	0	10	1	11	17	1	0	3	4	3	4	3	10	14	31
13:00 13:15	0	4	0	4	0	12	0	12	16	1	0	4	5	3	4	2	9	14	30
15:00 15:15	0	9	0	9	0	18	0	18	27	0	0	3	3	2	5	1	8	11	38
15:15 15:30	0	2	0	2	0	13	2	15	17	0	0	7	7	0	8	0	8	15	32
15:30 15:45	1	7	0	8	0	5	0	5	13	0	0	4	4	5	10	1	16	20	33
15:45 16:00	0	1	0	1	0	6	1	7	8	1	0	10	11	1	9	5	15	26	34
16:00 16:15	0	7	0	7	0	7	0	7	14	0	0	7	7	3	11	1	15	22	36
16:30 16:45	0	1	0	1	0	6	0	6	7	1	0	11	12	2	11	1	14	26	33
17:00 17:15	0	1	0	1	0	9	0	9	10	0	0	9	9	1	16	0	17	26	36
17:15 17:30	0	1	0	1	0	2	1	3	4	0	0	5	5	2	9	1	12	17	21
17:30 17:45	2	1	0	3	0	2	1	3	6	2	0	6	8	2	10	0	12	20	26
17:45 18:00	0	5	0	5	0	3	0	3	8	0	0	10	10	1	12	3	16	26	34
08:15 08:30	0	7	0	7	0	9	0	9	16	1	0	19	20	4	7	2	13	33	49
09:45 10:00	0	6	0	6	0	1	0	1	7	3	0	7	10	1	9	6	16	26	33
12:30 12:45	0	6	0	6	0	5	1	6	12	0	0	5	5	4	3	5	12	17	29
13:15 13:30	0	2	0	2	0	7	1	8	10	1	0	5	6	2	3	3	8	14	24
Total: None	7	136	0	143	0	222	18	240	383	24	0	261	285	89	246	90	425	710	1,093

Transportation Services - Traffic Services

Turning Movement Count - Study Results

PINECREST RD @ HWY 417 PINECRE IC129R36/63

Survey Date: Tuesday, January 22, 2019

WO No: 38298

Start Time: 07:00

Device: Miovision

Full Study 15 Minute U-Turn Total

PINECREST RD

HWY 417 PINECRE IC129R36/63

Time Period		Northbound U-Turn Total	Southbound U-Turn Total	Eastbound U-Turn Total	Westbound U-Turn Total	Total
07:00	07:15	0	0	0	0	0
07:15	07:30	0	0	0	0	0
07:30	07:45	0	0	0	0	0
16:45	17:00	0	0	0	0	0
07:45	08:00	0	0	0	0	0
08:00	08:15	0	0	0	0	0
08:30	08:45	0	0	0	0	0
08:45	09:00	0	0	0	0	0
09:00	09:15	0	0	0	0	0
16:15	16:30	0	0	0	0	0
09:15	09:30	0	0	0	0	0
09:30	09:45	0	0	0	0	0
11:30	11:45	0	0	0	0	0
11:45	12:00	0	0	0	0	0
12:00	12:15	0	0	0	0	0
12:15	12:30	0	0	0	0	0
12:45	13:00	0	0	0	0	0
13:00	13:15	0	0	0	0	0
15:00	15:15	1	0	0	0	1
15:15	15:30	0	0	0	0	0
15:30	15:45	0	0	0	0	0
15:45	16:00	0	0	0	0	0
16:00	16:15	0	0	0	0	0
16:30	16:45	0	0	0	0	0
17:00	17:15	0	0	0	0	0
17:15	17:30	0	0	0	0	0
17:30	17:45	1	0	0	0	1
17:45	18:00	0	0	0	0	0
08:15	08:30	1	0	0	0	1
09:45	10:00	0	0	0	0	0
12:30	12:45	0	0	0	0	0
13:15	13:30	0	0	0	0	0
Total		3	0	0	0	3

Turning Movement Count - Study Results

PINECREST RD @ QUEENSVIEW DR

Survey Date: Thursday, June 13, 2024

Start Time: 07:00

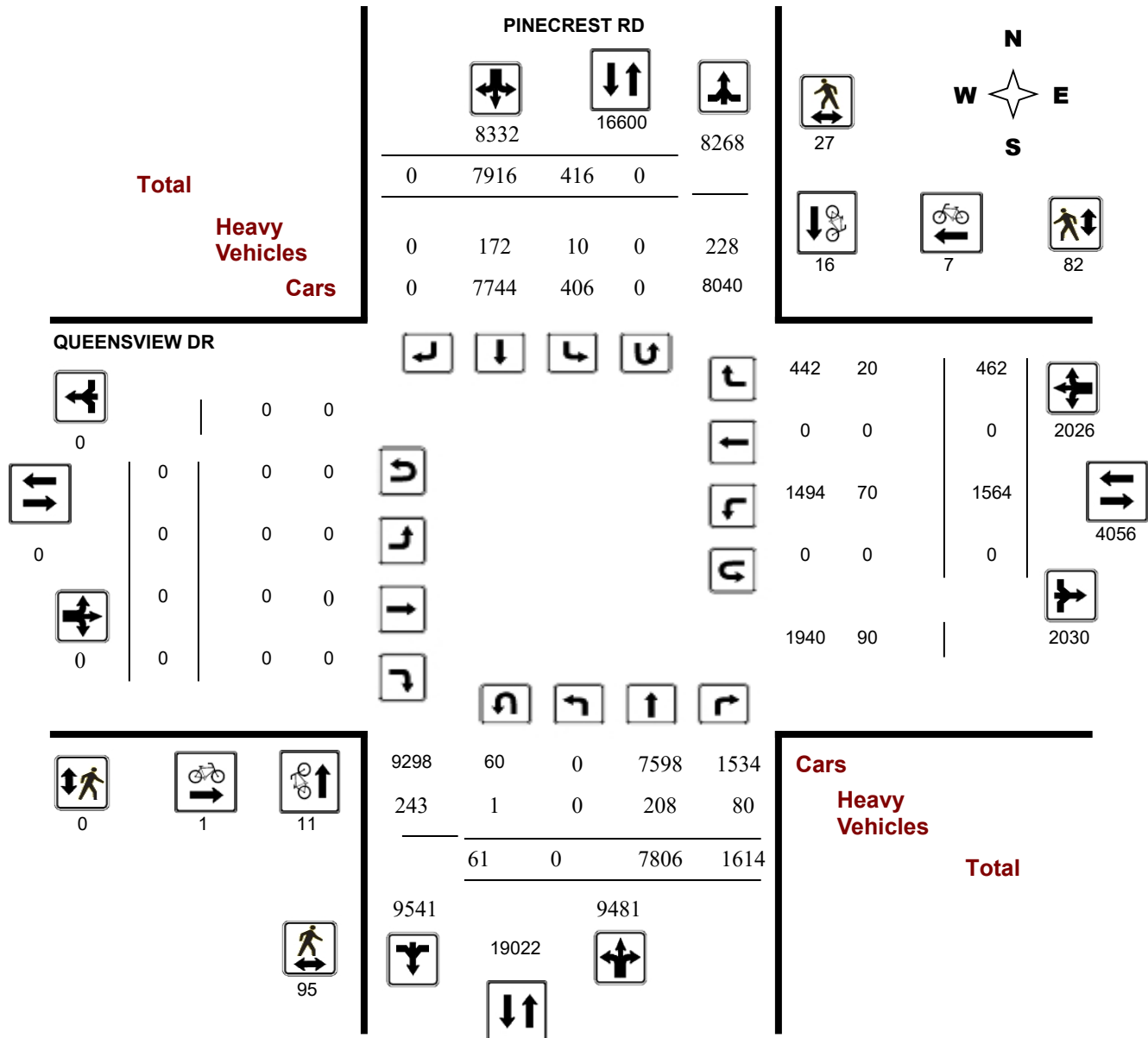
WO No:

41934

Device:

Miovision

Full Study Diagram



Turning Movement Count - Study Results

PINECREST RD @ QUEENSVIEW DR

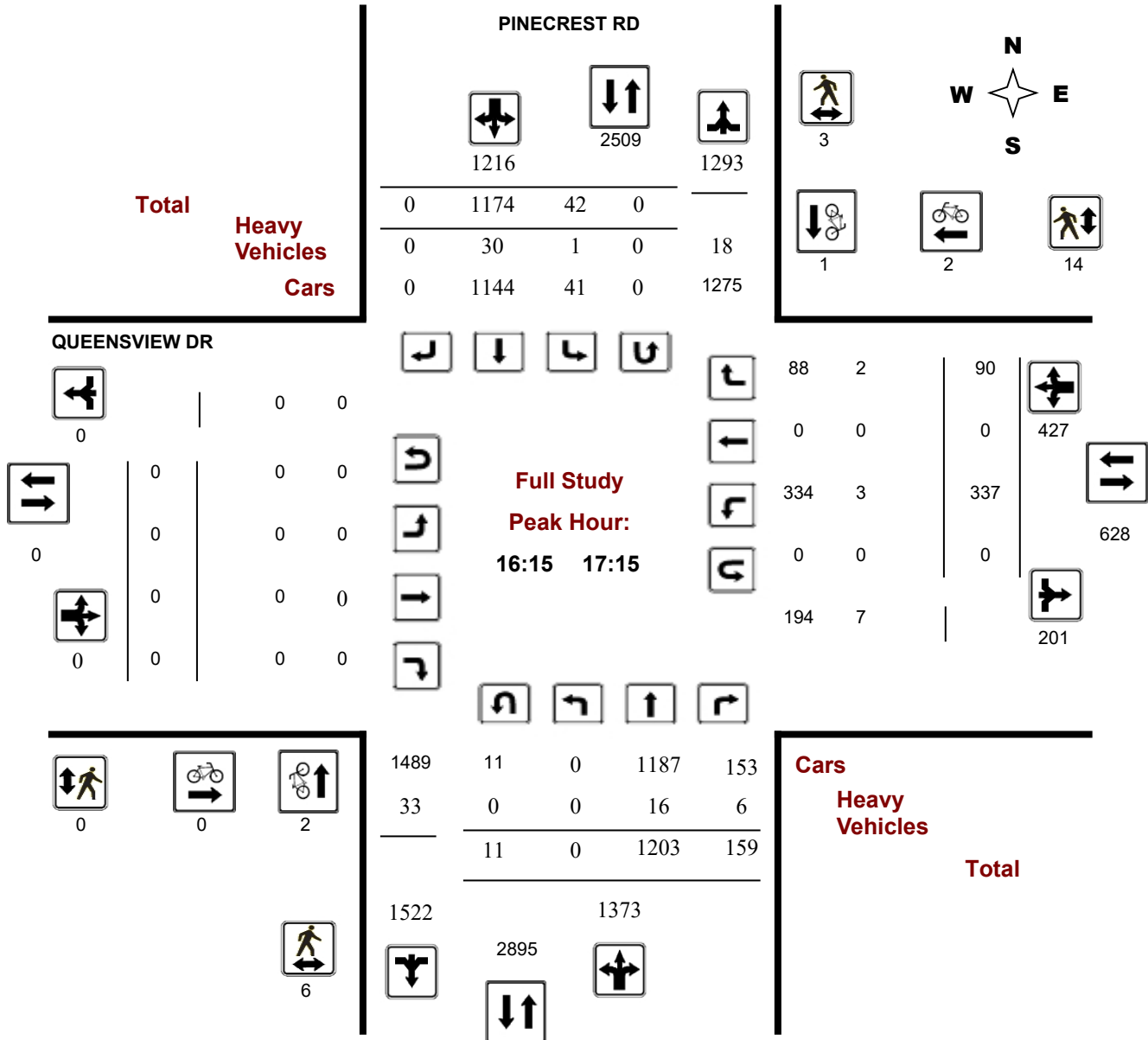
Survey Date: Thursday, June 13, 2024

WO No: 41934

Start Time: 07:00

Device: Miovision

Full Study Peak Hour Diagram



Turning Movement Count - Study Results

PINECREST RD @ QUEENSVIEW DR

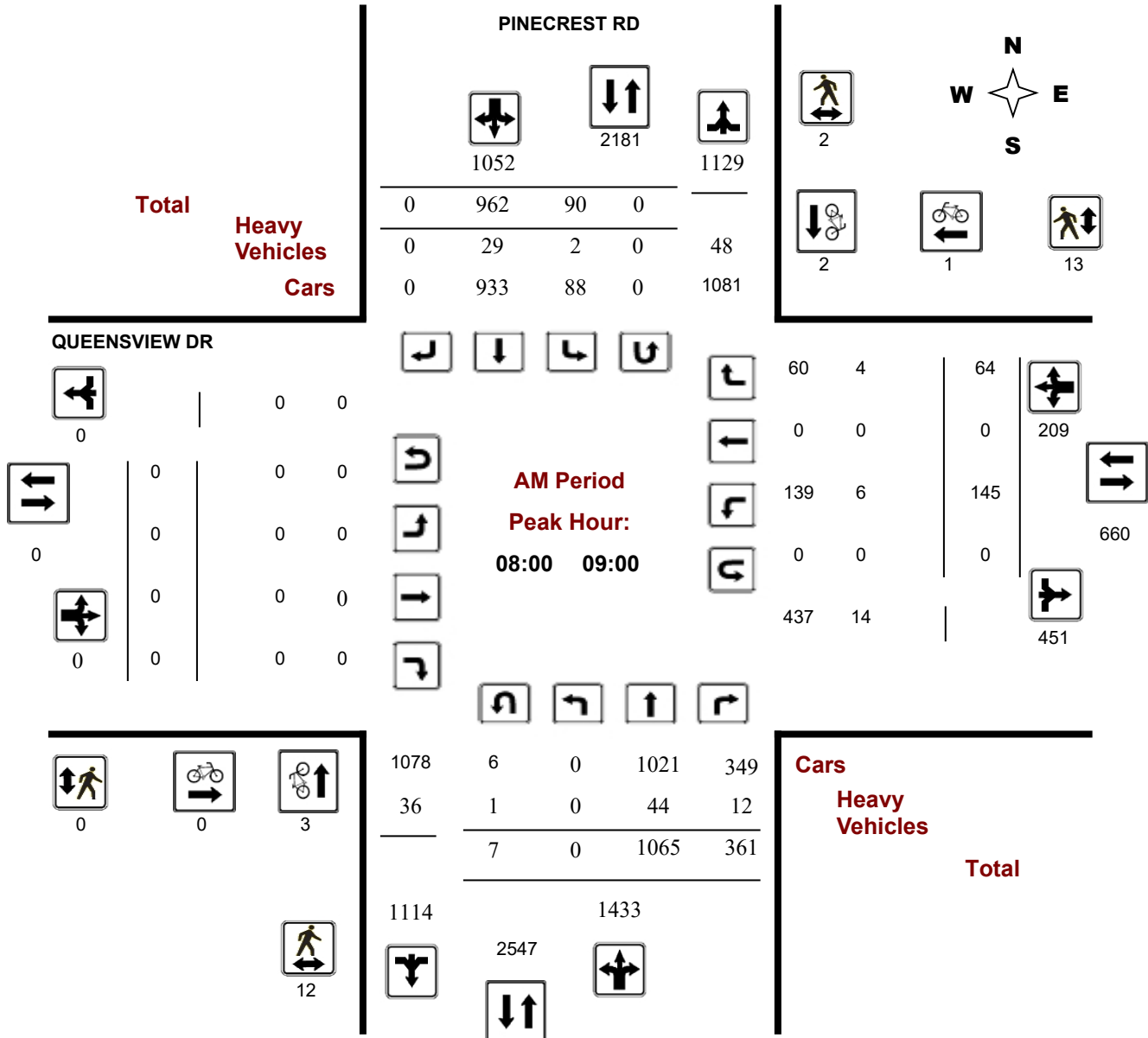
Survey Date: Thursday, June 13, 2024

WO No: 41934

Start Time: 07:00

Device: Miovision

AM Period Peak Hour Diagram



Turning Movement Count - Study Results

PINECREST RD @ QUEENSVIEW DR

Survey Date: Thursday, June 13, 2024

Start Time: 07:00

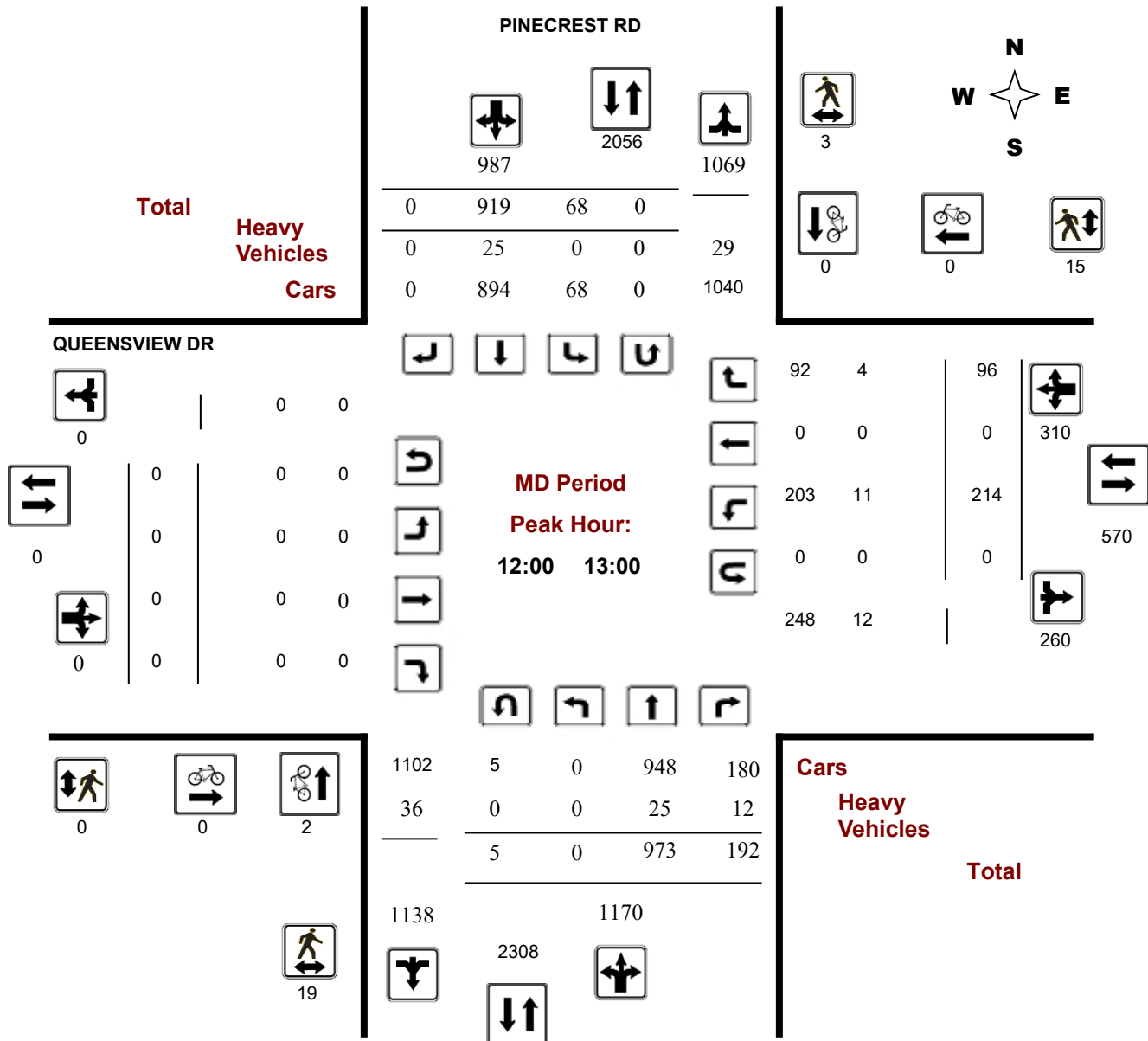
WO No:

41934

Device:

Miovision

MD Period Peak Hour Diagram



Turning Movement Count - Study Results

PINECREST RD @ QUEENSVIEW DR

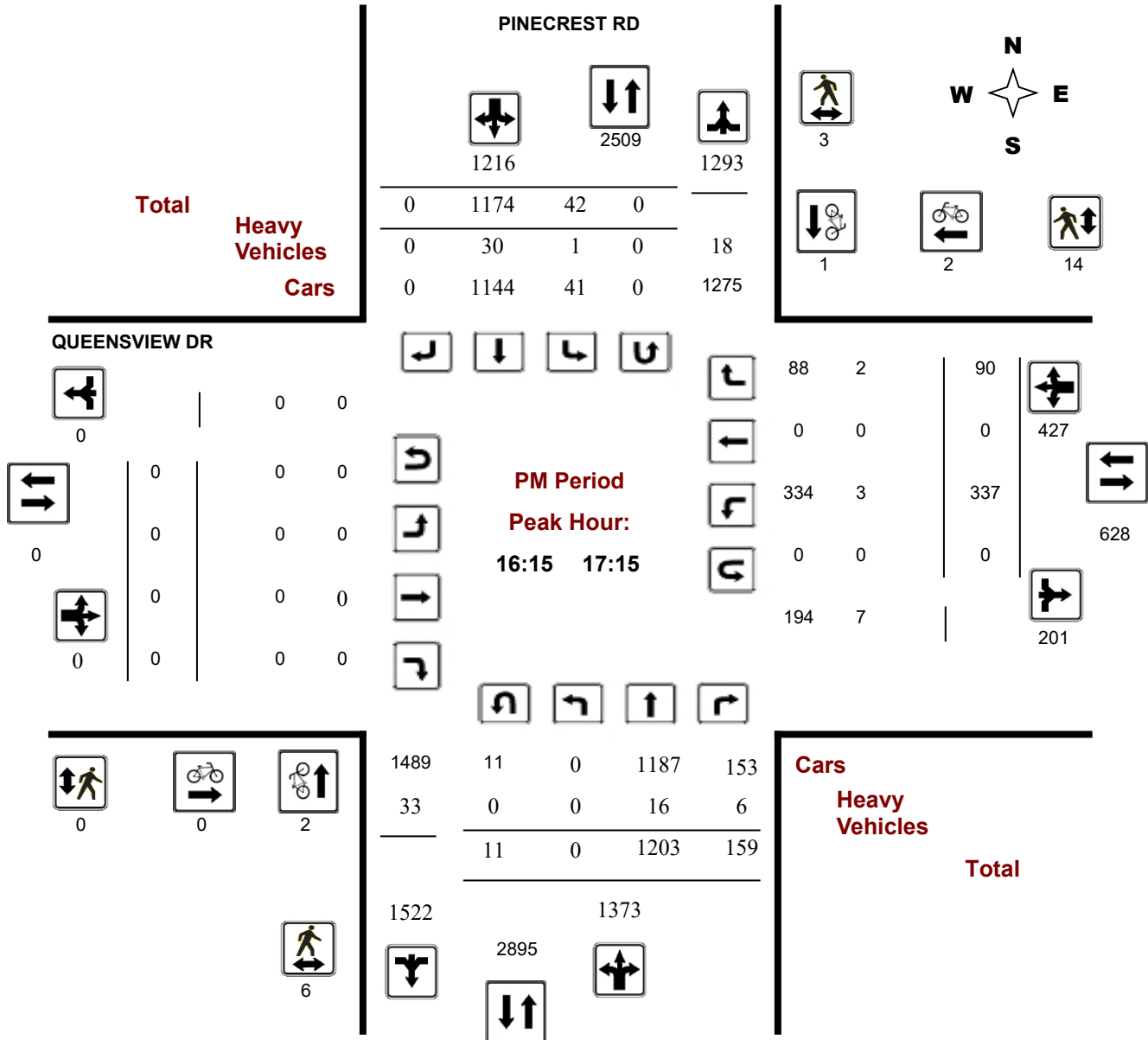
Survey Date: Thursday, June 13, 2024

WO No: 41934

Start Time: 07:00

Device: Miovision

PM Period Peak Hour Diagram



Transportation Services - Traffic Services

Turning Movement Count - Study Results

PINECREST RD @ QUEENSVIEW DR

Survey Date: Thursday, June 13, 2024

WO No: 41934

Start Time: 07:00

Device: Miovision

Full Study Summary (8 HR Standard)

Survey Date: Thursday, June 13, 2024

Total Observed U-Turns

AADT Factor

Northbound: 61 Southbound: 0

.90

Eastbound: 0 Westbound: 0

PINECREST RD

QUEENSVIEW DR

Period	Northbound					Southbound					Eastbound					Westbound					Grand Total
	LT	ST	RT	NB TOT		LT	ST	RT	SB TOT	STR TOT	LT	ST	RT	EB TOT		LT	ST	RT	WB TOT	STR TOT	
07:00 08:00	0	637	209	846		46	805	0	851	1697	0	0	0	0		70	0	29	99	99	1796
08:00 09:00	0	1065	361	1426		90	962	0	1052	2478	0	0	0	0		145	0	64	209	209	2687
09:00 10:00	0	794	218	1012		48	834	0	882	1894	0	0	0	0		122	0	26	148	148	2042
11:30 12:30	0	944	181	1125		58	865	0	923	2048	0	0	0	0		213	0	88	301	301	2349
12:30 13:30	0	964	180	1144		59	921	0	980	2124	0	0	0	0		164	0	58	222	222	2346
15:00 16:00	0	1116	162	1278		39	1172	0	1211	2489	0	0	0	0		273	0	50	323	323	2812
16:00 17:00	0	1167	154	1321		38	1203	0	1241	2562	0	0	0	0		340	0	79	419	419	2981
17:00 18:00	0	1119	149	1268		38	1154	0	1192	2460	0	0	0	0		237	0	68	305	305	2765
Sub Total	0	7806	1614	9420		416	7916	0	8332	17752	0	0	0	0		1564	0	462	2026	2026	19778
U Turns				61					0	61				0					0	0	61
Total	0	7806	1614	9481		416	7916	0	8332	17813	0	0	0	0		1564	0	462	2026	2026	19839
EQ 12Hr	0	10850	2243	13179		578	11003	0	11581	24760	0	0	0	0		2174	0	642	2816	2816	27576

Note: These values are calculated by multiplying the totals by the appropriate expansion factor.

1.39

AVG 12Hr 0 9765 2019 11861 520 12973 0 10423 22284 0 0 0 0 1957 0 578 2534 2534 24818

Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor.

.90

AVG 24Hr 0 12792 2645 15538 681 16995 0 13654 29192 0 0 0 0 2564 0 757 3320 3320 32512

Note: These volumes are calculated by multiplying the Average Daily 12 hr. totals by 12 to 24 expansion factor.

1.31

Note: U-Turns provided for approach totals. Refer to 'U-Turn' Report for specific breakdown.



Transportation Services - Traffic Services

Turning Movement Count - Study Results

PINECREST RD @ QUEENSVIEW DR

Survey Date: Thursday, June 13, 2024

WO No: 41934

Start Time: 07:00

Device: Miovision

Full Study 15 Minute Increments

PINECREST RD

QUEENSVIEW DR

Northbound

Southbound

Eastbound

Westbound

Time Period	LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total
16:45 17:00	0	282	35	318	15	266	0	281	599	0	0	0	0	86	0	20	106	106	705
17:00 17:15	0	308	44	356	10	288	0	298	654	0	0	0	0	79	0	29	108	108	762
17:15 17:30	0	270	24	297	12	315	0	327	624	0	0	0	0	67	0	16	83	83	707
17:30 17:45	0	291	38	330	10	266	0	276	606	0	0	0	0	40	0	10	50	50	656
17:45 18:00	0	250	43	300	6	285	0	291	591	0	0	0	0	51	0	13	64	64	655
08:30 08:45	0	252	85	341	21	247	0	268	609	0	0	0	0	42	0	23	65	65	674
09:15 09:30	0	197	50	248	11	210	0	221	469	0	0	0	0	29	0	8	37	37	506
12:00 12:15	0	248	56	304	19	222	0	241	545	0	0	0	0	77	0	32	109	109	654
12:15 12:30	0	237	41	281	16	220	0	236	517	0	0	0	0	52	0	27	79	79	596
12:30 12:45	0	240	42	282	14	254	0	268	550	0	0	0	0	45	0	18	63	63	613
13:00 13:15	0	255	47	303	8	210	0	218	521	0	0	0	0	39	0	11	50	50	571
15:00 15:15	0	248	50	300	9	266	0	275	575	0	0	0	0	78	0	18	96	96	671
15:30 15:45	0	265	37	302	9	289	0	298	600	0	0	0	0	64	0	13	77	77	677
16:30 16:45	0	332	39	374	9	300	0	309	683	0	0	0	0	81	0	23	104	104	787
15:45 16:00	0	292	40	335	11	314	0	325	660	0	0	0	0	51	0	6	57	57	717
08:15 08:30	0	240	93	333	17	255	0	272	605	0	0	0	0	36	0	14	50	50	655
07:00 07:15	0	130	32	163	6	174	0	180	343	0	0	0	0	10	0	3	13	13	356
07:15 07:30	0	164	48	214	10	191	0	201	415	0	0	0	0	14	0	8	22	22	437
07:30 07:45	0	156	58	215	10	204	0	214	429	0	0	0	0	27	0	9	36	36	465
07:45 08:00	0	187	71	262	20	236	0	256	518	0	0	0	0	19	0	9	28	28	546
08:00 08:15	0	256	92	348	27	231	0	258	606	0	0	0	0	29	0	11	40	40	646
13:15 13:30	0	221	38	260	18	234	0	252	512	0	0	0	0	40	0	10	50	50	562
08:45 09:00	0	317	91	411	25	229	0	254	665	0	0	0	0	38	0	16	54	54	719
09:00 09:15	0	216	79	296	14	231	0	245	541	0	0	0	0	30	0	6	36	36	577
09:30 09:45	0	193	52	246	18	193	0	211	457	0	0	0	0	30	0	7	37	37	494
11:30 11:45	0	234	33	268	9	226	0	235	503	0	0	0	0	38	0	16	54	54	557
09:45 10:00	0	188	37	225	5	200	0	205	430	0	0	0	0	33	0	5	38	38	468
11:45 12:00	0	225	51	277	14	197	0	211	488	0	0	0	0	46	0	13	59	59	547
12:45 13:00	0	248	53	303	19	223	0	242	545	0	0	0	0	40	0	19	59	59	604
15:15 15:30	0	311	35	351	10	303	0	313	664	0	0	0	0	80	0	13	93	93	757
16:15 16:30	0	281	41	325	8	320	0	328	653	0	0	0	0	91	0	18	109	109	762
16:00 16:15	0	272	39	313	6	317	0	323	636	0	0	0	0	82	0	18	100	100	736
Total:	0	7806	1614	9481	416	7916	0	8332	17813	0	0	0	0	1564	0	462	2026	2026	19,839

Note: U-Turns are included in Totals, cyclist volume is not included in totals. For cyclist volumes refer to Cyclist Volume report.



Transportation Services - Traffic Services

Turning Movement Count - Study Results

PINECREST RD @ QUEENSVIEW DR

Survey Date: Thursday, June 13, 2024

WO No: 41934

Start Time: 07:00

Device: Miovision

Full Study Cyclist Volume

			PINECREST RD			QUEENSVIEW DR		
Time Period		Northbound	Southbound	Street Total	Eastbound	Westbound	Street Total	Grand Total
16:45	17:00	0	0	0	0	1	1	1
17:00	17:15	2	0	2	0	1	1	3
17:15	17:30	0	1	1	0	0	0	1
17:30	17:45	0	0	0	0	1	1	1
17:45	18:00	1	0	1	0	3	3	4
08:30	08:45	1	0	1	0	1	1	2
09:15	09:30	0	0	0	0	0	0	0
12:00	12:15	2	0	2	0	0	0	2
12:15	12:30	0	0	0	0	0	0	0
12:30	12:45	0	0	0	0	0	0	0
13:00	13:15	0	0	0	0	0	0	0
15:00	15:15	0	0	0	0	0	0	0
15:30	15:45	1	0	1	0	0	0	1
16:30	16:45	0	0	0	0	0	0	0
15:45	16:00	1	0	1	0	0	0	1
08:15	08:30	1	1	2	0	0	0	2
07:00	07:15	0	2	2	0	0	0	2
07:15	07:30	0	0	0	0	0	0	0
07:30	07:45	0	1	1	0	0	0	1
07:45	08:00	0	4	4	0	0	0	4
08:00	08:15	0	1	1	0	0	0	1
13:15	13:30	0	1	1	0	0	0	1
08:45	09:00	1	0	1	0	0	0	1
09:00	09:15	0	0	0	0	0	0	0
09:30	09:45	0	2	2	0	0	0	2
11:30	11:45	0	0	0	0	0	0	0
09:45	10:00	0	0	0	0	0	0	0
11:45	12:00	0	0	0	0	0	0	0
12:45	13:00	0	0	0	0	0	0	0
15:15	15:30	0	0	0	0	0	0	0
16:15	16:30	0	1	1	0	0	0	1
16:00	16:15	1	2	3	1	0	1	4
Total		11	16	27	1	7	8	35



Transportation Services - Traffic Services

Turning Movement Count - Study Results

PINECREST RD @ QUEENSVIEW DR

Survey Date: Thursday, June 13, 2024

WO No: 41934

Start Time: 07:00

Device: Miovision

Full Study Pedestrian Volume

PINECREST RD

QUEENSVIEW DR

Time Period	NB Approach (E or W Crossing)	SB Approach (E or W Crossing)	Total	EB Approach (N or S Crossing)	WB Approach (N or S Crossing)	Total	Grand Total
16:45 17:00	0	1	1	0	1	1	2
17:00 17:15	3	1	4	0	7	7	11
17:15 17:30	1	4	5	0	0	0	5
17:30 17:45	1	0	1	0	1	1	2
17:45 18:00	5	0	5	0	1	1	6
08:30 08:45	5	0	5	0	2	2	7
09:15 09:30	3	1	4	0	2	2	6
12:00 12:15	1	0	1	0	3	3	4
12:15 12:30	12	1	13	0	3	3	16
12:30 12:45	3	1	4	0	7	7	11
13:00 13:15	11	0	11	0	2	2	13
15:00 15:15	4	1	5	0	1	1	6
15:30 15:45	6	0	6	0	1	1	7
16:30 16:45	1	1	2	0	4	4	6
15:45 16:00	3	4	7	0	4	4	11
08:15 08:30	1	0	1	0	5	5	6
07:00 07:15	0	0	0	0	0	0	0
07:15 07:30	3	2	5	0	2	2	7
07:30 07:45	1	0	1	0	1	1	2
07:45 08:00	4	2	6	0	4	4	10
08:00 08:15	2	2	4	0	3	3	7
13:15 13:30	3	0	3	0	3	3	6
08:45 09:00	4	0	4	0	3	3	7
09:00 09:15	2	1	3	0	1	1	4
09:30 09:45	1	0	1	0	0	0	1
11:30 11:45	2	0	2	0	2	2	4
09:45 10:00	0	0	0	0	2	2	2
11:45 12:00	1	0	1	0	2	2	3
12:45 13:00	3	1	4	0	2	2	6
15:15 15:30	3	4	7	0	3	3	10
16:15 16:30	2	0	2	0	2	2	4
16:00 16:15	4	0	4	0	8	8	12
Total	95	27	122	0	82	82	204



Transportation Services - Traffic Services

Turning Movement Count - Study Results

PINECREST RD @ QUEENSVIEW DR

Survey Date: Thursday, June 13, 2024

WO No: 41934

Start Time: 07:00

Device: Miovision

Full Study Heavy Vehicles

PINECREST RD

QUEENSVIEW DR

Northbound

Southbound

Eastbound

Westbound

Time Period		Northbound			N TOT	Southbound			S TOT	STR TOT	Eastbound			E TOT	Westbound			W TOT	STR TOT	Grand Total
		LT	ST	RT		LT	ST	RT			LT	ST	RT		LT	ST	RT			
16:45	17:00	0	4	0	4	0	8	0	8	12	0	0	0	0	0	0	1	1	1	13
17:00	17:15	0	4	2	6	0	4	0	4	10	0	0	0	0	1	0	0	1	1	11
17:15	17:30	0	3	3	6	0	3	0	3	9	0	0	0	0	0	0	1	1	1	10
17:30	17:45	0	2	1	3	1	1	0	2	5	0	0	0	0	1	0	0	1	1	6
17:45	18:00	0	4	2	6	0	1	0	1	7	0	0	0	0	0	0	0	0	0	7
08:30	08:45	0	10	3	14	1	7	0	8	22	0	0	0	0	2	0	0	2	2	24
09:15	09:30	0	10	6	16	1	7	0	8	24	0	0	0	0	2	0	0	2	2	26
12:00	12:15	0	8	3	11	0	5	0	5	16	0	0	0	0	3	0	1	4	4	20
12:15	12:30	0	10	1	11	0	5	0	5	16	0	0	0	0	3	0	0	3	3	19
12:30	12:45	0	3	5	8	0	5	0	5	13	0	0	0	0	1	0	1	2	2	15
13:00	13:15	0	6	1	7	0	7	0	7	14	0	0	0	0	0	0	0	0	0	14
15:00	15:15	0	5	1	6	0	6	0	6	12	0	0	0	0	7	0	1	8	8	20
15:30	15:45	0	6	2	8	0	8	0	8	16	0	0	0	0	2	0	0	2	2	18
16:30	16:45	0	4	3	7	1	9	0	10	17	0	0	0	0	1	0	1	2	2	19
15:45	16:00	0	3	0	3	0	3	0	3	6	0	0	0	0	2	0	0	2	2	8
08:15	08:30	0	11	2	13	1	9	0	10	23	0	0	0	0	2	0	2	4	4	27
07:00	07:15	0	7	0	7	0	2	0	2	9	0	0	0	0	1	0	1	2	2	11
07:15	07:30	0	11	3	14	1	5	0	6	20	0	0	0	0	5	0	0	5	5	25
07:30	07:45	0	6	3	9	0	8	0	8	17	0	0	0	0	4	0	2	6	6	23
07:45	08:00	0	8	0	8	0	5	0	5	13	0	0	0	0	1	0	0	1	1	14
08:00	08:15	0	15	6	21	0	4	0	4	25	0	0	0	0	0	0	1	1	1	26
13:15	13:30	0	3	1	4	0	1	0	1	5	0	0	0	0	3	0	0	3	3	8
08:45	09:00	0	8	1	9	0	9	0	9	18	0	0	0	0	2	0	1	3	3	21
09:00	09:15	0	7	9	16	0	9	0	9	25	0	0	0	0	1	0	1	2	2	27
09:30	09:45	0	4	6	10	0	3	0	3	13	0	0	0	0	1	0	1	2	2	15
11:30	11:45	0	11	1	12	2	2	0	4	16	0	0	0	0	3	0	0	3	3	19
09:45	10:00	0	9	3	12	1	3	0	4	16	0	0	0	0	2	0	0	2	2	18
11:45	12:00	0	4	2	6	1	3	0	4	10	0	0	0	0	2	0	2	4	4	14
12:45	13:00	0	4	3	7	0	10	0	10	17	0	0	0	0	4	0	2	6	6	23
15:15	15:30	0	9	4	13	0	5	0	5	18	0	0	0	0	13	0	1	14	14	32
16:15	16:30	0	4	1	5	0	9	0	9	14	0	0	0	0	1	0	0	1	1	15
16:00	16:15	0	5	2	7	0	6	0	6	13	0	0	0	0	0	0	0	0	0	13
Total:	None	0	208	80	289	10	172	0	182	471	0	0	0	0	70	0	20	90	90	561

Transportation Services - Traffic Services

Turning Movement Count - Study Results

PINECREST RD @ QUEENSVIEW DR

Survey Date: Thursday, June 13, 2024

WO No: 41934

Start Time: 07:00

Device: Miovision

Full Study 15 Minute U-Turn Total

PINECREST RD

QUEENSVIEW DR

Time Period		Northbound U-Turn Total	Southbound U-Turn Total	Eastbound U-Turn Total	Westbound U-Turn Total	Total
16:45	17:00	1	0	0	0	1
17:00	17:15	4	0	0	0	4
17:15	17:30	3	0	0	0	3
17:30	17:45	1	0	0	0	1
17:45	18:00	7	0	0	0	7
08:30	08:45	4	0	0	0	4
09:15	09:30	1	0	0	0	1
12:00	12:15	0	0	0	0	0
12:15	12:30	3	0	0	0	3
12:30	12:45	0	0	0	0	0
13:00	13:15	1	0	0	0	1
15:00	15:15	2	0	0	0	2
15:30	15:45	0	0	0	0	0
16:30	16:45	3	0	0	0	3
15:45	16:00	3	0	0	0	3
08:15	08:30	0	0	0	0	0
07:00	07:15	1	0	0	0	1
07:15	07:30	2	0	0	0	2
07:30	07:45	1	0	0	0	1
07:45	08:00	4	0	0	0	4
08:00	08:15	0	0	0	0	0
13:15	13:30	1	0	0	0	1
08:45	09:00	3	0	0	0	3
09:00	09:15	1	0	0	0	1
09:30	09:45	1	0	0	0	1
11:30	11:45	1	0	0	0	1
09:45	10:00	0	0	0	0	0
11:45	12:00	1	0	0	0	1
12:45	13:00	2	0	0	0	2
15:15	15:30	5	0	0	0	5
16:15	16:30	3	0	0	0	3
16:00	16:15	2	0	0	0	2
Total		61	0	0	0	61

Traffic Signal Timing

City of Ottawa, Public Works Department

Traffic Signal Operations Unit

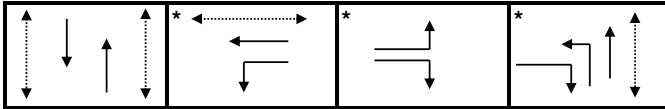
Intersection: *Main:* Pinecrest *Side:* Hwy 417 WB Ramp / Transitway
Controller: MS 3200 **TSD:** 5570
Author: Kymen Kwan **Date:** 16-May-2025

Existing Timing Plans†

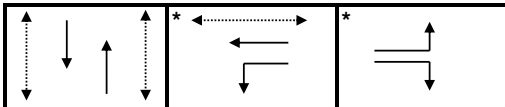
	Plan					Ped Minimum Time		
	AM Peak 1	Off Peak 2	PM Peak 3	Night 4	Weekend 5	Walk	DW	A+R
Cycle	105	95	105	90	95			
Offset	93	83	93	X	83			
NB Thru	50	41	50	31	41	7	17	3.3+3.1
SB Thru	38	30	38	31	30	7	17	3.3+3.1
WB Thru	37	37	37	37	37	7	23	3.3+3.3
WB Left (fp)	37	37	37	37	37	-	-	3.3+3.3
EB Left (fp)	18	17	18	22	17	-	-	3.3+3.7
EB Right (fp)	30	28	30	22	28	-	-	3.3+3.7
NB Left	12	11	12	-	11	-	-	3.3+3.1

Phasing Sequence*

Plan: 1,2,3,5



Plan: 4



- Notes:** 1) Access to the transitway is prohibited except for authorized vehicles
 2) The EB Thru movement is prohibited
 3) The SB Left Turn movement is prohibited
 4) The NB Right Turn movement is prohibited

Schedule

Weekday

Time	Plan
0:15	4
6:30	1
9:30	2
15:00	3
18:45	2
21:30	4

Weekend

Time	Plan
0:15	4
8:30	5
22:30	4

Notes

†: Time for each direction includes amber and all red intervals
 ‡: Start of first phase should be used as reference point for offset
 Asterisk (*) Indicates actuated phase
 (fp): Fully Protected Left Turn
 ◀.....▶ Pedestrian signal

Cost is \$62.38 (\$55.20 + HST)

Traffic Signal Timing

City of Ottawa, Public Works Department

Traffic Signal Operations Unit

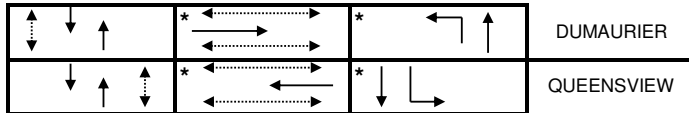
Intersection:	Main: Pinecrest	Side: Dumauiet/Queensview
Controller:	MS 3200	TSD: 5579
Author:	Kymen Kwan	Date: 16-May-2025

Existing Timing Plans†

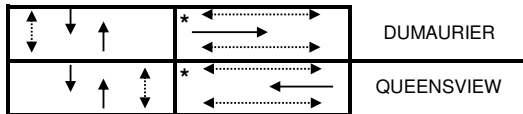
	Plan					Ped Minimum Time			
	AM Peak 1	Off Peak 2	PM Peak 3	Night 4	Weekend 5	Walk	DW	A+R DUMAUER	A+R QUEENSVIEW
Cycle	105	95	105	65	95				
Offset	90	80	90	0	80				
NB Thru	50	47	56	32	47	7	13	3.3+2.3	3.3+7.0
SB Thru	50	47	56	32	47	7	13	3.3+7.0	3.3+2.3
EB Thru	35	33	36	33	33	7	20	3.3+2.5	-
WB Thru	35	33	36	33	33	7	20	-	3.3+2.5
NB Left	20	15	13	-	15	-	-	3.3+1.4	-
SB Left	20	15	13	-	15	-	-	-	3.3+1.4

Phasing Sequence‡

Plan: 1,2,3,5



Plan: 4



- Notes:**
- 1) These intersections operate under one controller.
 - 2) The NS near-side displays terminate 4.7 seconds earlier to clear traffic from between intersections. The NS far-side displays remain green during this time.

Schedule

Weekday		Weekend	
Time	Plan	Time	Plan
0:15	4	0:15	4
6:30	1	8:30	5
9:30	2	22:30	4
15:00	3		
18:45	2		
21:30	4		

Notes

†: Time for each direction includes amber and all red intervals
‡: Start of first phase should be used as reference point for offset
Asterisk (*) Indicates actuated phase
(fp): Fully Protected Left Turn
◀.....▶ Pedestrian signal

Cost is \$62.38 (\$55.20 + HST)

Appendix C Collision Data



ID	Geo_ID	Accident_Date	Accident_Tim	Location	Location_Type	Classification_Of_Accid	Initial_Impact_Type	Road_Surf	Environment	Light	Traffic_Control	Num_of_Ve	Num_Of_Pe	Num_of_Bid	Num_of_Mc	Max_Injury	Num_of_Inj	Num_of_Mi	Num_of_Mi	Num_of_Mi	Num_of_Mi	Num_of_Fa
2017--190	2743	1/5/2017	17:11	DUMAURIER AVE @ PINECREST RD (0002743)	Intersection	03 - P.D. only	03 - Rear end	06 - Ice	01 - Clear	05 - Dusk	01 - Traffic signal	2	0									
2017--3430	2743	4/6/2017	20:44	DUMAURIER AVE @ PINECREST RD (0002743)	Intersection	02 - Non-fatal injury	02 - Angle	02 - Wet	02 - Rain	07 - Dark	01 - Traffic signal	2	0			02 - Minor	1		1			
2017--10219	2743	11/13/2017	7:51	DUMAURIER AVE @ PINECREST RD (0002743)	Intersection	02 - Non-fatal injury	02 - Angle	01 - Dry	01 - Clear	01 - Dayligh	01 - Traffic signal	2	0			02 - Minor	1		1			
2017--12482	2743	12/29/2017	10:50	DUMAURIER AVE @ PINECREST RD (0002743)	Intersection	03 - P.D. only	03 - Rear end	06 - Ice	01 - Clear	01 - Dayligh	01 - Traffic signal	2	0									
2018--14477	2743	1/2/2018	14:46	DUMAURIER AVE @ PINECREST RD (0002743)	Intersection	03 - P.D. only	03 - Rear end	03 - Loose s	03 - Snow	01 - Dayligh	01 - Traffic signal	2	0									
2018--20991	2743	7/17/2018	13:07	DUMAURIER AVE @ PINECREST RD (0002743)	Intersection	03 - P.D. only	02 - Angle	01 - Dry	01 - Clear	01 - Dayligh	01 - Traffic signal	2	0									
2019--31545	2743	2/20/2019	8:15	DUMAURIER AVE @ PINECREST RD (0002743)	Intersection	03 - P.D. only	03 - Rear end	06 - Ice	01 - Clear	01 - Dayligh	01 - Traffic signal	2	0									
2019--32668	2743	3/21/2019	15:33	DUMAURIER AVE @ PINECREST RD (0002743)	Intersection	03 - P.D. only	03 - Rear end	01 - Dry	01 - Clear	01 - Dayligh	01 - Traffic signal	2	0									
2019--33902	2743	5/1/2019	14:05	DUMAURIER AVE @ PINECREST RD (0002743)	Intersection	03 - P.D. only	04 - Sideswipe	02 - Wet	02 - Rain	01 - Dayligh	01 - Traffic signal	2	0									
2019--34745	2743	5/26/2019	10:00	DUMAURIER AVE @ PINECREST RD (0002743)	Intersection	03 - P.D. only	03 - Rear end	01 - Dry	01 - Clear	01 - Dayligh	01 - Traffic signal	2	0			1						
2019--35837	2743	6/22/2019	19:25	DUMAURIER AVE @ PINECREST RD (0002743)	Intersection	03 - P.D. only	03 - Rear end	01 - Dry	01 - Clear	01 - Dayligh	01 - Traffic signal	2	0									
2019--38206	2743	8/30/2019	16:45	DUMAURIER AVE @ PINECREST RD (0002743)	Intersection	03 - P.D. only	03 - Rear end	01 - Dry	01 - Clear	01 - Dayligh	01 - Traffic signal	3	0									
2020--49860	2743	6/25/2020	13:38	DUMAURIER AVE @ PINECREST RD (0002743)	Intersection	03 - P.D. only	03 - Rear end	01 - Dry	01 - Clear	01 - Dayligh	01 - Traffic signal	2	0									
2020--53880	2743	12/21/2020	10:43	DUMAURIER AVE @ PINECREST RD (0002743)	Intersection	03 - P.D. only	03 - Rear end	02 - Wet	01 - Clear	01 - Dayligh	01 - Traffic signal	3	0									
2021--62246	2743	11/8/2021	14:41	DUMAURIER AVE @ PINECREST RD (0002743)	Intersection	03 - P.D. only	03 - Rear end	01 - Dry	01 - Clear	01 - Dayligh	01 - Traffic signal	3	0									
2020--50523	32AH	7/28/2020	13:28	DUMAURIER AVE btwn RAMSEY CRES & WATSON ST (_32AHP0)	Midblock	02 - Non-fatal injury	02 - Angle	01 - Dry	01 - Clear	01 - Dayligh	10 - No control	2	0			02 - Minor	2	1	1			
2020--51416	32AH	9/9/2020	16:50	DUMAURIER AVE btwn RAMSEY CRES & WATSON ST (_32AHP0)	Midblock	03 - P.D. only	05 - Turning movemen	02 - Wet	02 - Rain	01 - Dayligh	10 - No control	2	0									
2021--61132	32AH	9/29/2021	1:20	DUMAURIER AVE btwn WATSON ST & PINECREST RD (_32AH1B)	Midblock	03 - P.D. only	07 - SMV other	01 - Dry	01 - Clear	07 - Dark	10 - No control	1	0									
2017--9349	3209	10/20/2017	16:15	PINECREST RD btwn KELLY AVE & DUMAURIER AVE (_3209AZ)	Midblock	03 - P.D. only	02 - Angle	01 - Dry	01 - Clear	01 - Dayligh	10 - No control	2	0									
2018--16041	3209	2/7/2018	14:26	PINECREST RD btwn KELLY AVE & DUMAURIER AVE (_3209AZ)	Midblock	03 - P.D. only	04 - Sideswipe	03 - Loose s	03 - Snow	01 - Dayligh	10 - No control	2	0									
2018--22307	3209	9/2/2018	15:33	PINECREST RD btwn KELLY AVE & DUMAURIER AVE (_3209AZ)	Midblock	03 - P.D. only	02 - Angle	01 - Dry	01 - Clear	01 - Dayligh	10 - No control	2	0									
2017--10352	3209	11/16/2017	14:00	PINECREST RD btwn DUMAURIER AVE & QUEENSVIEW DR (_32090L)	Midblock	03 - P.D. only	04 - Sideswipe	01 - Dry	01 - Clear	01 - Dayligh	10 - No control	2	0									
2017--2098	3205	2/24/2017	14:31	HWY417 IC129 RAMP61 btwn HWY417 IC129 RAMP63 & HIGHWAY 4	Midblock	03 - P.D. only	07 - SMV other	02 - Wet	03 - Snow	01 - Dayligh	10 - No control	1	0									
2017--13996	3205	11/3/2017	15:36	HWY417 IC129 RAMP61 btwn HWY417 IC129 RAMP63 & HIGHWAY 4	Midblock	03 - P.D. only	07 - SMV other	01 - Dry	01 - Clear	01 - Dayligh	10 - No control	1	0									
2018--27457	3205	1/12/2018	2:22	HWY417 IC129 RAMP61 btwn HWY417 IC129 RAMP63 & HIGHWAY 4	Midblock	03 - P.D. only	07 - SMV other	03 - Loose s	03 - Snow	07 - Dark	10 - No control	1	0									
2018--28744	3205	12/5/2018	13:05	HWY417 IC129 RAMP61 btwn HWY417 IC129 RAMP63 & HIGHWAY 4	Midblock	03 - P.D. only	07 - SMV other	06 - Ice	03 - Snow	01 - Dayligh	10 - No control	1	0									
2019--43679	3205	1/10/2019	13:15	HWY417 IC129 RAMP61 btwn HWY417 IC129 RAMP63 & HIGHWAY 4	Midblock	03 - P.D. only	04 - Sideswipe	01 - Dry	01 - Clear	01 - Dayligh	10 - No control	2	0									
2020--55344	3205	12/4/2020	15:04	HWY417 IC129 RAMP61 btwn HWY417 IC129 RAMP63 & HIGHWAY 4	Midblock	03 - P.D. only	07 - SMV other	02 - Wet	02 - Rain	01 - Dayligh	10 - No control	1	0									
2021--65080	3205	11/28/2021	1:26	HWY417 IC129 RAMP61 btwn HWY417 IC129 RAMP63 & HIGHWAY 4	Midblock	03 - P.D. only	07 - SMV other	01 - Dry	01 - Clear	07 - Dark	10 - No control	1	0									
2017--1676	8264	2/14/2017	19:09	PINECREST RD @ HWY 417 PINECRE IC129R36/63 (0008264)	Intersection	02 - Non-fatal injury	07 - SMV other	02 - Wet	03 - Snow	07 - Dark	01 - Traffic signal	1	1			01 - Minima	1	1				
2017--3093	8264	3/25/2017	1:32	PINECREST RD @ HWY 417 PINECRE IC129R36/63 (0008264)	Intersection	03 - P.D. only	03 - Rear end	02 - Wet	02 - Rain	07 - Dark	01 - Traffic signal	2	0									
2017--8250	8264	9/16/2017	18:38	PINECREST RD @ HWY 417 PINECRE IC129R36/63 (0008264)	Intersection	03 - P.D. only	03 - Rear end	01 - Dry	01 - Clear	05 - Dusk	01 - Traffic signal	2	0									
2018--21551	8264	8/4/2018	13:51	PINECREST RD @ HWY 417 PINECRE IC129R36/63 (0008264)	Intersection	03 - P.D. only	02 - Angle	01 - Dry	01 - Clear	01 - Dayligh	01 - Traffic signal	2	0									
2018--22742	8264	9/15/2018	12:43	PINECREST RD @ HWY 417 PINECRE IC129R36/63 (0008264)	Intersection	03 - P.D. only	04 - Sideswipe	01 - Dry	01 - Clear	01 - Dayligh	01 - Traffic signal	2	0									
2018--23038	8264	9/22/2018	16:52	PINECREST RD @ HWY 417 PINECRE IC129R36/63 (0008264)	Intersection	03 - P.D. only	03 - Rear end	01 - Dry	01 - Clear	01 - Dayligh	01 - Traffic signal	2	0									
2018--25118	8264	11/16/2018	10:29	PINECREST RD @ HWY 417 PINECRE IC129R36/63 (0008264)	Intersection	03 - P.D. only	02 - Angle	03 - Loose s	03 - Snow	01 - Dayligh	01 - Traffic signal	2	0									
2019--35510	8264	6/15/2019	12:38	PINECREST RD @ HWY 417 PINECRE IC129R36/63 (0008264)	Intersection	03 - P.D. only	04 - Sideswipe	02 - Wet	02 - Rain	01 - Dayligh	01 - Traffic signal	2	0									
2019--37191	8264	7/31/2019	19:30	PINECREST RD @ HWY 417 PINECRE IC129R36/63 (0008264)	Intersection	03 - P.D. only	04 - Sideswipe	01 - Dry	01 - Clear	01 - Dayligh	01 - Traffic signal	2	0									
2019--40876	8264	11/8/2019	1:38	PINECREST RD @ HWY 417 PINECRE IC129R36/63 (0008264)	Intersection	03 - P.D. only	02 - Angle	01 - Dry	01 - Clear	07 - Dark	01 - Traffic signal	2	0									
2020--46308	8264	1/22/2020	10:54	PINECREST RD @ HWY 417 PINECRE IC129R36/63 (0008264)	Intersection	03 - P.D. only	02 - Angle	01 - Dry	01 - Clear	01 - Dayligh	01 - Traffic signal	2	0									
2020--47365	8264	2/14/2020	11:29	PINECREST RD @ HWY 417 PINECRE IC129R36/63 (0008264)	Intersection	02 - Non-fatal injury	03 - Rear end	01 - Dry	01 - Clear	01 - Dayligh	01 - Traffic signal	2	0			01 - Minima	2	2				
2020--47398	8264	2/14/2020	14:08	PINECREST RD @ HWY 417 PINECRE IC129R36/63 (0008264)	Intersection	03 - P.D. only	04 - Sideswipe	01 - Dry	01 - Clear	01 - Dayligh	01 - Traffic signal	2	0									
2020--49630	8264	6/13/2020	15:00	PINECREST RD @ HWY 417 PINECRE IC129R36/63 (0008264)	Intersection	03 - P.D. only	02 - Angle	01 - Dry	01 - Clear	01 - Dayligh	01 - Traffic signal	2	0									
2020--50608	8264	8/1/2020	14:20	PINECREST RD @ HWY 417 PINECRE IC129R36/63 (0008264)	Intersection	03 - P.D. only	03 - Rear end	01 - Dry	01 - Clear	01 - Dayligh	01 - Traffic signal	2	0									
2020--52904	8264	11/15/2020	14:45	PINECREST RD @ HWY 417 PINECRE IC129R36/63 (0008264)	Intersection	03 - P.D. only	03 - Rear end	01 - Dry	01 - Clear	01 - Dayligh	01 - Traffic signal	2	0									
2020--52747	8264	11/9/2020	13:33	PINECREST RD @ HWY 417 PINECRE IC129R36/63 (0008264)	Intersection	03 - P.D. only	05 - Turning movemen	01 - Dry	01 - Clear	01 - Dayligh	01 - Traffic signal	3	0									
2020--53445	8264	12/4/2020	12:23	PINECREST RD @ HWY 417 PINECRE IC129R36/63 (0008264)	Intersection	02 - Non-fatal injury	03 - Rear end	02 - Wet	02 - Rain	01 - Dayligh	01 - Traffic signal	2	0			01 - Minima	1	1				
2020--53536	8264	12/8/2020	3:55	PINECREST RD @ HWY 417 PINECRE IC129R36/63 (0008264)	Intersection	02 - Non-fatal injury	07 - SMV other	01 - Dry	01 - Clear	07 - Dark	01 - Traffic signal	1	0			02 - Minor	1		1			
2021--58739	8264	6/21/2021	12:52	PINECREST RD @ HWY 417 PINECRE IC129R36/63 (0008264)	Intersection	02 - Non-fatal injury	02 - Angle	01 - Dry	01 - Clear	01 - Dayligh	01 - Traffic signal	2	0			01 - Minima	1	1				
2021--64981	8264	10/29/2021	14:13	PINECREST RD @ HWY 417 PINECRE IC129R36/63 (0008264)	Intersection	03 - P.D. only	03 - Rear end	01 - Dry	01 - Clear	01 - Dayligh	01 - Traffic signal	2	0									
2018--15701	8127	1/31/2018	18:12	PINECREST RD @ PINECREST RD/HWY 417 PINECRE IC129R62 (0008127)	Intersection	03 - P.D. only	03 - Rear end	03 - Loose s	03 - Snow	07 - Dark	03 - Yield sign	2	0									
2019--44679	8127	8/19/2019	14:00	PINECREST RD @ PINECREST RD/HWY 417 PINECRE IC129R62 (0008127)	Intersection	03 - P.D. only	03 - Rear end	01 - Dry	01 - Clear	01 - Dayligh	03 - Yield sign	2	0									
2022--74247	8127	12/6/2022	14:50	PINECREST RD @ PINECREST RD/HWY 417 PINECRE IC129R62 (0008127)	Intersection	03 - P.D. only	07 - SMV other	01 - Dry	01 - Clear	01 - Dayligh	10 - No control	1	0									
2019--38902	3209	9/20/2019	14:05	PINECREST RD btwn HWY417 IC129 RAMP62 & HWY417 IC129 RAMP63	Midblock	03 - P.D. only	03 - Rear end	01 - Dry	01 - Clear	01 - Dayligh	10 - No control	2	0									
2020--54433	3209	2/7/2020	8:25	PINECREST RD btwn HWY417 IC129 RAMP62 & HWY417 IC129 RAMP63	Midblock	03 - P.D. only	07 - SMV other	03 - Loose s	03 - Snow	01 - Dayligh	10 - No control	1	0									
2018--22284	3209	9/1/2018	11:42	PINECREST RD btwn QUEENSVIEW DR & HWY417 PINECREST IC129R62	Midblock	03 - P.D. only	03 - Rear end	01 - Dry	01 - Clear	01 - Dayligh	10 - No control	2	0									
2019--39003	3209	9/21/2019	16:30	PINECREST RD btwn QUEENSVIEW DR & HWY417 PINECREST IC129R62	Midblock	03 - P.D. only	04 - Sideswipe	01 - Dry	01 - Clear	01 - Dayligh	10 - No control	2	0									
2017--3943	2739	4/6/2017	20:44	PINECREST RD @ QUEENSVIEW DR (0002739)	Intersection	03 - P.D. only	03 - Rear end	01 - Dry	01 - Clear	07 - Dark	01 - Traffic signal	2	0									
2017--7960	2739	9/8/2017	17:15	PINECREST RD @ QUEENSVIEW DR (0002739)	Intersection	03 - P.D. only	05 - Turning movemen	01 - Dry	01 - Clear	01 - Dayligh	01 - Traffic signal	2	0									
2017--10952	2739	11/29/2017	13:59	PINECREST RD @ QUEENSVIEW DR (0002739)	Intersection	03 - P.D. only	02 - Angle	01 - Dry	01 - Clear	01 - Dayligh	01 - Traffic signal	2	0	1								
2017--10384	2739	11/17/2017	9:20	PINECREST RD @ QUEENSVIEW DR (0002739)	Intersection	03 - P.D. only	03 - Rear end	01 - Dry	01 - Clear	01 - Dayligh	01 - Traffic signal	2	0									

2017--11729	2739	12/15/2017	12:49	PINECREST RD @ QUEENSVIEW DR (0002739)	Intersection	03 - P.D. only	02 - Angle	02 - Wet	01 - Clear	01 - Dayligh	01 - Traffic signal	2	0								
2018--16268	2739	2/11/2018	18:40	PINECREST RD @ QUEENSVIEW DR (0002739)	Intersection	03 - P.D. only	03 - Rear end	04 - Slush	03 - Snow	07 - Dark	01 - Traffic signal	2	0								
2018--21036	2739	7/18/2018	9:57	PINECREST RD @ QUEENSVIEW DR (0002739)	Intersection	03 - P.D. only	03 - Rear end	01 - Dry	01 - Clear	01 - Dayligh	01 - Traffic signal	3	0								
2018--21478	2739	8/1/2018	17:00	PINECREST RD @ QUEENSVIEW DR (0002739)	Intersection	03 - P.D. only	01 - Approaching	01 - Dry	01 - Clear	01 - Dayligh	01 - Traffic signal	2	0								
2018--26418	2739	12/14/2018	11:12	PINECREST RD @ QUEENSVIEW DR (0002739)	Intersection	03 - P.D. only	04 - Sideswipe	02 - Wet	04 - Freezin	01 - Dayligh	01 - Traffic signal	2	0								
2019--30339	2739	1/28/2019	9:39	PINECREST RD @ QUEENSVIEW DR (0002739)	Intersection	02 - Non-fatal injury	03 - Rear end	02 - Wet	01 - Clear	01 - Dayligh	01 - Traffic signal	2	0			01 - Minima	1	1			
2019--33317	2739	4/12/2019	8:10	PINECREST RD @ QUEENSVIEW DR (0002739)	Intersection	02 - Non-fatal injury	03 - Rear end	01 - Dry	01 - Clear	01 - Dayligh	01 - Traffic signal	2	0			01 - Minima	2	2			
2019--41757	2739	11/27/2019	15:58	PINECREST RD @ QUEENSVIEW DR (0002739)	Intersection	02 - Non-fatal injury	07 - SMV other	02 - Wet	02 - Rain	05 - Dusk	01 - Traffic signal	1	1			01 - Minima	1	1			
2019--42582	2739	12/14/2019	16:04	PINECREST RD @ QUEENSVIEW DR (0002739)	Intersection	02 - Non-fatal injury	05 - Turning mover	02 - Wet	02 - Rain	05 - Dusk	01 - Traffic signal	2	0			02 - Minor	1		1		
2020--48417	2739	3/8/2020	13:51	PINECREST RD @ QUEENSVIEW DR (0002739)	Intersection	03 - P.D. only	04 - Sideswipe	01 - Dry	01 - Clear	01 - Dayligh	01 - Traffic signal	2	0								
2021--56142	2739	2/5/2021	9:28	PINECREST RD @ QUEENSVIEW DR (0002739)	Intersection	03 - P.D. only	03 - Rear end	03 - Loose s	03 - Snow	01 - Dayligh	01 - Traffic signal	2	0								
2021--57809	2739	4/29/2021	14:35	PINECREST RD @ QUEENSVIEW DR (0002739)	Intersection	03 - P.D. only	02 - Angle	01 - Dry	01 - Clear	01 - Dayligh	01 - Traffic signal	2	0								
2021--61226	2739	10/1/2021	19:03	PINECREST RD @ QUEENSVIEW DR (0002739)	Intersection	03 - P.D. only	04 - Sideswipe	01 - Dry	01 - Clear	05 - Dusk	01 - Traffic signal	2	0								
2022--67772	2739	3/26/2022	20:13	PINECREST RD @ QUEENSVIEW DR (0002739)	Intersection	03 - P.D. only	03 - Rear end	02 - Wet	02 - Rain	07 - Dark	01 - Traffic signal	2	0								
2022--70793	2739	8/7/2022	14:10	PINECREST RD @ QUEENSVIEW DR (0002739)	Intersection	03 - P.D. only	04 - Sideswipe	01 - Dry	01 - Clear	01 - Dayligh	01 - Traffic signal	2	0								
2019--34076	_3209	5/7/2019	7:56	PINECREST RD btwn DUMAUER AVE & QUEENSVIEW DR (_32090L	Midblock	02 - Non-fatal injury	05 - Turning mover	01 - Dry	01 - Clear	01 - Dayligh	10 - No control	2	0			02 - Minor	1		1		
2017--5387	_3ZAH	6/12/2017	12:27	QUEENSVIEW DR btwn PINECREST RD & END (_3ZAH9G)	Midblock	02 - Non-fatal injury	07 - SMV other	02 - Wet	02 - Rain	01 - Dayligh	10 - No control	1	1			01 - Minima	1	1			
2018--17419	_3ZAH	2/28/2018	Unknown	QUEENSVIEW DR btwn PINECREST RD & END (_3ZAH9G)	Midblock	03 - P.D. only	06 - SMV unattended	01 - Dry	01 - Clear	00 - Unknov	10 - No control	1	0								
2019--31177	_3ZAH	2/11/2019	17:00	QUEENSVIEW DR btwn PINECREST RD & END (_3ZAH9G)	Midblock	03 - P.D. only	06 - SMV unattended	06 - Ice	01 - Clear	01 - Dayligh	10 - No control	1	0								
2019--33489	_3ZAH	4/17/2019	15:19	QUEENSVIEW DR btwn PINECREST RD & END (_3ZAH9G)	Midblock	03 - P.D. only	05 - Turning mover	01 - Dry	01 - Clear	01 - Dayligh	10 - No control	2	0								
2020--47025	_3ZAH	2/7/2020	15:51	QUEENSVIEW DR btwn PINECREST RD & END (_3ZAH9G)	Midblock	03 - P.D. only	02 - Angle	03 - Loose s	03 - Snow	01 - Dayligh	10 - No control	2	0								

Appendix D Existing (2025) Synchro Traffic Analysis Outputs



Lanes, Volumes, Timings
3: Pinecrest Rd & Dumaurier Ave

Existing Condition_2025_AM.syn
04/29/2026

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations				 	 	
Traffic Volume (vph)	23	138	77	1064	925	21
Future Volume (vph)	23	138	77	1064	925	21
Satd. Flow (prot)	1729	1517	1679	3390	3381	0
Flt Permitted	0.950		0.240			
Satd. Flow (perm)	1729	1517	424	3390	3381	0
Satd. Flow (RTOR)		153			2	
Lane Group Flow (vph)	26	153	86	1182	1051	0
Turn Type	Prot	Perm	pm+pt	NA	NA	
Protected Phases	4		5	2	6	
Permitted Phases		4	2			
Detector Phase	4	4	5	2	6	
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	34.8	34.8	9.7	29.6	35.3	
Total Split (s)	35.0	35.0	20.0	70.0	50.0	
Total Split (%)	33.3%	33.3%	19.0%	66.7%	47.6%	
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3	
All-Red Time (s)	2.5	2.5	1.4	2.3	7.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.8	5.8	4.7	5.6	10.3	
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Recall Mode	None	None	None	C-Max	C-Max	
Act Effect Green (s)	7.9	7.9	86.6	85.7	71.9	
Actuated g/C Ratio	0.08	0.08	0.82	0.82	0.68	
v/c Ratio	0.20	0.60	0.20	0.43	0.45	
Control Delay (s/veh)	47.9	17.7	1.2	0.7	9.2	
Queue Delay	0.0	0.0	0.2	0.2	0.0	
Total Delay (s/veh)	47.9	17.7	1.4	0.9	9.2	
LOS	D	B	A	A	A	
Approach Delay (s/veh)	22.1			0.9	9.2	
Approach LOS	C			A	A	
Queue Length 50th (m)	5.1	0.0	0.3	1.9	47.6	
Queue Length 95th (m)	12.9	17.9	m1.2	6.0	74.9	
Internal Link Dist (m)	522.4			34.2	99.2	
Turn Bay Length (m)	45.0					
Base Capacity (vph)	480	532	532	2768	2315	
Starvation Cap Reductn	0	0	154	594	0	
Spillback Cap Reductn	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	
Reduced v/c Ratio	0.05	0.29	0.23	0.54	0.45	
Intersection Summary						
Cycle Length: 105						
Actuated Cycle Length: 105						
Offset: 90 (86%), Referenced to phase 2:NBTL and 6:SBT, Start of Green						
Natural Cycle: 80						
Control Type: Actuated-Coordinated						

Lanes, Volumes, Timings
3: Pinecrest Rd & Dumaurier Ave

Existing Condition_2025_AM.syn
04/29/2026

Maximum v/c Ratio: 0.60

Intersection Signal Delay (s/veh): 5.9

Intersection LOS: A

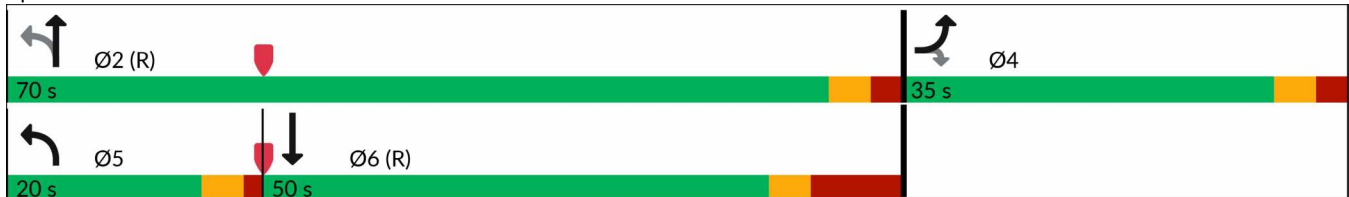
Intersection Capacity Utilization 53.7%

ICU Level of Service A

Analysis Period (min) 15

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

Splits and Phases: 3: Pinecrest Rd & Dumaurier Ave



Lanes, Volumes, Timings
5: Pinecrest Rd & Transitway

Existing Condition_2025_AM.syn
04/29/2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	0	68	414	27	280	1	1159	0	0	1118	0
Future Volume (vph)	2	0	68	414	27	280	1	1159	0	0	1118	0
Satd. Flow (prot)	864	0	774	1610	1378	0	864	3390	0	0	4871	0
Flt Permitted	0.702			0.950	0.994		0.117					
Satd. Flow (perm)	639	0	774	1610	1378	0	106	3390	0	0	4871	0
Satd. Flow (RTOR)			76		197							
Lane Group Flow (vph)	2	0	76	414	387	0	1	1288	0	0	1242	0
Turn Type	Perm		Perm	Prot	NA		pm+pt	NA			NA	
Protected Phases				3	8		5	2			6	
Permitted Phases	9		9 2				2					
Detector Phase	9		9 2	3	8		5	2			6	
Switch Phase												
Minimum Initial (s)	5.0			5.0	5.0		5.0	5.0			5.0	
Minimum Split (s)	12.0			11.6	36.6		11.4	30.4			30.4	
Total Split (s)	18.0			37.0	37.0		12.0	50.0			38.0	
Total Split (%)	17.1%			35.2%	35.2%		11.4%	47.6%			36.2%	
Yellow Time (s)	3.3			3.3	3.3		3.3	3.3			3.3	
All-Red Time (s)	3.7			3.3	3.3		3.1	3.1			3.1	
Lost Time Adjust (s)	0.0			0.0	0.0		0.0	0.0			0.0	
Total Lost Time (s)	7.0			6.6	6.6		6.4	6.4			6.4	
Lead/Lag							Lead				Lag	
Lead-Lag Optimize?							Yes				Yes	
Recall Mode	None			None	None		None	C-Max			C-Max	
Act Effct Green (s)	6.8		61.0	30.4	30.4		50.3	50.3			47.8	
Actuated g/C Ratio	0.06		0.58	0.29	0.29		0.48	0.48			0.46	
v/c Ratio	0.05		0.16	0.89	0.72		0.01	0.79			0.56	
Control Delay (s/veh)	47.0		3.1	58.4	24.6		17.0	28.8			19.7	
Queue Delay	0.0		0.0	0.0	0.0		0.0	0.0			0.3	
Total Delay (s/veh)	47.0		3.1	58.4	24.6		17.0	28.8			20.0	
LOS	D		A	E	C		B	C			C	
Approach Delay (s/veh)		4.2			42.1			28.8			20.0	
Approach LOS		A			D			C			C	
Queue Length 50th (m)	0.4		0.0	85.0	36.7		0.1	116.0			70.8	
Queue Length 95th (m)	2.7		6.0	#141.8	74.2		1.2	#168.6			106.7	
Internal Link Dist (m)		79.3			268.4			47.3			86.4	
Turn Bay Length (m)				165.0			50.0					
Base Capacity (vph)	66		464	466	538		92	1623			2216	
Starvation Cap Reductn	0		0	0	0		0	0			347	
Spillback Cap Reductn	0		0	0	0		0	0			0	
Storage Cap Reductn	0		0	0	0		0	0			0	
Reduced v/c Ratio	0.03		0.16	0.89	0.72		0.01	0.79			0.66	
Intersection Summary												
Cycle Length: 105												
Actuated Cycle Length: 105												
Offset: 93 (89%), Referenced to phase 2:NBTL and 6:SBT, Start of Green												
Natural Cycle: 95												
Control Type: Actuated-Coordinated												

Lanes, Volumes, Timings
5: Pinecrest Rd & Transitway

Existing Condition_2025_AM.syn
04/29/2026

Maximum v/c Ratio: 0.89

Intersection Signal Delay (s/veh): 28.2

Intersection LOS: C

Intersection Capacity Utilization 73.2%

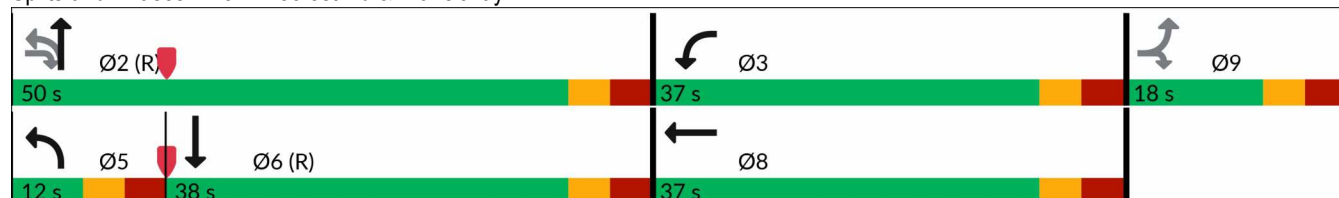
ICU Level of Service D

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 5: Pinecrest Rd & Transitway



Lanes, Volumes, Timings
8: Pinecrest Rd & Queensview Dr

Existing Condition_2025_AM.syn
04/29/2026

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	146	65	1076	365	91	972
Future Volume (vph)	146	65	1076	365	91	972
Satd. Flow (prot)	1695	1517	4686	0	1695	3390
Flt Permitted	0.950				0.113	
Satd. Flow (perm)	1695	1517	4686	0	202	3390
Satd. Flow (RTOR)		72	94			
Lane Group Flow (vph)	162	72	1602	0	101	1080
Turn Type	Prot	Perm	NA		pm+pt	NA
Protected Phases	8		2		1	6
Permitted Phases		8			6	
Detector Phase	8	8	2		1	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0
Minimum Split (s)	32.8	32.8	30.3		9.7	25.6
Total Split (s)	35.0	35.0	50.0		20.0	70.0
Total Split (%)	33.3%	33.3%	47.6%		19.0%	66.7%
Yellow Time (s)	3.3	3.3	3.3		3.3	3.3
All-Red Time (s)	2.5	2.5	7.0		1.4	2.3
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	5.8	5.8	10.3		4.7	5.6
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?			Yes		Yes	
Recall Mode	None	None	C-Max		None	C-Max
Act Effect Green (s)	15.4	15.4	61.3		79.1	78.2
Actuated g/C Ratio	0.15	0.15	0.58		0.75	0.74
v/c Ratio	0.65	0.25	0.58		0.39	0.43
Control Delay (s/veh)	54.2	11.0	4.9		12.8	1.3
Queue Delay	0.0	0.0	0.2		0.0	0.1
Total Delay (s/veh)	54.2	11.0	5.1		12.9	1.3
LOS	D	B	A		B	A
Approach Delay (s/veh)	40.9		5.1			2.3
Approach LOS	D		A			A
Queue Length 50th (m)	31.6	0.0	17.4		2.0	3.4
Queue Length 95th (m)	49.7	11.5	26.8		10.0	10.5
Internal Link Dist (m)	281.8		86.4			34.2
Turn Bay Length (m)	80.0					
Base Capacity (vph)	471	473	2774		369	2525
Starvation Cap Reductn	0	0	366		10	272
Spillback Cap Reductn	0	0	0		0	191
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.34	0.15	0.67		0.28	0.48
Intersection Summary						
Cycle Length: 105						
Actuated Cycle Length: 105						
Offset: 90 (86%), Referenced to phase 2:NBT and 6:SBTL, Start of Green						
Natural Cycle: 80						
Control Type: Actuated-Coordinated						

Lanes, Volumes, Timings
8: Pinecrest Rd & Queensview Dr

Existing Condition_2025_AM.syn
04/29/2026

Maximum v/c Ratio: 0.65

Intersection Signal Delay (s/veh): 6.8

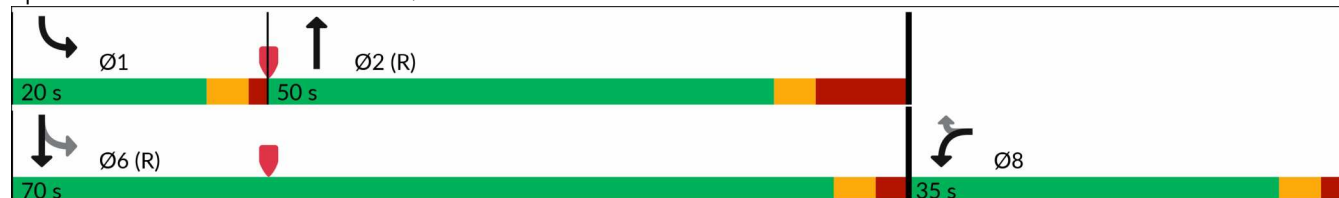
Intersection LOS: A

Intersection Capacity Utilization 61.7%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 8: Pinecrest Rd & Queensview Dr



Lanes, Volumes, Timings
3: Pinecrest Rd & Dumaurier Ave

Existing Condition_2025_PM.syn
04/29/2026

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations				 	 	
Traffic Volume (vph)	35	136	180	1079	1117	40
Future Volume (vph)	35	136	180	1079	1117	40
Satd. Flow (prot)	1679	1517	1695	3390	3372	0
Flt Permitted	0.950		0.159			
Satd. Flow (perm)	1679	1517	284	3390	3372	0
Satd. Flow (RTOR)		151			4	
Lane Group Flow (vph)	39	151	200	1199	1285	0
Turn Type	Prot	Perm	pm+pt	NA	NA	
Protected Phases	4		5	2	6	
Permitted Phases		4	2			
Detector Phase	4	4	5	2	6	
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	32.8	32.8	9.7	25.6	30.3	
Total Split (s)	36.0	36.0	13.0	69.0	56.0	
Total Split (%)	34.3%	34.3%	12.4%	65.7%	53.3%	
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3	
All-Red Time (s)	2.5	2.5	1.4	2.3	7.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.8	5.8	4.7	5.6	10.3	
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Recall Mode	None	None	None	C-Max	C-Max	
Act Effect Green (s)	8.3	8.3	86.2	85.3	64.0	
Actuated g/C Ratio	0.08	0.08	0.82	0.81	0.61	
v/c Ratio	0.30	0.59	0.51	0.44	0.63	
Control Delay (s/veh)	50.3	16.9	24.8	1.5	15.6	
Queue Delay	0.0	0.0	5.0	0.3	0.0	
Total Delay (s/veh)	50.3	16.9	29.8	1.8	15.6	
LOS	D	B	C	A	B	
Approach Delay (s/veh)	23.8			5.8	15.6	
Approach LOS	C			A	B	
Queue Length 50th (m)	7.7	0.0	18.6	7.3	78.1	
Queue Length 95th (m)	17.2	17.7	37.5	5.1	126.3	
Internal Link Dist (m)	522.4			34.2	99.2	
Turn Bay Length (m)	45.0					
Base Capacity (vph)	482	543	393	2754	2056	
Starvation Cap Reductn	0	0	132	851	0	
Spillback Cap Reductn	0	1	0	0	36	
Storage Cap Reductn	0	0	0	0	0	
Reduced v/c Ratio	0.08	0.28	0.77	0.63	0.64	
Intersection Summary						
Cycle Length: 105						
Actuated Cycle Length: 105						
Offset: 90 (86%), Referenced to phase 2:NBTL and 6:SBT, Start of Green						
Natural Cycle: 90						
Control Type: Actuated-Coordinated						

Lanes, Volumes, Timings
3: Pinecrest Rd & Dumaurier Ave

Existing Condition_2025_PM.syn
04/29/2026

Maximum v/c Ratio: 0.63

Intersection Signal Delay (s/veh): 11.4

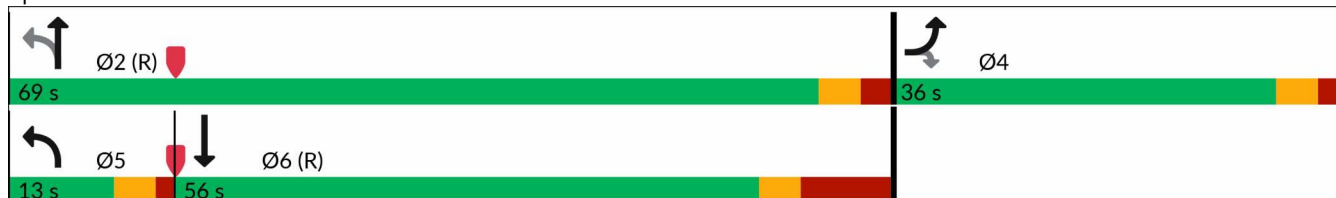
Intersection LOS: B

Intersection Capacity Utilization 66.0%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 3: Pinecrest Rd & Dumaurier Ave



Lanes, Volumes, Timings
5: Pinecrest Rd & Transitway

Existing Condition_2025_PM.syn
04/29/2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	0	31	171	57	280	1	1048	0	0	1554	4
Future Volume (vph)	7	0	31	171	57	280	1	1048	0	0	1554	4
Satd. Flow (prot)	864	0	774	1610	1291	0	864	3390	0	0	4871	0
Flt Permitted	0.727			0.950	0.998		0.083					
Satd. Flow (perm)	662	0	774	1610	1291	0	76	3390	0	0	4871	0
Satd. Flow (RTOR)			37		183							
Lane Group Flow (vph)	8	0	34	171	393	0	1	1164	0	0	1731	0
Turn Type	Perm		Perm	Prot	NA		pm+pt	NA			NA	
Protected Phases				3	8		5	2			6	
Permitted Phases	9		9 2				2					
Detector Phase	9		9 2	3	8		5	2			6	
Switch Phase												
Minimum Initial (s)	5.0			5.0	5.0		5.0	5.0			5.0	
Minimum Split (s)	12.0			11.6	36.6		11.4	30.4			30.4	
Total Split (s)	18.0			37.0	37.0		12.0	50.0			38.0	
Total Split (%)	17.1%			35.2%	35.2%		11.4%	47.6%			36.2%	
Yellow Time (s)	3.3			3.3	3.3		3.3	3.3			3.3	
All-Red Time (s)	3.7			3.3	3.3		3.1	3.1			3.1	
Lost Time Adjust (s)	0.0			0.0	0.0		0.0	0.0			0.0	
Total Lost Time (s)	7.0			6.6	6.6		6.4	6.4			6.4	
Lead/Lag							Lead				Lag	
Lead-Lag Optimize?							Yes				Yes	
Recall Mode	None			None	None		None	C-Max			C-Max	
Act Effct Green (s)	7.7		61.0	30.4	30.4		51.9	51.9			49.5	
Actuated g/C Ratio	0.07		0.58	0.29	0.29		0.49	0.49			0.47	
v/c Ratio	0.17		0.07	0.37	0.78		0.01	0.69			0.75	
Control Delay (s/veh)	52.0		3.3	32.5	30.2		18.0	24.9			21.2	
Queue Delay	0.0		0.0	0.0	0.0		0.0	0.0			0.7	
Total Delay (s/veh)	52.0		3.3	32.5	30.2		18.0	24.9			21.9	
LOS	D		A	C	C		B	C			C	
Approach Delay (s/veh)		12.6			30.9			24.9			21.9	
Approach LOS		B			C			C			C	
Queue Length 50th (m)	1.6		0.0	29.1	42.5		0.1	101.7			73.8	
Queue Length 95th (m)	6.3		3.7	48.8	#92.9		1.2	137.1			#183.5	
Internal Link Dist (m)		79.3			268.4			47.3			86.4	
Turn Bay Length (m)				165.0			50.0					
Base Capacity (vph)	69		453	466	503		79	1676			2297	
Starvation Cap Reductn	0		0	0	0		0	0			251	
Spillback Cap Reductn	0		0	0	0		0	7			0	
Storage Cap Reductn	0		0	0	0		0	0			0	
Reduced v/c Ratio	0.12		0.08	0.37	0.78		0.01	0.70			0.85	
Intersection Summary												
Cycle Length: 105												
Actuated Cycle Length: 105												
Offset: 93 (89%), Referenced to phase 2:NBTL and 6:SBT, Start of Green												
Natural Cycle: 95												
Control Type: Actuated-Coordinated												

Lanes, Volumes, Timings 5: Pinecrest Rd & Transitway

Existing Condition_2025_PM.syn
04/29/2026

Maximum v/c Ratio: 0.78

Intersection Signal Delay (s/veh): 24.3

Intersection LOS: C

Intersection Capacity Utilization 68.3%

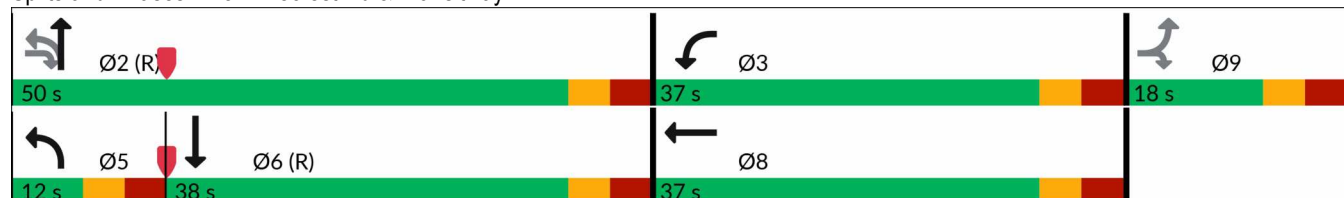
ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 5: Pinecrest Rd & Transitway



Lanes, Volumes, Timings
8: Pinecrest Rd & Queensview Dr

Existing Condition_2025_PM.syn
04/29/2026

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	343	80	1179	156	38	1215
Future Volume (vph)	343	80	1179	156	38	1215
Satd. Flow (prot)	1695	1502	4788	0	1679	3390
Flt Permitted	0.950				0.120	
Satd. Flow (perm)	1695	1502	4788	0	212	3390
Satd. Flow (RTOR)		89	28			
Lane Group Flow (vph)	381	89	1483	0	42	1350
Turn Type	Prot	Perm	NA		pm+pt	NA
Protected Phases	8		2		1	6
Permitted Phases		8			6	
Detector Phase	8	8	2		1	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0
Minimum Split (s)	32.8	32.8	30.3		9.7	25.6
Total Split (s)	36.0	36.0	56.0		13.0	69.0
Total Split (%)	34.3%	34.3%	53.3%		12.4%	65.7%
Yellow Time (s)	3.3	3.3	3.3		3.3	3.3
All-Red Time (s)	2.5	2.5	7.0		1.4	2.3
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	5.8	5.8	10.3		4.7	5.6
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?			Yes		Yes	
Recall Mode	None	None	C-Max		None	C-Max
Act Effect Green (s)	27.1	27.1	54.7		67.4	66.5
Actuated g/C Ratio	0.26	0.26	0.52		0.64	0.63
v/c Ratio	0.87	0.20	0.59		0.19	0.63
Control Delay (s/veh)	57.9	7.2	7.9		2.8	2.9
Queue Delay	0.0	0.1	0.3		0.0	0.4
Total Delay (s/veh)	57.9	7.3	8.2		2.8	3.3
LOS	E	A	A		A	A
Approach Delay (s/veh)	48.3		8.2			3.3
Approach LOS	D		A			A
Queue Length 50th (m)	72.6	0.0	30.3		0.4	6.0
Queue Length 95th (m)	#114.5	11.2	29.9		m1.0	12.0
Internal Link Dist (m)	281.8		86.4			34.2
Turn Bay Length (m)	80.0					
Base Capacity (vph)	487	495	2507		251	2146
Starvation Cap Reductn	0	0	381		0	70
Spillback Cap Reductn	0	37	48		0	328
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.78	0.19	0.70		0.17	0.74
Intersection Summary						
Cycle Length: 105						
Actuated Cycle Length: 105						
Offset: 90 (86%), Referenced to phase 2:NBT and 6:SBTL, Start of Green						
Natural Cycle: 80						
Control Type: Actuated-Coordinated						

Lanes, Volumes, Timings
8: Pinecrest Rd & Queensview Dr

Existing Condition_2025_PM.syn
04/29/2026

Maximum v/c Ratio: 0.87

Intersection Signal Delay (s/veh): 11.8

Intersection LOS: B

Intersection Capacity Utilization 65.0%

ICU Level of Service C

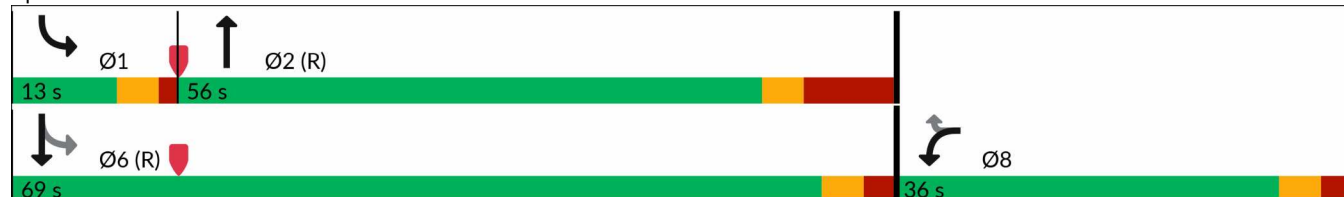
Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

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

Splits and Phases: 8: Pinecrest Rd & Queensview Dr



Appendix E TDM-Supportive Development Design and Infrastructure Checklist



TDM-Supportive Development Design and Infrastructure Checklist: *Residential Developments (multi-family or condominium)*

Legend	
REQUIRED	The Official Plan or Zoning By-law provides related guidance that must be followed
BASIC	The measure is generally feasible and effective, and in most cases would benefit the development and its users
BETTER	The measure could maximize support for users of sustainable modes, and optimize development performance

TDM-supportive design & infrastructure measures: <i>Residential developments</i>		Check if completed & add descriptions, explanations or plan/drawing references
1. WALKING & CYCLING: ROUTES		
1.1 Building location & access points		
BASIC	1.1.1 Locate building close to the street, and do not locate parking areas between the street and building entrances	☒
BASIC	1.1.2 Locate building entrances in order to minimize walking distances to sidewalks and transit stops/stations	☒
BASIC	1.1.3 Locate building doors and windows to ensure visibility of pedestrians from the building, for their security and comfort	☒
1.2 Facilities for walking & cycling		
REQUIRED	1.2.1 Provide convenient, direct access to stations or major stops along rapid transit routes within 600 metres; minimize walking distances from buildings to rapid transit; provide pedestrian-friendly, weather-protected (where possible) environment between rapid transit accesses and building entrances; ensure quality linkages from sidewalks through building entrances to integrated stops/stations (<i>see Official Plan policy 4.3.3</i>)	☒
REQUIRED	1.2.2 Provide safe, direct and attractive pedestrian access from public sidewalks to building entrances through such measures as: reducing distances between public sidewalks and major building entrances; providing walkways from public streets to major building entrances; within a site, providing walkways along the front of adjoining buildings, between adjacent buildings, and connecting areas where people may congregate, such as courtyards and transit stops; and providing weather protection through canopies, colonnades, and other design elements wherever possible (<i>see Official Plan policy 4.3.12</i>)	☒

TDM-supportive design & infrastructure measures: <i>Residential developments</i>		Check if completed & add descriptions, explanations or plan/drawing references
REQUIRED	1.2.3 Provide sidewalks of smooth, well-drained walking surfaces of contrasting materials or treatments to differentiate pedestrian areas from vehicle areas, and provide marked pedestrian crosswalks at intersection sidewalks (<i>see Official Plan policy 4.3.10</i>)	☒
REQUIRED	1.2.4 Make sidewalks and open space areas easily accessible through features such as gradual grade transition, depressed curbs at street corners and convenient access to extra-wide parking spaces and ramps (<i>see Official Plan policy 4.3.10</i>)	☒
REQUIRED	1.2.5 Include adequately spaced inter-block/street cycling and pedestrian connections to facilitate travel by active transportation. Provide links to the existing or planned network of public sidewalks, multi-use pathways and on-road cycle routes. Where public sidewalks and multi-use pathways intersect with roads, consider providing traffic control devices to give priority to cyclists and pedestrians (<i>see Official Plan policy 4.3.11</i>)	☒
BASIC	1.2.6 Provide safe, direct and attractive walking routes from building entrances to nearby transit stops	☒
BASIC	1.2.7 Ensure that walking routes to transit stops are secure, visible, lighted, shaded and wind-protected wherever possible	☐
BASIC	1.2.8 Design roads used for access or circulation by cyclists using a target operating speed of no more than 30 km/h, or provide a separated cycling facility	☐
1.3 Amenities for walking & cycling		
BASIC	1.3.1 Provide lighting, landscaping and benches along walking and cycling routes between building entrances and streets, sidewalks and trails	☒
BASIC	1.3.2 Provide wayfinding signage for site access (where required, e.g. when multiple buildings or entrances exist) and egress (where warranted, such as when directions to reach transit stops/stations, trails or other common destinations are not obvious)	☐

TDM-supportive design & infrastructure measures: <i>Residential developments</i>		Check if completed & add descriptions, explanations or plan/drawing references
2. WALKING & CYCLING: END-OF-TRIP FACILITIES		
2.1 Bicycle parking		
REQUIRED	2.1.1 Provide bicycle parking in highly visible and lighted areas, sheltered from the weather wherever possible (<i>see Official Plan policy 4.3.6</i>)	☒
REQUIRED	2.1.2 Provide the number of bicycle parking spaces specified for various land uses in different parts of Ottawa; provide convenient access to main entrances or well-used areas (<i>see Zoning By-law Section 111</i>)	☒
REQUIRED	2.1.3 Ensure that bicycle parking spaces and access aisles meet minimum dimensions; that no more than 50% of spaces are vertical spaces; and that parking racks are securely anchored (<i>see Zoning By-law Section 111</i>)	☒
BASIC	2.1.4 Provide bicycle parking spaces equivalent to the expected number of resident-owned bicycles, plus the expected peak number of visitor cyclists	☐
2.2 Secure bicycle parking		
REQUIRED	2.2.1 Where more than 50 bicycle parking spaces are provided for a single residential building, locate at least 25% of spaces within a building/structure, a secure area (e.g. supervised parking lot or enclosure) or bicycle lockers (<i>see Zoning By-law Section 111</i>)	☒
BETTER	2.2.2 Provide secure bicycle parking spaces equivalent to at least the number of units at condominiums or multi-family residential developments	☐
2.3 Bicycle repair station		
BETTER	2.3.1 Provide a permanent bike repair station, with commonly used tools and an air pump, adjacent to the main bicycle parking area (or secure bicycle parking area, if provided)	☐
3. TRANSIT		
3.1 Customer amenities		
BASIC	3.1.1 Provide shelters, lighting and benches at any on-site transit stops	☐
BASIC	3.1.2 Where the site abuts an off-site transit stop and insufficient space exists for a transit shelter in the public right-of-way, protect land for a shelter and/or install a shelter	☐
BETTER	3.1.3 Provide a secure and comfortable interior waiting area by integrating any on-site transit stops into the building	☐

TDM-supportive design & infrastructure measures: <i>Residential developments</i>		Check if completed & add descriptions, explanations or plan/drawing references
4. RIDESHARING		
4.1 Pick-up & drop-off facilities		
BASIC	4.1.1 Provide a designated area for carpool drivers (plus taxis and ride-hailing services) to drop off or pick up passengers without using fire lanes or other no-stopping zones	☐
5. CARSHARING & BIKESHARING		
5.1 Carshare parking spaces		
BETTER	5.1.1 Provide up to three carshare parking spaces in an R3, R4 or R5 Zone for specified residential uses (see <i>Zoning By-law Section 94</i>)	☐
5.2 Bikeshare station location		
BETTER	5.2.1 Provide a designated bikeshare station area near a major building entrance, preferably lighted and sheltered with a direct walkway connection	☐
6. PARKING		
6.1 Number of parking spaces		
REQUIRED	6.1.1 Do not provide more parking than permitted by zoning, nor less than required by zoning, unless a variance is being applied for	☒
BASIC	6.1.2 Provide parking for long-term and short-term users that is consistent with mode share targets, considering the potential for visitors to use off-site public parking	☐
BASIC	6.1.3 Where a site features more than one use, provide shared parking and reduce the cumulative number of parking spaces accordingly (see <i>Zoning By-law Section 104</i>)	☐
BETTER	6.1.4 Reduce the minimum number of parking spaces required by zoning by one space for each 13 square metres of gross floor area provided as shower rooms, change rooms, locker rooms and other facilities for cyclists in conjunction with bicycle parking (see <i>Zoning By-law Section 111</i>)	☐
6.2 Separate long-term & short-term parking areas		
BETTER	6.2.1 Provide separate areas for short-term and long-term parking (using signage or physical barriers) to permit access controls and simplify enforcement (i.e. to discourage residents from parking in visitor spaces, and vice versa)	☐

Appendix F TDM Measures Checklist



TDM Measures Checklist:
Residential Developments (multi-family, condominium or subdivision)

Legend	
BASIC	The measure is generally feasible and effective, and in most cases would benefit the development and its users
BETTER	The measure could maximize support for users of sustainable modes, and optimize development performance
★	The measure is one of the most dependably effective tools to encourage the use of sustainable modes

TDM measures: <i>Residential developments</i>		Check if proposed & add descriptions
1. TDM PROGRAM MANAGEMENT		
1.1 Program coordinator		
BASIC ★	1.1.1 Designate an internal coordinator, or contract with an external coordinator	☒
1.2 Travel surveys		
BETTER	1.2.1 Conduct periodic surveys to identify travel-related behaviours, attitudes, challenges and solutions, and to track progress	☐
2. WALKING AND CYCLING		
2.1 Information on walking/cycling routes & destinations		
BASIC	2.1.1 Display local area maps with walking/cycling access routes and key destinations at major entrances (<i>multi-family, condominium</i>)	☒
2.2 Bicycle skills training		
BETTER	2.2.1 Offer on-site cycling courses for residents, or subsidize off-site courses	☐

TDM measures: <i>Residential developments</i>		Check if proposed & add descriptions
3. TRANSIT		
3.1 Transit information		
BASIC	3.1.1 Display relevant transit schedules and route maps at entrances (<i>multi-family, condominium</i>)	☒
BETTER	3.1.2 Provide real-time arrival information display at entrances (<i>multi-family, condominium</i>)	☐
3.2 Transit fare incentives		
BASIC ★	3.2.1 Offer PRESTO cards preloaded with one monthly transit pass on residence purchase/move-in, to encourage residents to use transit	☒
BETTER	3.2.2 Offer at least one year of free monthly transit passes on residence purchase/move-in	☐
3.3 Enhanced public transit service		
BETTER ★	3.3.1 Contract with OC Transpo to provide early transit services until regular services are warranted by occupancy levels (<i>subdivision</i>)	☐
3.4 Private transit service		
BETTER	3.4.1 Provide shuttle service for seniors homes or lifestyle communities (e.g. scheduled mall or supermarket runs)	☐
4. CARSHARING & BIKESHARING		
4.1 Bikeshare stations & memberships		
BETTER	4.1.1 Contract with provider to install on-site bikeshare station (<i>multi-family</i>)	☐
BETTER	4.1.2 Provide residents with bikeshare memberships, either free or subsidized (<i>multi-family</i>)	☐
4.2 Carshare vehicles & memberships		
BETTER	4.2.1 Contract with provider to install on-site carshare vehicles and promote their use by residents	☐
BETTER	4.2.2 Provide residents with carshare memberships, either free or subsidized	☐
5. PARKING		
5.1 Priced parking		
BASIC ★	5.1.1 Unbundle parking cost from purchase price (<i>condominium</i>)	☐
BASIC ★	5.1.2 Unbundle parking cost from monthly rent (<i>multi-family</i>)	☒

TDM measures: <i>Residential developments</i>		Check if proposed & add descriptions
6. TDM MARKETING & COMMUNICATIONS		
6.1 Multimodal travel information		
BASIC ★	6.1.1 Provide a multimodal travel option information package to new residents	☒
6.2 Personalized trip planning		
BETTER ★	6.2.1 Offer personalized trip planning to new residents	☐



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