

PROPOSED MIXED-USE RESIDENTIAL AND COMMERCIAL
DEVELOPMENT

725 SOMERSET STREET WEST
CITY OF OTTAWA

SCREENING AND SCOPING REPORT

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Project 7324

CASTLEGLENN CONSULTANTS LTD.

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1.0 INTRODUCTION AND SCREENING RESULTS

The 2017 City of Ottawa “*Transportation Impact Assessment Guidelines*” set out a multi-step pre-application process where the scope, assumptions, study area and methodology to conduct a transportation impact assessment (TIA) are detailed and each sequential stage approved.

This report represents the completion of the first two steps (Step 1 – Screening and Step 2 – Scoping) of the four-step TIA process. The screening report (See Appendix “A”) was submitted on Tuesday, April 4th, 2023 at the pre-application consultation meeting with City Staff. It is understood, at this time of writing, that it is only the Scoping Report that has been requested by City of Ottawa staff. The requirement to complete the remaining steps of the TIA process (Forecasting Report, Strategy Report and Final TIA document) are to be determined subsequent to the City’s review of this report.

1.1 SUMMARY OF DEVELOPMENT

The proposed 725 Somerset St. W development is envisioned to be comprised of a 9-storey mixed-use building with 94 residential apartment units and 3 commercial units with approximately 320 m² of ground commercial space. Access is to be provided off Empress Avenue. The current zoning applicable to the property, as referenced from the GeoOttawa on-line mapping tool, is “TM[112]H(16)” which is indicative of a “Traditional Mainstreet” zone.

1.2 SCREENING: TRIP GENERATION TRIGGERS

The City of Ottawa’s TIA Guidelines established the traffic generation warrant threshold for residential townhomes or apartment buildings as 90 units. The envisioned new development would have 94 dwelling units along with the proposed ground floor commercial space. **Therefore, the trip generation trigger is satisfied.**

1.3 SCREENING: LOCATION TRIGGERS

The proposed development is within a Design Priority Area (DPA) (Somerset Street West is designated in the City’s 2022 Official Plan as “Traditional Mainstreet”)¹. Hence, **the location trigger is satisfied.**

1.4 SCREENING: SAFETY TRIGGERS

The proposed driveway would be located within the area of influence of an adjacent traffic signal or roundabout (less than 150 metres from Somerset Street West / Empress Avenue intersection. Therefore, **safety trigger was found to be satisfied.**

1 City of Ottawa 2022 Official Plan, Schedule C7-A- Design Priority Areas - Urban

1.5 SCREENING CONCLUSIONS

The screening results indicate that all three triggers (trip generation, location and safety) were met therefore, the TIA is required to address both the “Design Review” and “Network Impact” components.

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2.0 SCOPING

2.1 EXISTING AND PLANNED CONDITIONS

2.1.1 The Proposed Development

The parcel is currently zoned “*TM[112]H(16) – Traditional Mainstreet*”, which allows for the proposed mixed-use residential/commercial land use. Exhibit 2-1 illustrates the location of the proposed mixed-use residential and commercial development located in the north-east quadrant of the Somerset St. W/Empress Avenue intersection.

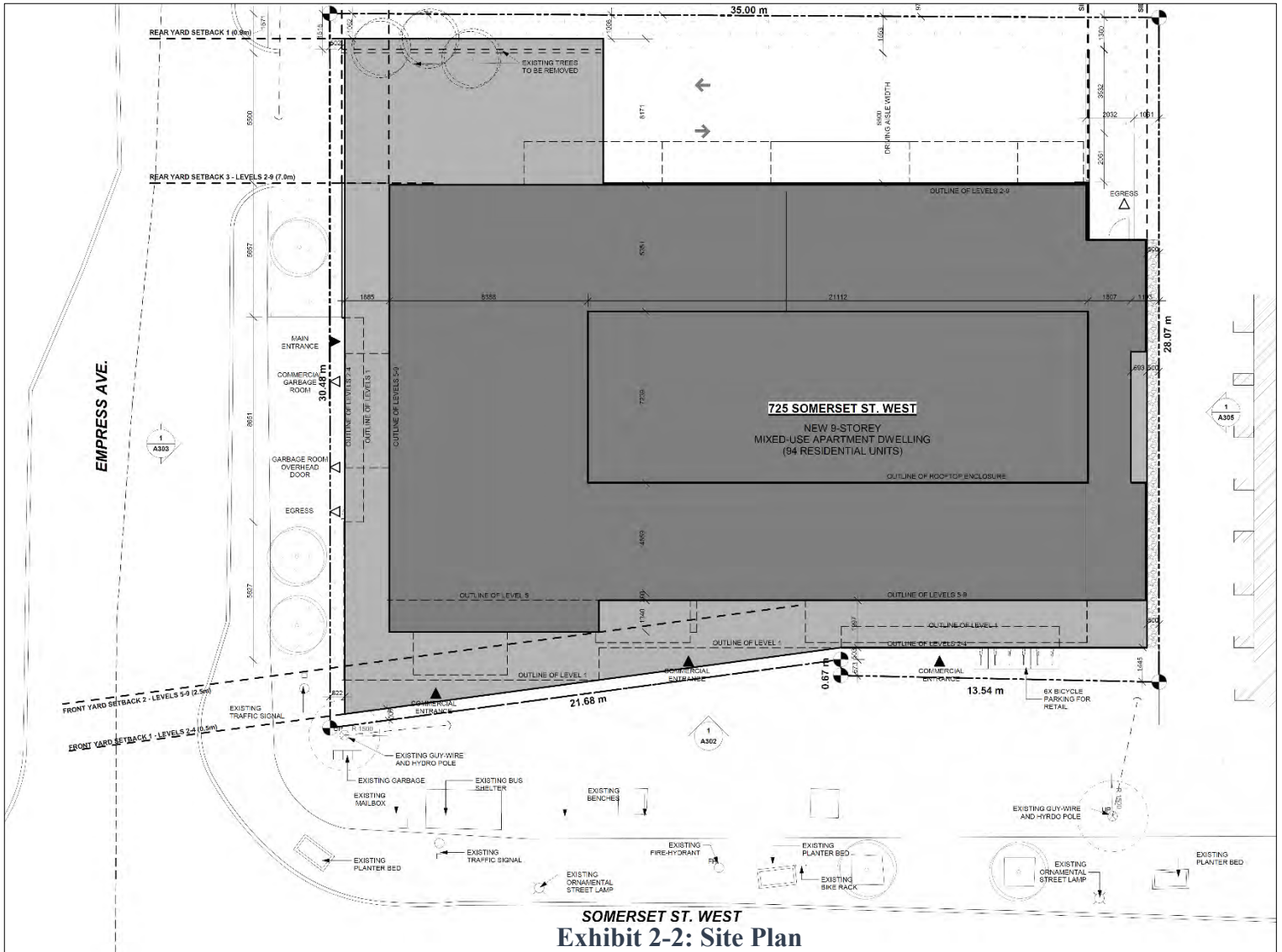
The proposed development:

- is a 9-storey building with three ground floor commercial units (~320 m² total), and 94 residential apartment units on the remaining 8 storeys;
- has a main pedestrian access to/from the residential apartment complex located on Empress Avenue;
- has pedestrian accesses to the three commercial unit would be on Somerset Street W.;
- has an all-movement motor-vehicle access that connects to Empress Avenue;
- The development proposes 10 ground-level parking spots (9 visitor and 1 accessible stall).



Exhibit 2-1: Location of Proposed Development

Error! Reference source not found. Exhibit 2-2 illustrates the site plan for the proposed development (Received on May 17th, 2023). The full site plan can be found in Appendix “B”.



2.1.2 Existing Conditions

2.1.2.1 Study Area Roadways

The City of Ottawa TMP (Map 8) was referenced, along with a desktop review of aerial photography, to document the existing roadways within the surrounding area that would serve the proposed development. The publicly-owned roadways within the vicinity of the proposed development include the following:

Table 2-1: Study Area Roadways

Roadways	Description	On-Street Parking Provisions	Posted Speed
<i>Somerset Street West</i>	<ul style="list-style-type: none"> a 4-lane arterial undivided roadway (1 travel lane + 1 lane of on-street parking). 	<ul style="list-style-type: none"> in the vicinity of the development, paid on-street parking is in effect from 7 AM to 7 PM, vehicles are allowed to park for up to 2 hours. 	<ul style="list-style-type: none"> has a posted speed limit of 50 km/hr.
<i>Bronson Avenue</i>	<ul style="list-style-type: none"> a 4-lane arterial undivided roadway. 	<ul style="list-style-type: none"> outer lanes are used for street parking outside of peak hours (restrictions: no stopping 7 AM – 9 AM and 3:30 PM-5:30 PM and no parking 9AM-3 PM). 	<ul style="list-style-type: none"> has a posted speed limit of 50 km/hr.
<i>Booth Street</i>	<ul style="list-style-type: none"> a 2-lane major collector undivided roadway. 	<ul style="list-style-type: none"> paid on-street parking is present on the west side of the road, south of Somerset St. W (in effect from 7 AM to 7 PM, vehicles are allowed to park for up to 2 hours). 	<ul style="list-style-type: none"> has a posted speed limit of 40 km/hr.
<i>Empress Avenue</i>	<ul style="list-style-type: none"> a 2-lane local undivided roadway; operates as a two-way road south of the proposed development's vehicular entrance, however north of the entrance the roadway operates one-way in the northbound direction. 	<ul style="list-style-type: none"> street parking on the west side north of the Empress Street access to the development. 	<ul style="list-style-type: none"> no posted speed limit, speed limit is assumed to be 50 km/hr.
<i>Arthur Street</i>	<ul style="list-style-type: none"> a 2-lane local undivided roadway; Traffic calming measures (curb bulb-outs) are in place. 	<ul style="list-style-type: none"> street parking is present on both sides of the road (paid in the vicinity of Somerset St. W). 	<ul style="list-style-type: none"> no posted speed limit north of Somerset St. W (assumed 50 km/hr). but has a posted speed limit of 30 km/hr south of Somerset Street W corridor.
<i>Primrose Avenue East</i>	<ul style="list-style-type: none"> a 2-lane local undivided roadway. 	<ul style="list-style-type: none"> street parking is permitted on the north side of the roadway for 2 hours (restriction is in place 7 AM – 7 PM). 	<ul style="list-style-type: none"> no posted speed limit, speed limit is assumed to be 50 km/hr.
<i>Primrose Avenue (West)</i>	<ul style="list-style-type: none"> a 2-lane local undivided roadway. 	<ul style="list-style-type: none"> street parking is permitted on the both sides of the roadway. 	<ul style="list-style-type: none"> 30 km/hr for the majority of the corridor.
<i>Bell Street North</i>	<ul style="list-style-type: none"> a 1-lane local undivided roadway that supports one-way traffic in the southbound direction. 	<ul style="list-style-type: none"> street parking is permitted on the east side of the roadway. 	<ul style="list-style-type: none"> 30 km/hr.
<i>Rochester Street</i>	<ul style="list-style-type: none"> a 2-lane local undivided roadway. 	<ul style="list-style-type: none"> street parking is permitted on the both sides of the roadway for 1 hour (restriction is in place 7 AM – 7 PM). 	<ul style="list-style-type: none"> 30 km/hr for the majority of the corridor.

2.1.2.2 Study Area Intersections

Exhibit 2-3 illustrates the study area intersections which were analyzed for intersection capacity metrics as a part of this Scoping study.

The study area includes all signalized intersections within a 400-metre radius of the development. The sole exception to this is the Bronson Avenue/Christie Street intersection which, despite being within a 400-metre radius as the crow flies, is actually located about 450 metres away from the development along public roadways, and would not be significantly impacted by the proposed development.



Exhibit 2-3: Study Area Intersections

1. Bronson Avenue/Primrose Avenue E Intersection

Exhibit 2-4 illustrates this 3-leg traffic signal-controlled intersection.

- The *eastbound approach* (Primrose Avenue E) provides for:
 - one shared left and right turn lane;
 - one receiving lane for westbound vehicles.
- The *northbound approach* (Bronson Avenue) provides for:
 - one through lane and one shared through-left turn lane.
 - two receiving lanes for southbound vehicles.
- The *southbound approach* (Bronson Avenue) provides for:
 - one through lane and one shared through-right turn lane.
 - two receiving lanes for northbound vehicles.
- Pedestrian crosswalks are provided across each leg of the intersection



Exhibit 2-4: Bronson Avenue/Primrose Avenue E Intersection

2. Somerset Street West/Bronson Avenue Intersection

Error! Reference source not found. illustrates this 4-leg traffic signal-controlled intersection.

- The *eastbound approach* (Somerset Street W) provides for:
 - one through-right turn lane;
 - one auxiliary left turn lane;
 - one receiving lane for westbound vehicles.
- The *westbound approach* (Somerset Street W) provides for:
 - one through-right turn lane;
 - one auxiliary left turn lane;
 - one receiving lane for westbound vehicles.
- The *northbound approach* (Bronson Avenue) provides for:
 - one through lane and one shared through-left turn lane.
 - two receiving lanes for southbound vehicles.
- The *southbound approach* (Bronson Avenue) provides for:
 - one through lane and one shared through-right turn lane.
 - two receiving lanes for northbound vehicles.
- Pedestrian crosswalks are provided across each leg of the intersection;
- Right turns on red (at any approach) are prohibited from 7AM to 7PM, Monday through Friday.



Exhibit 2-5: Somerset Street West/Bronson Avenue Intersection

3. Somerset Street West/Arthur Street Intersection

Exhibit 2-6 illustrates this 4-leg traffic signal-controlled intersection.

- The *eastbound approach* (Somerset Street W) provides for:
 - one through-left turn lane;
 - an on-street parking lane that effectively provides storage for one (1) right-turning vehicle;
 - one receiving lane for westbound vehicles adjacent to the on-street parking lane.
- The *westbound approach* (Somerset Street W) provides for:
 - one through-left turn lane;
 - an on-street parking lane that effectively provides storage for one (1) right-turning vehicle;
 - one receiving lane for eastbound vehicles adjacent to the on-street parking lane.
- The *northbound approach* (Arthur Street) provides for:
 - one shared all-movement (through-left turn-right turn) lane.
 - one receiving lane for southbound vehicles.
- The *southbound approach* (Arthur Street) provides for:
 - one shared all-movement (through-left turn-right turn) lane.
 - two receiving lanes for northbound vehicles.
- Pedestrian crosswalks are provided across each leg of the intersection



Exhibit 2-6: Somerset Street West/Arthur Street Intersection

4. Somerset Street West/Bell Street North Intersection

Exhibit 2-7 illustrates this 3-leg traffic unsignalized intersection.

- The *eastbound approach* (Somerset Street W) provides for one through lane and one on-street parking lane with storage for one right-turning vehicle;
- The *westbound approach* (Somerset Street W) provides for one through-left turn lane and one on-street parking lane;
- The south leg (Bell Street North) operates as northbound only from Somerset Street West. It provides for one northbound lane and one parking lane on the west side of the street;
- Pedestrian crossing is provided across the south leg.

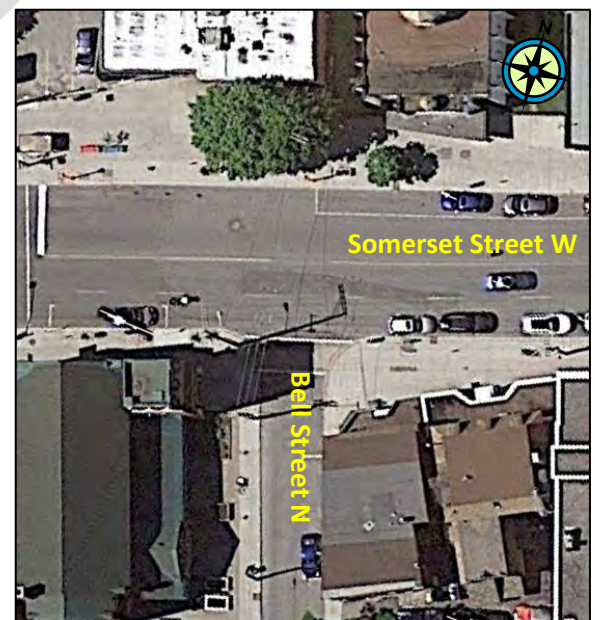


Exhibit 2-7: Somerset Street West/Bell Street North Intersection

5. Somerset Street West/Empress Avenue Intersection

Exhibit 2-8 illustrates this 3-leg traffic signal-controlled intersection.

- The *eastbound approach* (Somerset Street W) provides for:
 - one through-left turn lane;
 - an on-street parking lane;
 - one receiving lane for westbound vehicles adjacent to the on-street parking lane.
- The *westbound approach* (Somerset Street W) provides for:
 - one through lane;
 - a right turn lane with a storage of 27 meters (right turn lane is assumed to begin after the on-street parking lane ends);
 - one receiving lane for eastbound vehicles adjacent to the on-street parking lane.
- The *southbound approach* (Empress Avenue) provides for:
 - one shared left and right turn lane;
 - one receiving lane for northbound vehicles.
- Pedestrian crosswalks are provided across each leg of the intersection

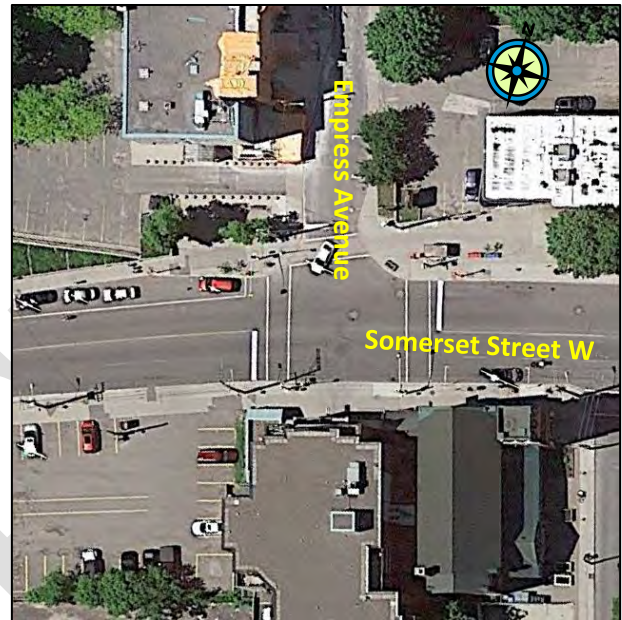


Exhibit 2-8: Somerset Street
West/Empress Avenue Intersection

6. Somerset Street West/Booth Street Intersection

Exhibit 2-9 illustrates this 4-leg traffic signal-controlled intersection.

- Both the *eastbound and westbound approaches* (Somerset Street W) provide for:
 - one auxiliary left turn lane;
 - one shared through-right turn lane;
 - one receiving lane for opposing vehicles.
- Both the *northbound and southbound approaches* (Booth Street) provide for:
 - one shared through-left turn-and-right turn lane;
 - one receiving lane for opposing vehicles.
- Pedestrian crosswalks are provided across each leg of the intersection
- Curb bulb-outs separate on-street parking lanes along Somerset and Booth from the intersection.

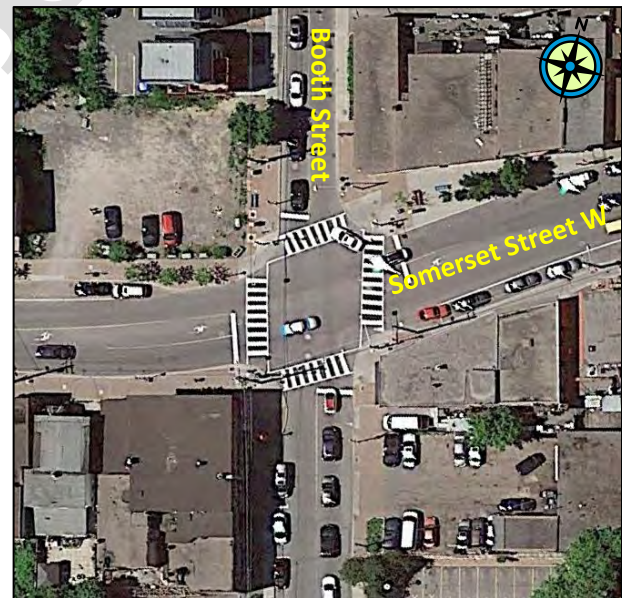


Exhibit 2-9: Somerset Street
West/Booth Street Intersection

7. Somerset Street West/Rochester Street Intersection

Exhibit 2-10 illustrates this 4-leg traffic signal-controlled intersection.

- Both the *eastbound and westbound approaches* (Somerset Street W) provide for:
 - one shared through-left turn-right turn lane;
 - one receiving lane for opposing vehicles.
- Both the *northbound and southbound approaches* (Rochester Street) provide for:
 - one shared through-left turn-and-right turn lane;
 - one receiving lane for opposing vehicles.
- Pedestrian crosswalks are provided across each leg of the intersection;
- Curb bulb-outs separate the on-street parking lane along both Somerset Street West and Rochester Street from the intersection.

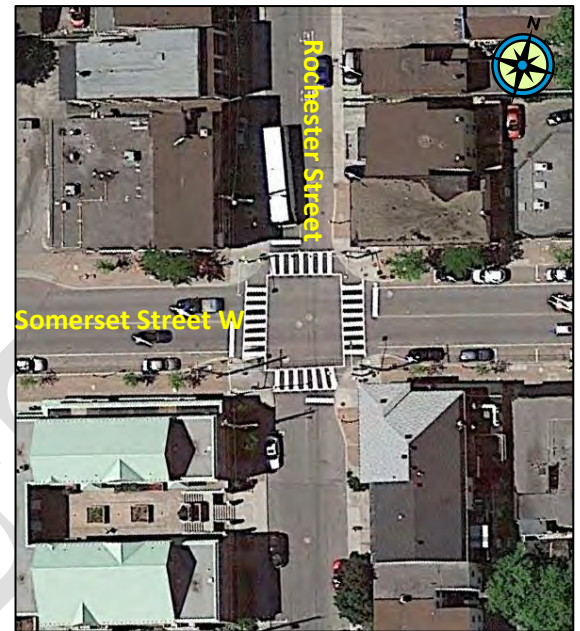


Exhibit 2-10: Somerset Street West/Rochester Street Intersection

8. Booth Street/Primrose Avenue Intersection

Exhibit 2-11 illustrates this 4-leg minor leg stop-controlled (stop controls are on Primrose Avenue) intersection with a pedestrian signal in place to facilitate crossing Booth Street.

- Both the *northbound and southbound approaches* (Booth Street) provide for:
 - one shared through-left turn-and-right turn lane;
 - one receiving lane for opposing vehicles.
- The *eastbound approach* (Primrose Avenue) provides for:
 - one shared through-left turn-right turn lane;
 - one receiving lane for opposing vehicles.
- The east leg (Primrose Avenue) is inbound-only, providing for a single receiving lane;
- Pedestrian crosswalks are provided across each leg of the intersection;
- Curb bulb-outs separate the northbound on-street parking lane along Booth Street and both parking lanes along Primrose Avenue from the intersection;
- Eastbound left turns from Primrose Avenue onto Booth Street are prohibited from 3:30 to 5:30 PM.



Exhibit 2-11: Booth Street and Primrose Avenue Intersection

2.1.2.3 Existing Surrounding Driveways

Exhibit 2-14 illustrates the adjacent existing driveways within the immediate proximity (200 meters from the edge of property line along each boundary street) of the proposed 725 Somerset Street West mixed-use development. The following driveways were identified along the two adjacent boundary streets:

a. Empress Avenue Northbound (East Side):

From South to North as follows:

- *725 Somerset Street West - Existing Access to subject property:* This access serves the property subject of this redevelopment, which is a 2-storey mixed used building with ground floor commercial and second floor office space.
 - The driveway presently serves a 14-parking space lot and garbage pickup / layup area;
 - It is understood that existing curb depressions are to remain in place and make for an accessible pedestrian access into the building from the roadway.
- *725 Somerset Street West – Future Access:* This access is will serve the future 725 Somerset Street West mixed-use building (10 parking spaces). The centreline of this proposed access is located about 7 meters north from the existing access.
- *118 Empress Avenue:* The access serves “Chinese Christian Church” building with a garage and 4 parking spaces stacked on the driveway;
- *116 Empress Avenue:* Two (2) driveways that serve “Chinese Christian Church of Ottawa” building with room for about 3 parking spaces stacked on each driveway;
- *100 Empress Avenue:* Two (2) one-way driveways serving the 25 parking spots of a 9-storey multifamily residential apartment building;
- *92 Empress Avenue:* Driveway serving a low-rise multifamily residential building;
- *88 Empress Avenue:* Driveway serving a low-rise multifamily residential building;
- *86 Empress Avenue, 62-64 Primrose Avenue E:* Driveway serving several low-rise multifamily residential buildings, provides access to parking lot in the rear yard of these buildings;
- *82 Empress Avenue:* This driveway serves one of the units (82 Empress) in a residential duplex;

b. Empress Avenue Southbound (West Side):

From North to South as follows:

- *96 Empress Avenue:* This driveway serves Dominican University College and Dalhousie Community Centre Park;
- *755 Somerset Street W:* This driveway serves the Dalhousie Community Centre building.

c. Somerset Street West, Eastbound (South Side):

From West to East as follows:

- 784 Somerset Street W: the building currently houses a restaurant. The driveway provides access to back parking lot for employees and patrons;
- 780 Somerset Street W: the building currently houses a restaurant. The driveway provides parking for 2 vehicles. Driveway is gated;
- 778 Somerset Street W: the building currently houses a restaurant. The driveway provides parking for 1 vehicle;

- 762-760 Somerset Street W:
Exhibit 2-12 illustrates this driveway, located opposite Empress Avenue, which provides access into the parking lot of 762 Somerset Street West residential apartment building. The parking is also accessible to public. Placement of the driveway effectively makes Somerset Street West / Empress Avenue into a 4-leg intersection, with traffic signals to control vehicle flow from the driveway and pedestrian flow crossing the driveway's leg. However, the City of Ottawa TMC (Turning Movement Count) did not provide any vehicle traffic volumes on the parking lot's leg. A review of GeoOttawa's property parcel layer indicated that the parcel's address is 760 Somerset Street West, while signage on the building indicates 762 Somerset Street West

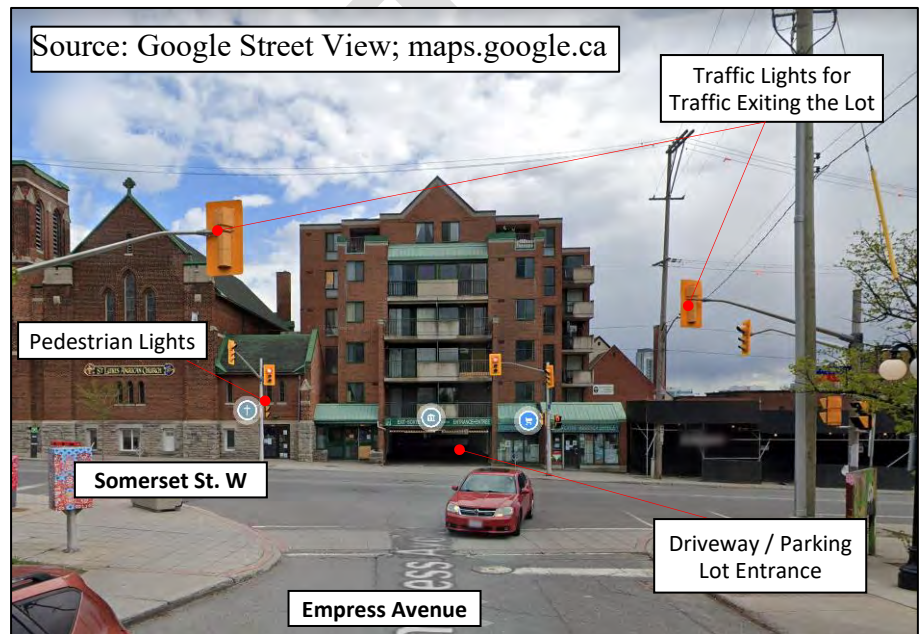


Exhibit 2-12: 760-762 Somerset Street West Driveway

- 676 Somerset Street W: this is a driveway into Petro-Canada gas station with 8 vehicle fueling positions and a convenience store. A second driveway to Bronson Avenue is provided as well

d. Somerset Street West, Westbound (North Side):

From East to West as follows:

- 687 Somerset Street W: This is an entrance to a City of Ottawa public parking lot with 46 total spaces, of which there are two accessible parking spaces, one electric vehicle (EV) charging station, and one carsharing parking space.
- 705 Somerset Street W: This is an entrance to Capital Parking Inc.'s private parking lot which is open to public. A review of aerial photography indicated that the lot has 56 parking spaces. 53 of the 56 spaces are accesses from the Somerset Street W driveway, while 3 of the spaces are accessed from adjacent Arthur Street.

- *761 Somerset Street W:* the building currently houses a restaurant. The driveway provides parking for 2 vehicles. A review of street view photography indicated that the driveway space is also used for outdoor seating (patio) of the restaurant (as illustrated on Exhibit 2-13);
- *765 Somerset Street W:* the building currently houses a restaurant. The driveway provides parking for 2-3 vehicles.



Source: Google Street View; maps.google.ca

Exhibit 2-13: 761 Somerset Street West Driveway

DRY



Source: GeoOttawa; maps.ottawa.ca

Exhibit 2-14:
 Overview of
 Existing
 Adjacent
 Driveways

2.1.2.4 Existing Pedestrian Facilities

Exhibit 2-15 illustrates the extensive pedestrian sidewalk network within the study area.



Source: GeoOttawa; maps.ottawa.ca: Pedestrian Network

Exhibit 2-15: Overview of Pedestrian Provisions in the Study

However, the following three locations were identified where pedestrian accessibility is limited:

- Cambridge Street N segment is shared between vehicle (one-way traffic) and pedestrian traffic with physical traffic calming measures in place (See Exhibit 2-16);
- The east side of Upper Lorne Place lacks a pedestrian sidewalk due to the topography. (There is an upgrade on the east side); and
- There is no accessible pedestrian connection from Primrose Avenue E, Empress Avenue and Upper Lorne Place in the South to Albert



Exhibit 2-16: Cambridge St. Shared Pedestrian-motor-vehicle Area

Street in the North due to the topography. Two staircase connections are provided as illustrated. (See inset photo in Exhibit 2-15).

2.1.2.5 Existing Bicycle Facilities

Table 2-2 lists the roadways in an extended study area range comprising the ultimate cycling network are identified in the 2013 Cycling Plan². The network is illustrated within Exhibit 2-17:

Table 2-2: Ultimate Cycling Network Links in the Study Area

Spine Routes	Local Routes	Major Pathways
Somerset Street West;	Upper Lorne Place;	Between Upper Lorne Place and Primrose Avenue E;
Booth Street;	Primrose Avenue E;	
Albert Street/Slater Street;	Arthur Street;	North of Albert Street – Pathways connecting to LRT
Percy Street.	Cambridge Street N.	



Source: GeoOttawa; maps.ottawa.ca: City of Ottawa 2013 Cycling Plan

Exhibit 2-17: Ultimate Cycling Network in the Study Area

² Ottawa Cycling Plan, November 2013

Exhibit 2-18 indicates the envisioned cycling projects in 2013:

- **P1-31:** Scott St./Albert St. – Holland Avenue to Bronson Avenue.
 - This project envisions bike lanes as a part of a Cross-Town bikeway;
 - Phase 1 of the project was originally scheduled to take place in the year range 2014-2019;
 - Although delayed, its understood that this project is currently underway with localized construction in progress at the time of writing this report (May 2023).
- **P3-11:** Centertown Neighbourhood Bikeway along Arthur Street and Cambridge Street N.
 - This project involves the establishment of shared use lanes;
 - Phase 3 of this project is scheduled to take place in the 2026-2031 timeframe.

At the time of writing this report (May 2023), no additional cycling projects within the study area were identified within the DRAFT 2023 Transportation Master Plan.



Source: Geo-Ottawa; maps.ottawa.ca: 2013 Cycling Projects

Exhibit 2-18: Ultimate Cycling Network Projects

2.1.2.6 Existing Transit Provisions

Exhibit 2-19 illustrates, and Table 2-3 describes, the existing (May 2023) transit operational service along roadways within the immediate proximity of the proposed development.

- The development site lies directly on Route 11, served by the following 2 closest bus stops (less than 50 metre walking distance from the main entrance):
 - Bus Stop #2367 serves the westbound direction (Bayshore); and
 - Bus Stop #6668 serves the westbound direction (Parliament).
- Bus stops serving Route 10 are located on Bronson Avenue about 300-320 metre walking distance from the main entrance:
 - Bus Stop #5690 serves the southbound direction (Hurdman); and
 - Bus Stop #6625 serves the westbound direction (Lyon).
- Pimisi Station of Ottawa’s LRT serving Line 1 with service towards Blair Station and Tunney’s Pasture Station is located about 700 metre walking distance away from the proposed development (or about 500 metre distance as the crow flies).

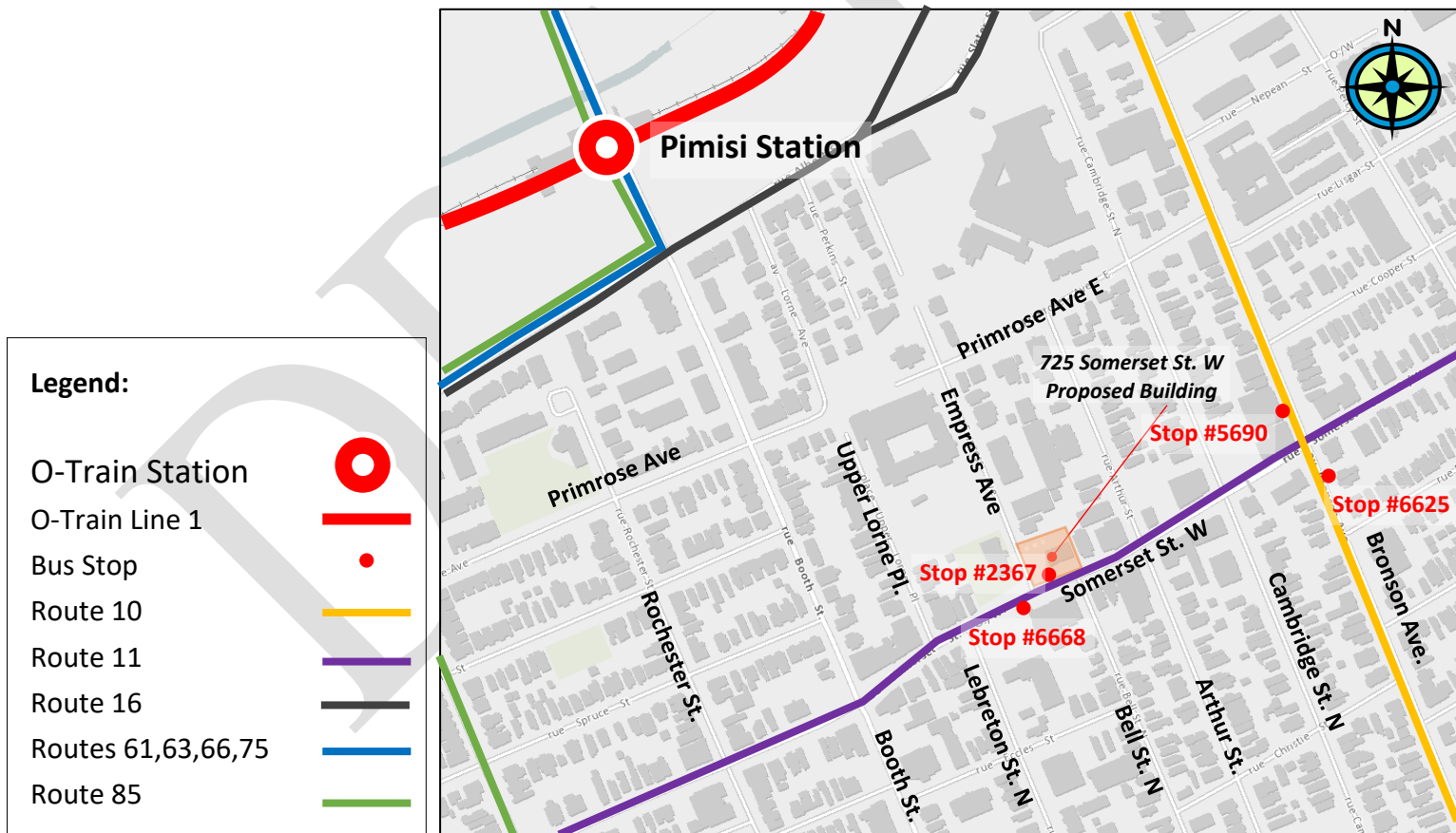


Exhibit 2-19: Transit Network in the Study Area

Source: GeoOttawa; maps.ottawa.ca
Source: OC Transpo Travel Planner, plan.octranspo.com

Table 2-3: Existing Transit Routes

Route	Type	Terminus 1	Terminus 2	Headways	Notes
<i>1 (O-Train)</i>	LRT	Tunney's Pasture Station	Blair Station	<ul style="list-style-type: none"> 5-15 minutes 	Light Rail Transit (LRT) Line 1 has a total travel time of 24 minutes with 13 stations including the two termini
<i>10</i>	Bus - Frequent	Lyon Station	Hurdman Station	<ul style="list-style-type: none"> 15-30 minutes 	Also provides a connection to Carleton University. Travels along the Transitway between Billings Bridge and Hurdman stations.
<i>11</i>	Bus - Frequent	Bayshore Station / Lincoln Fields Station	Parliament Station / Laurier Station	<ul style="list-style-type: none"> 15-30 minutes 	Some trips start/end at Lincoln Fields Station instead of Bayshore Station and some trips extend past Parliament Station to Laurier Station
<i>16</i>	Bus - Regular	Main Street	Tunney's Pasture Station / Westboro	<ul style="list-style-type: none"> 15-30 minutes during the week; up to an hour on weekend mornings 	Some trips will extend past Tunney's Pasture to Westboro. Reduced hours of service on Sunday (ends service at 6:30 PM). Service does not extend to Westboro on Sundays
<i>61, 61N</i>	Bus – Rapid	Terry Fox / Stittsville	Tunney's Pasture Station / Gatineau	<ul style="list-style-type: none"> 8-15 minutes during peak commute times; 30 minutes during off-peak times and on weekends Night route runs until 3 AM, service resumes at 5 AM 	Only 6 inbound (AM peak towards downtown) and 4 outbound (PM peak towards downtown) trips per weekday extend to/from Terrasses De La Chaudière Station in Gatineau past Tunney's Pasture which corresponds to the path shown on Exhibit 2-19. Night service extends from Tunney's Pasture Station towards Rideau
<i>63</i>	Bus – Rapid	Innovation / Briarbrook	Tunney's Pasture Station / Gatineau	<ul style="list-style-type: none"> 15 minutes during peak commute times 30 minutes during off-peak times and on weekends up to an hour on weekend mornings and late nights 	Only 7 inbound and 8 outbound trips per day extend to/from Terrasses De La Chaudière Station in Gatineau past Tunney's Pasture which corresponds to the path shown on Exhibit 2-19
<i>66</i>	Bus - Local	Tunney's Pasture Station / Gatineau	Kanata - Innovation	<ul style="list-style-type: none"> Morning peak hour service from Tunney's Pasture to North Kanata BIA. Afternoon peak hour service from North Kanata BIA to Tunney's Pasture 	Runs Monday-Friday only, no weekend service. 6 out of 9 morning trips start at Terrasses De La Chaudière Station in Gatineau, 6 out of 11 afternoon trips continue to Gatineau.
<i>75, 75N</i>	Bus – Rapid	Barrhaven Centre	Tunney's Pasture Station / Gatineau	<ul style="list-style-type: none"> 15 minutes during peak commute times 30 minutes during off-peak times and on weekends 24-hour service including the night bus route 	Night service extends from Tunney's Pasture Station towards Rideau. Only 5 inbound and 7 outbound trips per weekday extend to/from Terrasses De La Chaudière Station in Gatineau past Tunney's Pasture which corresponds to the path shown on Exhibit 2-19.
<i>85</i>	Bus - Frequent	Bayshore	Gatineau (Terrasses De La Chaudière Station)	<ul style="list-style-type: none"> 15 minutes during peak commute times 30 minutes during off-peak times 	Runs on Carling Avenue between Bayshore Drive and Preston Street with a stop at Lincoln Fields station.

2.1.2.7 Area Traffic Management

Heavy Vehicle Restrictions

Exhibit 2-21 illustrates the heavy truck network within the study area. The following roadways identified within the exhibit in a red font are classified as “full load” truck routes:

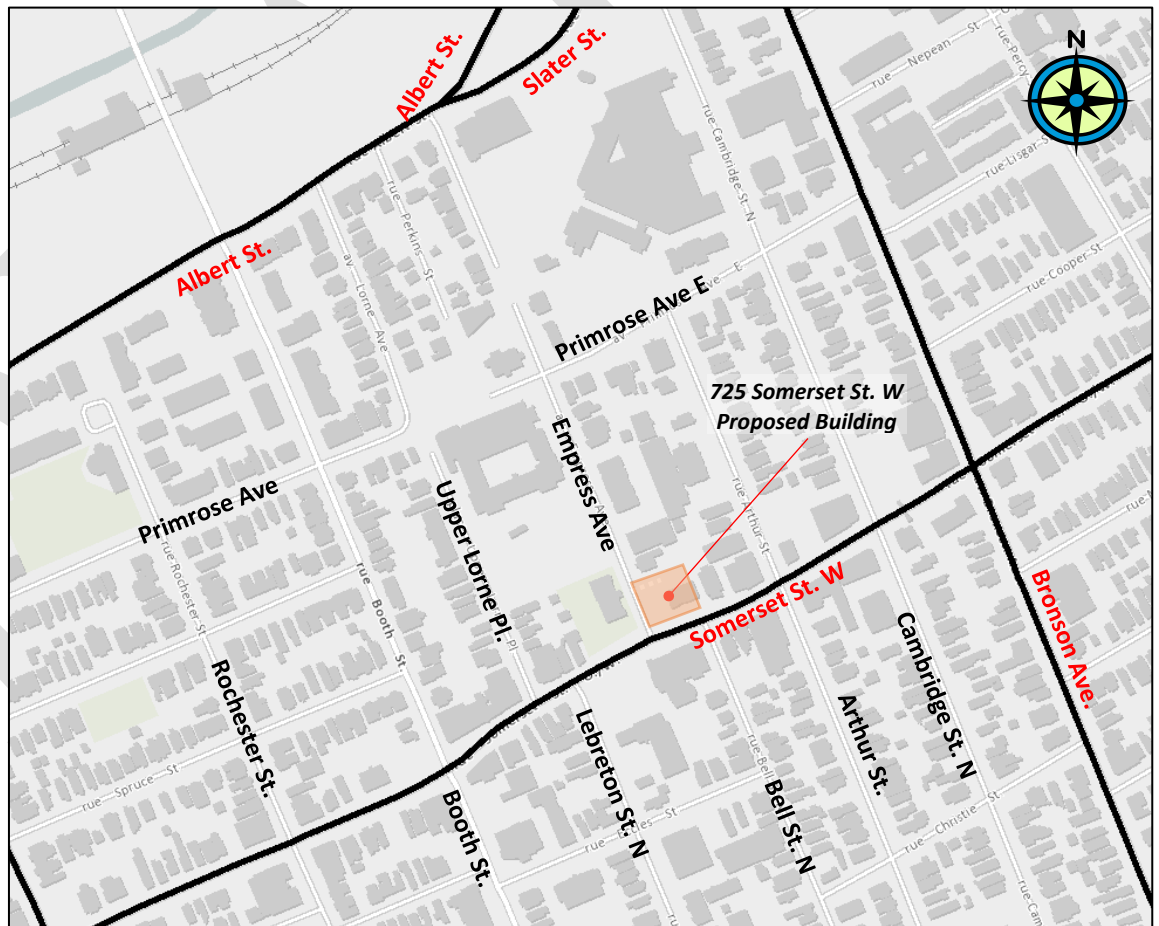
- Somerset Street West;
- Bronson Ave.
- Bronson Avenue;
- Slater St.

Most of the other local and collector roadways within the study area prohibit heavy vehicle through traffic and are characterized by signage illustrating the prohibition and the fine associated with non-compliance as illustrated within Exhibit 2-20.



Source: Google Street View; maps.google.ca

Exhibit 2-20: Heavy Vehicle Restrictive Signage



Source: GeoOttawa; maps.ottawa.ca: Truck Routes

Exhibit 2-21: Truck Route Network

Paid On-Street Parking

Exhibit 2-22 illustrates the location of the paid on-street parking zones within the study area. The exhibit illustrates on-street parking along Somerset Street West and parts of the adjacent streets immediately next to the Somerset Street West corridor. Parking is subject to a \$3.50-per-hour charge between the hours of 7 AM-to-7 PM, Monday through Saturday.

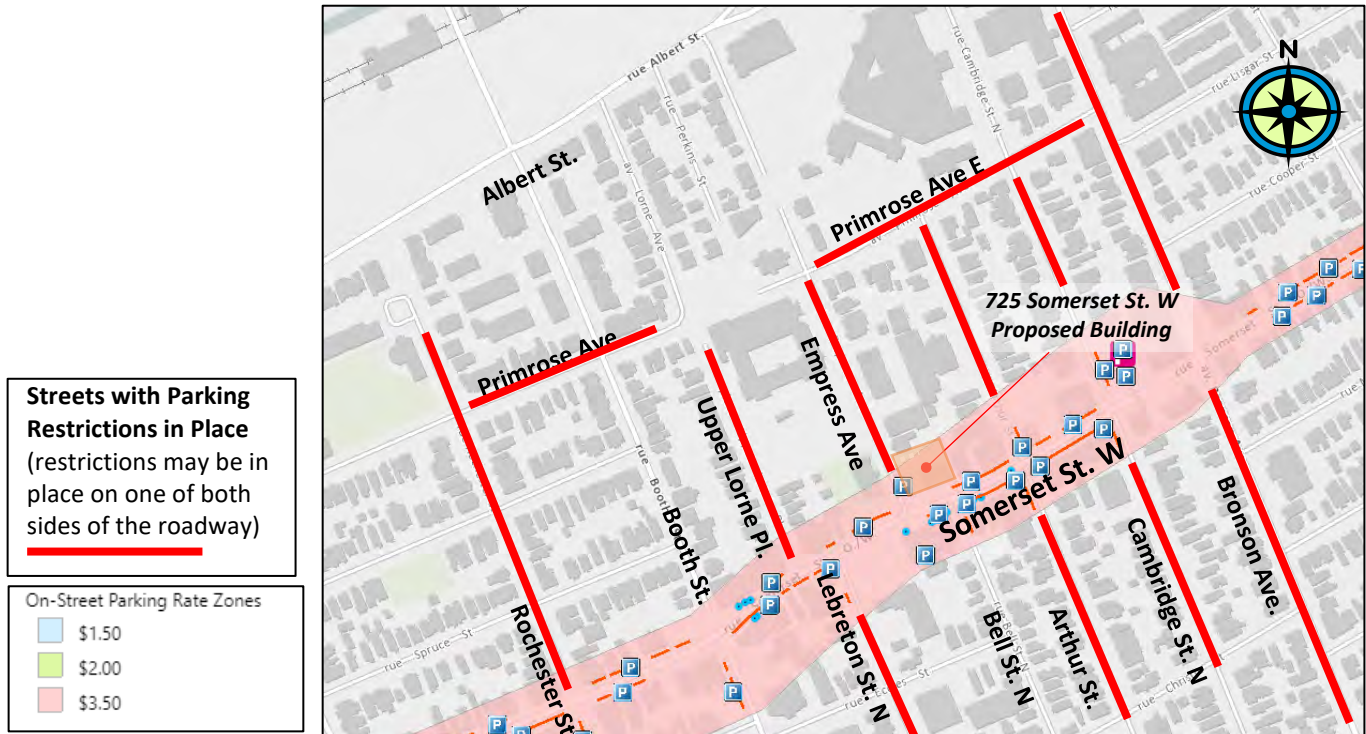


Source: GeoOttawa; maps.ottawa.ca: Parking Provisions

Exhibit 2-22: Paid On-Street Parking Areas

Parking Restrictions

Exhibit 2-23 illustrates the parking restrictions within the study area’s roadways outside of Somerset St. W’s paid parking zone.



Source: GeoOttawa; maps.ottawa.ca

Exhibit 2-23: Parking Restrictions

Table 2-4 highlights the parking restrictions along key corridors.

Table 2-4: Parking and No Stopping Restriction on Area Roadways

Road	On-Street Parking
Bronson Avenue	<ul style="list-style-type: none"> Parking prohibited during the daytime (9:00 AM – 3:30 PM) in the outer lanes. Stopping in the outer lanes is prohibited (from 7:00-to-9:00 AM & 3:30-to-5:30) During this time Bronson Ave. essentially function as a 4-lane arterial.
Empress Avenue	<ul style="list-style-type: none"> On-street parking along the east side, just north of the proposed development is not permitted between 8 AM and 5:30 PM;
Primrose Avenue E	<ul style="list-style-type: none"> Parking is restricted to 2 hours between 7 AM and 7 PM, 7 days a week (except for permit holders);
Primrose Avenue E	<ul style="list-style-type: none"> Parking is restricted to 2 hours between 7 AM and 7 PM, 7 days a week (except for permit holders);
Rochester Street	<ul style="list-style-type: none"> Parking is restricted to 1 hour between 7 AM and 5:30 PM, 7 days a week;
Lebreton St. N, Arthur Street, Cambridge Street N, Upper Lorne Place:	<ul style="list-style-type: none"> Parking is restricted to 1 hour between 7 AM and 7 PM, 7 days a week (except for permit holders);

Turning Restrictions

- *Somerset Street W and Bronson Avenue:* Right turns on red are prohibited between 7 AM and 7 PM, Monday-through-Friday.
- *Booth Street and Primrose Avenue:* Left turns are prohibited from eastbound Primrose Avenue onto Booth Street from 3:30 PM to 5:30 PM, 7 days a week

2.1.2.8 Existing Peak Hour Travel Demands by Mode

Table 2-5 indicates the existing traffic count information that was referenced in preparation of this Scoping Report:

Table 2-5: Existing Traffic Count Information

Intersection	Traffic Control	Source	Duration and Date of Traffic Count
1. <i>Bronson Avenue and Primrose Avenue E</i>	Traffic Signal	City of Ottawa	8-hour TMC; Wednesday, December 13, 2017;
2. <i>Somerset Street W and Bronson Avenue</i>	Traffic Signal	City of Ottawa	8-hour TMC; Wednesday, August 31, 2022;
3. <i>Somerset Street W and Arthur Street</i>	Traffic Signal	City of Ottawa	8-hour TMC; Wednesday, August 31, 2022;
4. <i>Somerset Street W and Bell Street N</i>	Uncontrolled (as Bell Street is one-way SB south of Somerset Street)	Manual Traffic Count undertaken by Castleglenn Consultants	2Hr AM and 2.5-hour PM peak period count; Wednesday, April 19, 2023;
5. <i>Somerset Street W and Empress Avenue</i>	Traffic Signal	City of Ottawa	8-hour TMC; Wednesday, August 31, 2022;
6. <i>Somerset Street W and Booth Street</i>	Traffic Signal	City of Ottawa	8-hour TMC; Wednesday, August 31, 2022;
7. <i>Somerset Street W and Rochester Street</i>	Traffic Signal	City of Ottawa	8-hour TMC; Tuesday, August 23, 2022;
8. <i>Booth Street and Primrose Avenue</i>	IPS – intersection pedestrian signal	City of Ottawa	8-hour TMC; Thursday, March 3, 2022;

Notably, the traffic counts at the Bronson Avenue/Primrose Avenue E intersection and the Booth Street/Primrose Avenue intersections were conducted in the winter (December, 2017) and early spring (March, 2022), respectively, and may not represent peak active traffic activity.

Appendix “C” provides more detailed existing traffic count and traffic signal timing information obtained on behalf of this TIA.

Pedestrian Travel Demand

As previously indicated in section 2.1.2.4, there is an extensive pedestrian network present within the study area. Table 2-6 indicates peak hour and 8-hour pedestrian travel demands at each study area intersection.

Table 2-6: Pedestrian Travel Demand

Intersection	Bronson Avenue / Primrose Avenue E (winter count)			Bronson Avenue / Somerset Street W				Somerset Street W / Arthur Avenue			
	North Leg	South Leg	West Leg	North Leg	South Leg	West Leg	East Leg	North Leg	South Leg	West Leg	East Leg
<i>Morning Pedestrian Demand</i>	48	33	44	58	73	29	34	58	61	12	17
<i>Afternoon Pedestrian Demand</i>	37	28	33	73	85	78	41	120	175	60	47
<i>8-Hour Pedestrian Demand</i>	239	181	243	718	723	420	375	704	968	272	234

Intersection	Somerset Street W / Empress Avenue			Somerset Street W / Booth Street				Somerset Street W / Rochester Street				Booth Street / Primrose Avenue (early spring count)			
	North Leg	West Leg	East Leg	North Leg	South Leg	West Leg	East Leg	North Leg	South Leg	West Leg	East Leg	North Leg	South Leg	West Leg	East Leg
<i>Morning Pedestrian Demand</i>	65	27	27	48	33	28	49	20	23	9	6	2	15	16	23
<i>Afternoon Pedestrian Demand</i>	84	26	22	101	112	44	56	72	77	27	19	1	17	23	26
<i>8-Hour Pedestrian Demand</i>	637	184	191	542	437	281	436	326	378	150	142	21	112	142	189

Cyclist Travel Demand

Table 2-7 indicates morning and afternoon peak hours and 8-hour cyclist travel demands at each study area intersection.

Table 2-7: Cyclist Travel Demand

Intersection	Bronson Avenue / Primrose Avenue E (Winter Count)			Bronson Avenue / Somerset Street W				Somerset Street W / Arthur Avenue			
	SB	NB	EB	SB	NB	EB	WB	SB	NB	EB	WB
Morning Pedestrian Demand	0	1	1	1	5	15	14	6	2	13	11
Afternoon Pedestrian Demand	1	0	0	6	5	4	16	4	3	17	19
8-Hour Cycling Demand	3	8	3	26	33	111	135	27	19	132	145

Intersection	Somerset Street W / Empress Avenue			Somerset Street W / Booth Street				Somerset Street W / Rochester Street				Booth Street / Primrose Avenue (Early Spring Count)			
	SB	EB	WB	SB	NB	EB	WB	SB	NB	EB	WB	SB	NB	EB	WB
Morning Pedestrian Demand	1	10	9	3	4	9	11	0	0	4	8	0	0	0	0
Afternoon Pedestrian Demand	6	21	23	4	7	12	16	0	3	10	20	0	0	0	0
8-Hour Cycling Demand	16	107	122	39	27	87	117	12	13	54	86	2	2	3	0

Vehicular Travel Demand

The traffic information, (as noted in Table 2-5), was entered into a computer readable format and used to create Exhibit 2-24 which illustrates the existing (unbalanced) morning and afternoon peak hour motor vehicle traffic volumes within the study area.

As the traffic information was collected on different dates fluctuations in the collected information were anticipated due to factors ranging from weather conditions, construction activity (detours, lane restrictions), work-from-home arrangements, etc. The collected information had to be balanced such that the traffic leaving one intersection would balance with that arriving at a downstream intersection, allowing for mid-block accesses that would logically account for discrepancies.

The following factors were considered in the balancing approach:

- Traffic volumes along arterial and collector roads (Somerset Street W, Bronson Avenue, Booth Street) were augmented by an annual 1.5% growth rate to bring the counts to a 2023 horizon year. This was done to account for the growth in background traffic that occurred over the one-year period between 2022-to-2023;
- The (December, 2017) traffic volumes at the Bronson Avenue / Primrose Avenue E intersection were augmented by 9% to account for traffic increase in a 6-year period (2017-to-2023);
- The traffic volumes along Bronson Avenue and Booth Street were balanced in the northbound and southbound direction
- Along Bronson Avenue, the traffic volumes between Bronson Avenue and Primrose Avenue E were adjusted (decreased) from the pre-covid traffic count to better correspond to the 2022 traffic volumes at Bronson Avenue and Somerset Street West (post-covid);
- Traffic volumes at the Somerset Street West / Booth Street intersection (August 2022 count) were increased on the north and south legs to balance with the volumes at Booth Street and Primrose Avenue E (March 2022 count).
- The Somerset Street W traffic counts were conducted during construction along Somerset Street and while closure of the Chaudiere Bridge crossing was in effect. This explains the significantly lower traffic volumes compared to the adjacent counts.
 - The additional northbound traffic was assumed to all be heading from Booth Street (northbound-through movement at the intersection);
 - The additional southbound traffic was proportionally distributed along Booth Street and Somerset Street West;
 - The eastbound volumes along Somerset Street West were then carried through until the intersection of Somerset Street West and Bronson Avenue, and then distributed northbound to Bronson Avenue (which partially makes up for the decreased volumes at Bronson Avenue / Primrose Avenue E intersection);

- Finally, traffic along Somerset Street West between Rochester Street and Booth Street were balanced with respect to worst-case traffic volumes, since the two counts were conducted on separate days.
- The traffic counts at 4 other intersections along Somerset Street West were conducted on the same day (August 31, 2022) and any imbalances in through traffic are considered to be an accurate representation of trip losses to driveways and street parking. Therefore, balancing was not performed between these intersections.

Exhibit 2-25 depicts the resulting existing *balanced* morning and afternoon peak hour traffic volumes.

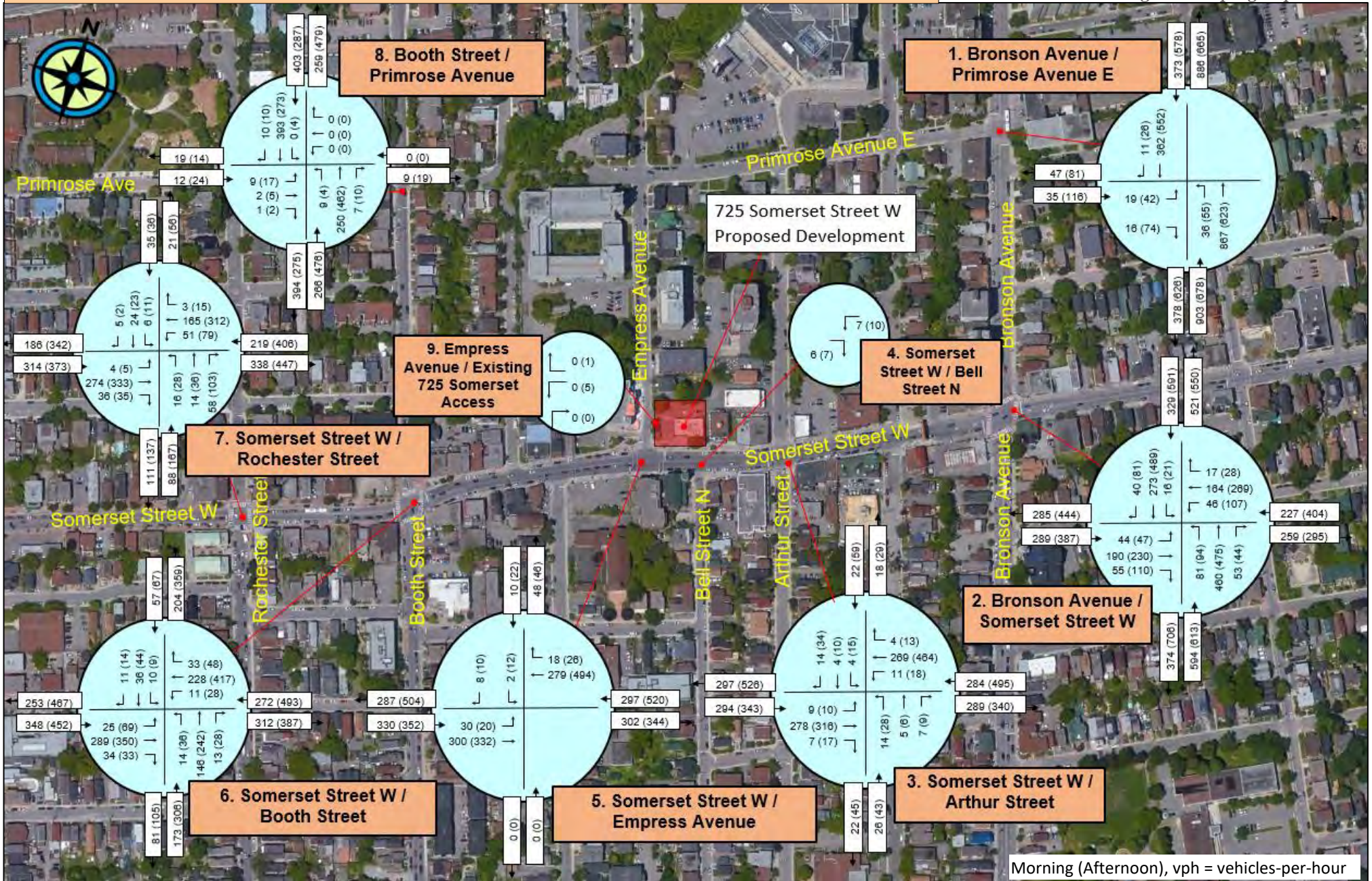
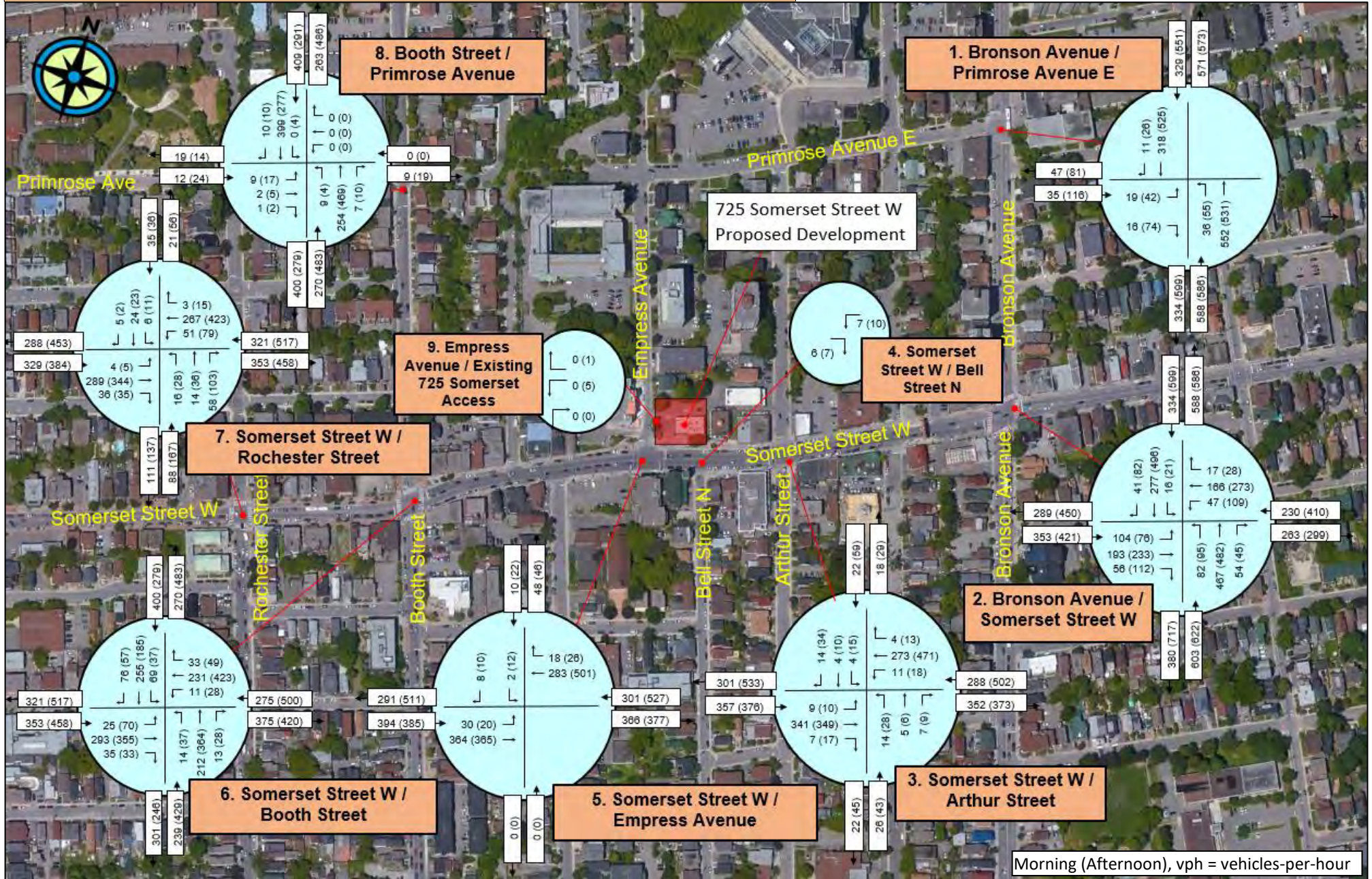


Exhibit 2-25: 2023 Balanced Morning and Afternoon Peak Hour Traffic Volumes



Existing Traffic Volumes: Intersection Capacity Analysis

Table 2-8 summarizes the existing balanced (2023) intersection capacity analysis (See Exhibit 2-25 for traffic volumes) undertaken with Synchro™ 11 traffic analysis software.

[Appendix “C” provides the traffic-signal timings phasing that were provided by the City of Ottawa.]

This analysis assumes the development is not in place and only considers the existing traffic, accounting for effects of background growth between the counts’ base year and current year (2023). The analysis assumes a peak hour factor (PHF) of 0.90.

[Synchro analysis output sheets can be found in Appendix “D”.]

According to the City of Ottawa’s MMLOS guidelines³, the minimum desirable vehicular LOS target (Auto-LOS) for arterial and collector roadways within “general urban area”, as well as along “Traditional Mainstreets” as defined in a City’s OP Designation / Policy Area is **LOS “D”**.

Table 2-8 indicates the following:

- The intersection of Somerset Street West and Booth Street operates at a level of service “C” or better during both the morning and afternoon peak hours of travel demand:
 - During the morning peak hour, the southbound through movement is critical (27.1 second delay, 0.78 volume-to-capacity ratio);
 - During the afternoon peak hour, the northbound through movement is critical (29.5 second delay, 0.77 volume-to-capacity ratio);
- The intersection of Somerset Street West and Bronson Avenue operates at a level of service “B” or better during the afternoon peak hour of travel demand, with northbound through movement being critical (25.9 second delay, 0.69 volume-to-capacity ratio);
- The intersections of Somerset Street West and Rochester Street operates at a level of service “B” or better during the afternoon peak hour of travel demand, with westbound through movement being critical (6.6 second delay, 0.69 volume-to-capacity ratio);
- Movements at all other intersections operate at a level of service “A”, indicating the volume-to-capacity ratio is under 0.60;
- Existing 725 Somerset Street West building was found to generate no traffic during the morning peak hour, and 6 outbound vehicles during the afternoon peak hour;
- The Somerset Street West and Bell Street North intersection was found to have 10 or fewer vehicles turning per direction per peak hour, which translates to less than one vehicle every 6 minutes turning into Bell Street from each direction;
- Overall, the study area intersections in the existing conditions have the additional capacity necessary to accommodate the traffic increase caused by the proposed development.

³ “Multi-Modal Level of Service (MMLOS) Guidelines”, Supplement to the TIA Guidelines, City of Ottawa September 2015, IBI Group. Page 24, Exhibit 22 – Minimum Desirable MMLOS Targets by Official Plan Policy Designation & Road Class.

Table 2-8: Existing (2023) Traffic Analysis
[Assumes Development is NOT in Place]

Intersection	Control Type	Weekday Morning Peak Hour (Afternoon Peak Hour)				
		Critical Movement	95 th Percentile Queue (m)	Delay (seconds)	LOS	v/c Ratio
1. Bronson Avenue and Primrose Avenue E	Traffic Signal	EB-LT	9 (17)	13.4 (10.4)	A (A)	0.09 (0.26)
		NB-TH	35 (36)	10.0 (10.4)	A (A)	0.40 (0.43)
		SB-TH	18 (31)	8.2 (9.2)	A (A)	0.21 (0.34)
2. Somerset Street W and Bronson Avenue	Traffic Signal	EB-LT	33 (22)	30.4 (21.9)	A (A)	0.42 (0.27)
		EB-TH	65 (83)	29.9 (25.8)	A (A)	0.51 (0.56)
		WB-LT	16 (33)	26.0 (26.8)	A (A)	0.21 (0.44)
		WB-TH	46 (69)	26.4 (23.0)	A (A)	0.36 (0.45)
		NB-TH	51 (75)	14.6 (25.9)	A (B)	0.48 (0.69)
		SB-TH	26 (62)	11.8 (20.7)	A (A)	0.25 (0.50)
3. Somerset Street W and Arthur Street	Traffic Signal	EB-TH	4 (43)	2.8 (7.4)	A (A)	0.40 (0.39)
		WB-TH	34 (67)	8.7 (11.4)	A (A)	0.31 (0.53)
		NB-TH	8 (12)	17.1 (19.0)	A (A)	0.11 (0.19)
		SB-TH	6 (12)	12.9 (13.1)	A (A)	0.08 (0.21)
4. Somerset Street W and Bell Street N	Uncontrolled – Inbound Only	<i>N/A – inbound only free flow</i>				
5. Somerset Street W and Empress Avenue	Traffic Signal	EB-TH	14 (77)	8.8 (16.9)	A (A)	0.47 (0.44)
		WB-TH	15 (58)	5.4 (11.2)	A (A)	0.32 (0.54)
		SB-LT	4 (6)	12.2 (13.7)	A (A)	0.05 (0.07)
6. Somerset Street W and Booth Street	Traffic Signal	EB-TH	66 (73)	12.0 (11.5)	A (A)	0.46 (0.51)
		WB-TH	65 (105)	29.8 (17.8)	A (B)	0.38 (0.62)
		NB-TH	34 (77)	17.0 (29.5)	A (C)	0.40 (0.78)
		SB-TH	64 (47)	27.1 (21.5)	C (A)	0.77 (0.58)
7. Somerset Street W and Rochester Street	Traffic Signal	EB-TH	37 (44)	8.8 (9.3)	A (A)	0.37 (0.41)
		WB-TH	16 (41)	5.3 (6.6)	A (B)	0.40 (0.63)
		NB-TH	14 (23)	11.4 (13.0)	A (A)	0.26 (0.43)
		SB-TH	10 (11)	18.3 (20.0)	A (A)	0.09 (0.10)
8. Booth Street and Primrose Avenue	Intersection Pedestrian Signal on major leg; Minor leg is stop-controlled	EB-LT	3 (5)	14.6 (15.0)	A (A)	0.06 (0.11)

Values outside of Brackets represent Morning Peak Hour Values.
 Values inside of Brackets represent Afternoon Peak Hour Values.
 Values that are in Bold indicate unsatisfactory results / parameters.

2.1.2.9 Existing Road Safety Information

Historical collision information was reviewed for each of the study area intersections and segments. The collision information was referenced from the City of Ottawa for the period 2017-through-2021. (See Appendix “C”)

The collision information provided:

- the date and time of each collision;
- the type of collision (e.g., angle collision, rear-end);
- the severity of damage involved;
- vehicle details (truck, passenger vehicle, etc.);
- vehicle path/maneuver characteristics; and
- the number of pedestrians involved in the collision.



Exhibit 2-26: Intersections and Segments for Collision Analysis

Intersection Collisions: Table 2-9 provides a summary of intersection collisions for the 8 study area intersections, as well as two additional adjacent intersections (Somerset / Lebreton & Somerset / Upper Lorne) reported for the years of 2017-through-2021. The collisions are listed in terms of the type of collision and collision severity. As well, the table presents the calculated collision rate [as measured in number of collisions per million vehicles that travelled either through the intersection or along the corridor.] A standard collision rate based on the number of collisions- per-million-entering-vehicles (MEV) was calculated. The rate greater than 1.0 collisions/MEV was considered to indicate a potential concern.

Table 2-9: Five -Year Collision History, Intersections (January 1st, 2017 -to- December 31st, 2021)

Intersection Number		1	2	3	4	5	6	7	8	9	10
Intersection		Bronson Avenue / Primrose Avenue E	Bronson Avenue / Somerset Street W	Somerset Street W / Arthur Street	Somerset Street W / Bell Street N	Somerset Street W / Empress Avenue	Somerset Street W / Booth Street	Somerset Street W / Rochester Street	Booth Street / Primrose Avenue	Somerset Street W / Upper Lorne Place	Somerset Street W / Lebreton Street
Total Collisions		4	48	7	1	5	12	5	2	3	6
Collision Type	Rear End	2	14	1	1	5	3	1	1		
	Single Vehicle	1	4	3			4		1	1	2
	Sideswipe	1	19	1			3			2	1
	Turning Movement		7	1				1			1
	Angle		3	1			2	2			2
	Approaching										
	Other		1					1			
Collision Severity	Property Damage only	2	36	4	1	4	9	4	1	2	6
	Non-Fatal Injury	2	11	3		1	3	1	1	1	
	Fatal		1								
No. of Collisions Involving Pedestrians		1 (25%)	2 (4%)	3 (43%)	0	0	2 (17%)	0	1 (50%)	0	0
Intersection AADT		16,800	20,900	9,600	9,200	9,400	13,300	10,000	9,600	9,400	9,400
Collision Rate per MEV		0.13	1.26	0.4	0.06	0.29	0.49	0.27	0.11	0.17	0.35

MEV = Millions of Vehicles Entering the Intersection or (mid-block) travelling along the corridor.
AADT = Average Annual Daily Traffic

Mid-Block Collisions: Table 2-10 presents the collision related information that occurred on the mid-block locations.

Table 2-10: Five -Year Collision History, Mid-Blocks (January 1st, 2017 -to- December 31st, 2021)

Intersection Number		1	2	3	4	5	6
Street		Somerset Street W					Empress Avenue
Between		Booth Street	Upper Lorne Place	Lebreton Street N	Empress Avenue	Bell Street N	Primrose Avenue
... and		Upper Lorne Place	Lebreton Street N	Empress Avenue	Bell Street N	Arthur Street	Somerset Street W
Total Collisions		7	4	4	1	2	1
Collision Type	Single Vehicle (unattended)	2	2	3	1	1	1
	Sideswipe	4	1	1			
	Angle		1				
	Other	1				1	
Collision Severity	Property Damage only	7	4	4	1	2	1
No. of Collisions Involving Pedestrians		0	0	0	0	0	0

Table 2-9 and Table 2-10 indicate the following:

a. Bronson Avenue and Somerset Street West

- This intersection is the junction of two major arterial roads and exhibited the worst collision statistics within the study area, with 48 collisions recorded over the last 5 years of available information (2017-to=2021). The types of collisions were:
 - 19 out of 48 (40%) were sideswipe collisions;
 - 14 out of 48 (29%) were rear end collisions;
 - 7 out of 48 (15%) were turning movement collisions.
- The severity of the collisions included:
 - 36 out of 48 (75%) resulted in property damage only;
 - 11 out of 48 (23%) resulted in non-fatal injuries;
 - 1 out of 48 (2%) involved a fatal injury. According to the provided data, the fatal collision occurred when a pick-up truck struck a pedestrian. The collision was recorded on September 28, 2021;
 - Overall, only 2 out of 48 (5%) collisions [including the fatal collision above] involved a pedestrian.
- The resulting collision rate at this intersection is 1.26 collisions per million entering vehicles (MEV), which may indicate a potential safety concern.

b. Somerset Street W and Booth Street

- This intersection exhibited 12 recorded collisions over the last 5 years (2017-2021) and resulted in a collision rate on 0.49 collisions per MEV.

c. Somerset Street W and Arthur

- 3 of the 7 (43%) collisions at this intersection involved pedestrians;

All other intersections had 6 or less collisions recorded within the last 5 years, and were considered to exhibit an adequate level of safety;

All of the recorded mid-block collisions resulted in property damage only, and most (10 out of 19) involved an unattended vehicle.

2.1.3 Planned Conditions

2.1.3.1 Changes to the Study Area Transportation Network

Transportation Model Summary: Exhibit 2-27 illustrates the snapshots of the City of Ottawa’s long-range transportation model results for a 2011 base year and 2031 forecast year, illustrating the morning peak hour traffic volumes along the study area links.



Exhibit 2-27: City of Ottawa TRANS Model Snapshots, AM Peak Hour, 2011 and 2031

Table 2-11 provides a summary of morning peak traffic volumes for the 2031 horizon year of the model, and the resulting growth rates along study area roadways. This information was considered in adopting a conservative 1.5% background growth rate to through movements along arterial and collector roadways within the study area.

Table 2-11: TRANS Transportation Model Summary, 2011 and 2031, AM Peak

<i>Intersection</i>		Somerset Street West, East of Empress Avenue		Bronson Avenue, North of Somerset Street W		Booth Street, North of Somerset Street W	
		Westbound	Eastbound	Northbound	Southbound	Northbound	Southbound
Year	Time Period						
2011	AM Peak	243	426	957	357	638	682
2031		261	528	1209	345	768	756
Total growth		7.4%	23.9%	26.3%	-3.4%	20.4%	10.9%
20-year annual average growth rate		0.4%	1.2%	1.3%	-0.2%	1.0%	0.5%

Other Transportation Projects

- The 2013 City of Ottawa Transportation Master Plan (TMP) indicated transit signal priority and queue jump lanes at select intersections along Somerset Street West as a part of 2031 affordable network projects. This project is intended to reduce travel time and improve reliability of OC Transpo’s Route 11 (former Route 2) service.

2.1.3.2 Other Study Area Developments

Exhibit 2-28 illustrates the results of a review of the City of Ottawa’s development applications website⁴ to identify the adjacent developments that are currently under construction, or have recently been completed, within the study area. These included:

- *770 Somerset Street West*: This is a 9-storey apartment building with a total of 103 rental units. The construction is currently underway and is expected to be completed in July 2023; and
- *162 Cambridge Street North*: This is a 4-storey apartment building with a total of 24 rental units. The property manager’s⁵ website indicated that construction was completed in 2019, while a review of air photography indicated that some construction activity was still taking place in 2020.



4 Development Application Search Tool <https://devapps.ottawa.ca/en/applications>

5 Canci Rentals, <https://www.cancirentals.com/apartments/162-cambridge-st-north>

2.2 STUDY AREA AND TIME PERIODS

2.2.1 Study Area

Section 2.1.2 described the roadways and intersections included within the study area. Exhibit 2-29 illustrates the study area boundary considered for this Scoping Report which includes all of the signalized intersections within a 400-metre radius from the development. The study area **excludes** the Bronson Avenue / Christie Street intersection as it is actually located about 460 metres away from the development by way of public rights-of-way and is not believed to be adversely impacted by the advent of the proposed development).



Exhibit 2-29: Study Area Intersections

2.2.2 Time Periods

The study provided an analysis of the weekday morning and afternoon peak hours of travel demand which represent the “worst-case” scenario in terms of weekday commuter traffic volumes.

2.2.3 Horizon Years

The proposed development, at this point in time, is anticipated to be achieved by the end of 2026. A period five-years-after-buildout would then correspond to year 2031.

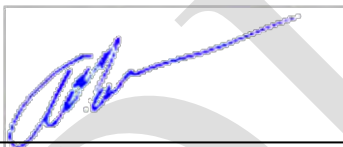
2.3 EXEMPTION REQUEST

It is understood that at present time, only the Screening and Scoping report has been requested as a part of the Site Plan Application. Should the Forecasting (Step 3) and/or Strategy (Step 4) components be requested by the City of Ottawa, any identified scope reductions (exemptions) would then be clarified with the City of Ottawa staff.

3.0 SIGN-OFF

Should you have any questions or comments, please do not hesitate to contact us.

Yours truly,



Mr. Arthur Gordon B.A. P.Eng
Principal Engineer
Castleglenn Consultants Inc.



Mr. Andrey Kirillov B.Eng , EIT
Transportation Planner
Castleglenn Consultants Inc.



**Castleglenn
Consultants**

Engineers, Project Managers & Planners

APPENDIX A:

CERTIFICATION FORM FOR TIA STUDY PROJECT MANAGER AND SCREENING FORM

DRAFT



Certification Form for TIA Study PM

TIA Plan Reports

On 14 June 2017, the Council of the City of Ottawa adopted new Transportation Impact Assessment (TIA) Guidelines. In adopting the guidelines, Council established a requirement for those preparing and delivering transportation impact assessments and reports to sign a letter of certification.

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 s/he meets the four criteria listed below.

CERTIFICATION

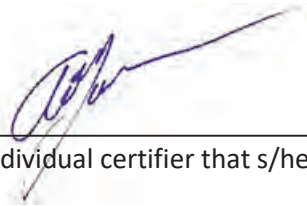
- I have reviewed and have a sound understanding of the objectives, needs and requirements of the City of Ottawa's Official Plan, Transportation Master Plan and the Transportation Impact Assessment (2017) Guidelines;
- I have a sound knowledge of industry standard practice with respect to the preparation 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 licensed¹ or registered² professional in good standing, whose field of expertise
 - is either transportation engineering
 - or transportation planning.

^{1,2} 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 this day of , 20
(City)

Name :

Professional title:



Signature of individual certifier that s/he meets the above criteria

Office Contact Information (Please Print)
Address: 2460 Lancaster Road, Suite 200
City / Postal Code: K1B 4S5
E-Mail Address: agordon@castleglenn.ca

Stamp



City of Ottawa 2017 TIA Guidelines Screening Form

1. Description of Proposed Development

Municipal Address	725 Somerset St. W Ottawa
Description of Location	Somerset St. W and Empress Ave
Land Use Classification	TM[112] H(16)
Development Size (units)	94
Development Size (m ²)	1000.38 m ² (lot area); 320 m ² of commercial space
Number of Accesses and Locations	1 Access off Empress Ave
Phase of Development	1
Buildout Year	2026

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
Single-family homes	40 units
Townhomes or apartments	90 units
Office	3,500 m ²
Industrial	5,000 m ²
Fast-food restaurant or coffee shop	100 m ²
Destination retail	1,000 m ²
Gas station or convenience market	75 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 Spine Bicycle Networks?		X
Is the development in a Design Priority Area (DPA) or Transit-oriented Development (TOD) zone?*	X	

*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).

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?		X
Are there any horizontal/vertical curvatures on a boundary street limits sight lines at a proposed driveway?		X
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)?	X	
Is the proposed driveway within auxiliary lanes of an intersection?		X
Does the proposed driveway make use of an existing median break that serves an existing site?		X
Is there is a documented history of traffic operations or safety concerns on the boundary streets within 500 m of the development?		X
Does the development include a drive-thru facility?		X

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?	X	
Does the development satisfy the Location Trigger?	X	
Does the development satisfy the Safety Trigger?	X	

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).



**Castleglenn
Consultants**

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APPENDIX B:

SITE PLAN

(RECEIVED ON MAY 17TH, 2023)

DRAFT

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PROJECT TEAM / ÉQUIPE DU PROJET :

KEY PLAN / PLAN CLÉ :

CLIENT :

PROJECT NAME / NOME DU PROJET :

725 SOMERSET STREET WEST

DRAWING NAME / NOM DU DESSIN :

SITE PLAN

DRAWING INFORMATION / INFORMATION DU DESSIN :

PROJECT NO. / NO. DE PROJET : **21029**

DATE :

DRAWN BY / DESSINÉ PAR : **Author**

REVIEWED BY / VÉRIFIÉ PAR : **Checker**

SCALE / ÉCHELLE : **1 : 100**

PROJECT PHASE / PHASE DU PROJET : **0**

DWG NO. / NO. DESSIN :

A050

REVISION NO. / NO. DE RÉVISION :

SITE CONTEXT



LEGEND

SURFACES

- GRASS
- RIVERSTONE
- CONCRETE PAVERS
- POURED CONCRETE
- ASPHALT PAVING
- PROPOSED NEW BUILDING
- EXISTING BUILDING TO REMAIN
- EXISTING BUILDING TO BE DEMOLISHED

LINES

- PROPERTY LINE
- SETBACK LINE
- EXISTING FENCE
- NEW FENCE
- OVERHEAD WIRES

VEGETATION

- TREE: EXISTING TO REMAIN
- TREE: EXISTING TO BE REMOVED
- TREE: NEW PROPOSED
- SHRUB: NEW PROPOSED

SYMBOLS

- DIRECTIONAL ARROWS
- BUILDING ACCESS
- BUILDING EGRESS
- SIAMESE CONNECTION
- UTILITY POLE
- FIRE HYDRANT
- CATCH BASIN / MANHOLE
- DEPRESSED CURB
- LANDSCAPE LIGHT
- LIGHT POLE
- WALL MOUNTED LIGHT
- EXISTING GRADE ELEVATION
- PROPOSED GRADE ELEVATION

PARKING

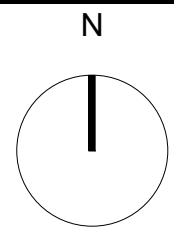
- BIKE PARKING
H: HORIZONTAL 0.6M x 1.8M
V: VERTICAL 0.5M x 1.5M
S: STACKED 0.37M x 1.8M
- CAR PARKING
R: RESIDENTIAL
V: VISITOR
- BF PARKING
R: RESIDENTIAL
V: VISITOR
- BF PARKING (TYPE A)
R: RESIDENTIAL
V: VISITOR
- BF PARKING (TYPE B)
R: RESIDENTIAL
V: VISITOR

GENERAL NOTES

- NOTE-A :**
- ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL OTHER DRAWINGS AND SPECIFICATIONS, INCLUDING OTHER CONSULTANTS DRAWINGS AND SPECIFICATIONS. ANY DISCREPANCIES BETWEEN DRAWINGS WILL BE REPORTED TO THE PROJECT LEAD IMMEDIATELY FOR CLARIFICATION PRIOR TO COMMENCING ANY CONSTRUCTION.
- NOTE-B :**
- ALL GENERAL SITE INFORMATION AND CONDITIONS HAVE BEEN COMPILED FROM EXISTING PLANS AND SURVEYS.
- NOTE-C :**
- CONTRACTOR IS RESPONSIBLE TO CHECK AND VERIFY ALL DIMENSIONS ON SITE AND REPORT ALL ERRORS AND / OR OMISSIONS TO THE ARCHITECT.
- NOTE-D :**
- REFER TO LANDSCAPE PLAN FOR ALL EXTERIOR LANDSCAPING.
- NOTE-E :**
- DO NOT SCALE DRAWINGS.
- NOTE-F :**
- ALL CONTRACTORS MUST COMPLY WITH ALL APPLICABLE CODES AND REGULATIONS.

SURVEY INFO

TOPOGRAPHIC SURVEY OF :
STREET
REGISTERED PLAN #####
CITY OF OTTAWA



PROJECT INFORMATION

SITE SUMMARY	
ADDRESS	725 Somerset St. West
CURRENT ZONING	TM(112) H(16)
SITE AREA	994.48 m ²
PROPOSED USE	160-unit (9-storey) Mixed Use building of 94 units residential units & 284 sq.m. of non-residential space.
BUILDING AREA	764.84 m ²

ZONING SUMMARY

	REQUIRED	PROPOSED
LOT AREA	0.00 m ²	994.48 m ²
LOT WIDTH	0.00 m	35.08 m
MIN. LOT WIDTH	0.00 m	0.00 m
MAX. BUILDING HEIGHT	16.00 m	28.00 m
MAX. PARAPET HEIGHT	0.00 m	0.00 m
Above max. building		
SET BACKS	0.00 m	0.50 m
- MIN. FRONT YARD		
- MIN. CORNER SIDE YARD	3m+2m above 15m	0.5m+2m above 15m
- MIN. INTERIOR SIDE YARD	3m [R5] & 0m [TM]	3m [R5] & 0.5m [TM]
- MIN. REAR YARD	3m+2m above 15m	0.5m + 2m
- ADDITIONAL REQ		
Where the building height is greater than 4 storeys or 15 metres, at and above the 4th storey or 15 metres whichever is the lesser a building must be setback a minimum of 2 metres more than the provided setback from the front lot line.		
No part of a building or lot with a rear lot line abutting R1, R2, R3 or R4 zone may project above 45 degree angular plane measured at a height of 15 metres from a point 7.5 metres from the rear lot line, projecting upwards towards the front lot line.		

MIN LANDSCAPED AREA

	REQUIRED	PROPOSED
MIN LANDSCAPED AREA	n/a	79.83 m ²

VEHICULAR PARKING

	REQUIRED	PROPOSED
MIN PARKING SPACES	No parking required for dwelling units in a mixed-use building on lots abutting Somerset St. W	0
MIN VISITOR PARKING SPACES	90 for the first 12 units & 0.1 unit after 12 units	9
MIN ACCESSIBLE PARKING SPACES	1 space per 20-49 spaces	1
MIN COMMERCIAL PARKING SPACES	0 for commercial units less than 200 m ²	0

BICYCLE PARKING

	REQUIRED	PROPOSED
RES. MIN PARKING SPACES	0.5 units	6
COMM. MIN PARKING SPACES	1/250 m ²	6

WASTE MANAGEMENT CONTAINERS

	REQUIRED	PROPOSED
GARBAGE (0.11 y ³ / unit)	11	12
RECYCLING (0.038 y ³ / unit)	4	4
ORGANICS (240 L container / 50 units)	2	2

AMENITY AREA

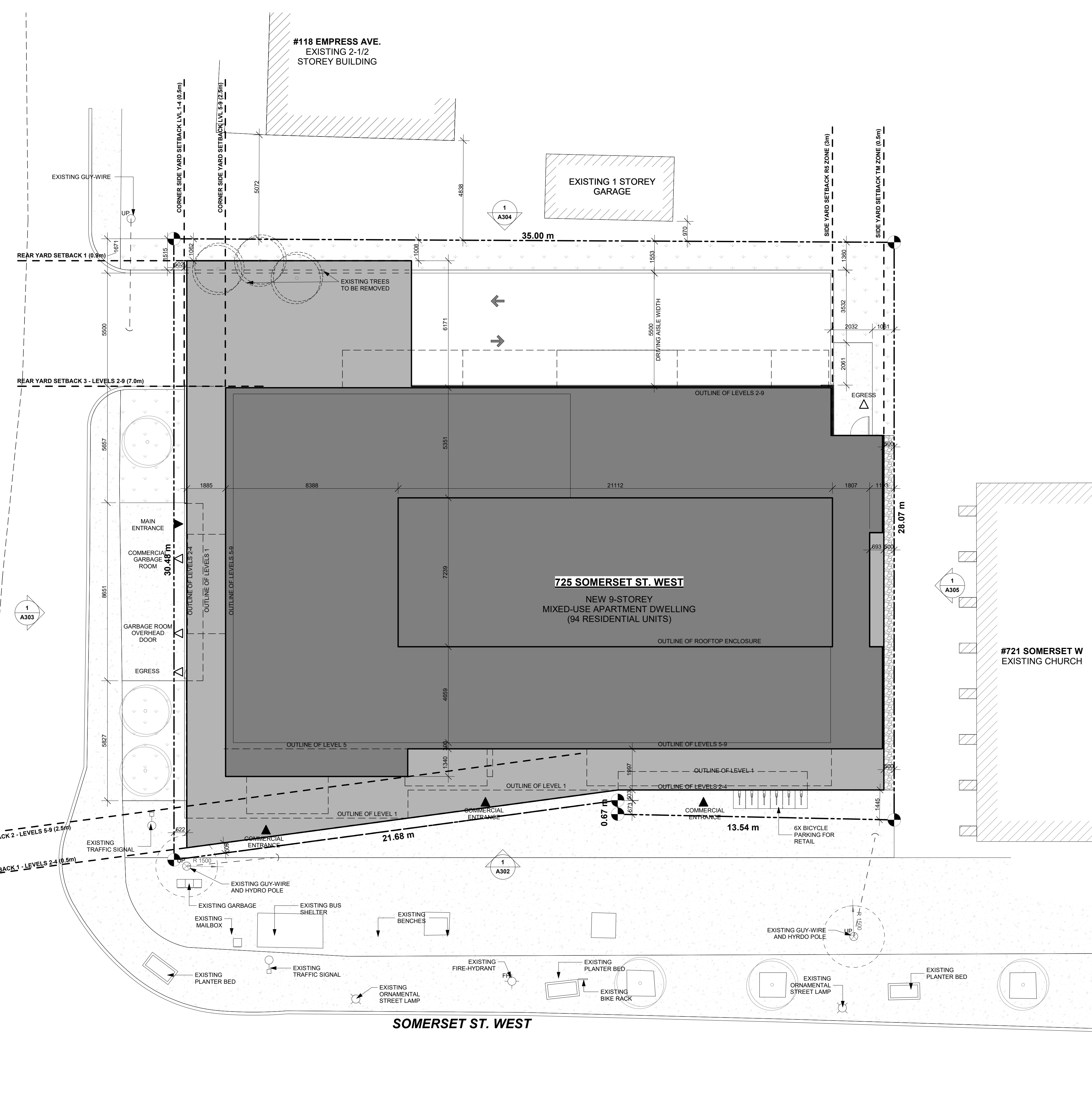
	REQUIRED	PROPOSED
PRIVATE COMMUNAL	96unit(50m ² per unit) 50% of required amenity space	+645.45 m ² +1,292.90 m ²

BUILDING SUMMARY

UNITS	GFA - OBC	GFA - CITY
BASEMENT P1	0	260.12 m ²
LEVEL 1	0	527.74 m ²
LEVEL 2-4	13	758.07 m ²
LEVEL 5	11	557.84 m ²
LEVEL 6-9	11	571.75 m ²
PENTHOUSE	0	145.26 m ²

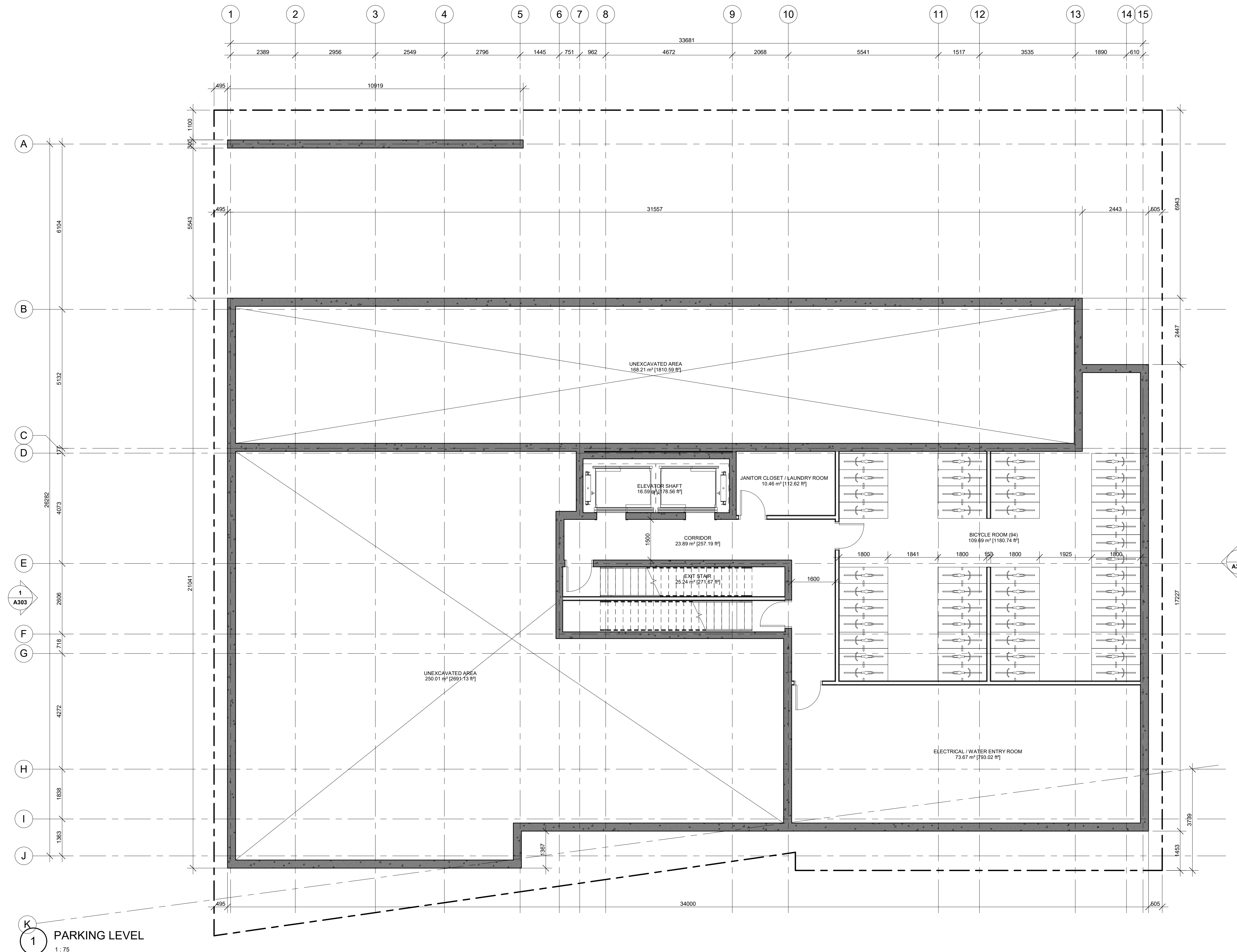
KEYNOTE DESCRIPTIONS

- BF PARKING (TYPE A) R: RESIDENTIAL V: VISITOR
- BF PARKING (TYPE B) R: RESIDENTIAL V: VISITOR



1 SITE PLAN
1 : 100

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- GENERAL NOTES**
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1.0	COORDINATION	22-06-17
revision	description	date

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725 SOMERSET STREET WEST

DRAWING NAME / NOM DU DESSIN :

PARKING LEVEL

DRAWING INFORMATION / INFORMATION DU DESSIN :

PROJECT NO. / NO. DE PROJET :	21029
DATE :	22-06-17
DRAWN BY / DESSINÉ PAR :	YA
REVIEWED BY / VÉRIFIÉ PAR :	ES
SCALE / ÉCHELLE :	As indicated
PROJECT PHASE / PHASE DU PROJET :	0
DWG NO. / NO. DESSIN :	

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REVISION NO. / NO. DE RÉVISION : 1.0

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SCALE / ÉCHELLE :

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DWG NO. / NO. DESSIN :

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REVISION NO. / NO. DE RÉVISION :

DATE :

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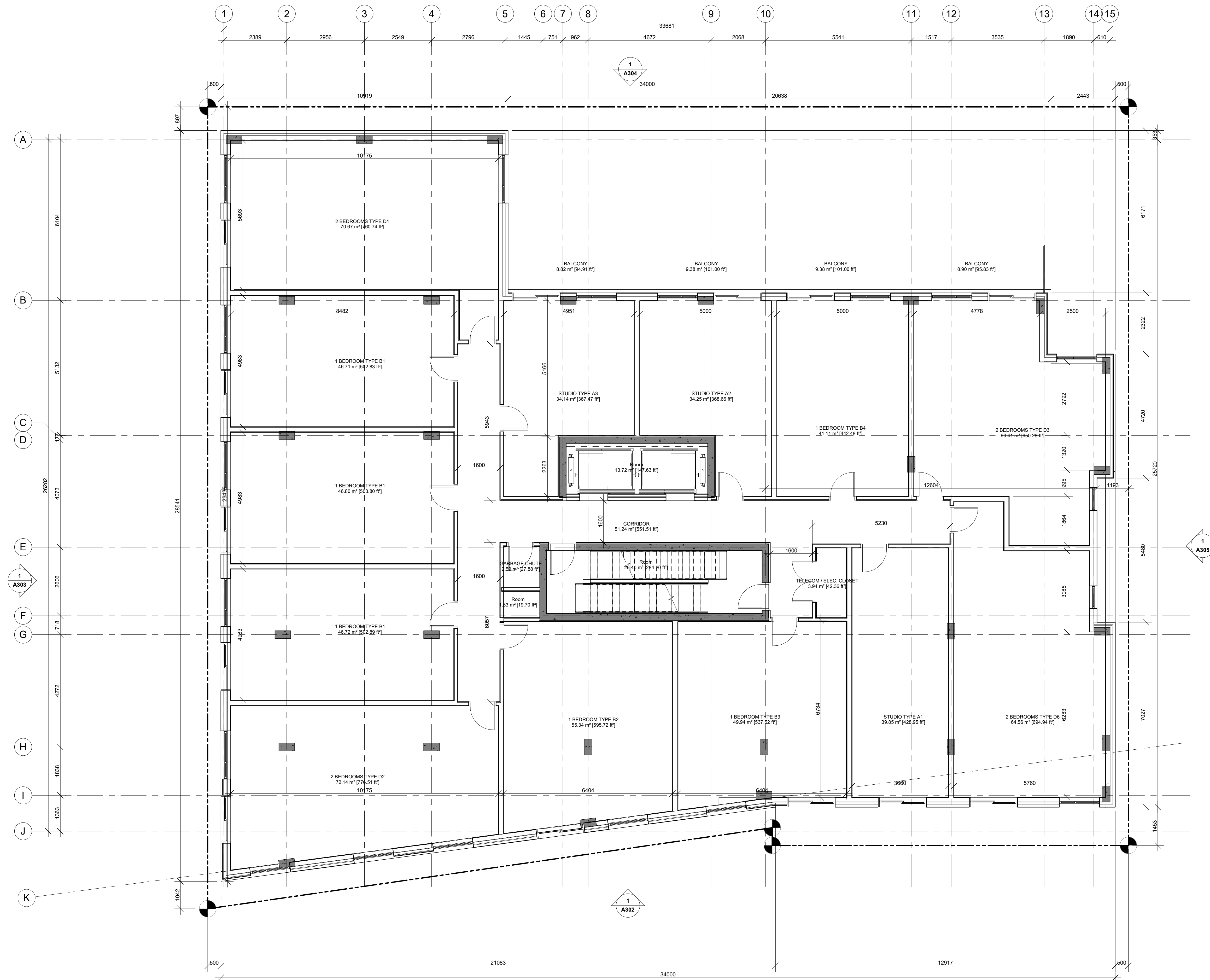
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KEY PLAN / PLAN CLÉ :

CLIENT :

1.0	COORDINATION	22-06-17
revision	description	date

PROJECT NAME / NOM DU PROJET :

725 SOMERSET STREET WEST

DRAWING NAME / NOM DU DESSIN :
TYPICAL FLOORS - LEVELS 2-4

DRAWING INFORMATION / INFORMATION DU DESSIN :

PROJECT NO. / NO. DE PROJET :	21029
DATE :	22-06-17
DRAWN BY / DESSINÉ PAR :	YA
REVIEWED BY / VÉRIFIÉ PAR :	ES
SCALE / ÉCHELLE :	As indicated
PROJECT PHASE / PHASE DU PROJET :	0
DWG NO. / NO. DESSIN :	A102

REVISION NO. / NO. DE RÉVISION : 1.0

1 TYPICAL FLOOR PLAN - LEVELS 2-4
1 : 75

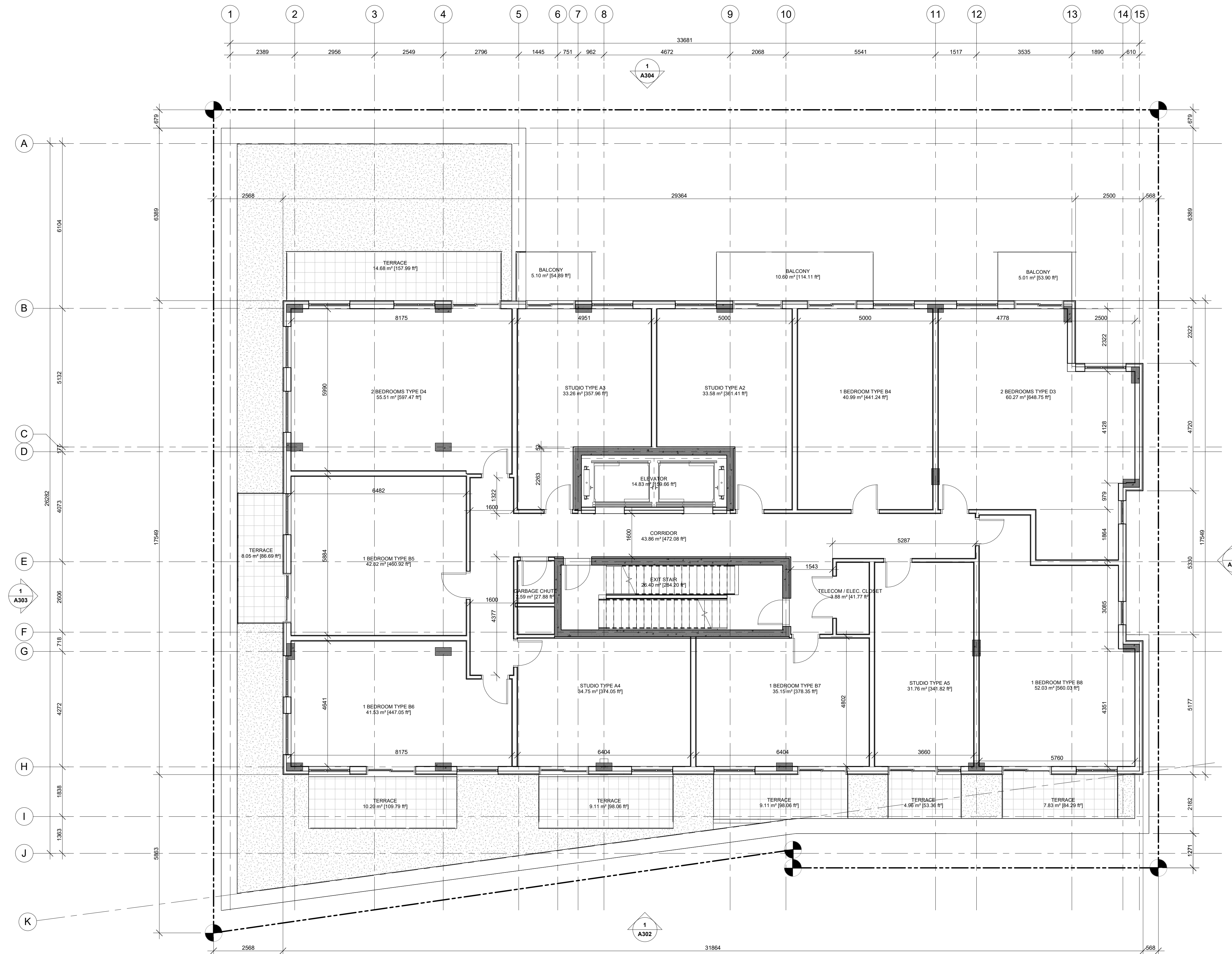
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725 SOMERSET STREET WEST

DRAWING NAME / NOM DU DESSIN :

LEVEL 5

DRAWING INFORMATION / INFORMATION DU DESSIN :

PROJECT NO. / NO. DE PROJET :	21029
DATE :	22-06-17
DRAWN BY / DESSINÉ PAR :	YA
REVIEWED BY / VÉRIFIÉ PAR :	ES
SCALE / ÉCHELLE :	As indicated
PROJECT PHASE / PHASE DU PROJET :	0
DWG NO. / NO. DESSIN :	A103

REVISION NO. / NO. DE RÉVISION : 1.0

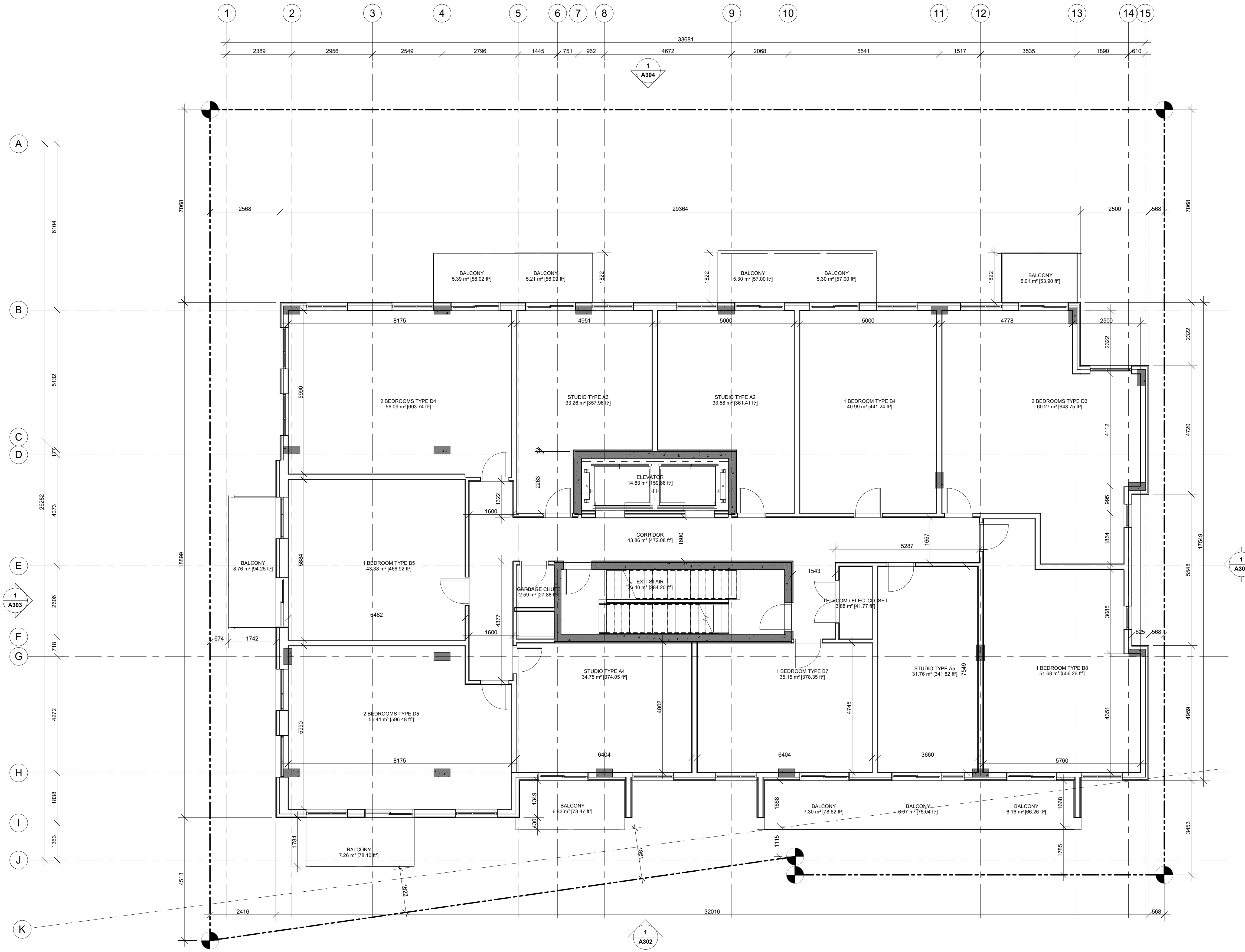
1 FLOOR PLAN - LEVEL 5
1:75

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revision	description	date

PROJECT NAME / NOM DU PROJET :

725 SOMERSET STREET WEST

DRAWING NAME / NOM DU DESSIN :
TYPICAL FLOORS - LEVELS 6-9

DRAWING INFORMATION / INFORMATION DU DESSIN :

PROJECT NO. / NO. DE PROJET :	21029
DATE :	22-06-17
DRAWN BY / DESSINÉ PAR :	YA
REVIEWED BY / VÉRIFIÉ PAR :	ES
SCALE / ÉCHELLE :	As indicated
PROJECT PHASE / PHASE DU PROJET :	0
DWG NO. / NO. DESSIN :	A104

REVISION NO. / NO. DE RÉVISION : 1.0

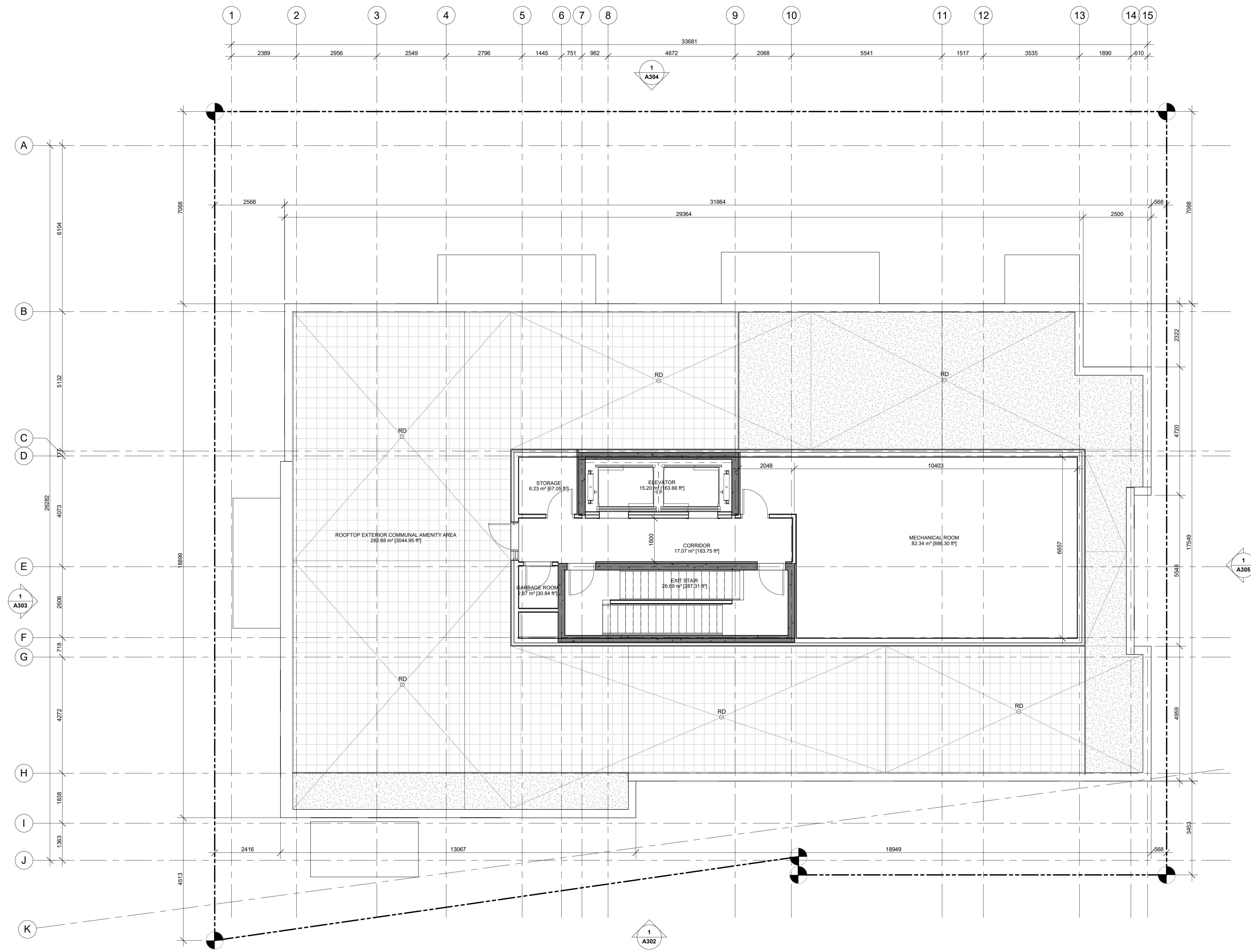
1 TYPICAL FLOOR PLAN - LEVELS 6-9
1 : 75

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PENTHOUSE PLAN

DRAWING INFORMATION / INFORMATION DU DESSIN :

PROJECT NO. / NO. DE PROJET :	21029
DATE :	22-06-17
DRAWN BY / DESSINÉ PAR :	YA
REVIEWED BY / VÉRIFIÉ PAR :	ES
SCALE / ÉCHELLE :	As indicated
PROJECT PHASE / PHASE DU PROJET :	0
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REVISION NO. / NO. DE RÉVISION : 1.0

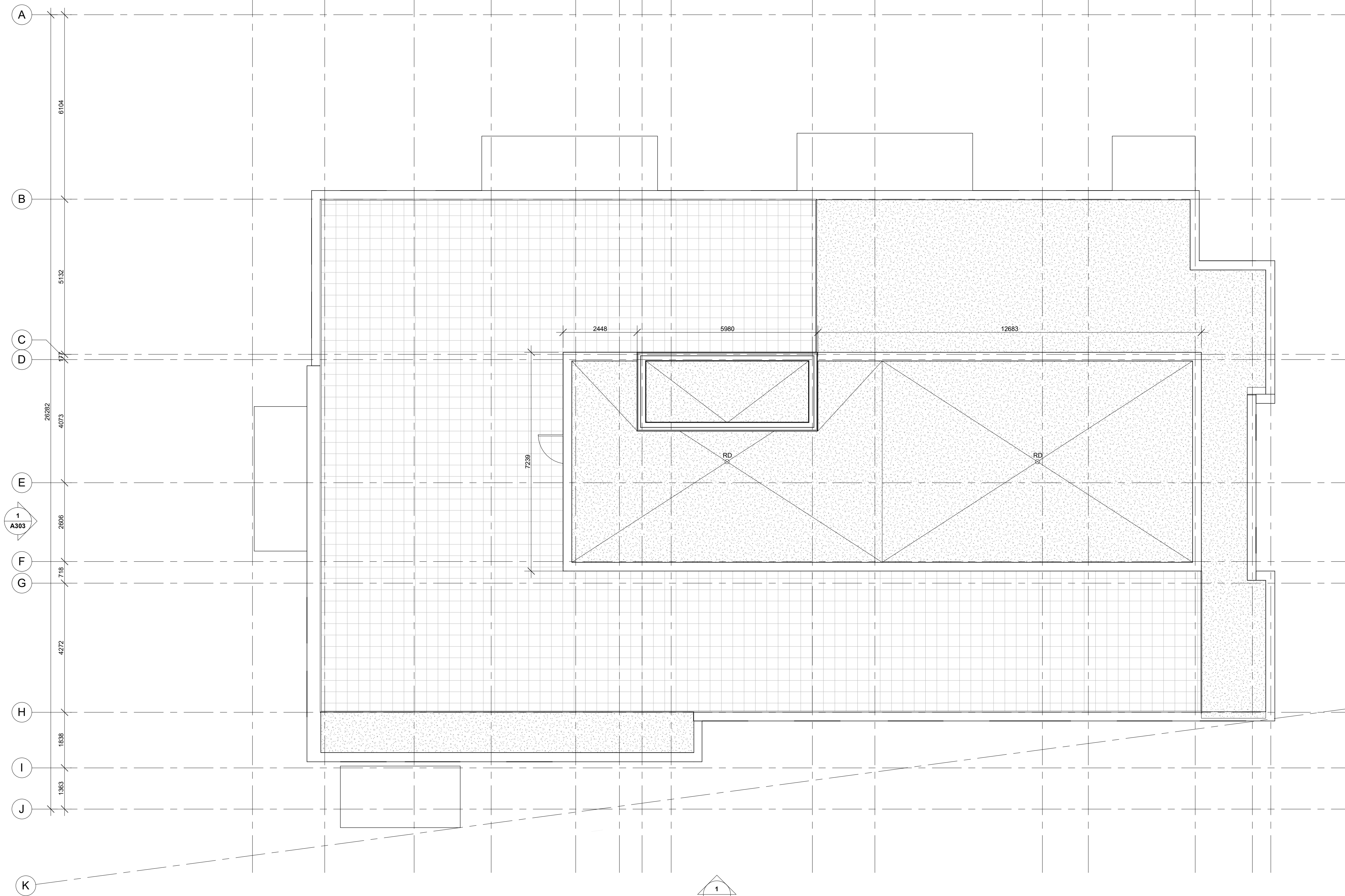
1 PENTHOUSE PLAN

1 : 75

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725 SOMERSET STREET WEST

DRAWING NAME / NOM DU DESSIN :

ROOF PLAN

DRAWING INFORMATION / INFORMATION DU DESSIN :

PROJECT NO. / NO. DE PROJET :	21029
DATE :	22-06-17
DRAWN BY / DESSINÉ PAR :	YA
REVIEWED BY / VÉRIFIÉ PAR :	ES
SCALE / ÉCHELLE :	1 : 75
PROJECT PHASE / PHASE DU PROJET :	0
DWG NO. / NO. DESSIN :	A106

REVISION NO. / NO. DE RÉVISION : 1.0

1 ROOF PLAN

1 : 75



**Castleglenn
Consultants**

Engineers, Project Managers & Planners

APPENDIX C:

EXISTING TRAFFIC COUNTS, SIGNAL TIMINGS AND COLLISION INFORMATION

DRAFT

Turning Movement Count - Study Results

ARTHUR ST @ SOMERSET ST

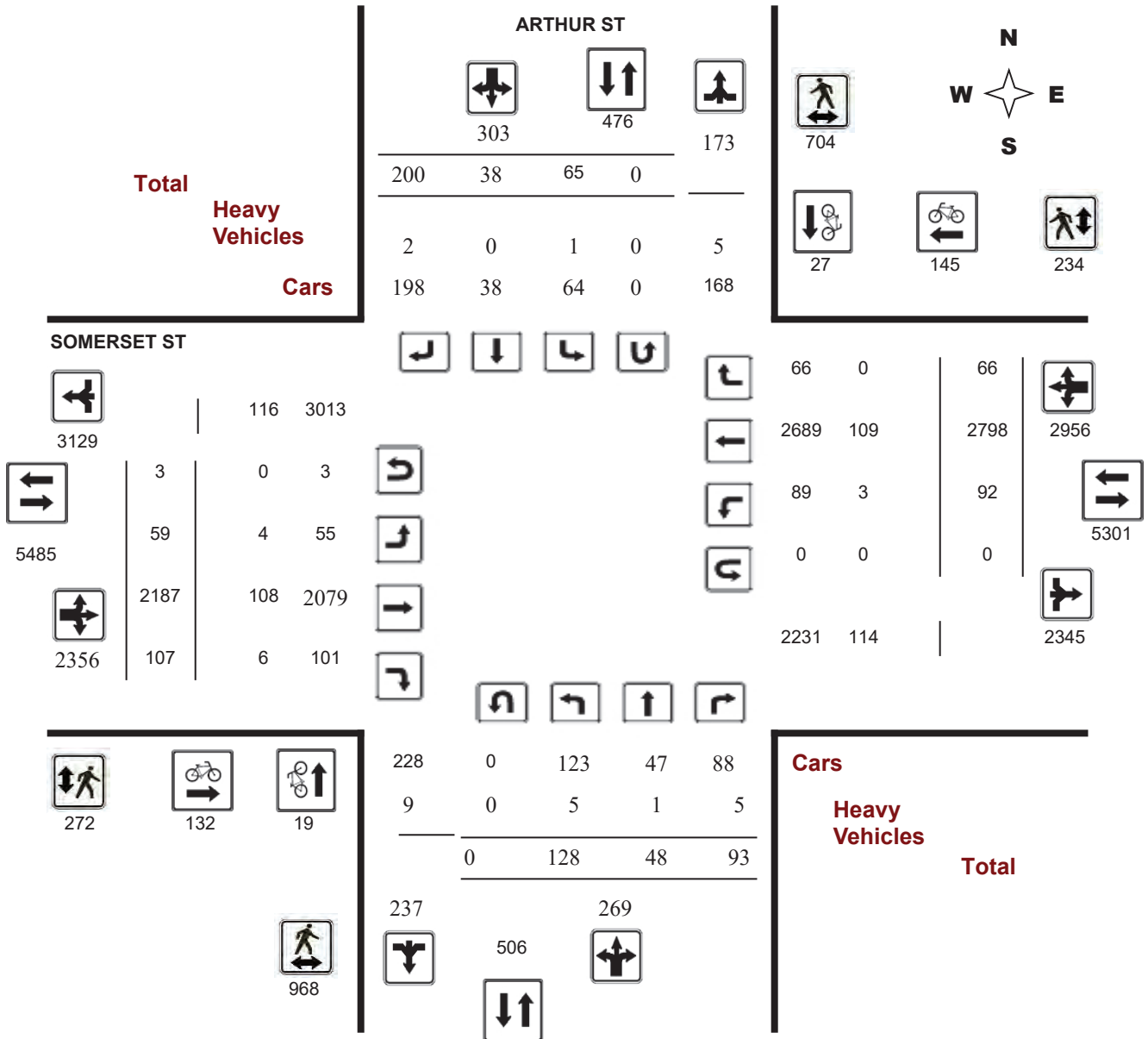
Survey Date: Wednesday, August 31, 2022

WO No: 40555

Start Time: 07:00

Device: Miovision

Full Study Diagram



Turning Movement Count - Study Results

ARTHUR ST @ SOMERSET ST

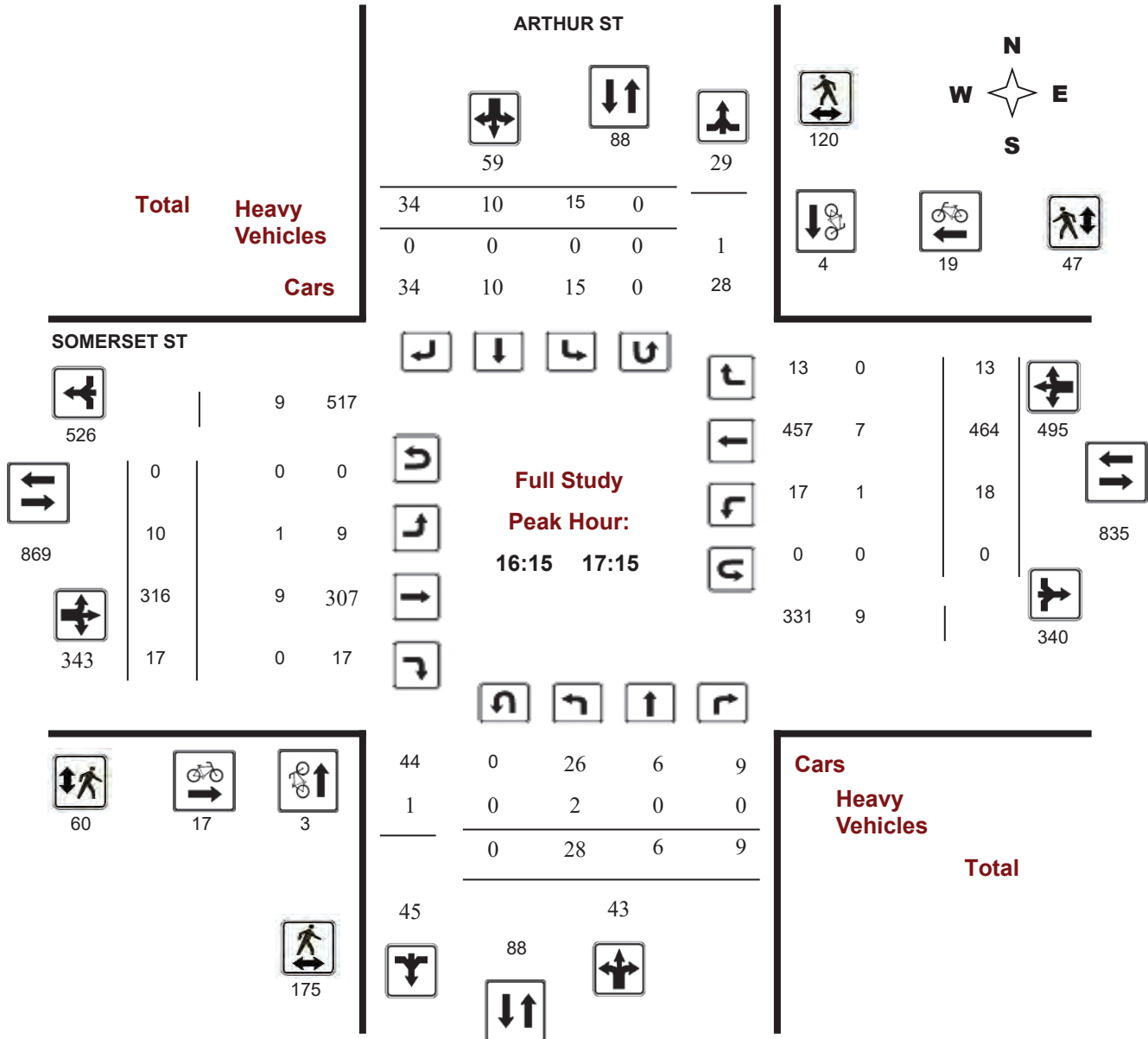
Survey Date: Wednesday, August 31, 2022

WO No: 40555

Start Time: 07:00

Device: Miovision

Full Study Peak Hour Diagram





Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

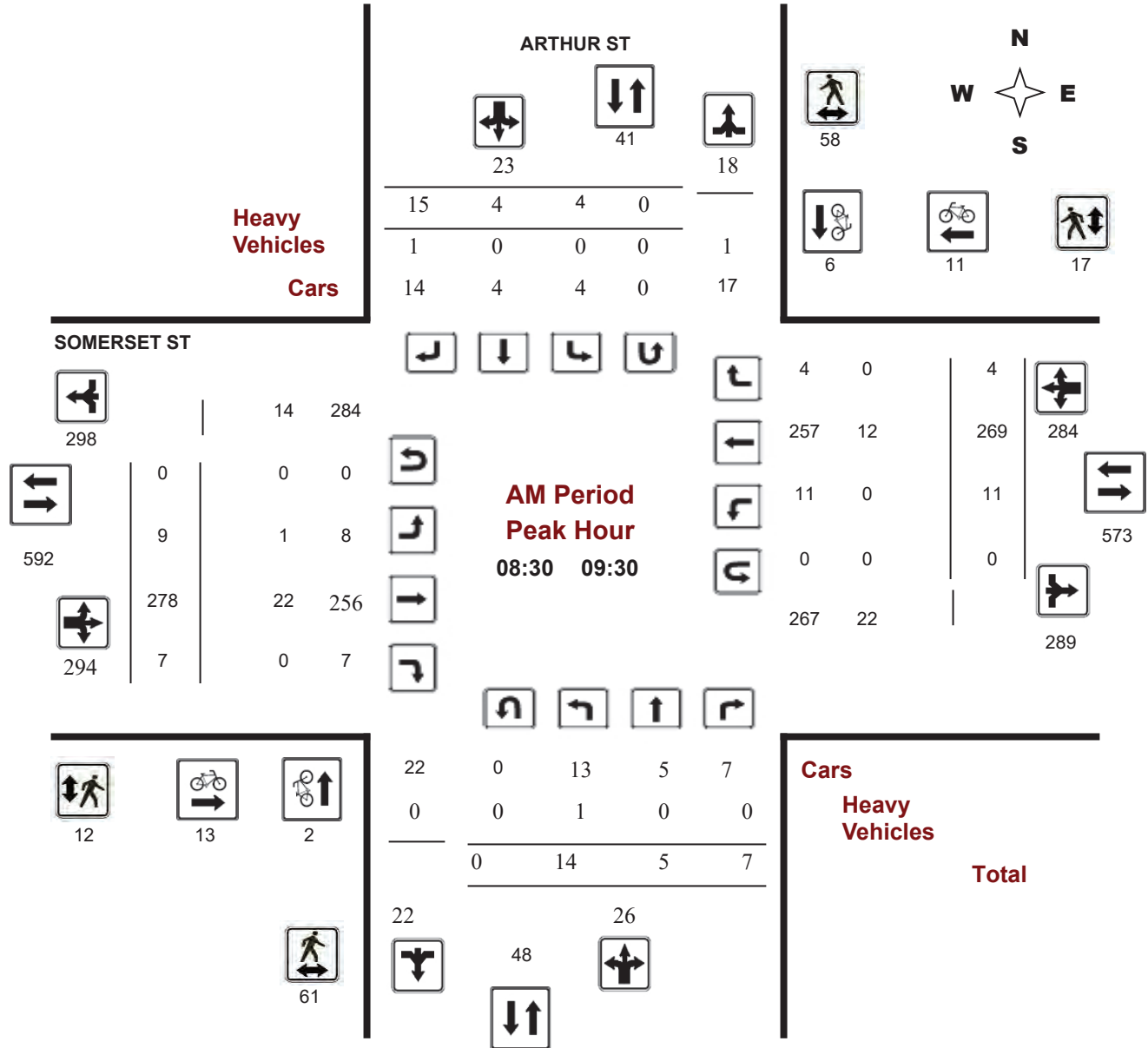
ARTHUR ST @ SOMERSET ST

Survey Date: Wednesday, August 31, 2022

Start Time: 07:00

WO No: 40555

Device: Miovision





Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

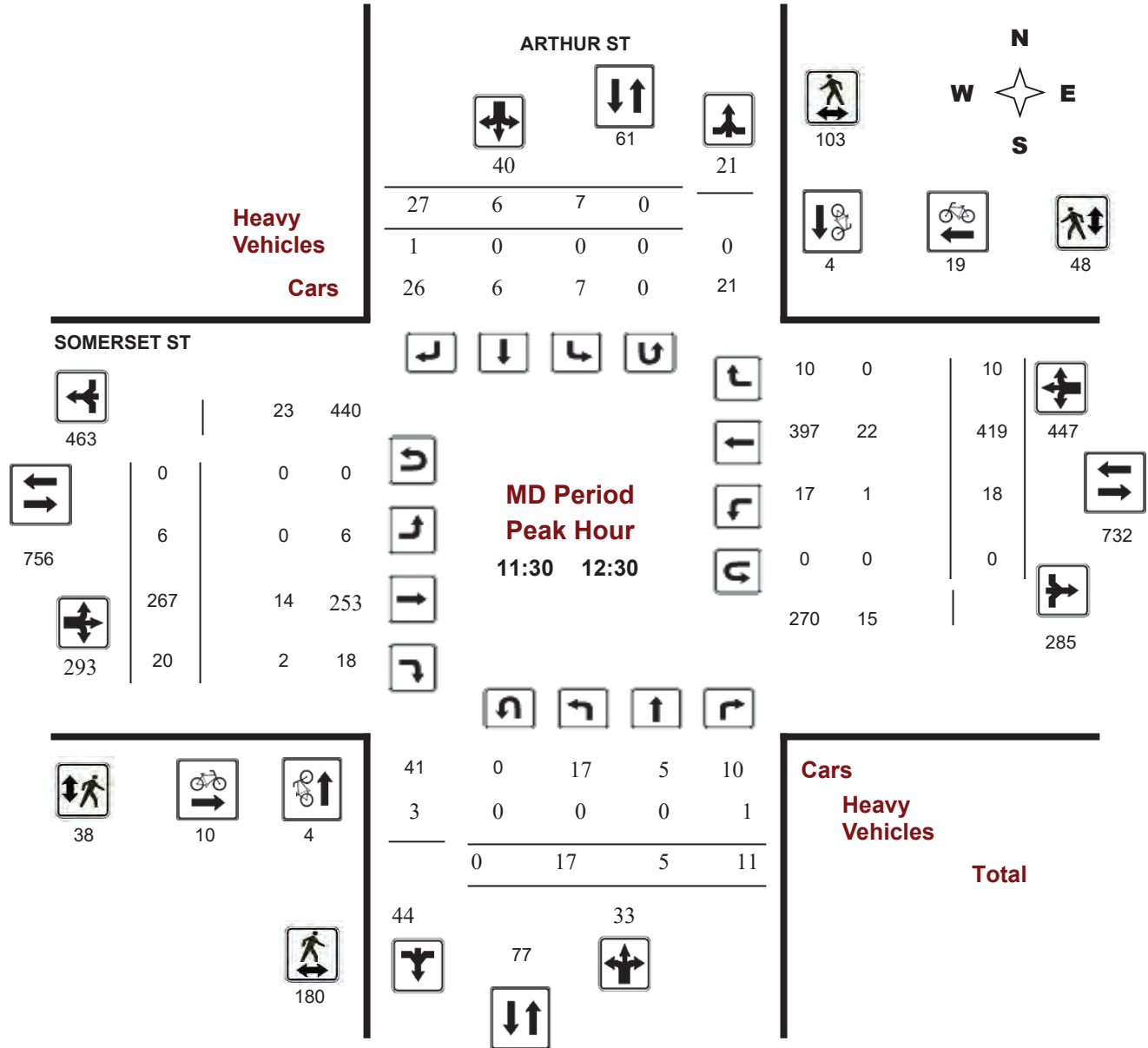
ARTHUR ST @ SOMERSET ST

Survey Date: Wednesday, August 31, 2022

Start Time: 07:00

WO No: 40555

Device: Miovision



Comments



Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

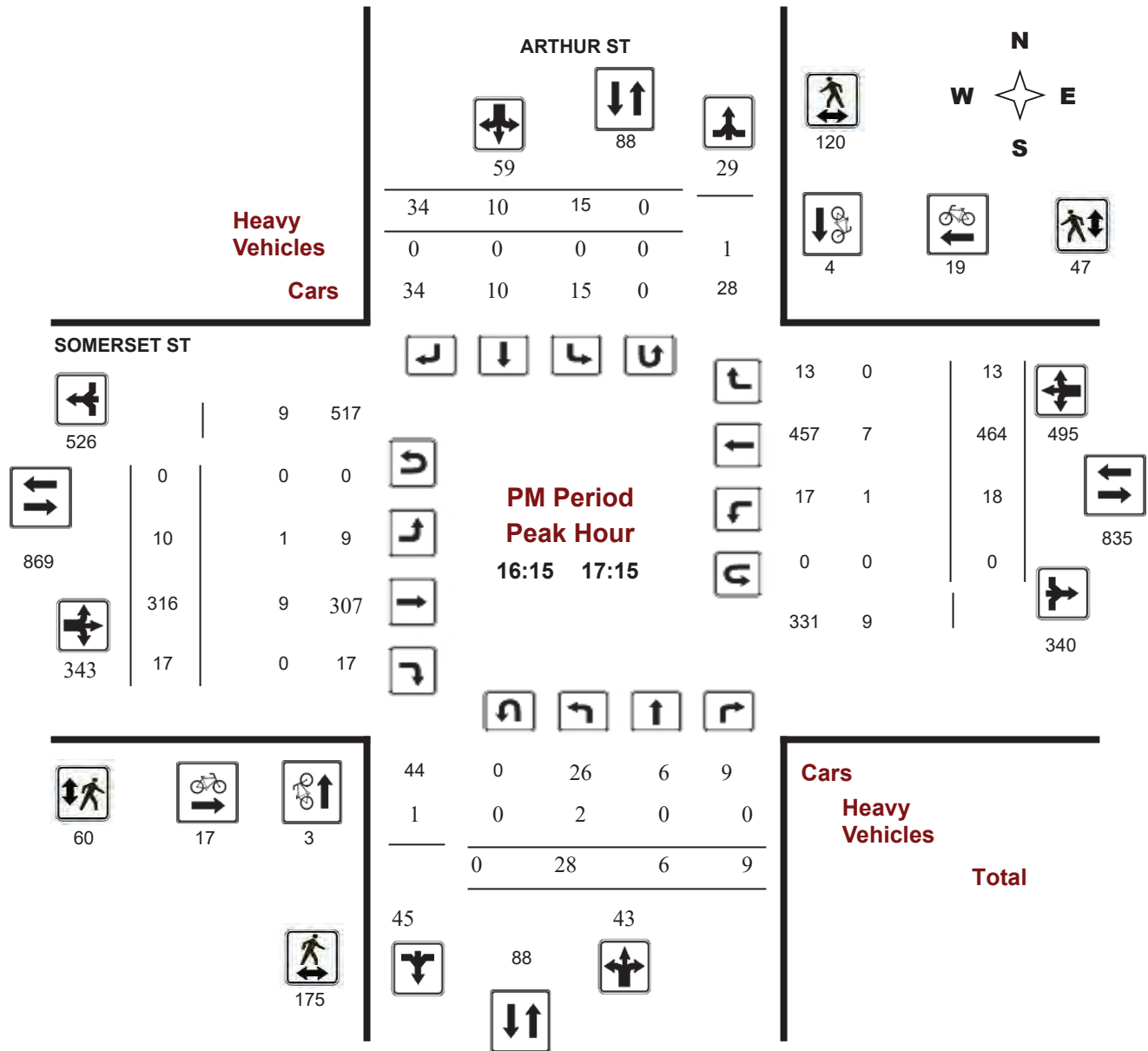
ARTHUR ST @ SOMERSET ST

Survey Date: Wednesday, August 31, 2022

Start Time: 07:00

WO No: 40555

Device: Miovision





Transportation Services - Traffic Services

Turning Movement Count - Study Results

ARTHUR ST @ SOMERSET ST

Survey Date: Wednesday, August 31, 2022

WO No: 40555

Start Time: 07:00

Device: Miovision

Full Study Summary (8 HR Standard)

Survey Date: Wednesday, August 31, 2022

Total Observed U-Turns

AADT Factor

Northbound: 0 Southbound: 0
 Eastbound: 3 Westbound: 0
 .90

ARTHUR ST

SOMERSET ST

Period	ARTHUR ST Northbound					ARTHUR ST Southbound					SOMERSET ST Eastbound					SOMERSET ST Westbound			STR TOT	Grand Total
	LT	ST	RT	NB TOT	LT	ST	RT	SB TOT	STR TOT	LT	ST	RT	EB TOT	LT	ST	RT	WB TOT			
07:00 08:00	2	3	7	12	6	3	17	26	38	7	162	5	174	1	192	3	196	370	408	
08:00 09:00	16	3	5	24	6	1	15	22	46	10	251	4	265	7	238	3	248	513	559	
09:00 10:00	11	6	8	25	6	4	11	21	46	8	264	10	282	7	273	6	286	568	614	
11:30 12:30	17	5	11	33	7	6	27	40	73	6	267	20	293	18	419	10	447	740	813	
12:30 13:30	17	7	18	42	2	5	20	27	69	6	277	17	300	13	370	5	388	688	757	
15:00 16:00	16	8	20	44	12	5	44	61	105	7	337	17	361	17	422	18	457	818	923	
16:00 17:00	28	7	9	44	13	7	41	61	105	8	306	15	329	18	468	12	498	827	932	
17:00 18:00	21	9	15	45	13	7	25	45	90	7	323	19	349	11	416	9	436	785	875	
Sub Total	128	48	93	269	65	38	200	303	572	59	2187	107	2353	92	2798	66	2956	5309	5881	
U Turns				0				0	0				3				0	3	3	
Total	128	48	93	269	65	38	200	303	572	59	2187	107	2356	92	2798	66	2956	5312	5884	

EQ 12Hr 178 67 129 **374** 90 53 278 **421** **795** 82 3040 149 **3275** 128 3889 92 **4109** **7384** **8179**
 Note: These values are calculated by multiplying the totals by the appropriate expansion factor. **1.39**

AVG 12Hr 160 60 116 **337** 81 62 328 **379** **716** 74 2736 134 **2948** 115 3500 83 **3698** **6646** **7361**
 Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor. **.90**

AVG 24Hr 210 79 152 **441** 106 81 430 **496** **938** 97 3584 176 **3862** 151 4585 109 **4844** **8706** **9643**
 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

ARTHUR ST @ SOMERSET ST

Survey Date: Wednesday, August 31, 2022

WO No: 40555

Start Time: 07:00

Device: Miovision

Full Study 15 Minute Increments

ARTHUR ST

SOMERSET ST

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	4	5	1	0	1	2	7	3	37	0	40	0	39	1	40	80	87
07:15 07:30	0	0	2	2	3	1	2	6	8	2	26	3	31	0	38	0	38	69	77
07:30 07:45	0	1	0	1	2	1	12	15	16	1	42	1	44	0	49	0	49	93	109
07:45 08:00	2	1	1	4	0	1	2	3	7	1	57	1	59	1	66	2	69	128	135
08:00 08:15	4	0	0	4	0	0	4	4	8	3	51	1	55	1	51	1	53	108	116
08:15 08:30	4	1	0	5	4	0	3	7	12	2	62	0	64	0	67	1	68	132	144
08:30 08:45	3	1	1	5	1	0	4	5	10	2	75	2	79	4	50	1	55	134	144
08:45 09:00	5	1	4	10	1	1	4	6	16	3	63	1	67	2	70	0	72	139	155
09:00 09:15	3	1	0	4	0	2	5	7	11	2	72	0	74	2	72	1	75	149	160
09:15 09:30	3	2	2	7	2	1	2	5	12	2	68	4	74	3	77	2	82	156	168
09:30 09:45	1	2	3	6	2	1	2	5	11	0	65	2	67	0	63	2	65	132	143
09:45 10:00	4	1	3	8	2	0	2	4	12	4	59	4	67	2	61	1	64	131	143
11:30 11:45	6	1	2	9	2	3	2	7	16	3	59	4	66	3	114	1	118	184	200
11:45 12:00	6	1	0	7	2	2	4	8	15	3	69	2	74	4	110	1	115	189	204
12:00 12:15	4	0	4	8	1	1	9	11	19	0	61	7	68	5	98	2	105	173	192
12:15 12:30	1	3	5	9	2	0	12	14	23	0	78	7	85	6	97	6	109	194	217
12:30 12:45	5	3	5	13	0	1	5	6	19	1	66	6	73	7	84	0	91	164	183
12:45 13:00	4	2	5	11	2	1	5	8	19	2	69	5	76	1	96	0	97	173	192
13:00 13:15	4	0	4	8	0	1	7	8	16	2	65	2	69	2	107	2	111	180	196
13:15 13:30	4	2	4	10	0	2	3	5	15	1	77	4	83	3	83	3	89	172	187
15:00 15:15	3	2	9	14	2	3	8	13	27	0	81	3	84	4	105	3	112	196	223
15:15 15:30	5	6	3	14	2	0	11	13	27	2	82	2	87	5	96	5	106	193	220
15:30 15:45	2	0	5	7	6	0	14	20	27	1	102	4	108	5	105	3	113	221	248
15:45 16:00	6	0	3	9	2	2	11	15	24	4	72	8	84	3	116	7	126	210	234
16:00 16:15	5	3	1	9	2	2	16	20	29	2	70	5	77	3	108	2	113	190	219
16:15 16:30	9	3	3	15	4	1	12	17	32	3	79	6	88	2	114	2	118	206	238
16:30 16:45	6	1	2	9	1	1	7	9	18	1	79	2	82	5	132	6	143	225	243
16:45 17:00	8	0	3	11	6	3	6	15	26	2	78	2	82	8	114	2	124	206	232
17:00 17:15	5	2	1	8	4	5	9	18	26	4	80	7	91	3	104	3	110	201	227
17:15 17:30	4	1	6	11	4	1	6	11	22	1	85	4	90	2	112	2	116	206	228
17:30 17:45	9	0	1	10	3	0	7	10	20	2	94	4	100	4	97	3	104	204	224
17:45 18:00	3	6	7	16	2	1	3	6	22	0	64	4	68	2	103	1	106	174	196
Total:	128	48	93	269	65	38	200	303	572	59	2187	107	2356	92	2798	66	2956	5312	5,884

Note: U-Turns are included in Totals.



Transportation Services - Traffic Services

Turning Movement Count - Study Results

ARTHUR ST @ SOMERSET ST

Survey Date: Wednesday, August 31, 2022

WO No: 40555

Start Time: 07:00

Device: Miovision

Full Study Cyclist Volume

Time Period	ARTHUR ST			SOMERSET ST			Grand Total
	Northbound	Southbound	Street Total	Eastbound	Westbound	Street Total	
07:00 07:15	0	0	0	4	3	7	7
07:15 07:30	0	0	0	0	3	3	3
07:30 07:45	0	0	0	2	2	4	4
07:45 08:00	1	0	1	1	5	6	7
08:00 08:15	0	0	0	4	6	10	10
08:15 08:30	0	2	2	9	5	14	16
08:30 08:45	2	0	2	5	3	8	10
08:45 09:00	0	3	3	2	4	6	9
09:00 09:15	0	2	2	2	3	5	7
09:15 09:30	0	1	1	4	1	5	6
09:30 09:45	2	1	3	4	4	8	11
09:45 10:00	1	2	3	4	4	8	11
11:30 11:45	1	2	3	3	3	6	9
11:45 12:00	1	1	2	3	7	10	12
12:00 12:15	1	1	2	1	8	9	11
12:15 12:30	1	0	1	3	1	4	5
12:30 12:45	1	0	1	8	4	12	13
12:45 13:00	1	0	1	5	2	7	8
13:00 13:15	0	0	0	2	4	6	6
13:15 13:30	2	2	4	6	5	11	15
15:00 15:15	0	1	1	2	2	4	5
15:15 15:30	0	0	0	4	7	11	11
15:30 15:45	0	0	0	2	1	3	3
15:45 16:00	0	2	2	7	5	12	14
16:00 16:15	1	0	1	10	12	22	23
16:15 16:30	1	1	2	2	7	9	11
16:30 16:45	1	2	3	6	1	7	10
16:45 17:00	1	1	2	5	8	13	15
17:00 17:15	0	0	0	4	3	7	7
17:15 17:30	0	2	2	7	10	17	19
17:30 17:45	1	0	1	9	6	15	16
17:45 18:00	0	1	1	2	6	8	9
Total	19	27	46	132	145	277	323



Transportation Services - Traffic Services

Turning Movement Count - Study Results

ARTHUR ST @ SOMERSET ST

Survey Date: Wednesday, August 31, 2022

WO No: 40555

Start Time: 07:00

Device: Miovision

Full Study Pedestrian Volume

ARTHUR ST

SOMERSET ST

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	4	5	9	1	2	3	12
07:15 07:30	13	6	19	1	0	1	20
07:30 07:45	12	8	20	0	1	1	21
07:45 08:00	14	10	24	0	3	3	27
08:00 08:15	12	9	21	1	0	1	22
08:15 08:30	14	23	37	1	0	1	38
08:30 08:45	11	15	26	1	7	8	34
08:45 09:00	15	14	29	2	3	5	34
09:00 09:15	14	15	29	5	3	8	37
09:15 09:30	21	14	35	4	4	8	43
09:30 09:45	26	15	41	1	6	7	48
09:45 10:00	29	24	53	9	6	15	68
11:30 11:45	27	22	49	8	13	21	70
11:45 12:00	47	22	69	5	11	16	85
12:00 12:15	60	25	85	9	12	21	106
12:15 12:30	46	34	80	16	12	28	108
12:30 12:45	42	25	67	24	11	35	102
12:45 13:00	34	46	80	23	8	31	111
13:00 13:15	54	21	75	7	24	31	106
13:15 13:30	44	37	81	15	11	26	107
15:00 15:15	13	14	27	7	6	13	40
15:15 15:30	23	26	49	10	5	15	64
15:30 15:45	17	24	41	8	4	12	53
15:45 16:00	32	18	50	4	8	12	62
16:00 16:15	59	20	79	16	5	21	100
16:15 16:30	43	31	74	20	14	34	108
16:30 16:45	57	36	93	17	8	25	118
16:45 17:00	37	19	56	13	14	27	83
17:00 17:15	38	34	72	10	11	21	93
17:15 17:30	43	33	76	15	3	18	94
17:30 17:45	45	26	71	13	9	22	93
17:45 18:00	22	33	55	6	10	16	71
Total	968	704	1672	272	234	506	2178



Transportation Services - Traffic Services

Turning Movement Count - Study Results

ARTHUR ST @ SOMERSET ST

Survey Date: Wednesday, August 31, 2022

WO No: 40555

Start Time: 07:00

Device: Miovision

Full Study Heavy Vehicles

ARTHUR ST

SOMERSET ST

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	0	0	1	1	0	0	0	0	1	0	2	0	8	0	6	0	9	17	9
07:15 07:30	0	0	1	2	0	0	0	0	2	0	2	1	6	0	3	0	6	12	7
07:30 07:45	0	0	0	0	0	0	0	0	0	0	3	0	6	0	3	0	6	12	6
07:45 08:00	0	0	0	1	0	0	0	0	1	0	2	1	5	0	2	0	4	9	5
08:00 08:15	0	0	0	0	0	0	0	0	0	0	7	0	9	0	2	0	9	18	9
08:15 08:30	0	0	0	0	0	0	0	0	0	0	5	0	8	0	3	0	8	16	8
08:30 08:45	1	0	0	1	0	0	0	0	1	0	10	0	12	0	1	0	11	23	12
08:45 09:00	0	0	0	0	0	0	1	1	1	0	7	0	9	0	1	0	8	17	9
09:00 09:15	0	0	0	0	0	0	0	0	0	0	3	0	6	0	3	0	6	12	6
09:15 09:30	0	0	0	0	0	0	0	1	1	1	2	0	10	0	7	0	9	19	10
09:30 09:45	0	1	0	1	0	0	0	1	2	0	5	0	9	0	4	0	9	18	10
09:45 10:00	1	0	0	2	0	0	0	1	3	1	1	1	6	0	2	0	3	9	6
11:30 11:45	0	0	0	0	0	0	0	0	0	0	5	0	12	0	7	0	12	24	12
11:45 12:00	0	0	0	0	0	0	1	1	1	0	2	0	7	0	4	0	6	13	7
12:00 12:15	0	0	0	0	0	0	0	0	0	0	3	0	11	0	8	0	11	22	11
12:15 12:30	0	0	1	4	0	0	0	0	4	0	4	2	9	1	3	0	9	18	11
12:30 12:45	0	0	1	1	0	0	0	0	1	0	4	0	6	0	2	0	7	13	7
12:45 13:00	0	0	0	0	0	0	0	0	0	0	3	0	9	0	6	0	9	18	9
13:00 13:15	0	0	0	1	0	0	0	1	2	1	1	1	11	0	8	0	9	20	11
13:15 13:30	1	0	1	2	0	0	0	0	2	0	5	0	9	0	3	0	9	18	10
15:00 15:15	0	0	0	0	0	0	0	0	0	0	4	0	9	0	5	0	9	18	9
15:15 15:30	0	0	0	0	0	0	0	0	0	0	4	0	8	0	4	0	8	16	8
15:30 15:45	0	0	0	0	1	0	0	1	1	0	4	0	6	0	2	0	7	13	7
15:45 16:00	0	0	0	1	0	0	0	0	1	0	4	0	9	1	5	0	10	19	10
16:00 16:15	0	0	0	0	0	0	0	0	0	0	1	0	2	0	1	0	2	4	2
16:15 16:30	0	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	3	6	3
16:30 16:45	2	0	0	2	0	0	0	0	2	0	1	0	5	0	2	0	3	8	5
16:45 17:00	0	0	0	1	0	0	0	0	1	0	4	0	6	1	2	0	7	13	7
17:00 17:15	0	0	0	0	0	0	0	1	1	1	1	0	5	0	3	0	4	9	5
17:15 17:30	0	0	0	0	0	0	0	0	0	0	3	0	6	0	3	0	6	12	6
17:30 17:45	0	0	0	0	0	0	0	0	0	0	2	0	4	0	2	0	4	8	4
17:45 18:00	0	0	0	0	0	0	0	0	0	0	1	0	3	0	2	0	3	6	3
Total: None	5	1	5	20	1	0	2	8	28	4	108	6	234	3	109	0	226	460	244



Transportation Services - Traffic Services

Turning Movement Count - Study Results

ARTHUR ST @ SOMERSET ST

Survey Date: Wednesday, August 31, 2022

WO No: 40555

Start Time: 07:00

Device: Miovision

Full Study 15 Minute U-Turn Total

ARTHUR ST

SOMERSET ST

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	0	0	0	0	0
08:45	09:00	0	0	0	0	0
09:00	09:15	0	0	0	0	0
09:15	09:30	0	0	0	0	0
09:30	09:45	0	0	0	0	0
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	0	0	0	0	0
12:15	12:30	0	0	0	0	0
12:30	12:45	0	0	0	0	0
12:45	13:00	0	0	0	0	0
13:00	13:15	0	0	0	0	0
13:15	13:30	0	0	1	0	1
15:00	15:15	0	0	0	0	0
15:15	15:30	0	0	1	0	1
15:30	15:45	0	0	1	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	0	0	0	0	0
17:15	17:30	0	0	0	0	0
17:30	17:45	0	0	0	0	0
17:45	18:00	0	0	0	0	0
Total		0	0	3	0	3

Turning Movement Count - Study Results

BOOTH ST @ PRIMROSE AVE

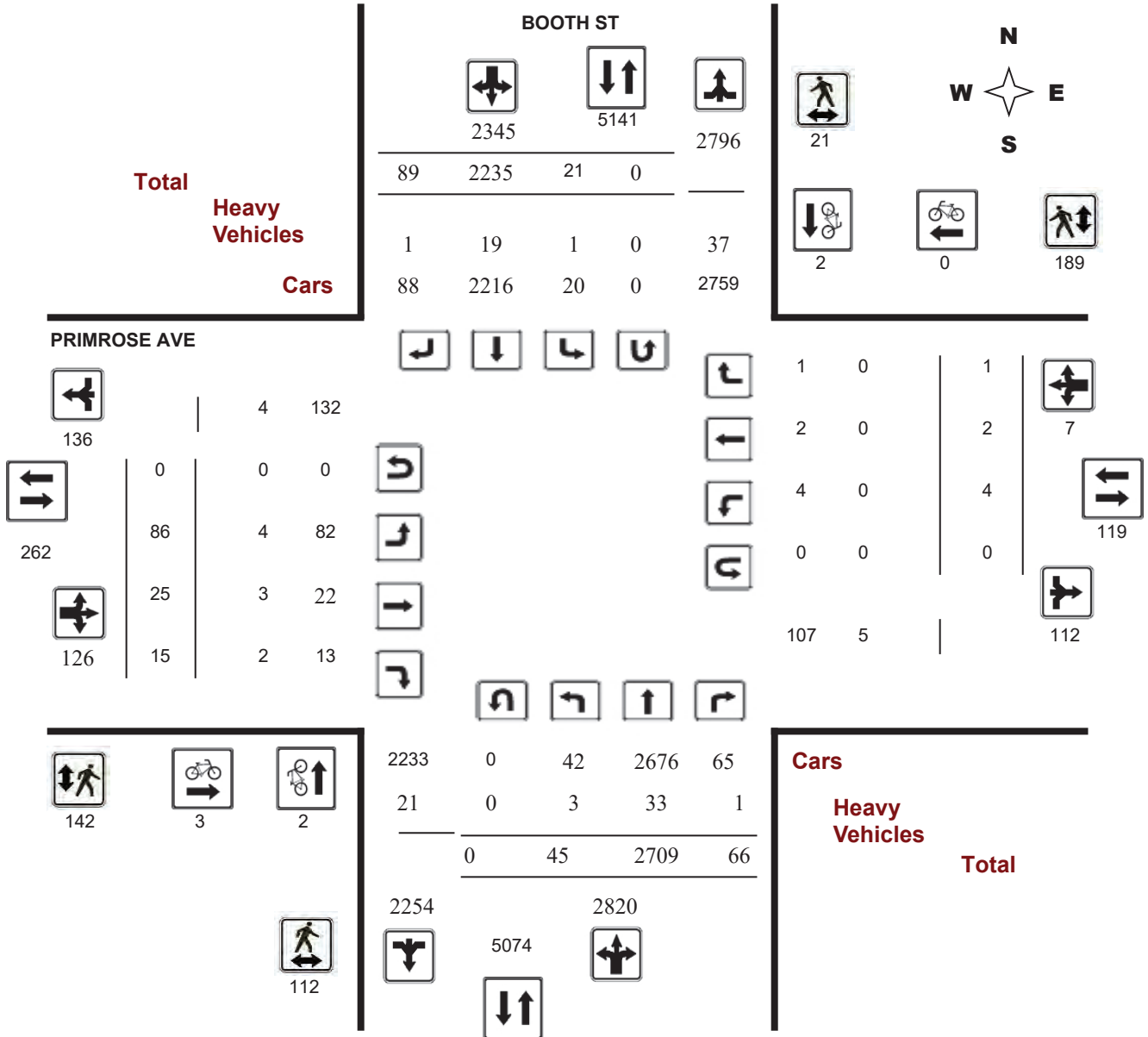
Survey Date: Thursday, March 03, 2022

WO No: 40212

Start Time: 07:00

Device: Miovision

Full Study Diagram



Turning Movement Count - Study Results

BOOTH ST @ PRIMROSE AVE

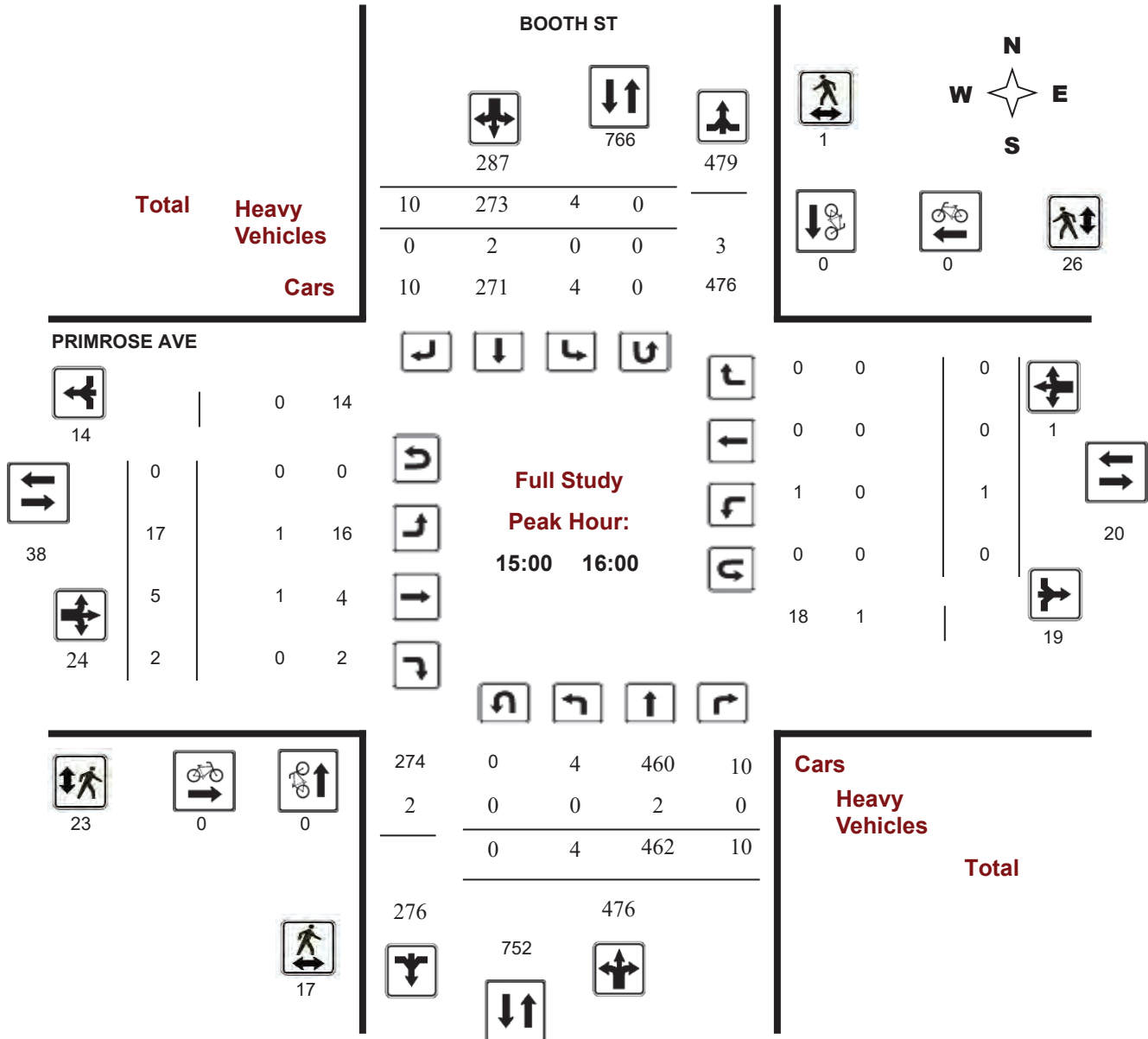
Survey Date: Thursday, March 03, 2022

WO No: 40212

Start Time: 07:00

Device: Miovision

Full Study Peak Hour Diagram





Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

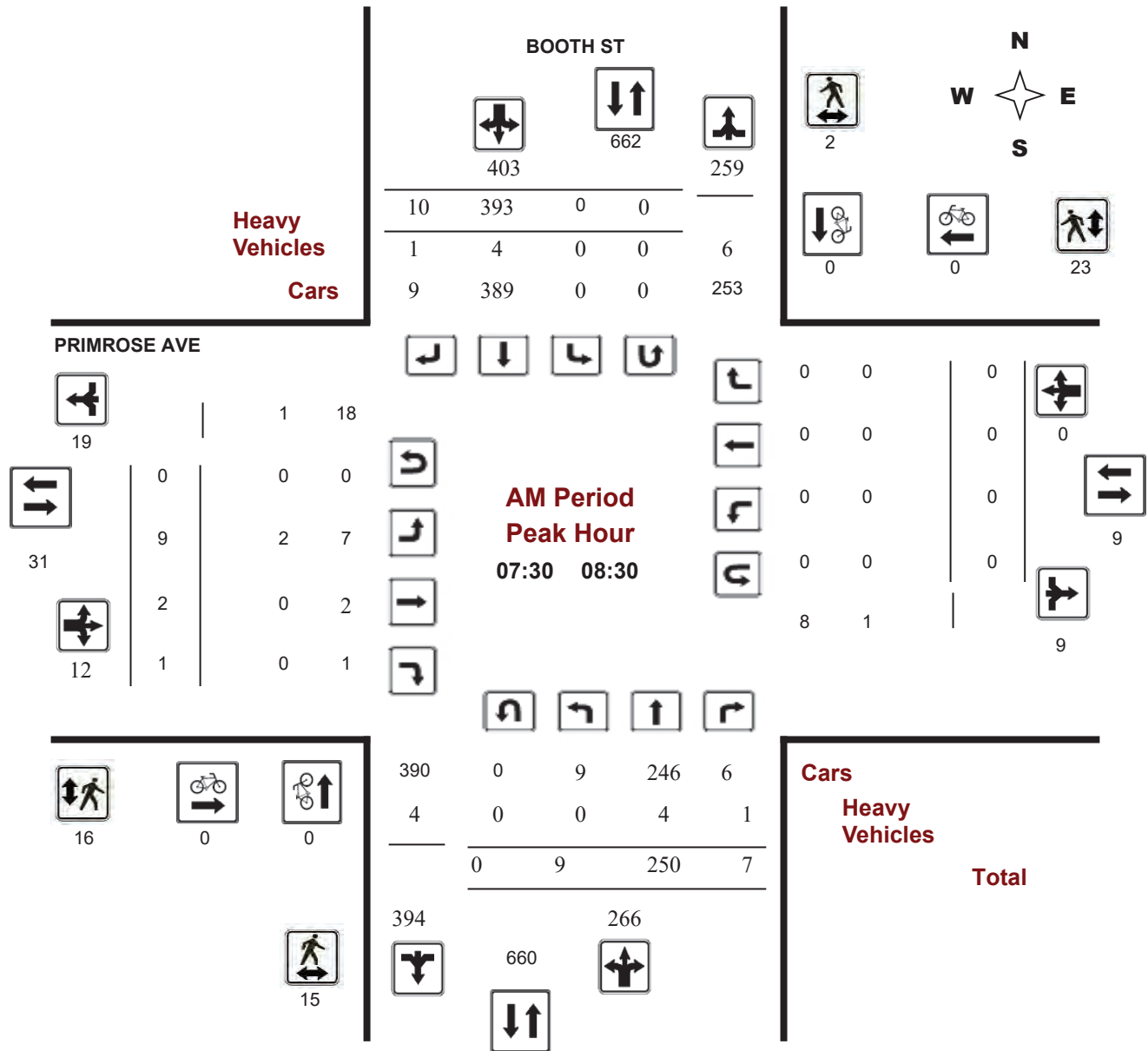
BOOTH ST @ PRIMROSE AVE

Survey Date: Thursday, March 03, 2022

Start Time: 07:00

WO No: 40212

Device: Miovision





Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

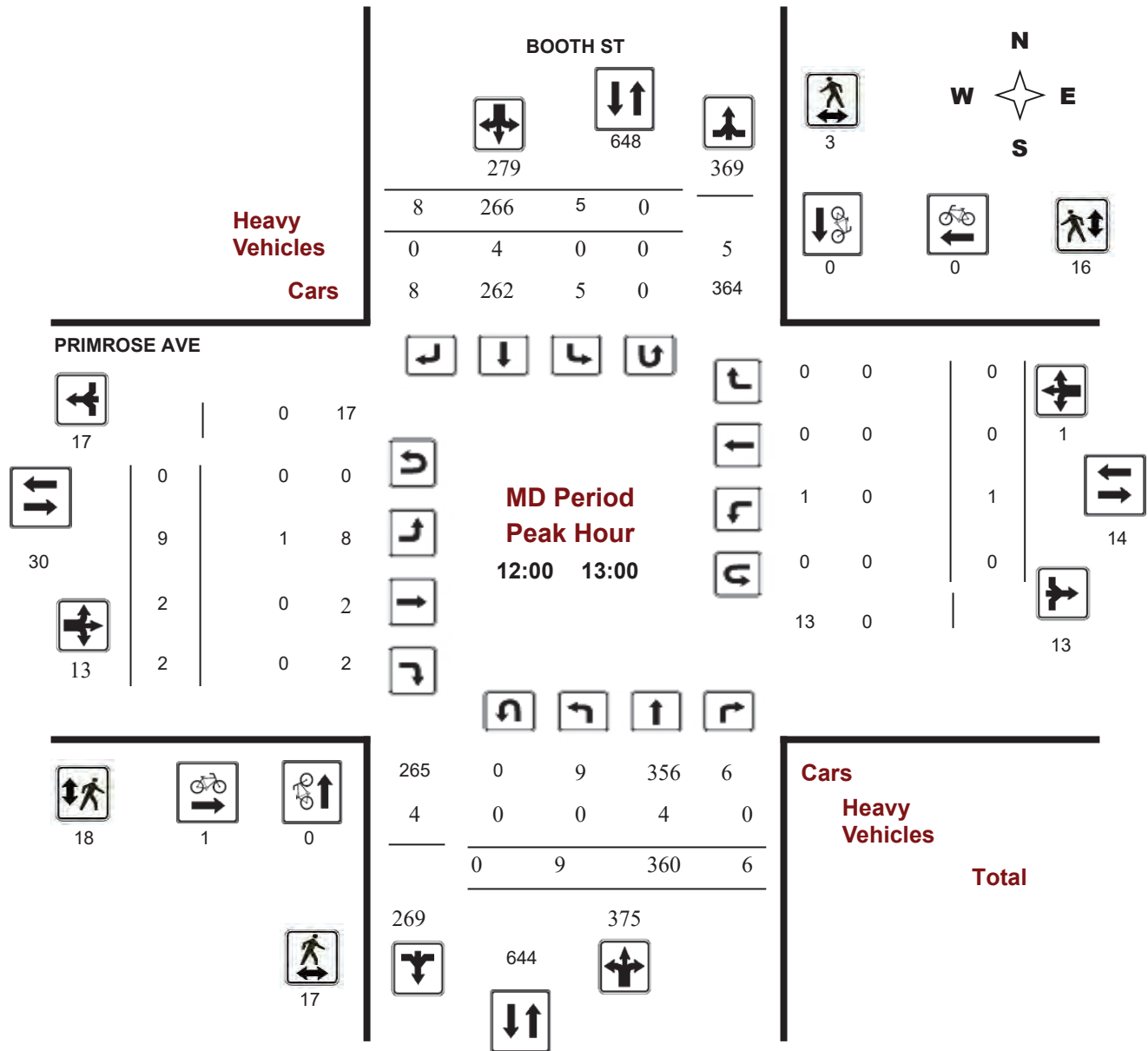
BOOTH ST @ PRIMROSE AVE

Survey Date: Thursday, March 03, 2022

Start Time: 07:00

WO No: 40212

Device: Miovision





Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

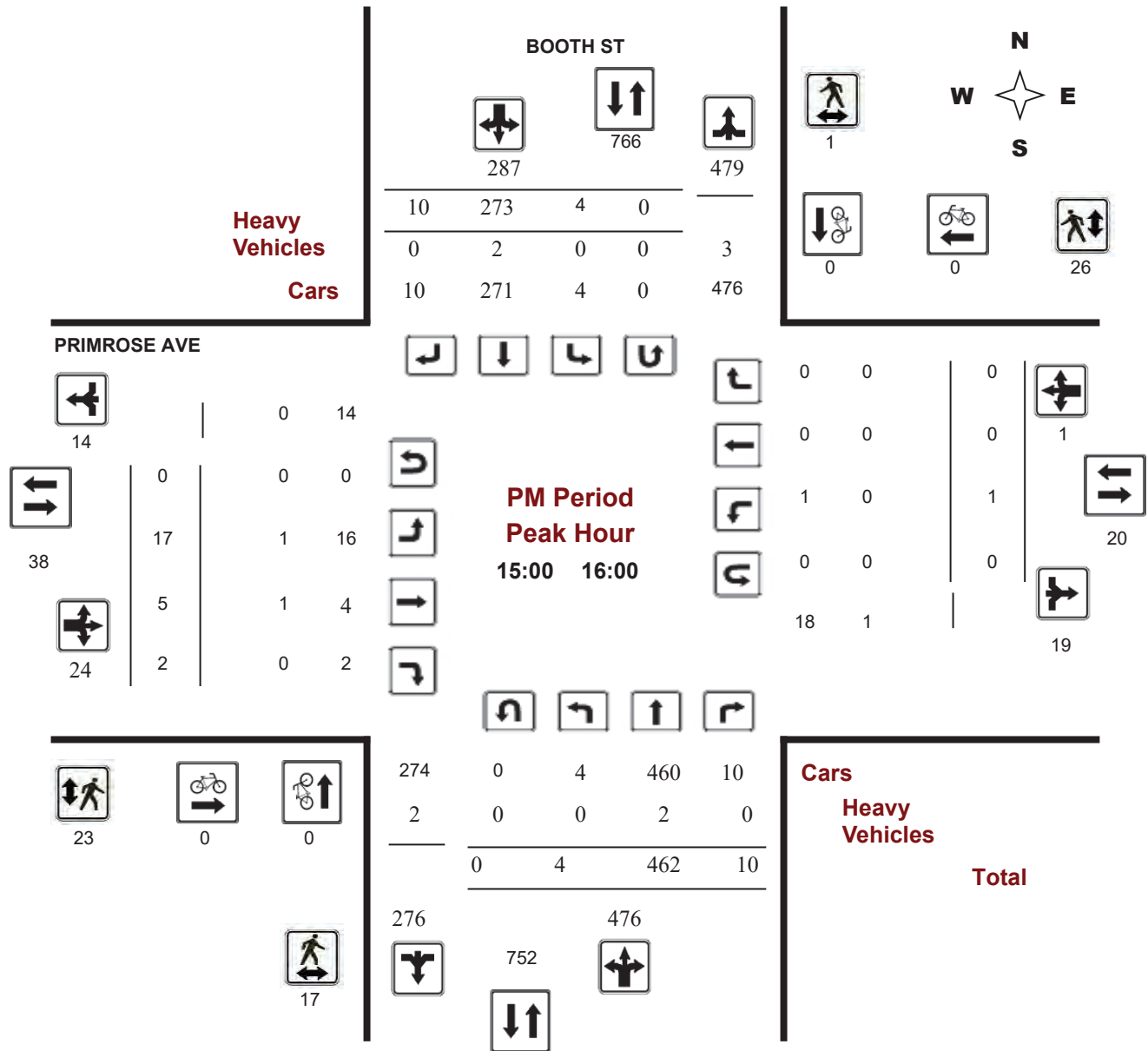
BOOTH ST @ PRIMROSE AVE

Survey Date: Thursday, March 03, 2022

Start Time: 07:00

WO No: 40212

Device: Miovision





Transportation Services - Traffic Services

Turning Movement Count - Study Results

BOOTH ST @ PRIMROSE AVE

Survey Date: Thursday, March 03, 2022

WO No: 40212

Start Time: 07:00

Device: Miovision

Full Study Summary (8 HR Standard)

Survey Date: Thursday, March 03, 2022

Total Observed U-Turns
 Northbound: 0 Southbound: 0
 Eastbound: 0 Westbound: 0

AADT Factor
 1.00

Period	BOOTH ST									PRIMROSE AVE									Grand Total	
	Northbound				Southbound				STR TOT	Eastbound				Westbound				STR TOT		
	LT	ST	RT	NB TOT	LT	ST	RT	SB TOT		LT	ST	RT	EB TOT	LT	ST	RT	WB TOT			
07:00 08:00	7	252	4	263	0	384	8	392	655	6	2	0	8	0	0	0	0	8	663	
08:00 09:00	6	255	8	269	0	334	15	349	618	8	5	5	18	0	0	0	0	18	636	
09:00 10:00	4	270	7	281	2	231	12	245	526	10	1	2	13	1	0	1	2	15	541	
11:30 12:30	5	349	7	361	5	238	14	257	618	14	3	1	18	0	0	0	0	18	636	
12:30 13:30	7	324	9	340	1	259	6	266	606	9	1	2	12	1	0	0	1	13	619	
15:00 16:00	4	462	10	476	4	273	10	287	763	17	5	2	24	1	0	0	1	25	788	
16:00 17:00	5	462	9	476	4	254	13	271	747	15	6	2	23	0	1	0	1	24	771	
17:00 18:00	7	335	12	354	5	262	11	278	632	7	2	1	10	1	1	0	2	12	644	
Sub Total	45	2709	66	2820	21	2235	89	2345	5165	86	25	15	126	4	2	1	7	133	5298	
U Turns	0				0				0	0				0				0	0	0
Total	45	2709	66	2820	21	2235	89	2345	5165	86	25	15	126	4	2	1	7	133	5298	
EQ 12Hr	63	3766	92	3920	29	3107	124	3260	7179	120	35	21	175	6	3	1	10	185	7364	
Note: These values are calculated by multiplying the totals by the appropriate expansion factor.													1.39							
AVG 12Hr	63	3766	92	3920	29	4070	162	3260	7179	120	35	21	175	6	3	1	10	185	7364	
Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor.													1.00							
AVG 24Hr	83	4933	121	5135	38	5332	212	4271	9404	157	46	28	229	8	4	1	13	242	9647	
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

BOOTH ST @ PRIMROSE AVE

Survey Date: Thursday, March 03, 2022

WO No: 40212

Start Time: 07:00

Device: Miovision

Full Study 15 Minute Increments

BOOTH ST

PRIMROSE 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	0	63	1	64	0	78	1	79	143	0	0	0	0	0	0	0	0	0	143
07:15 07:30	1	60	1	62	0	90	3	93	155	1	1	0	2	0	0	0	0	2	157
07:30 07:45	3	60	2	65	0	97	3	100	165	3	0	0	3	0	0	0	0	3	168
07:45 08:00	3	69	0	72	0	119	1	120	192	2	1	0	3	0	0	0	0	3	195
08:00 08:15	3	61	1	65	0	85	4	89	154	1	0	0	1	0	0	0	0	1	155
08:15 08:30	0	60	4	64	0	92	2	94	158	3	1	1	5	0	0	0	0	5	163
08:30 08:45	2	58	1	61	0	83	5	88	149	3	3	3	9	0	0	0	0	9	158
08:45 09:00	1	76	2	79	0	74	4	78	157	1	1	1	3	0	0	0	0	3	160
09:00 09:15	1	58	2	61	0	42	5	47	108	1	0	1	2	0	0	0	0	2	110
09:15 09:30	1	67	2	70	2	54	2	58	128	3	1	0	4	0	0	0	0	4	132
09:30 09:45	0	63	3	66	0	56	2	58	124	2	0	1	3	1	0	1	2	5	129
09:45 10:00	2	82	0	84	0	79	3	82	166	4	0	0	4	0	0	0	0	4	170
11:30 11:45	2	83	2	87	1	61	3	65	152	3	1	0	4	0	0	0	0	4	156
11:45 12:00	0	80	2	82	0	57	6	63	145	4	1	0	5	0	0	0	0	5	150
12:00 12:15	3	91	1	95	1	56	2	59	154	5	1	0	6	0	0	0	0	6	160
12:15 12:30	0	95	2	97	3	64	3	70	167	2	0	1	3	0	0	0	0	3	170
12:30 12:45	1	83	2	86	1	71	1	73	159	2	0	1	3	1	0	0	1	4	163
12:45 13:00	5	91	1	97	0	75	2	77	174	0	1	0	1	0	0	0	0	1	175
13:00 13:15	0	78	4	82	0	54	2	56	138	6	0	0	6	0	0	0	0	6	144
13:15 13:30	1	72	2	75	0	59	1	60	135	1	0	1	2	0	0	0	0	2	137
15:00 15:15	1	126	3	130	1	70	0	71	201	3	3	0	6	1	0	0	1	7	208
15:15 15:30	1	115	1	117	0	71	4	75	192	8	1	2	11	0	0	0	0	11	203
15:30 15:45	1	117	3	121	1	69	3	73	194	4	1	0	5	0	0	0	0	5	199
15:45 16:00	1	104	3	108	2	63	3	68	176	2	0	0	2	0	0	0	0	2	178
16:00 16:15	0	104	4	108	1	71	3	75	183	7	0	0	7	0	0	0	0	7	190
16:15 16:30	0	118	2	120	1	69	4	74	194	3	2	0	5	0	0	0	0	5	199
16:30 16:45	2	118	1	121	0	43	3	46	167	3	2	1	6	0	1	0	1	7	174
16:45 17:00	3	122	2	127	2	71	3	76	203	2	2	1	5	0	0	0	0	5	208
17:00 17:15	0	95	5	100	2	58	2	62	162	0	0	0	0	0	0	0	0	0	162
17:15 17:30	3	83	2	88	2	63	1	66	154	1	0	0	1	0	0	0	0	1	155
17:30 17:45	2	79	2	83	0	60	4	64	147	2	0	0	2	0	1	0	1	3	150
17:45 18:00	2	78	3	83	1	81	4	86	169	4	2	1	7	1	0	0	1	8	177
Total:	45	2709	66	2820	21	2235	89	2345	5165	86	25	15	126	4	2	1	7	133	5,298

Note: U-Turns are included in Totals.



Transportation Services - Traffic Services

Turning Movement Count - Study Results

BOOTH ST @ PRIMROSE AVE

Survey Date: Thursday, March 03, 2022

WO No: 40212

Start Time: 07:00

Device: Miovision

Full Study Cyclist Volume

Time Period	BOOTH ST			PRIMROSE AVE			Grand Total
	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	0	0	0	0
07:30 07:45	0	0	0	0	0	0	0
07:45 08:00	0	0	0	0	0	0	0
08:00 08:15	0	0	0	0	0	0	0
08:15 08:30	0	0	0	0	0	0	0
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
09:15 09:30	0	0	0	0	0	0	0
09:30 09:45	1	0	1	0	0	0	1
09:45 10:00	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	1	0	1	1
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	1	0	1	1
13:15 13:30	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	1	1	0	0	0	1
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	0	0	0	0	0	0
17:00 17:15	0	1	1	1	0	1	2
17:15 17:30	1	0	1	0	0	0	1
17:30 17:45	0	0	0	0	0	0	0
17:45 18:00	0	0	0	0	0	0	0
Total	2	2	4	3	0	3	7



Transportation Services - Traffic Services

Turning Movement Count - Study Results

BOOTH ST @ PRIMROSE AVE

Survey Date: Thursday, March 03, 2022

WO No: 40212

Start Time: 07:00

Device: Miovision

Full Study Pedestrian Volume

BOOTH ST

PRIMROSE 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	1	0	1	1
07:15 07:30	0	0	0	2	0	2	2
07:30 07:45	1	1	2	3	6	9	11
07:45 08:00	9	0	9	5	4	9	18
08:00 08:15	2	0	2	3	2	5	7
08:15 08:30	3	1	4	5	11	16	20
08:30 08:45	2	2	4	4	10	14	18
08:45 09:00	5	1	6	5	8	13	19
09:00 09:15	3	0	3	2	5	7	10
09:15 09:30	3	1	4	4	4	8	12
09:30 09:45	0	1	1	2	2	4	5
09:45 10:00	0	1	1	4	3	7	8
11:30 11:45	6	1	7	1	5	6	13
11:45 12:00	1	0	1	1	5	6	7
12:00 12:15	5	1	6	6	3	9	15
12:15 12:30	3	0	3	5	5	10	13
12:30 12:45	5	1	6	2	6	8	14
12:45 13:00	4	1	5	5	2	7	12
13:00 13:15	0	1	1	5	6	11	12
13:15 13:30	1	2	3	3	4	7	10
15:00 15:15	2	0	2	9	5	14	16
15:15 15:30	6	0	6	1	5	6	12
15:30 15:45	7	0	7	7	9	16	23
15:45 16:00	2	1	3	6	7	13	16
16:00 16:15	11	0	11	9	13	22	33
16:15 16:30	4	2	6	7	13	20	26
16:30 16:45	10	1	11	6	11	17	28
16:45 17:00	6	1	7	11	8	19	26
17:00 17:15	2	0	2	7	10	17	19
17:15 17:30	1	0	1	2	5	7	8
17:30 17:45	6	1	7	4	10	14	21
17:45 18:00	2	0	2	5	2	7	9
Total	112	21	133	142	189	331	464



Transportation Services - Traffic Services

Turning Movement Count - Study Results

BOOTH ST @ PRIMROSE AVE

Survey Date: Thursday, March 03, 2022

WO No: 40212

Start Time: 07:00

Device: Miovision

Full Study Heavy Vehicles

BOOTH ST

PRIMROSE 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	0	1	0	1	0	0	0	1	2	0	0	0	0	0	0	0	0	0	1
07:15 07:30	0	0	0	1	0	1	0	1	2	0	1	0	1	0	0	0	1	2	2
07:30 07:45	0	0	0	0	0	0	0	1	1	1	0	0	1	0	0	0	0	1	1
07:45 08:00	0	2	0	3	0	1	0	3	6	0	0	0	0	0	0	0	0	0	3
08:00 08:15	0	1	0	3	0	2	1	4	7	0	0	0	1	0	0	0	0	1	4
08:15 08:30	0	1	1	3	0	1	0	3	6	1	0	0	1	0	0	0	1	2	4
08:30 08:45	1	0	0	1	0	0	0	0	1	0	0	0	1	0	0	0	0	1	1
08:45 09:00	1	1	0	4	0	1	0	2	6	0	0	1	2	0	0	0	0	2	4
09:00 09:15	0	4	0	5	0	0	0	4	9	0	0	1	1	0	0	0	0	1	5
09:15 09:30	0	1	0	2	0	1	0	2	4	0	0	0	0	0	0	0	0	0	2
09:30 09:45	0	2	0	4	0	2	0	4	8	0	0	0	0	0	0	0	0	0	4
09:45 10:00	1	3	0	4	0	0	0	3	7	0	0	0	1	0	0	0	0	1	4
11:30 11:45	0	2	0	2	0	0	0	2	4	0	0	0	0	0	0	0	0	0	2
11:45 12:00	0	3	0	4	0	1	0	4	8	0	0	0	0	0	0	0	0	0	4
12:00 12:15	0	1	0	1	0	0	0	1	2	0	0	0	0	0	0	0	0	0	1
12:15 12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 12:45	0	0	0	4	0	4	0	5	9	1	0	0	1	0	0	0	0	1	5
12:45 13:00	0	3	0	3	0	0	0	3	6	0	0	0	0	0	0	0	0	0	3
13:00 13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:15 13:30	0	2	0	3	0	1	0	3	6	0	0	0	0	0	0	0	0	0	3
15:00 15:15	0	1	0	1	0	0	0	1	2	0	1	0	1	0	0	0	1	2	2
15:15 15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30 15:45	0	0	0	2	0	2	0	3	5	1	0	0	1	0	0	0	0	1	3
15:45 16:00	0	1	0	1	0	0	0	1	2	0	0	0	0	0	0	0	0	0	1
16:00 16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15 16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30 16:45	0	1	0	2	0	1	0	2	4	0	1	0	1	0	0	0	1	2	3
16:45 17:00	0	1	0	1	1	0	0	2	3	0	0	0	0	0	0	0	1	1	2
17:00 17:15	0	1	0	1	0	0	0	1	2	0	0	0	0	0	0	0	0	0	1
17:15 17:30	0	1	0	1	0	0	0	1	2	0	0	0	0	0	0	0	0	0	1
17:30 17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45 18:00	0	0	0	1	0	1	0	1	2	0	0	0	0	0	0	0	0	0	1
Total: None	3	33	1	58	1	19	1	58	116	4	3	2	13	0	0	0	5	18	67



Transportation Services - Traffic Services

Turning Movement Count - Study Results

BOOTH ST @ PRIMROSE AVE

Survey Date: Thursday, March 03, 2022

WO No: 40212

Start Time: 07:00

Device: Miovision

Full Study 15 Minute U-Turn Total

BOOTH ST

PRIMROSE 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	0	0	0	0	0
08:45	09:00	0	0	0	0	0
09:00	09:15	0	0	0	0	0
09:15	09:30	0	0	0	0	0
09:30	09:45	0	0	0	0	0
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	0	0	0	0	0
12:15	12:30	0	0	0	0	0
12:30	12:45	0	0	0	0	0
12:45	13:00	0	0	0	0	0
13:00	13:15	0	0	0	0	0
13:15	13:30	0	0	0	0	0
15:00	15:15	0	0	0	0	0
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
16:15	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	0	0	0	0	0
17:15	17:30	0	0	0	0	0
17:30	17:45	0	0	0	0	0
17:45	18:00	0	0	0	0	0
Total		0	0	0	0	0



Transportation Services - Traffic Services

Turning Movement Count - Study Results

BOOTH ST @ SOMERSET ST

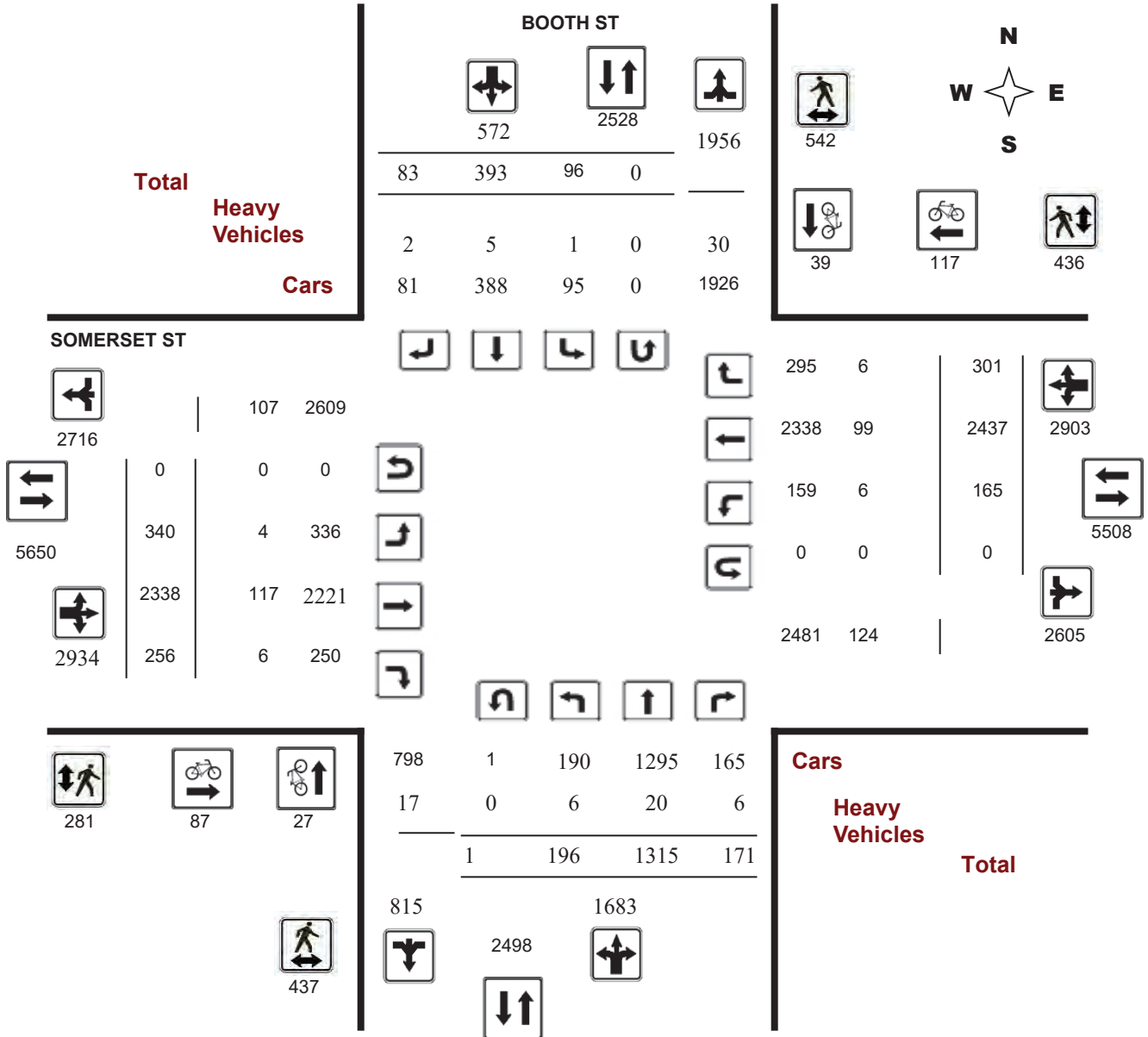
Survey Date: Wednesday, August 31, 2022

WO No: 40560

Start Time: 07:00

Device: Miovision

Full Study Diagram



Turning Movement Count - Study Results

BOOTH ST @ SOMERSET ST

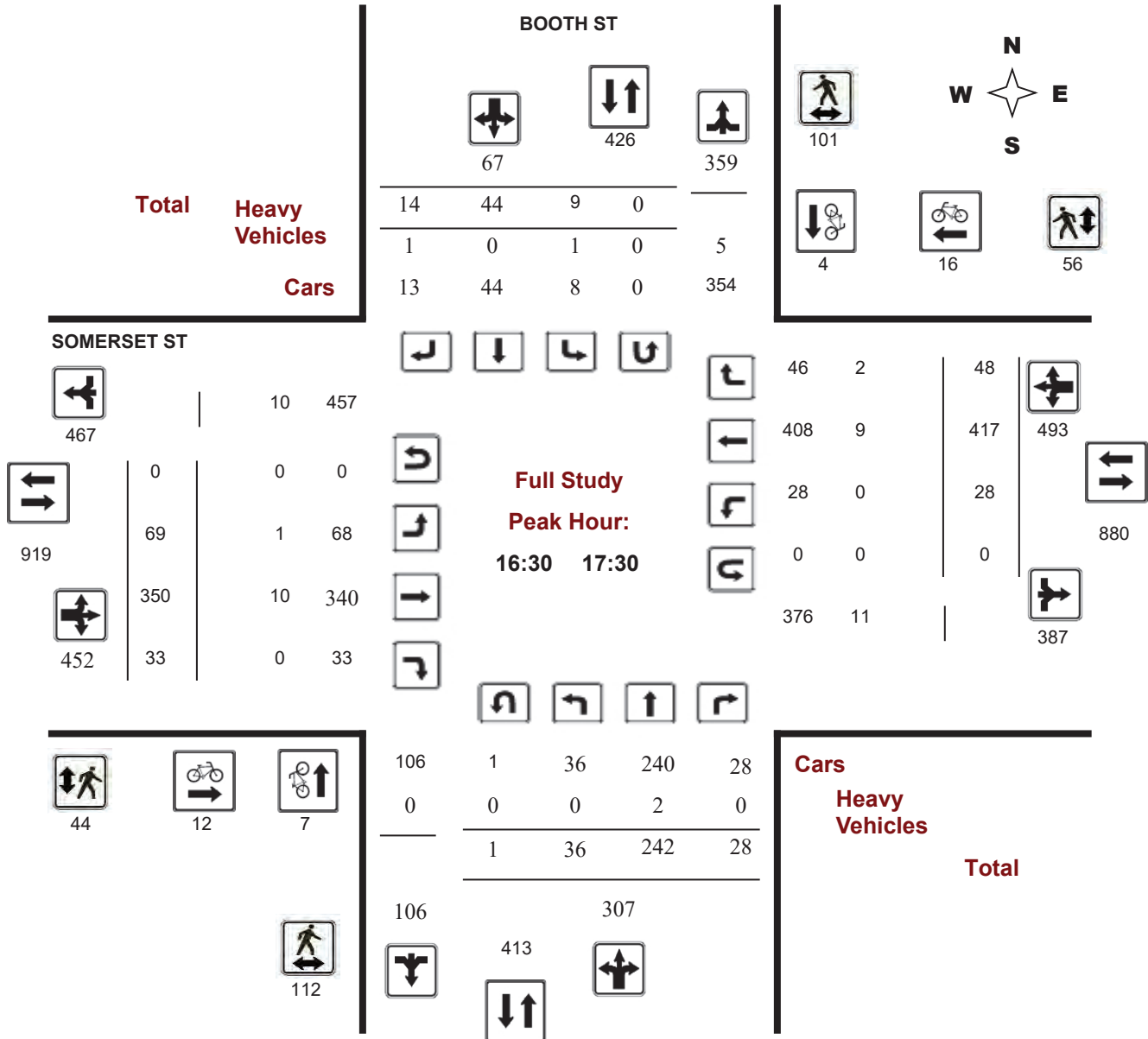
Survey Date: Wednesday, August 31, 2022

WO No: 40560

Start Time: 07:00

Device: Miovision

Full Study Peak Hour Diagram





Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

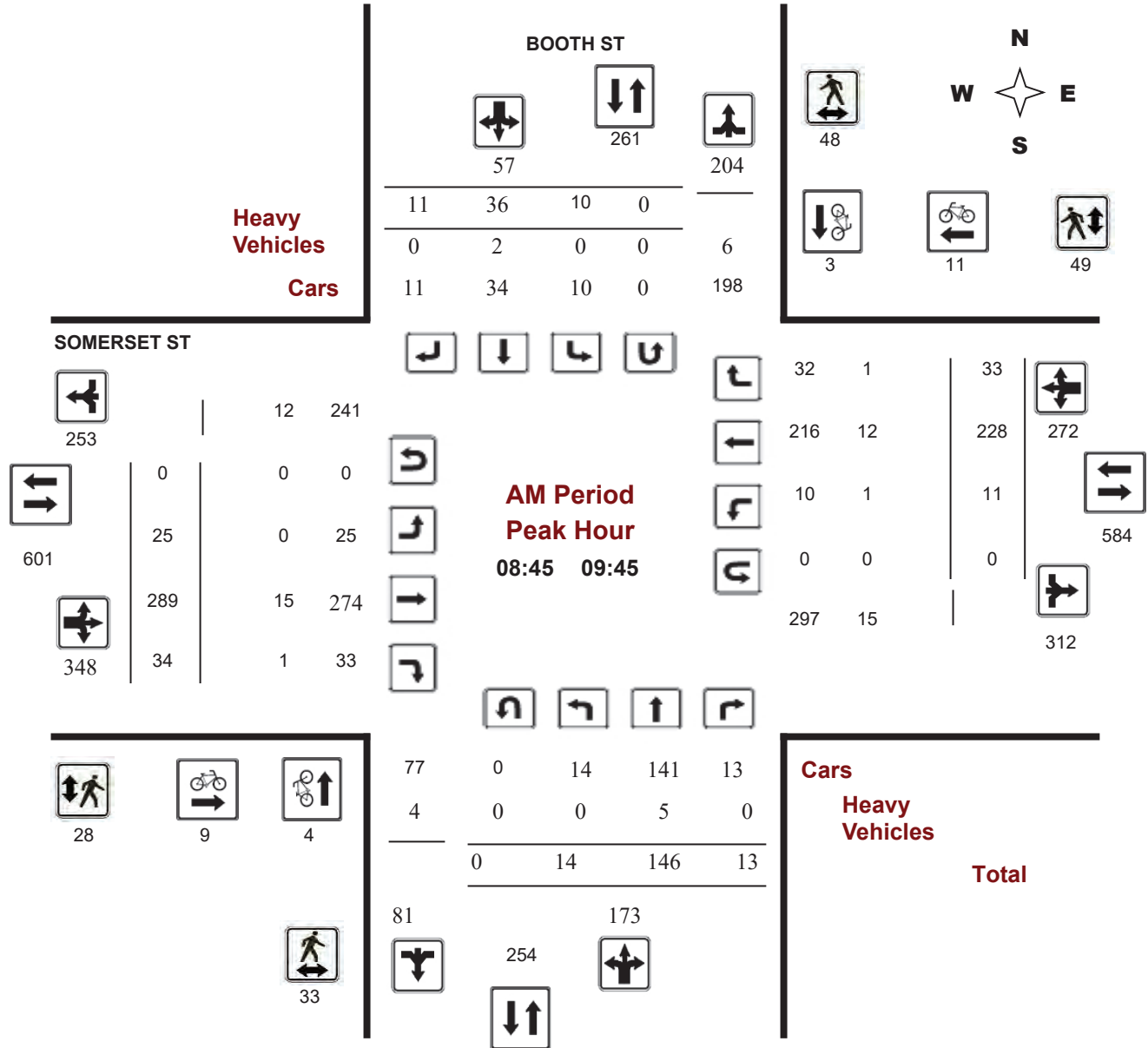
BOOTH ST @ SOMERSET ST

Survey Date: Wednesday, August 31, 2022

Start Time: 07:00

WO No: 40560

Device: Miovision



Comments



Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

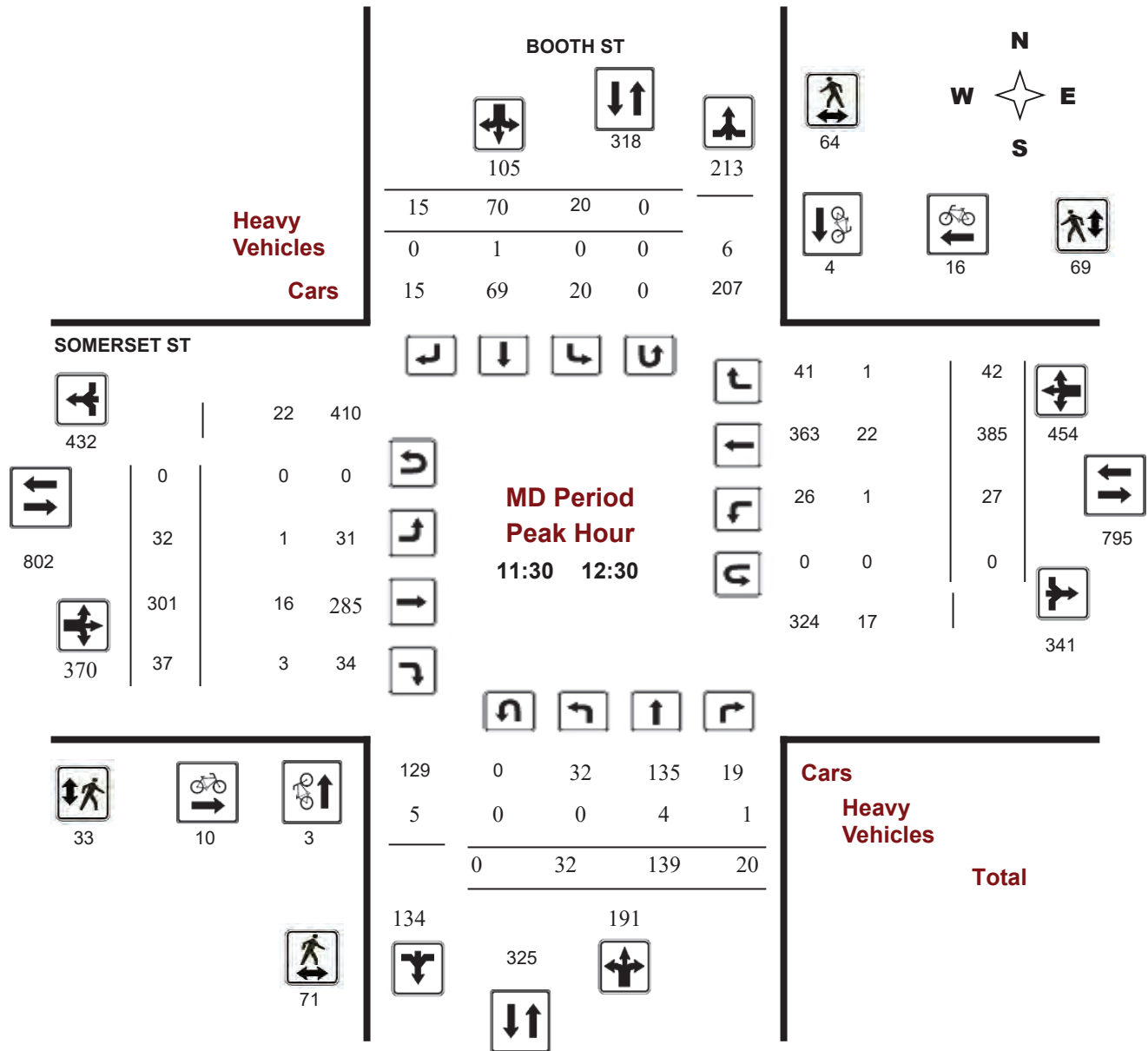
BOOTH ST @ SOMERSET ST

Survey Date: Wednesday, August 31, 2022

Start Time: 07:00

WO No: 40560

Device: Miovision





Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

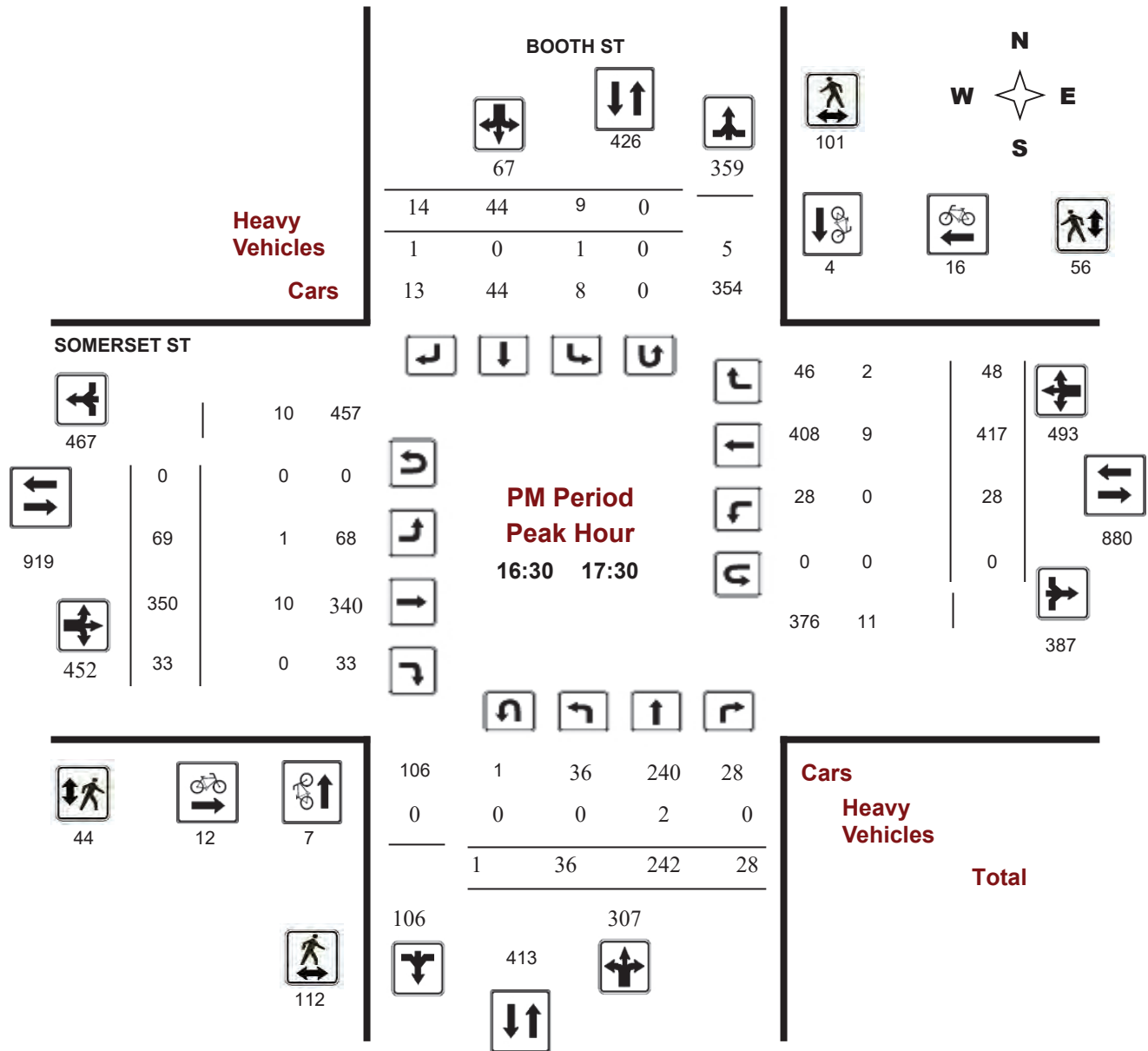
BOOTH ST @ SOMERSET ST

Survey Date: Wednesday, August 31, 2022

Start Time: 07:00

WO No: 40560

Device: Miovision



Comments



Transportation Services - Traffic Services

Turning Movement Count - Study Results

BOOTH ST @ SOMERSET ST

Survey Date: Wednesday, August 31, 2022

WO No: 40560

Start Time: 07:00

Device: Miovision

Full Study Summary (8 HR Standard)

Survey Date: Wednesday, August 31, 2022

Total Observed U-Turns

AADT Factor

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

.90

Period	BOOTH ST										SOMERSET ST										Grand Total
	Northbound					Southbound					Eastbound					Westbound					
	LT	ST	RT	NB TOT	STR TOT	LT	ST	RT	SB TOT	STR TOT	LT	ST	RT	EB TOT	STR TOT	LT	ST	RT	WB TOT	STR TOT	
07:00 08:00	14	95	7	116	152	2	30	4	36	152	21	188	19	228	296	12	159	22	193	421	573
08:00 09:00	12	117	9	138	198	14	40	6	60	198	27	283	34	344	296	13	213	28	254	598	796
09:00 10:00	16	142	18	176	231	8	37	10	55	231	33	279	38	350	296	11	216	33	260	610	841
11:30 12:30	32	139	20	191	296	20	70	15	105	296	32	301	37	370	296	27	385	42	454	824	1120
12:30 13:30	23	171	36	230	291	10	43	8	61	291	30	287	40	357	291	19	306	40	365	722	1013
15:00 16:00	33	194	22	249	341	14	67	11	92	341	69	350	33	452	341	23	372	49	444	896	1237
16:00 17:00	34	242	37	313	386	10	49	14	73	386	78	317	26	421	386	33	424	38	495	916	1302
17:00 18:00	32	215	22	269	359	18	57	15	90	359	50	333	29	412	359	27	362	49	438	850	1209
Sub Total	196	1315	171	1682	2254	96	393	83	572	2254	340	2338	256	2934	2254	165	2437	301	2903	5837	8091
U Turns				1	1				0	1				0	0				0	0	1
Total	196	1315	171	1683	2255	96	393	83	572	2255	340	2338	256	2934	2255	165	2437	301	2903	5837	8092
EQ 12Hr	272	1828	238	2339	3134	133	546	115	795	3134	473	3250	356	4078	3134	229	3387	418	4035	8113	11248
Note: These values are calculated by multiplying the totals by the appropriate expansion factor.														1.39							
AVG 12Hr	245	1645	214	2105	2821	120	644	136	716	2821	426	2925	320	3670	2821	206	3048	376	3632	7302	10123
Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor.														.90							
AVG 24Hr	321	2155	280	2758	3696	157	844	178	938	3696	558	3832	419	4808	3696	270	3993	493	4758	9566	13261
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

BOOTH ST @ SOMERSET ST

Survey Date: Wednesday, August 31, 2022

WO No: 40560

Start Time: 07:00

Device: Miovision

Full Study 15 Minute Increments

BOOTH ST

SOMERSET ST

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	2	37	2	41	0	6	0	6	47	6	49	3	58	2	32	3	37	95	142
07:15 07:30	4	20	1	25	1	5	0	6	31	5	42	3	50	4	30	4	38	88	119
07:30 07:45	3	19	2	24	0	10	0	10	34	5	43	4	52	3	50	8	61	113	147
07:45 08:00	5	19	2	26	1	9	4	14	40	5	54	9	68	3	47	7	57	125	165
08:00 08:15	0	23	2	25	3	12	0	15	40	7	65	7	79	3	42	12	57	136	176
08:15 08:30	5	32	2	39	2	11	0	13	52	9	69	14	92	2	61	6	69	161	213
08:30 08:45	3	30	2	35	2	8	3	13	48	5	80	7	92	3	49	3	55	147	195
08:45 09:00	4	32	3	39	7	9	3	19	58	6	69	6	81	5	61	7	73	154	212
09:00 09:15	3	30	3	36	1	8	3	12	48	3	79	7	89	1	63	7	71	160	208
09:15 09:30	6	32	4	42	2	8	2	12	54	7	72	12	91	2	61	9	72	163	217
09:30 09:45	1	52	3	56	0	11	3	14	70	9	69	9	87	3	43	10	56	143	213
09:45 10:00	6	28	8	42	5	10	2	17	59	14	59	10	83	5	49	7	61	144	203
11:30 11:45	4	38	4	46	5	22	5	32	78	4	79	14	97	4	96	8	108	205	283
11:45 12:00	11	30	3	44	2	28	5	35	79	8	71	9	88	9	115	13	137	225	304
12:00 12:15	11	30	7	48	6	9	4	19	67	11	75	10	96	7	86	12	105	201	268
12:15 12:30	6	41	6	53	7	11	1	19	72	9	76	4	89	7	88	9	104	193	265
12:30 12:45	9	33	11	53	3	12	0	15	68	9	71	10	90	8	66	3	77	167	235
12:45 13:00	4	48	3	55	2	9	3	14	69	7	70	7	84	1	78	16	95	179	248
13:00 13:15	6	48	16	70	4	14	4	22	92	4	51	13	68	6	84	12	102	170	262
13:15 13:30	4	42	6	52	1	8	1	10	62	10	95	10	115	4	78	9	91	206	268
15:00 15:15	11	64	5	80	2	18	2	22	102	12	89	10	111	5	88	9	102	213	315
15:15 15:30	10	40	6	56	6	25	5	36	92	16	86	8	110	6	85	13	104	214	306
15:30 15:45	7	46	3	56	2	16	0	18	74	22	98	6	126	6	98	15	119	245	319
15:45 16:00	5	44	8	57	4	8	4	16	73	19	77	9	105	6	101	12	119	224	297
16:00 16:15	6	63	13	82	2	16	4	22	104	21	83	7	111	7	106	8	121	232	336
16:15 16:30	8	60	10	78	4	13	3	20	98	14	66	4	84	10	96	9	115	199	297
16:30 16:45	10	56	7	73	2	13	4	19	92	22	84	7	113	11	111	14	136	249	341
16:45 17:00	10	63	7	80	2	7	3	12	92	21	84	8	113	5	111	7	123	236	328
17:00 17:15	8	68	4	80	3	6	5	14	94	12	89	10	111	4	90	16	110	221	315
17:15 17:30	8	55	10	74	2	18	2	22	96	14	93	8	115	8	105	11	124	239	335
17:30 17:45	7	52	5	64	9	14	4	27	91	13	86	7	106	6	85	11	102	208	299
17:45 18:00	9	40	3	52	4	19	4	27	79	11	65	4	80	9	82	11	102	182	261
Total:	196	1315	171	1683	96	393	83	572	2255	340	2338	256	2934	165	2437	301	2903	5837	8,092

Note: U-Turns are included in Totals.



Transportation Services - Traffic Services

Turning Movement Count - Study Results

BOOTH ST @ SOMERSET ST

Survey Date: Wednesday, August 31, 2022

WO No: 40560

Start Time: 07:00

Device: Miovision

Full Study Cyclist Volume

Time Period	BOOTH ST			SOMERSET ST			Grand Total
	Northbound	Southbound	Street Total	Eastbound	Westbound	Street Total	
07:00 07:15	1	2	3	1	3	4	7
07:15 07:30	0	0	0	1	2	3	3
07:30 07:45	0	2	2	1	2	3	5
07:45 08:00	0	1	1	2	4	6	7
08:00 08:15	1	1	2	2	5	7	9
08:15 08:30	1	4	5	8	3	11	16
08:30 08:45	0	2	2	4	2	6	8
08:45 09:00	0	2	2	1	3	4	6
09:00 09:15	1	0	1	2	3	5	6
09:15 09:30	1	0	1	4	2	6	7
09:30 09:45	2	1	3	2	3	5	8
09:45 10:00	0	2	2	4	3	7	9
11:30 11:45	0	0	0	2	3	5	5
11:45 12:00	1	0	1	4	6	10	11
12:00 12:15	1	3	4	1	5	6	10
12:15 12:30	1	1	2	3	2	5	7
12:30 12:45	1	0	1	4	2	6	7
12:45 13:00	0	4	4	2	1	3	7
13:00 13:15	0	0	0	4	2	6	6
13:15 13:30	0	2	2	3	4	7	9
15:00 15:15	1	1	2	2	1	3	5
15:15 15:30	1	1	2	2	6	8	10
15:30 15:45	2	1	3	1	2	3	6
15:45 16:00	2	3	5	4	8	12	17
16:00 16:15	1	0	1	3	6	9	10
16:15 16:30	0	1	1	2	5	7	8
16:30 16:45	0	2	2	3	3	6	8
16:45 17:00	1	1	2	1	7	8	10
17:00 17:15	2	0	2	3	2	5	7
17:15 17:30	4	1	5	5	4	9	14
17:30 17:45	2	1	3	5	5	10	13
17:45 18:00	0	0	0	1	8	9	9
Total	27	39	66	87	117	204	270



Transportation Services - Traffic Services

Turning Movement Count - Study Results

BOOTH ST @ SOMERSET ST

Survey Date: Wednesday, August 31, 2022

WO No: 40560

Start Time: 07:00

Device: Miovision

Full Study Pedestrian Volume

BOOTH ST

SOMERSET ST

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	3	2	5	1	6	7	12
07:15 07:30	2	5	7	6	2	8	15
07:30 07:45	4	8	12	11	6	17	29
07:45 08:00	3	8	11	6	9	15	26
08:00 08:15	0	10	10	3	2	5	15
08:15 08:30	2	19	21	9	9	18	39
08:30 08:45	4	8	12	8	10	18	30
08:45 09:00	9	11	20	10	16	26	46
09:00 09:15	7	9	16	4	13	17	33
09:15 09:30	13	10	23	8	14	22	45
09:30 09:45	4	18	22	6	6	12	34
09:45 10:00	12	25	37	6	8	14	51
11:30 11:45	18	16	34	9	19	28	62
11:45 12:00	18	13	31	6	18	24	55
12:00 12:15	20	16	36	11	17	28	64
12:15 12:30	15	19	34	7	15	22	56
12:30 12:45	22	12	34	9	20	29	63
12:45 13:00	15	24	39	12	20	32	71
13:00 13:15	22	16	38	16	22	38	76
13:15 13:30	20	20	40	3	34	37	77
15:00 15:15	6	14	20	5	10	15	35
15:15 15:30	5	14	19	8	8	16	35
15:30 15:45	10	17	27	6	15	21	48
15:45 16:00	11	22	33	19	27	46	79
16:00 16:15	14	12	26	13	10	23	49
16:15 16:30	28	38	66	20	17	37	103
16:30 16:45	27	23	50	10	10	20	70
16:45 17:00	37	21	58	13	23	36	94
17:00 17:15	27	37	64	10	15	25	89
17:15 17:30	21	20	41	11	8	19	60
17:30 17:45	31	28	59	9	22	31	90
17:45 18:00	7	27	34	6	5	11	45
Total	437	542	979	281	436	717	1696



Transportation Services - Traffic Services

Turning Movement Count - Study Results

BOOTH ST @ SOMERSET ST

Survey Date: Wednesday, August 31, 2022

WO No: 40560

Start Time: 07:00

Device: Miovision

Full Study Heavy Vehicles

BOOTH ST

SOMERSET ST

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	0	0	0	1	0	0	0	0	1	0	3	0	8	1	5	0	9	17	9
07:15 07:30	1	0	0	2	0	0	0	0	2	0	3	0	7	1	3	0	7	14	8
07:30 07:45	1	0	2	3	0	0	0	0	3	0	1	0	5	0	3	0	6	11	7
07:45 08:00	0	0	0	0	0	0	0	1	1	0	4	0	5	0	1	1	6	11	6
08:00 08:15	0	1	0	1	0	0	0	1	2	0	6	0	8	0	2	0	8	16	9
08:15 08:30	0	2	0	2	0	0	0	2	4	0	8	0	11	0	3	0	11	22	13
08:30 08:45	0	0	0	0	0	0	0	0	0	0	10	0	11	0	1	0	11	22	11
08:45 09:00	0	2	0	3	0	1	0	3	6	0	5	0	6	0	1	0	6	12	9
09:00 09:15	0	0	0	0	0	0	0	1	1	0	2	0	4	0	2	1	5	9	5
09:15 09:30	0	2	0	4	0	1	0	3	7	0	4	1	9	0	4	0	8	17	12
09:30 09:45	0	1	0	2	0	0	0	1	3	0	4	0	9	1	5	0	10	19	11
09:45 10:00	1	0	1	2	0	0	0	0	2	0	4	0	8	0	3	0	8	16	9
11:30 11:45	0	0	0	2	0	1	0	1	3	0	6	1	12	0	5	0	11	23	13
11:45 12:00	0	0	0	0	0	0	0	2	2	1	4	0	10	0	5	1	10	20	11
12:00 12:15	0	2	1	6	0	0	0	2	8	0	3	2	14	1	9	0	14	28	18
12:15 12:30	0	2	0	2	0	0	0	2	4	0	3	0	6	0	3	0	6	12	8
12:30 12:45	0	1	1	3	0	0	0	1	4	0	3	1	6	0	2	0	6	12	8
12:45 13:00	0	0	0	0	0	0	0	0	0	0	4	0	10	0	6	0	10	20	10
13:00 13:15	0	0	0	1	0	0	0	1	2	0	1	0	5	1	4	1	7	12	7
13:15 13:30	0	0	0	0	0	0	0	0	0	0	8	0	10	0	2	0	10	20	10
15:00 15:15	0	0	0	1	0	1	0	1	2	0	6	0	12	0	6	0	12	24	13
15:15 15:30	1	0	0	3	0	1	0	2	5	1	3	1	9	0	3	0	6	15	10
15:30 15:45	0	1	0	2	0	0	0	2	4	1	1	0	4	1	2	0	4	8	6
15:45 16:00	0	0	1	1	0	0	0	0	1	0	3	0	8	0	5	0	9	17	9
16:00 16:15	0	1	0	1	0	0	0	1	2	0	2	0	4	0	2	0	4	8	5
16:15 16:30	1	1	0	2	0	0	1	2	4	0	2	0	4	0	0	0	2	6	5
16:30 16:45	0	2	0	2	1	0	0	3	5	0	1	0	4	0	3	0	5	9	7
16:45 17:00	0	0	0	0	0	0	0	2	2	1	4	0	7	0	2	1	7	14	8
17:00 17:15	0	0	0	0	0	0	1	2	2	0	3	0	6	0	2	1	6	12	7
17:15 17:30	0	0	0	0	0	0	0	0	0	0	2	0	4	0	2	0	4	8	4
17:30 17:45	0	2	0	2	0	0	0	2	4	0	2	0	3	0	1	0	3	6	5
17:45 18:00	1	0	0	1	0	0	0	0	1	0	2	0	5	0	2	0	4	9	5
Total: None	6	20	6	49	1	5	2	38	87	4	117	6	234	6	99	6	235	469	278



Transportation Services - Traffic Services

Turning Movement Count - Study Results

BOOTH ST @ SOMERSET ST

Survey Date: Wednesday, August 31, 2022

WO No: 40560

Start Time: 07:00

Device: Miovision

Full Study 15 Minute U-Turn Total

BOOTH ST

SOMERSET ST

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	0	0	0	0	0
08:45	09:00	0	0	0	0	0
09:00	09:15	0	0	0	0	0
09:15	09:30	0	0	0	0	0
09:30	09:45	0	0	0	0	0
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	0	0	0	0	0
12:15	12:30	0	0	0	0	0
12:30	12:45	0	0	0	0	0
12:45	13:00	0	0	0	0	0
13:00	13:15	0	0	0	0	0
13:15	13:30	0	0	0	0	0
15:00	15:15	0	0	0	0	0
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
16:15	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	0	0	0	0	0
17:15	17:30	1	0	0	0	1
17:30	17:45	0	0	0	0	0
17:45	18:00	0	0	0	0	0
Total		1	0	0	0	1

Turning Movement Count - Study Results

BRONSON AVE @ PRIMROSE AVE

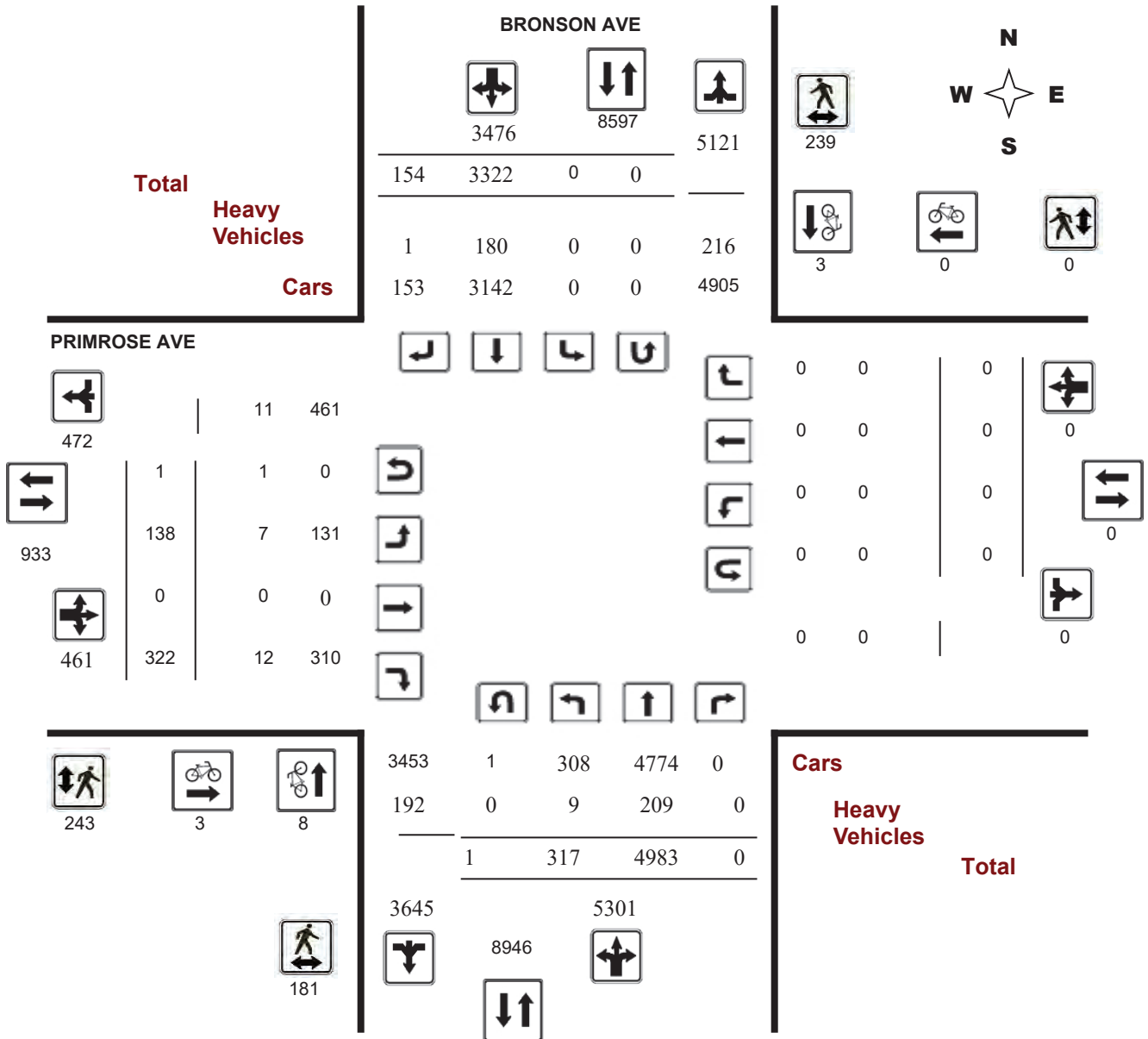
Survey Date: Wednesday, December 13, 2017

WO No: 37370

Start Time: 07:00

Device: Miovision

Full Study Diagram



Turning Movement Count - Study Results

BRONSON AVE @ PRIMROSE AVE

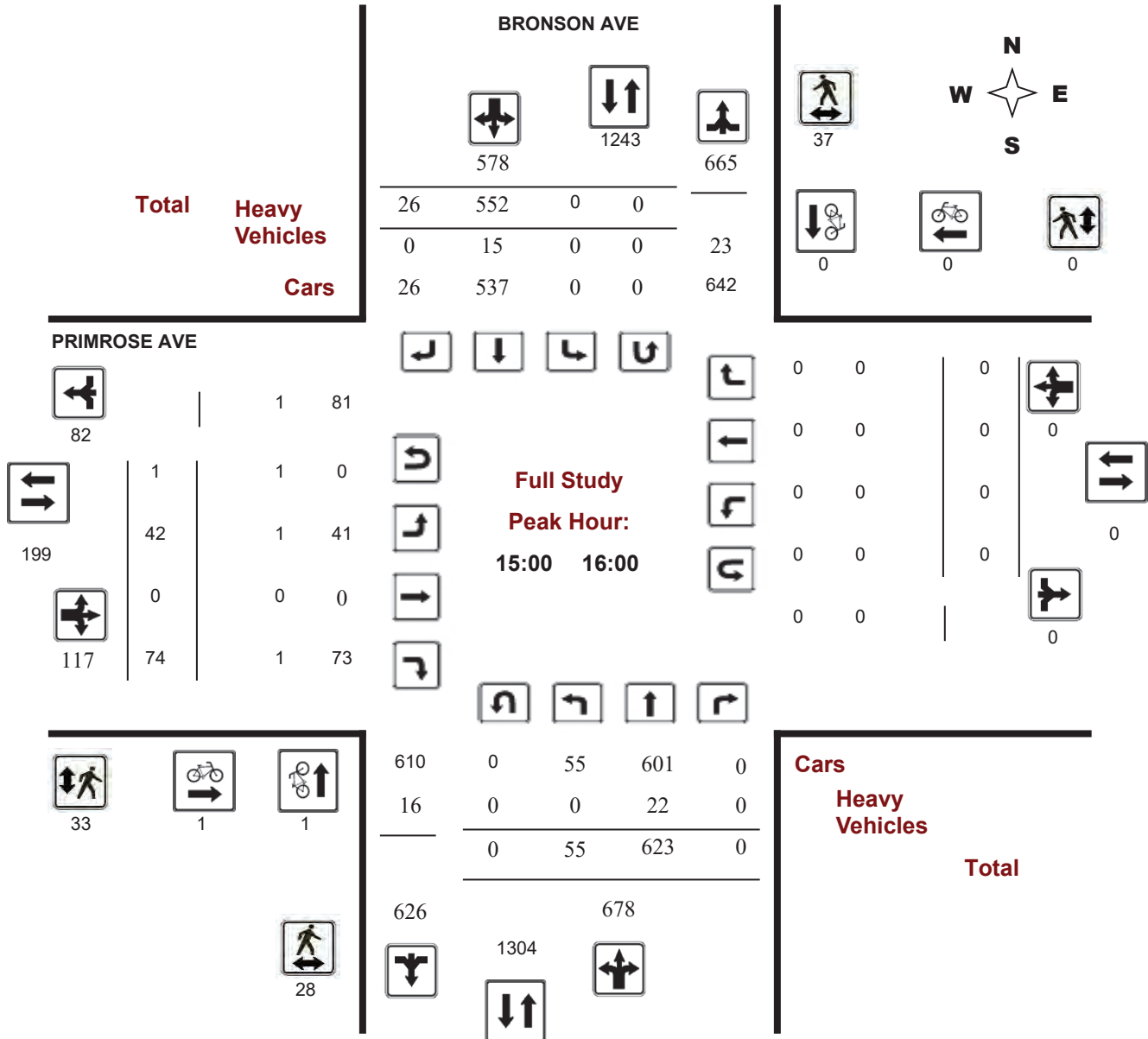
Survey Date: Wednesday, December 13, 2017

WO No: 37370

Start Time: 07:00

Device: Miovision

Full Study Peak Hour Diagram





Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

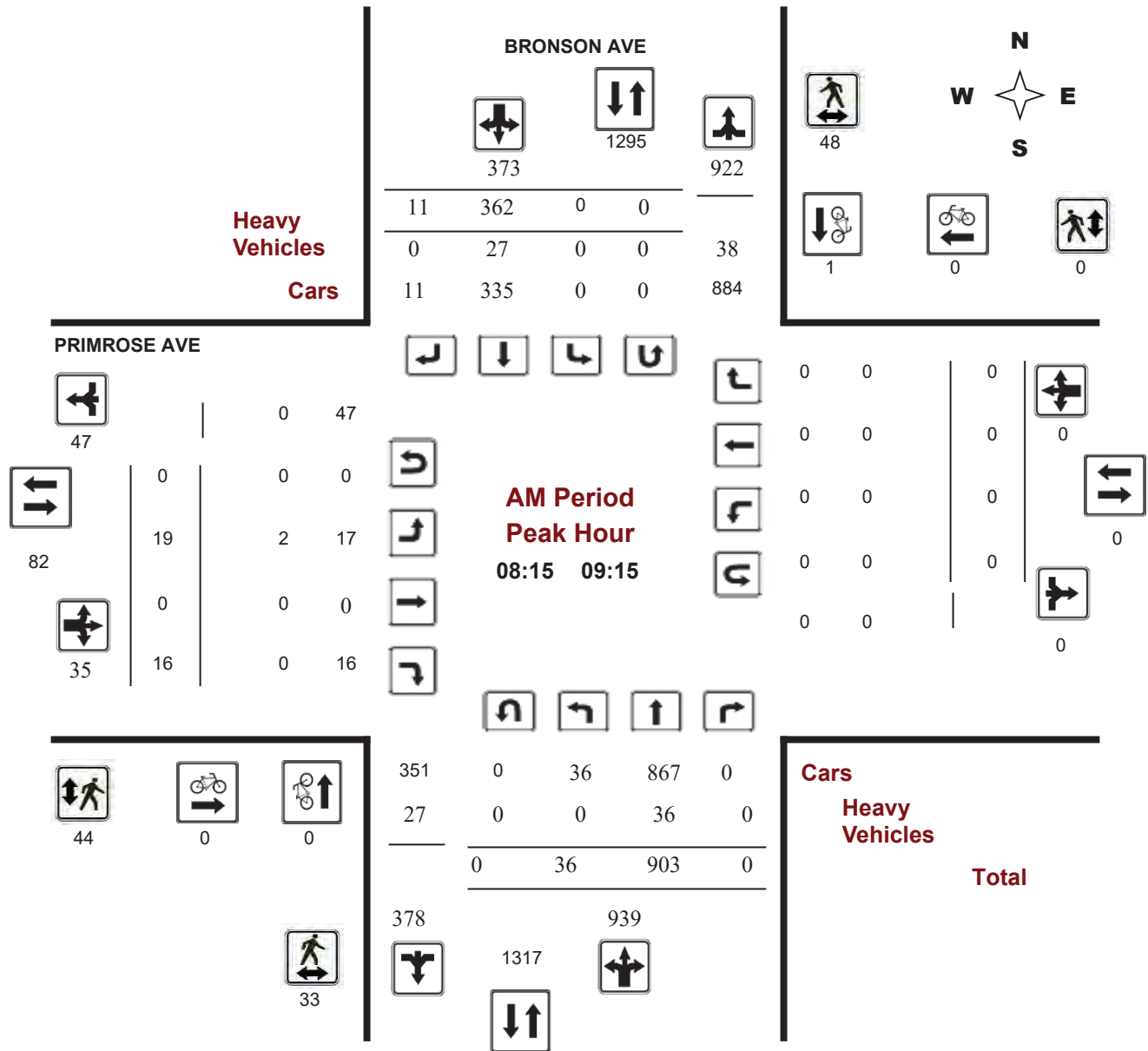
BRONSON AVE @ PRIMROSE AVE

Survey Date: Wednesday, December 13, 2017

Start Time: 07:00

WO No: 37370

Device: Miovision





Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

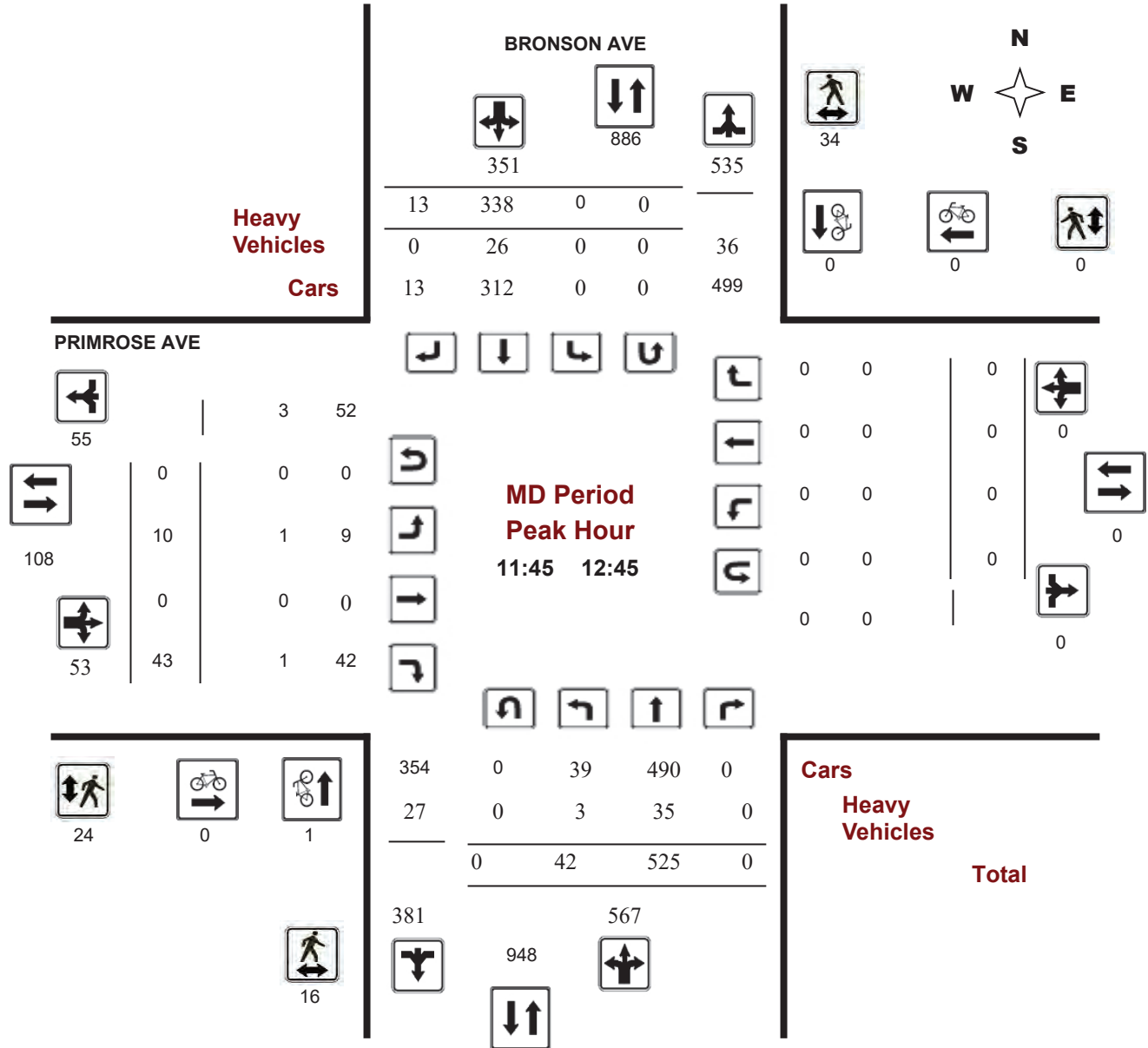
BRONSON AVE @ PRIMROSE AVE

Survey Date: Wednesday, December 13, 2017

Start Time: 07:00

WO No: 37370

Device: Miovision





Transportation Services - Traffic Services

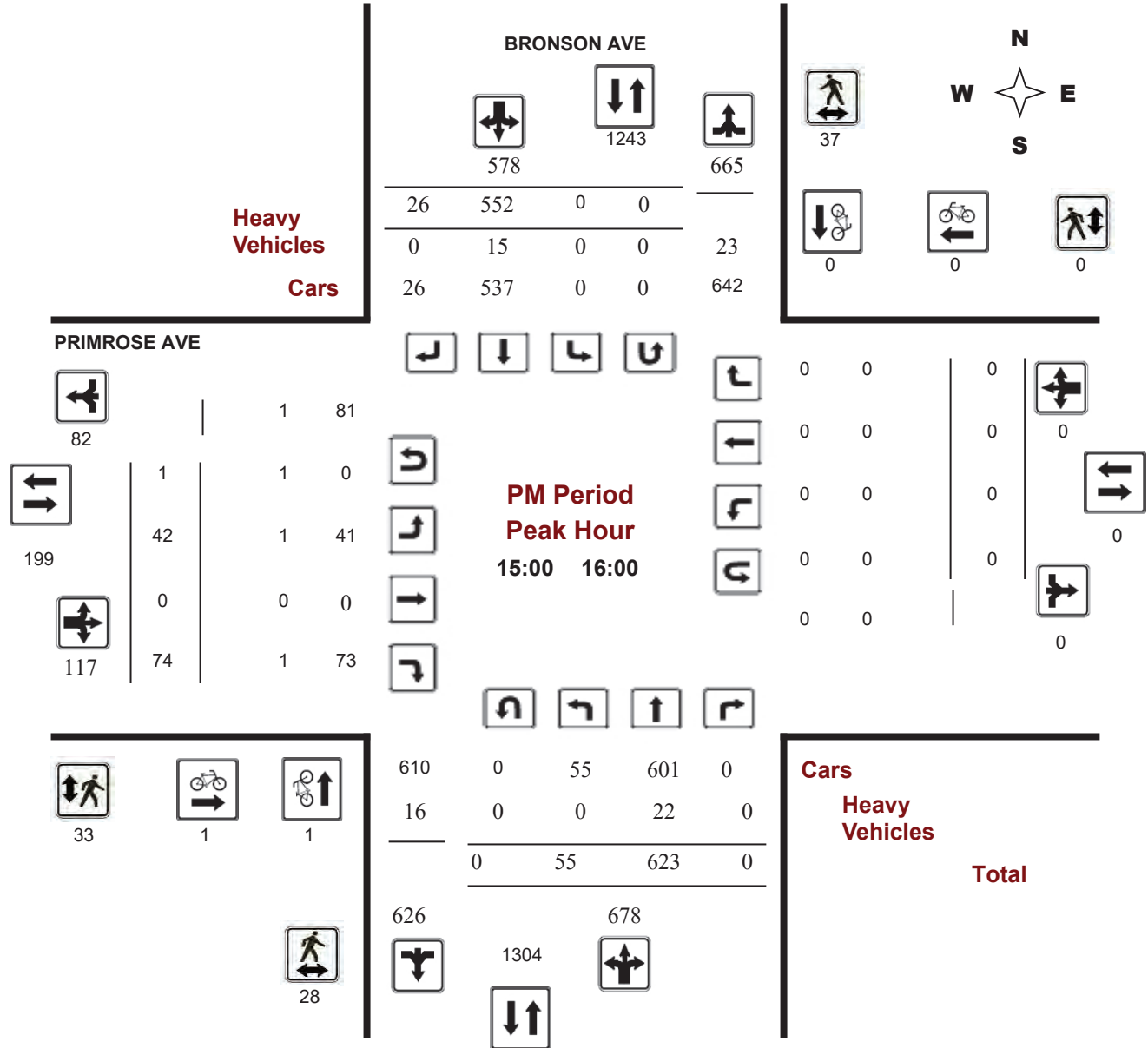
Turning Movement Count - Peak Hour Diagram BRONSON AVE @ PRIMROSE AVE

Survey Date: Wednesday, December 13, 2017

Start Time: 07:00

WO No: 37370

Device: Miovision





Transportation Services - Traffic Services

Turning Movement Count - Study Results

BRONSON AVE @ PRIMROSE AVE

Survey Date: Wednesday, December 13, 2017

WO No: 37370

Start Time: 07:00

Device: Miovision

Full Study Summary (8 HR Standard)

Survey Date: Wednesday, December 13, 2017

Total Observed U-Turns
 Northbound: 1 Southbound: 0
 Eastbound: 1 Westbound: 0

AADT Factor

1.00

BRONSON AVE

PRIMROSE AVE

Period	BRONSON AVE Northbound					BRONSON AVE Southbound					PRIMROSE AVE Eastbound					PRIMROSE AVE Westbound			STR TOT	Grand Total
	LT	ST	RT	NB TOT	STR TOT	LT	ST	RT	SB TOT	STR TOT	LT	ST	RT	EB TOT	STR TOT	WB TOT				
07:00 08:00	54	693	0	747	1117	0	349	21	370	876	4	0	27	31	0	0	0	0	31	1148
08:00 09:00	30	886	0	916	1260	0	336	8	344	1260	18	0	16	34	0	0	0	0	34	1294
09:00 10:00	42	754	0	796	1147	0	332	19	351	1147	11	0	19	30	0	0	0	0	30	1177
11:30 12:30	38	506	0	544	902	0	347	11	358	902	11	0	43	54	0	0	0	0	54	956
12:30 13:30	38	486	0	524	835	0	296	15	311	835	11	0	32	43	0	0	0	0	43	878
15:00 16:00	55	623	0	678	1256	0	552	26	578	1256	42	0	74	116	0	0	0	0	116	1372
16:00 17:00	34	514	0	548	1148	0	571	29	600	1148	27	0	75	102	0	0	0	0	102	1250
17:00 18:00	26	521	0	547	1111	0	539	25	564	1111	14	0	36	50	0	0	0	0	50	1161
Sub Total	317	4983	0	5300	8776	0	3322	154	3476	8776	138	0	322	460	0	0	0	0	460	9236
U Turns				1	0				1	1				1				0	1	2
Total	317	4983	0	5301	8777	0	3322	154	3476	8777	138	0	322	461	0	0	0	0	461	9238

EQ 12Hr 441 6926 0 7368 0 4618 214 4832 12200 192 0 448 641 0 0 0 0 0 641 12841

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

1.39

AVG 12Hr 441 6926 0 7368 0 6049 280 4832 12200 192 0 448 641 0 0 0 0 0 641 12841

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

1.00

AVG 24Hr 578 9073 0 9652 0 7924 367 6330 15982 252 0 587 840 0 0 0 0 0 840 16822

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

BRONSON AVE @ PRIMROSE AVE

Survey Date: Wednesday, December 13, 2017

WO No: 37370

Start Time: 07:00

Device: Miovision

Full Study 15 Minute Increments

BRONSON AVE

PRIMROSE 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	11	137	0	148	0	89	5	94	242	1	0	5	6	0	0	0	0	6	248
07:15 07:30	15	148	0	163	0	85	5	90	253	0	0	8	8	0	0	0	0	8	261
07:30 07:45	15	184	0	199	0	89	4	93	292	1	0	8	9	0	0	0	0	9	301
07:45 08:00	13	224	0	237	0	86	7	93	330	2	0	6	8	0	0	0	0	8	338
08:00 08:15	6	197	0	203	0	83	1	84	287	2	0	5	7	0	0	0	0	7	294
08:15 08:30	5	216	0	221	0	66	3	69	290	5	0	3	8	0	0	0	0	8	298
08:30 08:45	7	232	0	239	0	108	3	111	350	8	0	4	12	0	0	0	0	12	362
08:45 09:00	12	241	0	253	0	79	1	80	333	3	0	4	7	0	0	0	0	7	340
09:00 09:15	12	214	0	226	0	109	4	113	339	3	0	5	8	0	0	0	0	8	347
09:15 09:30	11	190	0	201	0	77	4	81	282	4	0	3	7	0	0	0	0	7	289
09:30 09:45	6	172	0	178	0	79	2	81	259	1	0	3	4	0	0	0	0	4	263
09:45 10:00	13	178	0	191	0	67	9	76	267	3	0	8	11	0	0	0	0	11	278
11:30 11:45	8	115	0	123	0	85	1	86	209	3	0	5	8	0	0	0	0	8	217
11:45 12:00	12	143	0	155	0	95	4	99	254	4	0	11	15	0	0	0	0	15	269
12:00 12:15	11	123	0	134	0	94	2	96	230	1	0	12	13	0	0	0	0	13	243
12:15 12:30	7	125	0	132	0	73	4	77	209	3	0	15	18	0	0	0	0	18	227
12:30 12:45	12	134	0	146	0	76	3	79	225	2	0	5	7	0	0	0	0	7	232
12:45 13:00	11	125	0	136	0	60	5	65	201	3	0	8	11	0	0	0	0	11	212
13:00 13:15	8	106	0	115	0	82	4	86	201	2	0	13	15	0	0	0	0	15	216
13:15 13:30	7	121	0	128	0	78	3	81	209	4	0	6	10	0	0	0	0	10	219
15:00 15:15	16	141	0	157	0	142	7	149	306	8	0	19	28	0	0	0	0	28	334
15:15 15:30	19	147	0	166	0	145	5	150	316	11	0	9	20	0	0	0	0	20	336
15:30 15:45	3	160	0	163	0	142	7	149	312	13	0	25	38	0	0	0	0	38	350
15:45 16:00	17	175	0	192	0	123	7	130	322	10	0	21	31	0	0	0	0	31	353
16:00 16:15	8	140	0	148	0	138	7	145	293	8	0	19	27	0	0	0	0	27	320
16:15 16:30	11	139	0	150	0	137	6	143	293	5	0	20	25	0	0	0	0	25	318
16:30 16:45	9	117	0	126	0	147	5	152	278	7	0	16	23	0	0	0	0	23	301
16:45 17:00	6	118	0	124	0	149	11	160	284	7	0	20	27	0	0	0	0	27	311
17:00 17:15	3	142	0	145	0	155	5	160	305	2	0	6	8	0	0	0	0	8	313
17:15 17:30	10	127	0	137	0	136	10	146	283	3	0	10	13	0	0	0	0	13	296
17:30 17:45	7	118	0	125	0	140	6	146	271	4	0	10	14	0	0	0	0	14	285
17:45 18:00	6	134	0	140	0	108	4	112	252	5	0	10	15	0	0	0	0	15	267
Total:	317	4983	0	5301	0	3322	154	3476	8777	138	0	322	461	0	0	0	0	461	9,238

Note: U-Turns are included in Totals.



Transportation Services - Traffic Services

Turning Movement Count - Study Results

BRONSON AVE @ PRIMROSE AVE

Survey Date: Wednesday, December 13, 2017

WO No: 37370

Start Time: 07:00

Device: Miovision

Full Study Cyclist Volume

Time Period	BRONSON AVE			PRIMROSE AVE			Grand Total
	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	0	0	0	0
07:30 07:45	1	0	1	0	0	0	1
07:45 08:00	1	0	1	0	0	0	1
08:00 08:15	1	0	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	0	0	0	0	0	0
09:00 09:15	0	0	0	0	0	0	0
09:15 09:30	1	0	1	0	0	0	1
09:30 09:45	0	0	0	0	0	0	0
09:45 10:00	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
12:30 12:45	1	0	1	0	0	0	1
12:45 13:00	0	1	1	1	0	1	2
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	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	1	0	1	1	0	1	2
16:00 16:15	0	1	1	0	0	0	1
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	2	0	2	0	0	0	2
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	1	0	1	1
17:45 18:00	0	0	0	0	0	0	0
Total	8	3	11	3	0	3	14



Transportation Services - Traffic Services

Turning Movement Count - Study Results

BRONSON AVE @ PRIMROSE AVE

Survey Date: Wednesday, December 13, 2017

WO No: 37370

Start Time: 07:00

Device: Miovision

Full Study Pedestrian Volume

BRONSON AVE

PRIMROSE 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	1	7	8	5	0	5	13
07:15 07:30	4	3	7	7	0	7	14
07:30 07:45	3	7	10	3	0	3	13
07:45 08:00	5	6	11	4	0	4	15
08:00 08:15	10	5	15	8	0	8	23
08:15 08:30	4	15	19	9	0	9	28
08:30 08:45	10	16	26	11	0	11	37
08:45 09:00	7	14	21	14	0	14	35
09:00 09:15	12	3	15	10	0	10	25
09:15 09:30	3	6	9	7	0	7	16
09:30 09:45	2	8	10	6	0	6	16
09:45 10:00	4	8	12	6	0	6	18
11:30 11:45	6	11	17	7	0	7	24
11:45 12:00	5	8	13	10	0	10	23
12:00 12:15	2	10	12	5	0	5	17
12:15 12:30	5	6	11	3	0	3	14
12:30 12:45	4	10	14	6	0	6	20
12:45 13:00	6	10	16	10	0	10	26
13:00 13:15	5	3	8	6	0	6	14
13:15 13:30	0	4	4	1	0	1	5
15:00 15:15	12	9	21	11	0	11	32
15:15 15:30	6	14	20	6	0	6	26
15:30 15:45	7	6	13	8	0	8	21
15:45 16:00	3	8	11	8	0	8	19
16:00 16:15	6	4	10	11	0	11	21
16:15 16:30	9	11	20	8	0	8	28
16:30 16:45	5	6	11	10	0	10	21
16:45 17:00	4	7	11	10	0	10	21
17:00 17:15	5	3	8	9	0	9	17
17:15 17:30	9	2	11	14	0	14	25
17:30 17:45	7	8	15	8	0	8	23
17:45 18:00	10	1	11	2	0	2	13
Total	181	239	420	243	0	243	663



Transportation Services - Traffic Services

Turning Movement Count - Study Results

BRONSON AVE @ PRIMROSE AVE

Survey Date: Wednesday, December 13, 2017

WO No: 37370

Start Time: 07:00

Device: Miovision

Full Study Heavy Vehicles

BRONSON AVE

PRIMROSE AVE

Northbound

Southbound

Eastbound

Westbound

Time Period	Northbound				Southbound				Eastbound				Westbound				Grand Total		
	LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT		W TOT	STR TOT
07:00 07:15	0	2	0	15	0	12	0	15	30	1	0	1	2	0	0	0	0	2	16
07:15 07:30	0	8	0	14	0	6	0	14	28	0	0	0	0	0	0	0	0	0	14
07:30 07:45	0	11	0	22	0	10	0	21	43	0	0	1	1	0	0	0	0	1	22
07:45 08:00	1	4	0	18	0	13	1	18	36	0	0	0	2	0	0	0	0	2	19
08:00 08:15	0	5	0	21	0	14	0	19	40	0	0	2	2	0	0	0	0	2	21
08:15 08:30	0	5	0	7	0	2	0	7	14	0	0	0	0	0	0	0	0	0	7
08:30 08:45	0	11	0	20	0	9	0	21	41	1	0	0	1	0	0	0	0	1	21
08:45 09:00	0	14	0	22	0	8	0	23	45	1	0	0	1	0	0	0	0	1	23
09:00 09:15	0	6	0	14	0	8	0	14	28	0	0	0	0	0	0	0	0	0	14
09:15 09:30	1	6	0	13	0	6	0	12	25	0	0	0	1	0	0	0	0	1	13
09:30 09:45	0	12	0	20	0	8	0	20	40	0	0	0	0	0	0	0	0	0	20
09:45 10:00	0	10	0	14	0	4	0	14	28	0	0	0	0	0	0	0	0	0	14
11:30 11:45	1	8	0	13	0	3	0	11	24	0	0	1	2	0	0	0	0	2	13
11:45 12:00	1	7	0	18	0	10	0	18	36	1	0	0	2	0	0	0	0	2	19
12:00 12:15	0	8	0	14	0	5	0	13	27	0	0	1	1	0	0	0	0	1	14
12:15 12:30	0	6	0	13	0	7	0	13	26	0	0	0	0	0	0	0	0	0	13
12:30 12:45	2	14	0	20	0	4	0	18	38	0	0	0	2	0	0	0	0	2	20
12:45 13:00	0	3	0	9	0	6	0	9	18	0	0	0	0	0	0	0	0	0	9
13:00 13:15	2	14	0	22	0	5	0	19	41	0	0	1	3	0	0	0	0	3	22
13:15 13:30	0	7	0	13	0	6	0	14	27	1	0	0	1	0	0	0	0	1	14
15:00 15:15	0	6	0	8	0	2	0	8	16	0	0	0	2	0	0	0	0	2	9
15:15 15:30	0	3	0	9	0	6	0	10	19	1	0	0	1	0	0	0	0	1	10
15:30 15:45	0	7	0	11	0	3	0	10	21	0	0	1	1	0	0	0	0	1	11
15:45 16:00	0	6	0	10	0	4	0	10	20	0	0	0	0	0	0	0	0	0	10
16:00 16:15	0	4	0	6	0	1	0	5	11	0	0	1	1	0	0	0	0	1	6
16:15 16:30	0	4	0	7	0	3	0	7	14	0	0	0	0	0	0	0	0	0	7
16:30 16:45	0	2	0	4	0	2	0	4	8	0	0	0	0	0	0	0	0	0	4
16:45 17:00	1	5	0	12	0	5	0	10	22	0	0	1	2	0	0	0	0	2	12
17:00 17:15	0	2	0	5	0	2	0	5	10	1	0	1	2	0	0	0	0	2	6
17:15 17:30	0	6	0	9	0	3	0	9	18	0	0	0	0	0	0	0	0	0	9
17:30 17:45	0	1	0	2	0	1	0	2	4	0	0	0	0	0	0	0	0	0	2
17:45 18:00	0	2	0	5	0	2	0	4	9	0	0	1	1	0	0	0	0	1	5
Total: None	9	209	0	410	0	180	1	397	807	7	0	12	31	0	0	0	0	31	419



Transportation Services - Traffic Services

Turning Movement Count - Study Results

BRONSON AVE @ PRIMROSE AVE

Survey Date: Wednesday, December 13, 2017

WO No: 37370

Start Time: 07:00

Device: Miovision

Full Study 15 Minute U-Turn Total

BRONSON AVE

PRIMROSE 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	0	0	0	0	0
08:45	09:00	0	0	0	0	0
09:00	09:15	0	0	0	0	0
09:15	09:30	0	0	0	0	0
09:30	09:45	0	0	0	0	0
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	0	0	0	0	0
12:15	12:30	0	0	0	0	0
12:30	12:45	0	0	0	0	0
12:45	13:00	0	0	0	0	0
13:00	13:15	1	0	0	0	1
13:15	13:30	0	0	0	0	0
15:00	15:15	0	0	1	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
16:15	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	0	0	0	0	0
17:15	17:30	0	0	0	0	0
17:30	17:45	0	0	0	0	0
17:45	18:00	0	0	0	0	0
Total		1	0	1	0	2

Turning Movement Count - Study Results

BRONSON AVE @ SOMERSET ST

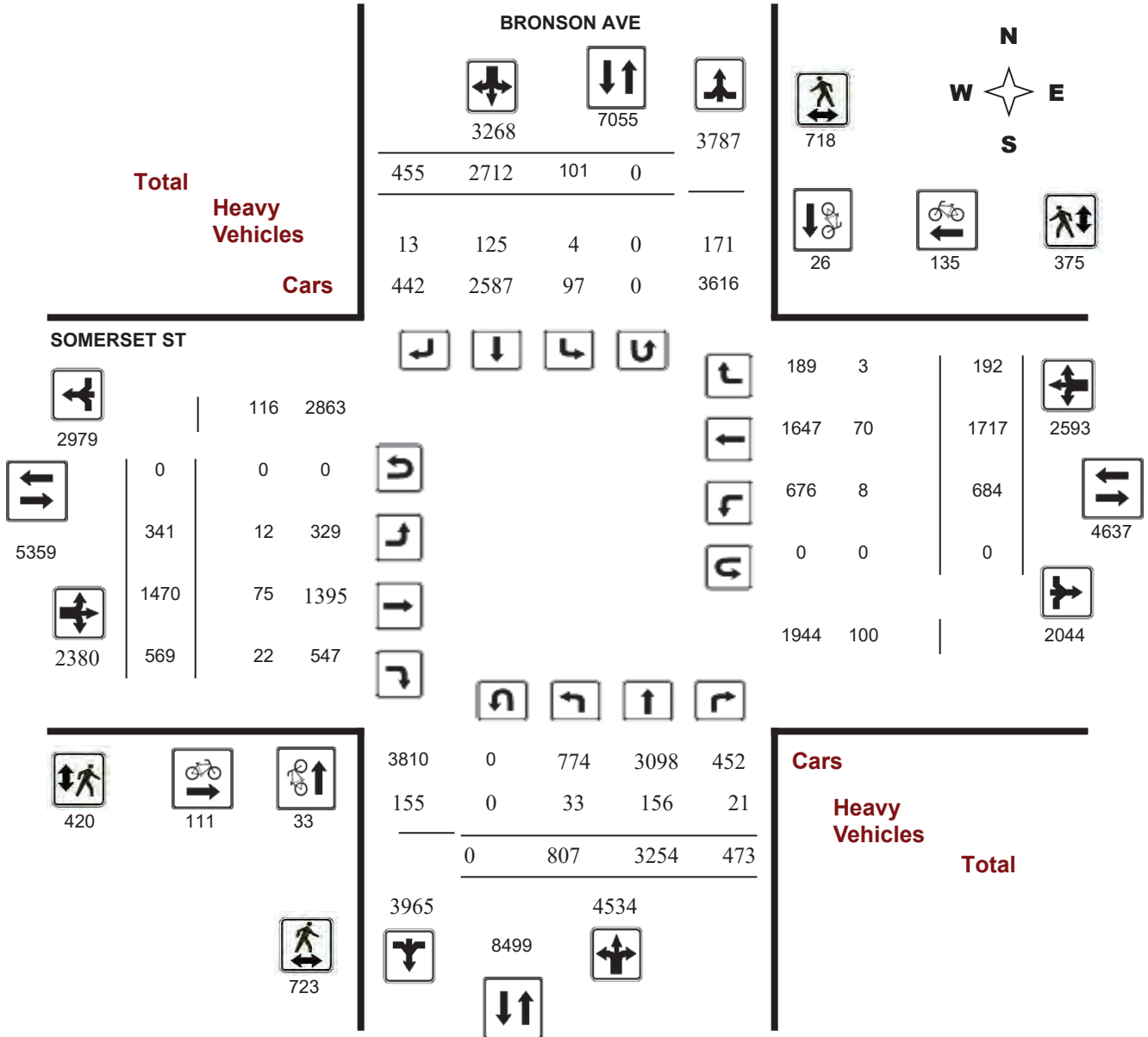
Survey Date: Wednesday, August 31, 2022

WO No: 40545

Start Time: 07:00

Device: Miovision

Full Study Diagram



Turning Movement Count - Study Results

BRONSON AVE @ SOMERSET ST

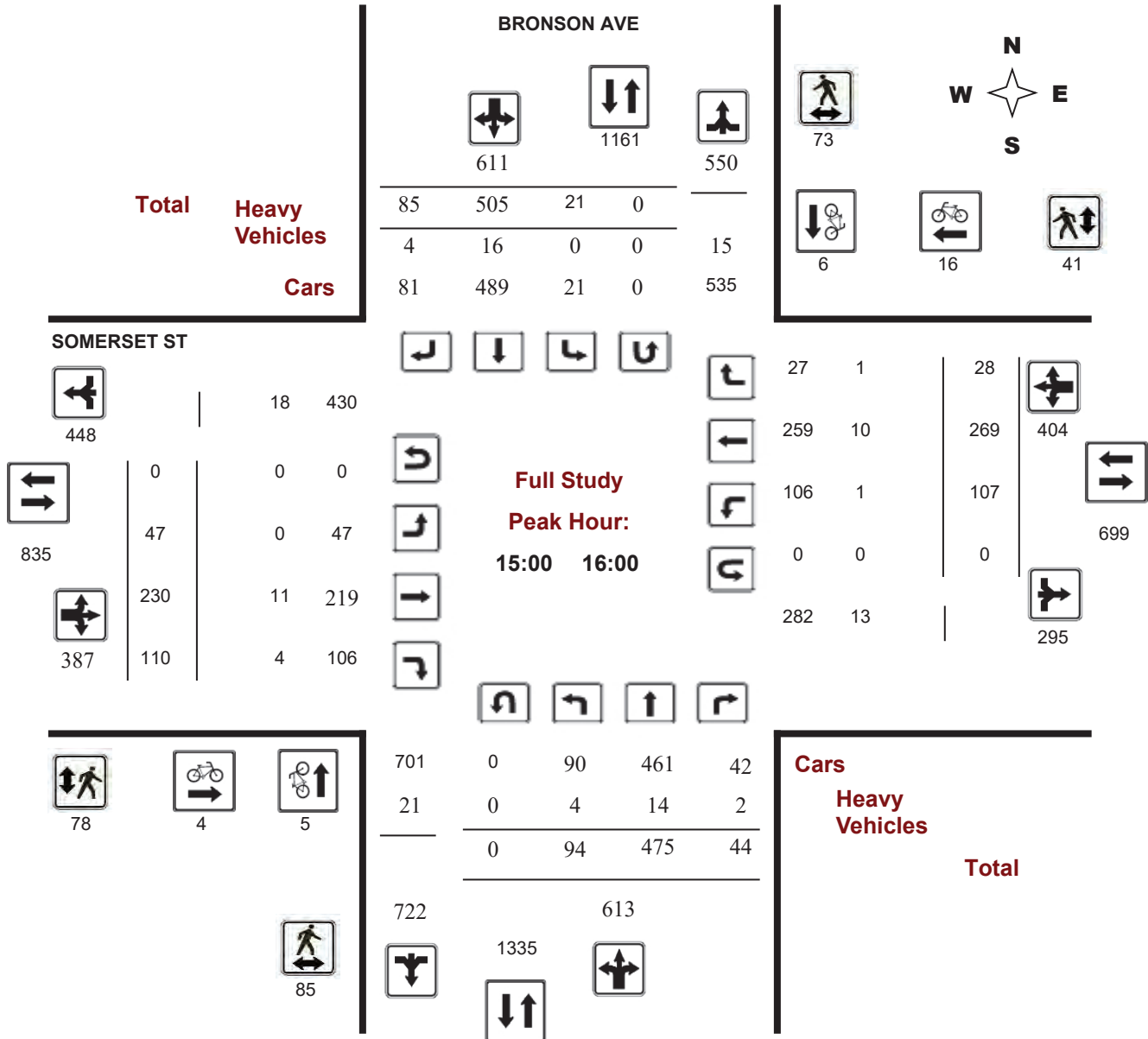
Survey Date: Wednesday, August 31, 2022

WO No: 40545

Start Time: 07:00

Device: Miovision

Full Study Peak Hour Diagram





Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

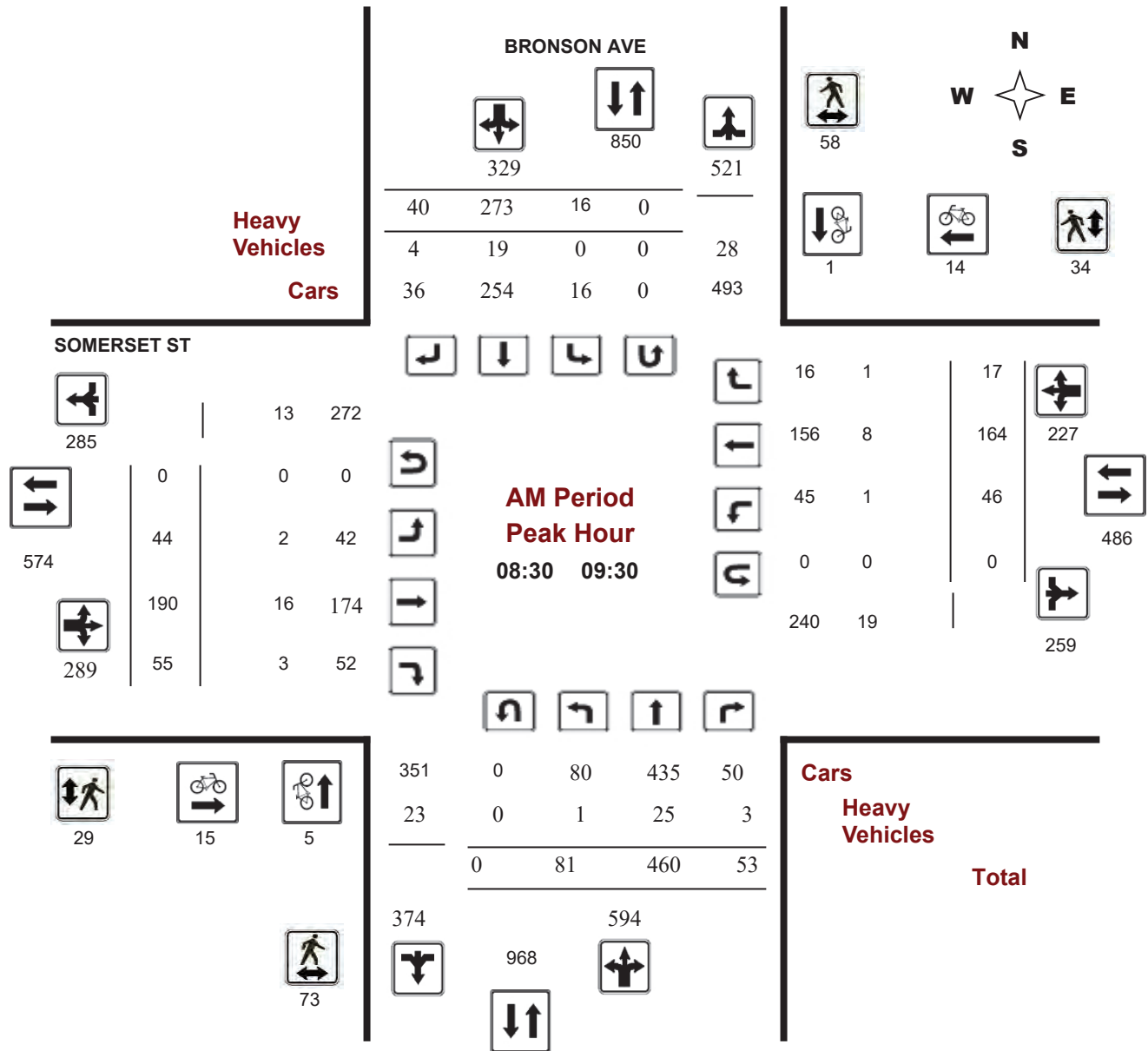
BRONSON AVE @ SOMERSET ST

Survey Date: Wednesday, August 31, 2022

Start Time: 07:00

WO No: 40545

Device: Miovision





Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

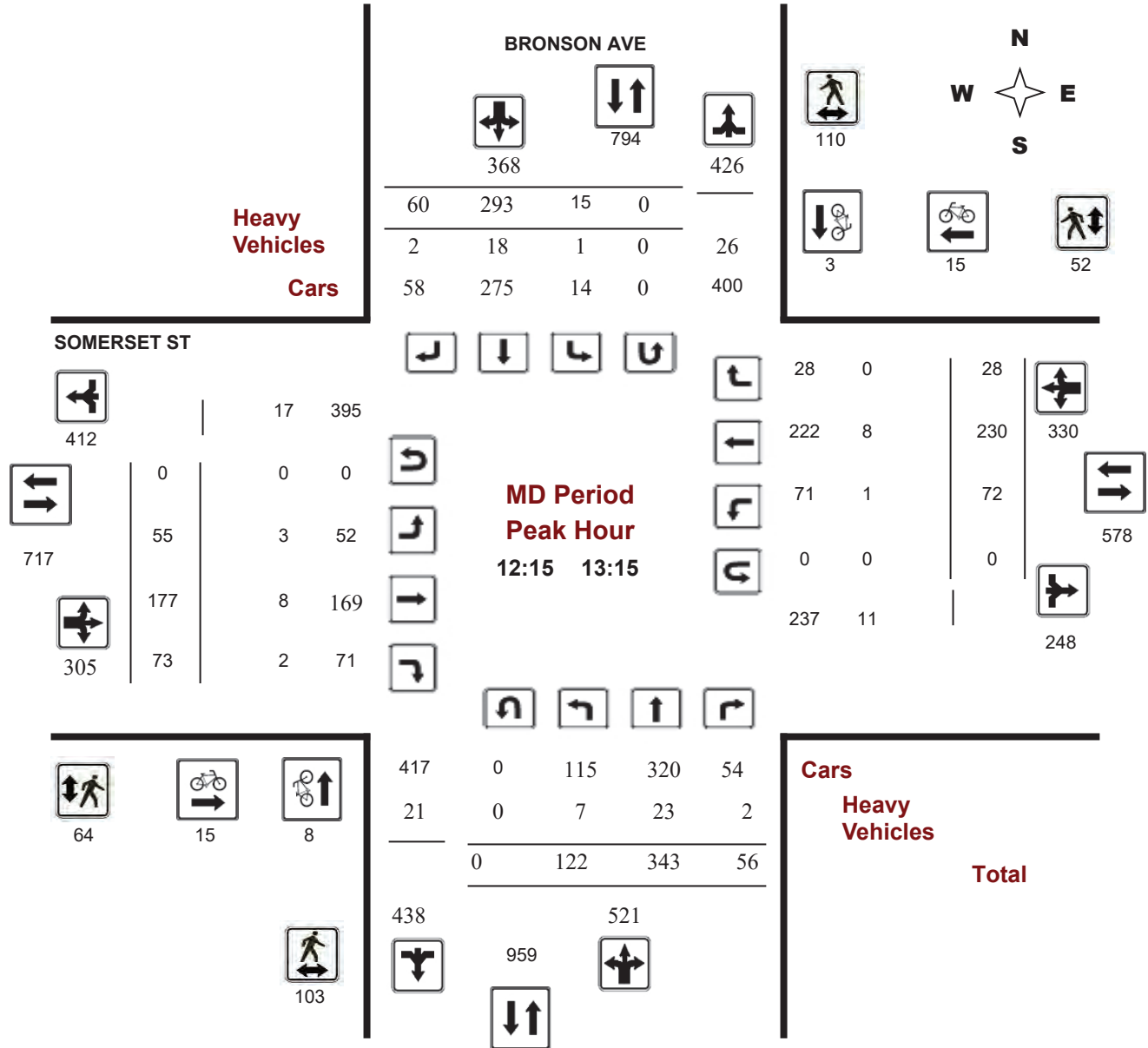
BRONSON AVE @ SOMERSET ST

Survey Date: Wednesday, August 31, 2022

Start Time: 07:00

WO No: 40545

Device: Miovision





Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

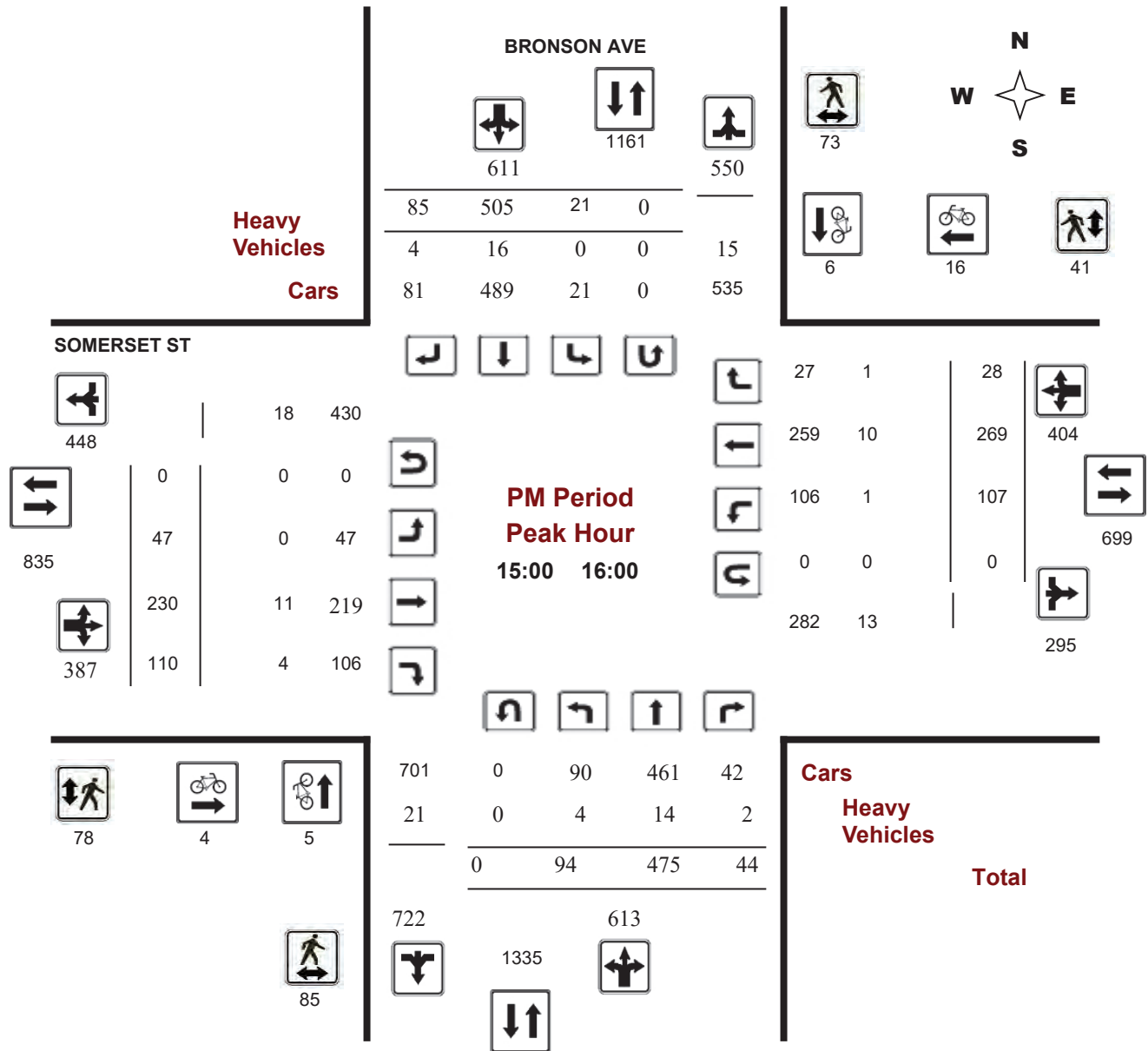
BRONSON AVE @ SOMERSET ST

Survey Date: Wednesday, August 31, 2022

Start Time: 07:00

WO No: 40545

Device: Miovision





Transportation Services - Traffic Services

Turning Movement Count - Study Results

BRONSON AVE @ SOMERSET ST

Survey Date: Wednesday, August 31, 2022

WO No: 40545

Start Time: 07:00

Device: Miovision

Full Study Summary (8 HR Standard)

Survey Date: Wednesday, August 31, 2022

Total Observed U-Turns

AADT Factor

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

.90

BRONSON AVE

SOMERSET ST

Period	Northbound					Southbound					Eastbound					Westbound					Grand Total	
	LT	ST	RT	NB TOT	STR TOT	LT	ST	RT	SB TOT	STR TOT	LT	ST	RT	EB TOT	STR TOT	LT	ST	RT	WB TOT	STR TOT		
07:00 08:00	74	368	58	500	790	7	252	31	290	790	19	112	38	169	346	58	112	7	177	346	1136	
08:00 09:00	77	489	58	624	947	16	265	42	323	947	47	167	46	260	477	59	139	19	217	477	1424	
09:00 10:00	88	355	67	510	784	9	234	31	274	784	34	186	57	277	518	65	158	18	241	518	1302	
11:30 12:30	129	318	66	513	848	10	254	71	335	848	53	163	78	294	669	89	266	20	375	669	1517	
12:30 13:30	118	326	57	501	856	14	292	49	355	856	50	180	77	307	610	63	215	25	303	610	1466	
15:00 16:00	94	475	44	613	1224	21	505	85	611	1224	47	230	110	387	791	107	269	28	404	791	2015	
16:00 17:00	129	463	59	651	1187	13	471	52	536	1187	38	217	79	334	792	120	302	36	458	792	1979	
17:00 18:00	98	460	64	622	1166	11	439	94	544	1166	53	215	84	352	770	123	256	39	418	770	1936	
Sub Total	807	3254	473	4534	7802	101	2712	455	3268	7802	341	1470	569	2380	4973	684	1717	192	2593	4973	12775	
U Turns	0				0		0		0		0		0		0		0		0		0	
Total	807	3254	473	4534	7802	101	2712	455	3268	7802	341	1470	569	2380	4973	684	1717	192	2593	4973	12775	
EQ 12Hr	1122	4523	657	6302	10845	140	3770	632	4543	10845	474	2043	791	3308	6912	951	2387	267	3604	6912	17757	

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

1.39

AVG 12Hr	1010	4071	591	5672	9760	126	4444	746	4089	9760	427	1839	712	2977	6221	856	2148	240	3244	6221	15981
-----------------	------	------	-----	------	------	-----	------	-----	------	------	-----	------	-----	------	------	-----	------	-----	------	------	-------

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

.90

AVG 24Hr	1323	5333	774	7430	12786	165	5822	977	5357	12786	559	2409	933	3900	8150	1121	2814	314	4250	8150	20935
-----------------	------	------	-----	------	-------	-----	------	-----	------	-------	-----	------	-----	------	------	------	------	-----	------	------	-------

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

BRONSON AVE @ SOMERSET ST

Survey Date: Wednesday, August 31, 2022

WO No: 40545

Start Time: 07:00

Device: Miovision

Full Study 15 Minute Increments

BRONSON AVE

SOMERSET ST

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	20	92	16	128	0	59	4	63	191	4	26	9	39	16	19	1	36	75	266
07:15	07:30	19	91	9	119	3	56	9	68	187	6	22	10	38	18	23	2	43	81	268
07:30	07:45	14	81	16	111	1	78	8	87	198	2	24	12	38	11	30	2	43	81	279
07:45	08:00	21	104	17	142	3	59	10	72	214	7	40	7	54	13	40	2	55	109	323
08:00	08:15	23	121	11	155	0	61	9	70	225	8	34	9	51	15	26	4	45	96	321
08:15	08:30	14	110	16	140	3	54	13	70	210	10	44	14	68	20	40	3	63	131	341
08:30	08:45	16	124	15	155	7	85	13	105	260	13	48	13	74	12	29	5	46	120	380
08:45	09:00	24	134	16	174	6	65	7	78	252	16	41	10	67	12	44	7	63	130	382
09:00	09:15	22	97	5	124	1	65	8	74	198	4	48	16	68	13	43	2	58	126	324
09:15	09:30	19	105	17	141	2	58	12	72	213	11	53	16	80	9	48	3	60	140	353
09:30	09:45	23	77	19	119	3	62	5	70	189	8	43	13	64	24	33	10	67	131	320
09:45	10:00	24	76	26	126	3	49	6	58	184	11	42	12	65	19	34	3	56	121	305
11:30	11:45	46	73	19	138	3	47	17	67	205	12	36	18	66	28	77	3	108	174	379
11:45	12:00	25	96	14	135	4	86	24	114	249	15	38	22	75	18	70	6	94	169	418
12:00	12:15	26	72	17	115	0	65	13	78	193	8	40	18	66	22	62	5	89	155	348
12:15	12:30	32	77	16	125	3	56	17	76	201	18	49	20	87	21	57	6	84	171	372
12:30	12:45	20	86	14	120	2	83	15	100	220	15	46	23	84	16	55	5	76	160	380
12:45	13:00	37	88	18	143	5	75	11	91	234	14	47	18	79	20	59	9	88	167	401
13:00	13:15	33	92	8	133	5	79	17	101	234	8	35	12	55	15	59	8	82	137	371
13:15	13:30	28	60	17	105	2	55	6	63	168	13	52	24	89	12	42	3	57	146	314
15:00	15:15	23	135	12	170	6	108	26	140	310	16	53	25	94	31	69	4	104	198	508
15:15	15:30	28	121	12	161	4	129	27	160	321	12	59	25	96	22	60	14	96	192	513
15:30	15:45	18	101	7	126	8	146	15	169	295	11	60	32	103	23	66	4	93	196	491
15:45	16:00	25	118	13	156	3	122	17	142	298	8	58	28	94	31	74	6	111	205	503
16:00	16:15	27	116	21	164	6	135	7	148	312	6	42	25	73	26	65	12	103	176	488
16:15	16:30	34	105	11	150	1	118	16	135	285	12	52	24	88	37	71	6	114	202	487
16:30	16:45	34	103	16	153	4	123	16	143	296	10	59	12	81	31	93	9	133	214	510
16:45	17:00	34	139	11	184	2	95	13	110	294	10	64	18	92	26	73	9	108	200	494
17:00	17:15	20	132	10	162	0	118	24	142	304	15	55	21	91	45	58	11	114	205	509
17:15	17:30	22	98	19	139	6	113	33	152	291	11	56	26	93	32	65	9	106	199	490
17:30	17:45	24	123	21	168	3	108	17	128	296	19	55	22	96	23	63	7	93	189	485
17:45	18:00	32	107	14	153	2	100	20	122	275	8	49	15	72	23	70	12	105	177	452
Total:		807	3254	473	4534	101	2712	455	3268	7802	341	1470	569	2380	684	1717	192	2593	4973	12,775

Note: U-Turns are included in Totals.



Transportation Services - Traffic Services

Turning Movement Count - Study Results

BRONSON AVE @ SOMERSET ST

Survey Date: Wednesday, August 31, 2022

WO No: 40545

Start Time: 07:00

Device: Miovision

Full Study Cyclist Volume

Time Period	BRONSON AVE			SOMERSET ST			Grand Total
	Northbound	Southbound	Street Total	Eastbound	Westbound	Street Total	
07:00 07:15	1	2	3	7	3	10	13
07:15 07:30	1	2	3	0	2	2	5
07:30 07:45	0	0	0	2	0	2	2
07:45 08:00	0	0	0	1	6	7	7
08:00 08:15	2	2	4	1	1	2	6
08:15 08:30	0	1	1	9	1	10	11
08:30 08:45	3	0	3	6	2	8	11
08:45 09:00	1	1	2	3	6	9	11
09:00 09:15	0	0	0	2	3	5	5
09:15 09:30	1	0	1	4	3	7	8
09:30 09:45	1	1	2	5	4	9	11
09:45 10:00	1	0	1	3	4	7	8
11:30 11:45	1	1	2	5	3	8	10
11:45 12:00	1	1	2	3	4	7	9
12:00 12:15	1	2	3	1	7	8	11
12:15 12:30	1	0	1	3	3	6	7
12:30 12:45	5	2	7	6	5	11	18
12:45 13:00	0	1	1	5	1	6	7
13:00 13:15	2	0	2	1	6	7	9
13:15 13:30	0	0	0	7	6	13	13
15:00 15:15	1	0	1	0	3	3	4
15:15 15:30	1	2	3	2	7	9	12
15:30 15:45	0	1	1	0	2	2	3
15:45 16:00	3	3	6	2	4	6	12
16:00 16:15	2	1	3	7	4	11	14
16:15 16:30	0	0	0	3	8	11	11
16:30 16:45	1	0	1	4	3	7	8
16:45 17:00	2	1	3	4	7	11	14
17:00 17:15	0	2	2	3	8	11	13
17:15 17:30	0	0	0	4	6	10	10
17:30 17:45	1	0	1	6	8	14	15
17:45 18:00	0	0	0	2	5	7	7
Total	33	26	59	111	135	246	305



Transportation Services - Traffic Services

Turning Movement Count - Study Results

BRONSON AVE @ SOMERSET ST

Survey Date: Wednesday, August 31, 2022

WO No: 40545

Start Time: 07:00

Device: Miovision

Full Study Pedestrian Volume

BRONSON AVE

SOMERSET ST

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	7	5	12	7	2	9	21
07:15 07:30	8	6	14	5	6	11	25
07:30 07:45	16	8	24	17	3	20	44
07:45 08:00	14	14	28	7	7	14	42
08:00 08:15	5	14	19	8	4	12	31
08:15 08:30	15	11	26	6	7	13	39
08:30 08:45	17	13	30	10	13	23	53
08:45 09:00	17	17	34	2	5	7	41
09:00 09:15	15	10	25	10	8	18	43
09:15 09:30	24	18	42	7	8	15	57
09:30 09:45	27	10	37	5	11	16	53
09:45 10:00	21	17	38	15	6	21	59
11:30 11:45	22	35	57	21	17	38	95
11:45 12:00	37	26	63	17	10	27	90
12:00 12:15	25	35	60	6	11	17	77
12:15 12:30	22	26	48	19	18	37	85
12:30 12:45	32	26	58	13	12	25	83
12:45 13:00	21	34	55	16	9	25	80
13:00 13:15	28	24	52	16	13	29	81
13:15 13:30	40	24	64	13	11	24	88
15:00 15:15	13	10	23	15	5	20	43
15:15 15:30	18	15	33	6	7	13	46
15:30 15:45	15	18	33	21	7	28	61
15:45 16:00	39	30	69	36	22	58	127
16:00 16:15	20	28	48	15	14	29	77
16:15 16:30	35	41	76	10	20	30	106
16:30 16:45	31	29	60	12	22	34	94
16:45 17:00	18	43	61	12	12	24	85
17:00 17:15	24	36	60	9	26	35	95
17:15 17:30	42	28	70	19	31	50	120
17:30 17:45	35	43	78	28	19	47	125
17:45 18:00	20	24	44	17	9	26	70
Total	723	718	1441	420	375	795	2236



Transportation Services - Traffic Services

Turning Movement Count - Study Results

BRONSON AVE @ SOMERSET ST

Survey Date: Wednesday, August 31, 2022

WO No: 40545

Start Time: 07:00

Device: Miovision

Full Study Heavy Vehicles

BRONSON AVE

SOMERSET ST

Northbound

Southbound

Eastbound

Westbound

Time Period	Northbound				Southbound				Eastbound				Westbound				Grand Total		
	LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT		W TOT	STR TOT
07:00 07:15	3	5	1	11	0	2	0	7	18	0	2	0	8	0	3	0	6	14	16
07:15 07:30	2	4	0	10	1	2	1	8	18	0	2	1	6	1	0	0	4	10	14
07:30 07:45	2	7	2	14	0	2	0	9	23	0	1	1	5	0	1	0	4	9	16
07:45 08:00	1	8	2	14	0	2	0	11	25	1	1	0	5	1	2	0	6	11	18
08:00 08:15	0	5	0	10	0	3	0	8	18	0	4	2	8	0	2	0	6	14	16
08:15 08:30	0	4	2	10	0	4	0	10	20	2	4	0	8	0	2	0	8	16	18
08:30 08:45	0	4	0	9	0	5	0	9	18	0	9	0	10	0	1	0	10	20	19
08:45 09:00	0	10	2	19	0	5	0	18	37	2	5	2	10	0	1	1	9	19	28
09:00 09:15	1	5	0	14	0	6	3	14	28	0	0	1	8	1	3	0	4	12	20
09:15 09:30	0	6	1	10	0	3	1	10	20	0	2	0	6	0	3	0	6	12	16
09:30 09:45	2	3	1	15	0	6	0	10	25	1	4	0	12	3	5	0	13	25	25
09:45 10:00	0	8	2	14	1	4	0	13	27	0	2	0	4	0	2	0	7	11	19
11:30 11:45	3	2	1	13	1	6	0	10	23	1	3	1	12	0	4	0	9	21	22
11:45 12:00	1	11	0	21	0	6	1	19	40	0	0	3	9	0	4	1	5	14	27
12:00 12:15	3	5	0	12	0	4	0	9	21	0	2	0	9	0	4	0	6	15	18
12:15 12:30	1	5	0	7	1	1	1	8	15	0	3	0	8	0	3	0	7	15	15
12:30 12:45	2	8	1	18	0	6	0	15	33	1	3	1	7	0	0	0	4	11	22
12:45 13:00	3	6	0	15	0	4	0	12	27	2	2	1	10	1	2	0	5	15	21
13:00 13:15	1	4	1	13	0	7	1	12	25	0	0	0	5	0	3	0	4	9	17
13:15 13:30	2	6	2	14	0	3	0	9	23	0	5	1	10	0	2	0	9	19	21
15:00 15:15	2	2	0	12	0	6	3	11	23	0	1	2	10	0	2	0	3	13	18
15:15 15:30	1	4	0	10	0	4	0	8	18	0	3	1	7	0	2	0	5	12	15
15:30 15:45	1	3	0	9	0	3	0	7	16	0	3	1	6	1	1	1	6	12	14
15:45 16:00	0	5	2	10	0	3	1	9	19	0	4	0	10	0	5	0	11	21	20
16:00 16:15	0	1	1	7	0	4	0	5	12	0	0	1	2	0	1	0	2	4	8
16:15 16:30	0	4	0	8	0	3	0	7	15	0	2	1	3	0	0	0	2	5	10
16:30 16:45	0	5	0	10	0	5	0	10	20	0	1	0	3	0	2	0	3	6	13
16:45 17:00	2	2	0	10	0	4	0	6	16	0	2	2	7	0	1	0	3	10	13
17:00 17:15	0	6	0	8	0	2	0	9	17	1	0	0	6	0	5	0	5	11	14
17:15 17:30	0	1	0	3	0	2	1	5	8	1	2	0	4	0	0	0	2	6	7
17:30 17:45	0	6	0	11	0	5	0	11	22	0	2	0	4	0	2	0	4	8	15
17:45 18:00	0	1	0	4	0	3	0	4	8	0	1	0	3	0	2	0	3	6	7
Total: None	33	156	21	365	4	125	13	313	678	12	75	22	225	8	70	3	181	406	542



Transportation Services - Traffic Services

Turning Movement Count - Study Results

BRONSON AVE @ SOMERSET ST

Survey Date: Wednesday, August 31, 2022

WO No: 40545

Start Time: 07:00

Device: Miovision

Full Study 15 Minute U-Turn Total

BRONSON AVE

SOMERSET ST

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	0	0	0	0	0
08:45	09:00	0	0	0	0	0
09:00	09:15	0	0	0	0	0
09:15	09:30	0	0	0	0	0
09:30	09:45	0	0	0	0	0
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	0	0	0	0	0
12:15	12:30	0	0	0	0	0
12:30	12:45	0	0	0	0	0
12:45	13:00	0	0	0	0	0
13:00	13:15	0	0	0	0	0
13:15	13:30	0	0	0	0	0
15:00	15:15	0	0	0	0	0
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
16:15	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	0	0	0	0	0
17:15	17:30	0	0	0	0	0
17:30	17:45	0	0	0	0	0
17:45	18:00	0	0	0	0	0
Total		0	0	0	0	0



Transportation Services - Traffic Services

Turning Movement Count - Study Results

ROCHESTER ST @ SOMERSET ST

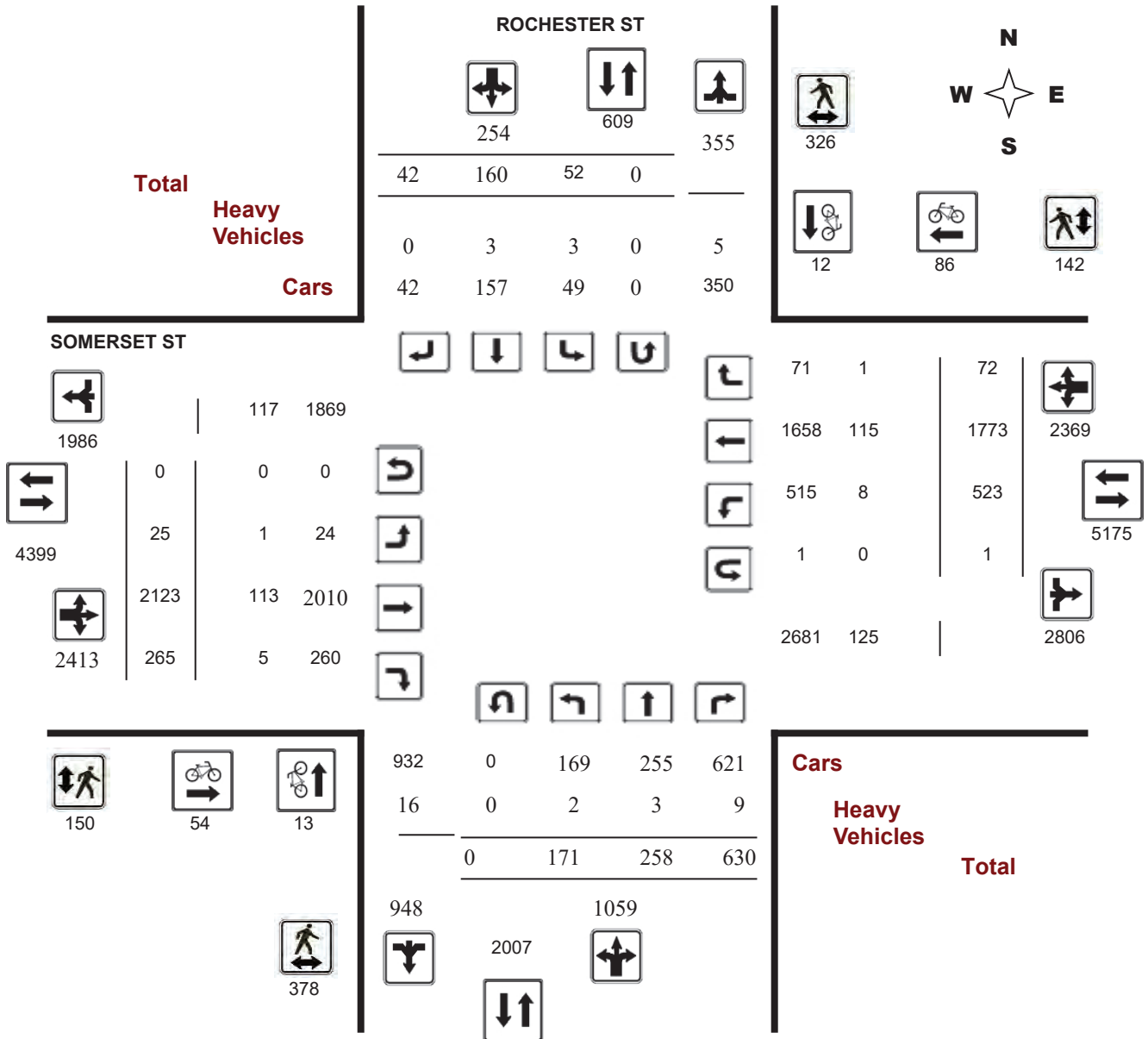
Survey Date: Tuesday, August 23, 2022

WO No: 40516

Start Time: 07:00

Device: Miovision

Full Study Diagram





Transportation Services - Traffic Services

Turning Movement Count - Study Results

ROCHESTER ST @ SOMERSET ST

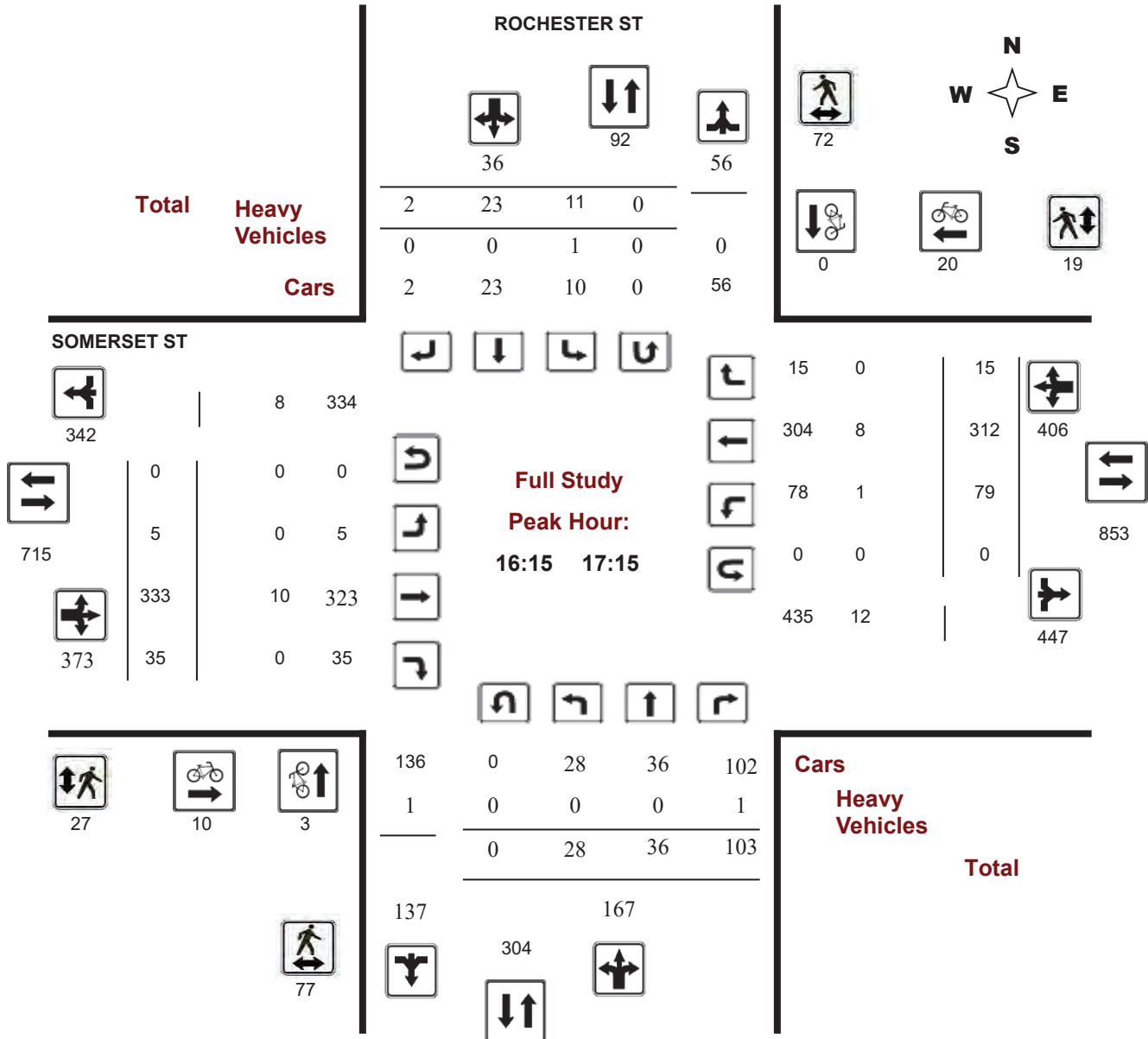
Survey Date: Tuesday, August 23, 2022

WO No: 40516

Start Time: 07:00

Device: Miovision

Full Study Peak Hour Diagram



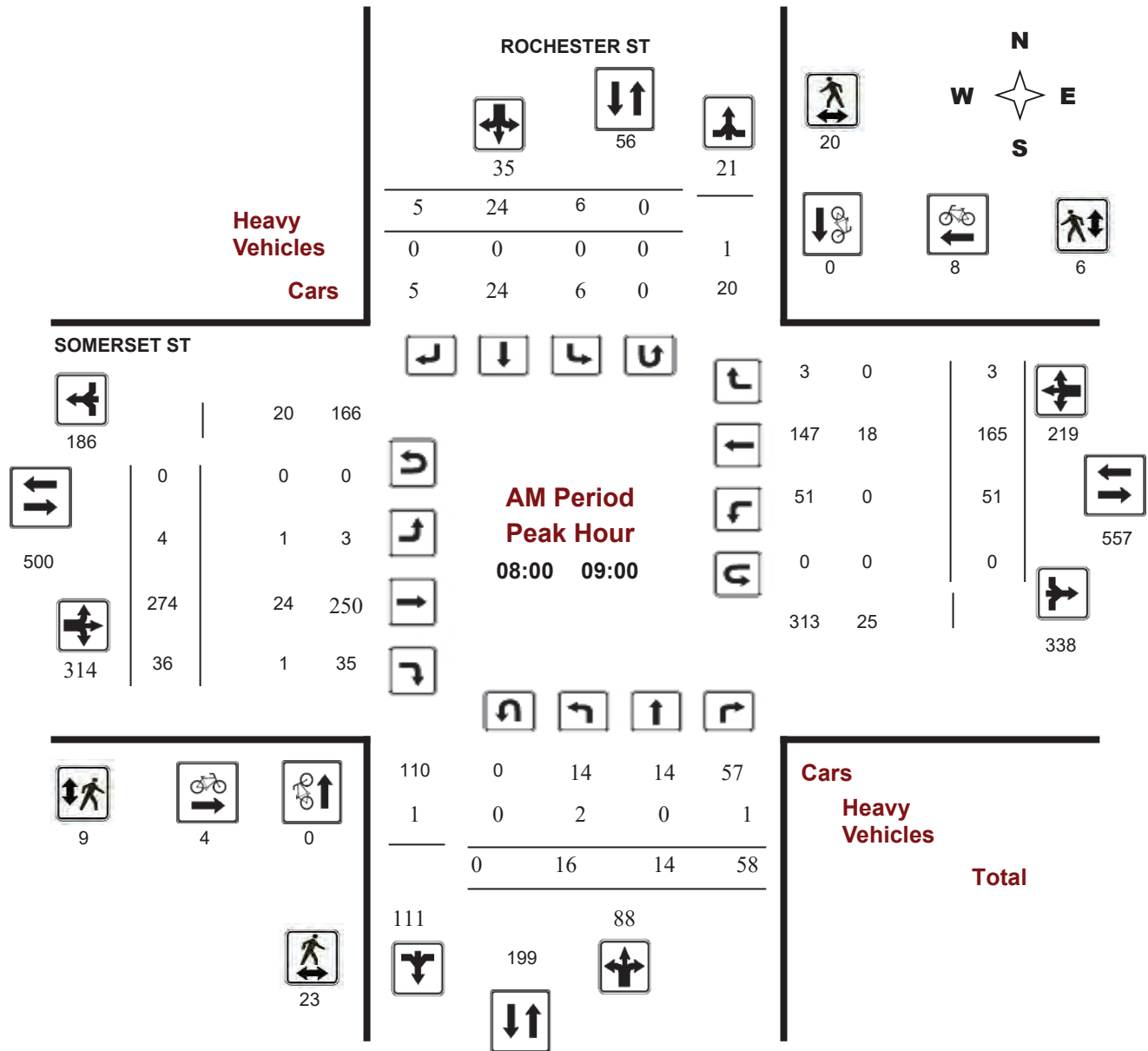


Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram ROCHESTER ST @ SOMERSET ST

Survey Date: Tuesday, August 23, 2022
Start Time: 07:00

WO No: 40516
Device: Miovision





Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

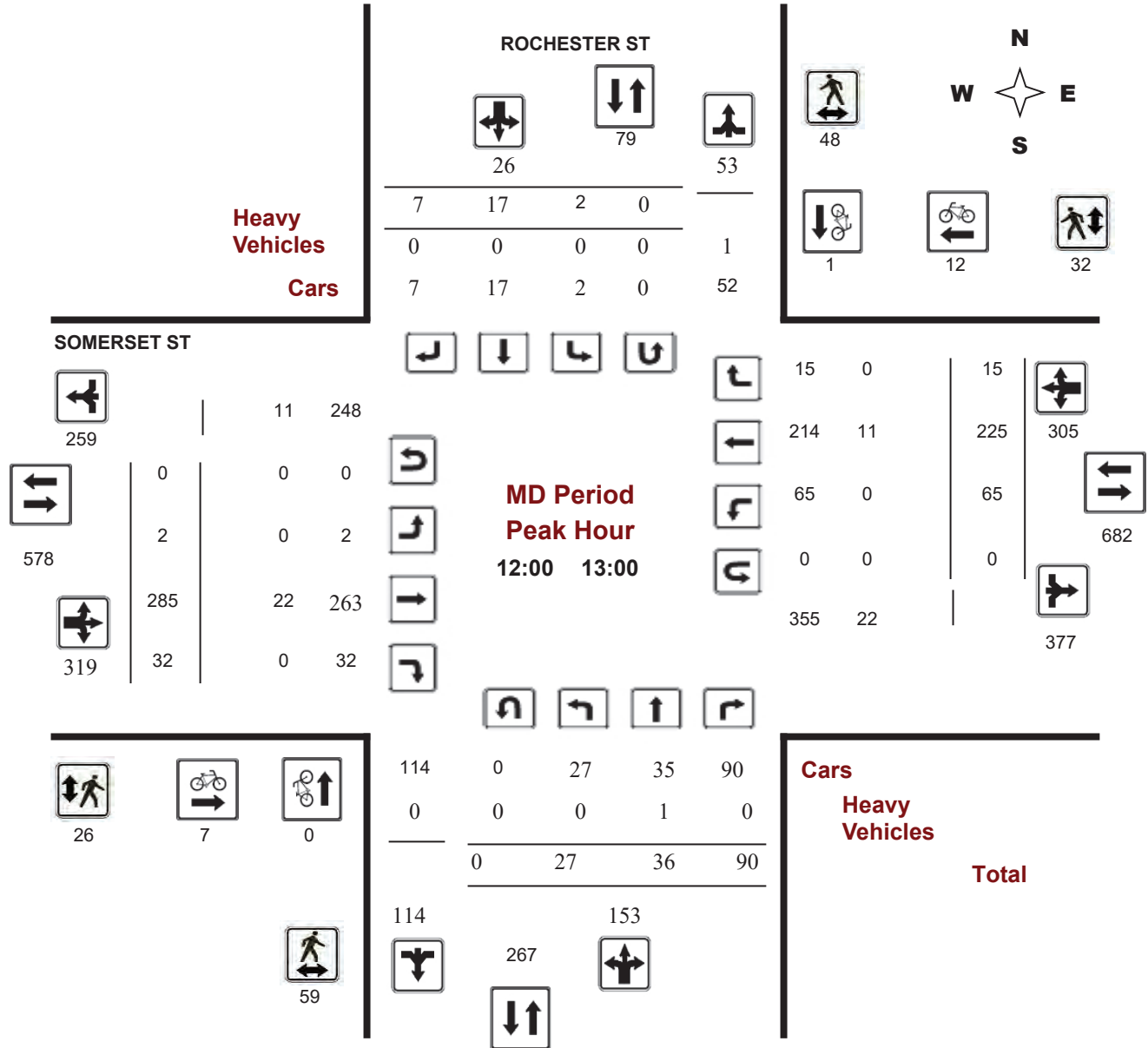
ROCHESTER ST @ SOMERSET ST

Survey Date: Tuesday, August 23, 2022

Start Time: 07:00

WO No: 40516

Device: Miovision





Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

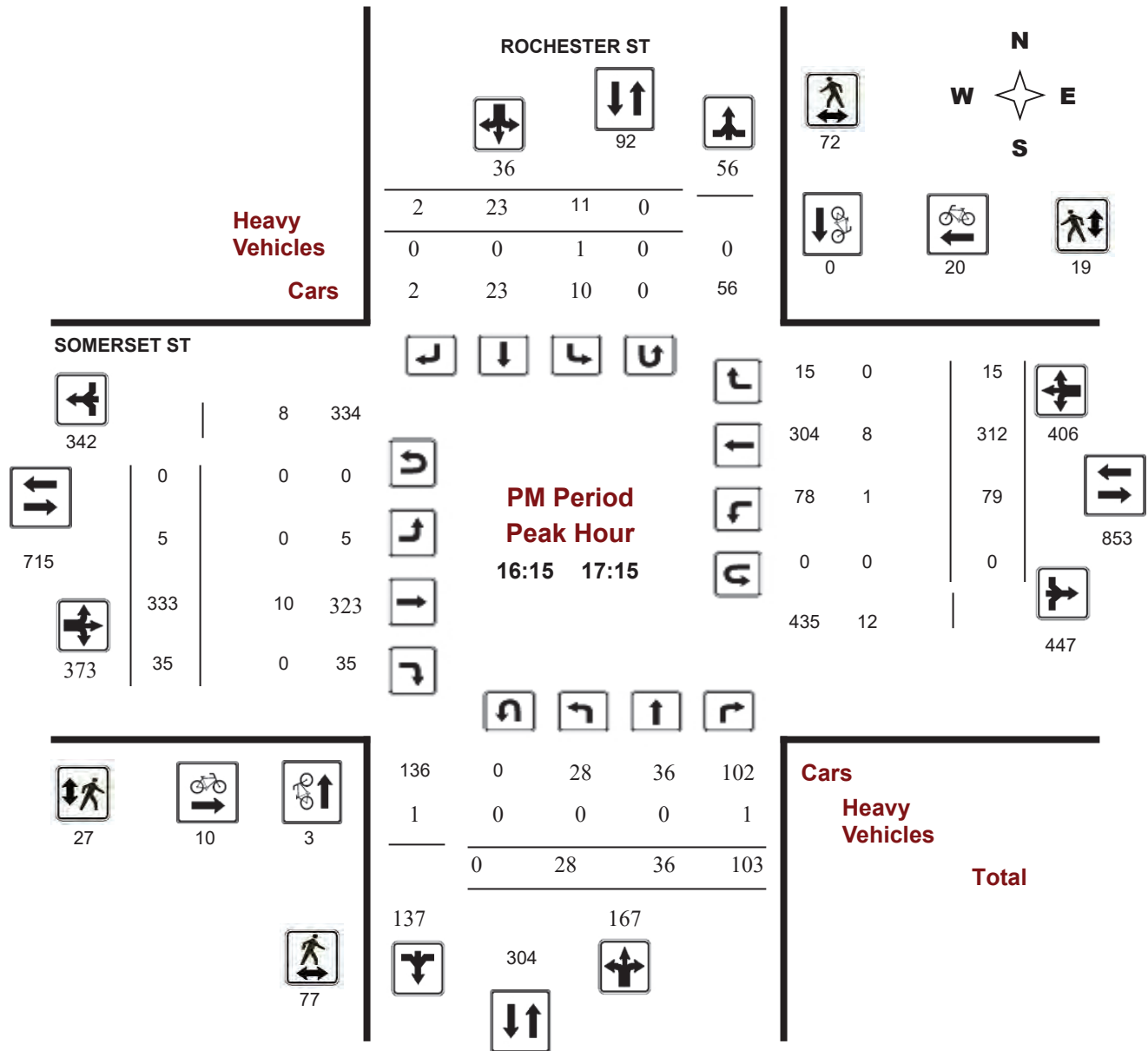
ROCHESTER ST @ SOMERSET ST

Survey Date: Tuesday, August 23, 2022

Start Time: 07:00

WO No: 40516

Device: Miovision



Comments



Transportation Services - Traffic Services

Turning Movement Count - Study Results

ROCHESTER ST @ SOMERSET ST

Survey Date: Tuesday, August 23, 2022

WO No: 40516

Start Time: 07:00

Device: Miovision

Full Study Summary (8 HR Standard)

Survey Date: Tuesday, August 23, 2022

Total Observed U-Turns

AADT Factor

Northbound: 0 Southbound: 0

.90

Eastbound: 0 Westbound: 1

ROCHESTER ST

SOMERSET ST

Period	Northbound					Southbound					Eastbound					Westbound					Grand Total	
	LT	ST	RT	NB TOT	STR TOT	LT	ST	RT	SB TOT	STR TOT	LT	ST	RT	EB TOT	STR TOT	LT	ST	RT	WB TOT	STR TOT		
07:00 08:00	10	18	73	101	120	5	12	2	19	120	2	153	18	173	358	45	135	5	185	358	478	
08:00 09:00	16	14	58	88	123	6	24	5	35	123	4	274	36	314	533	51	165	3	219	533	656	
09:00 10:00	19	29	65	113	140	8	16	3	27	140	6	226	29	261	496	50	177	8	235	496	636	
11:30 12:30	27	43	95	165	189	5	9	10	24	189	2	259	46	307	788	58	225	9	292	599	788	
12:30 13:30	20	26	61	107	137	5	19	6	30	137	1	281	31	313	761	55	241	15	311	624	761	
15:00 16:00	26	48	83	157	201	8	29	7	44	201	2	333	40	375	964	116	267	5	388	763	964	
16:00 17:00	29	46	89	164	201	8	25	4	37	201	4	315	29	348	962	84	316	13	413	761	962	
17:00 18:00	24	34	106	164	202	7	26	5	38	202	4	282	36	322	849	64	247	14	325	647	849	
Sub Total	171	258	630	1059	1313	52	160	42	254	1313	25	2123	265	2413	4781	523	1773	72	2368	4781	6094	
U Turns	0				0				0				1				1		1		1	
Total	171	258	630	1059	1313	52	160	42	254	1313	25	2123	265	2413	4782	523	1773	72	2369	4782	6095	

EQ 12Hr 238 359 876 1472 72 222 58 353 1825 35 2951 368 3354 727 2464 100 3293 6647 8472

Note: These values are calculated by multiplying the totals by the appropriate expansion factor. **1.39**

AVG 12Hr 214 323 788 1325 65 262 69 318 1642 32 2656 331 3019 654 2218 90 2964 5982 7625

Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor. **.90**

AVG 24Hr 280 423 1032 1736 85 343 90 417 2151 42 3479 434 3955 857 2906 118 3883 7836 9989

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

ROCHESTER ST @ SOMERSET ST

Survey Date: Tuesday, August 23, 2022

WO No: 40516

Start Time: 07:00

Device: Miovision

Full Study 15 Minute Increments

ROCHESTER ST

SOMERSET ST

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	2	2	26	30	0	3	1	4	34	2	26	3	31	7	30	1	38	69	103
07:15 07:30	2	3	15	20	0	3	1	4	24	0	47	5	52	9	27	3	39	91	115
07:30 07:45	3	4	22	29	3	2	0	5	34	0	40	3	43	16	28	1	45	88	122
07:45 08:00	3	9	10	22	2	4	0	6	28	0	40	7	47	13	50	0	63	110	138
08:00 08:15	2	3	19	24	1	8	1	10	34	2	66	10	78	16	35	0	51	129	163
08:15 08:30	4	0	12	16	1	6	1	8	24	0	83	9	92	9	38	1	48	140	164
08:30 08:45	6	8	10	24	1	6	1	8	32	0	65	11	76	13	48	1	62	138	170
08:45 09:00	4	3	17	24	3	4	2	9	33	2	60	6	68	13	44	1	58	126	159
09:00 09:15	7	8	11	26	0	2	0	2	28	1	63	5	69	11	40	4	55	124	152
09:15 09:30	2	6	16	24	1	2	0	3	27	1	54	6	61	15	41	3	59	120	147
09:30 09:45	7	8	20	35	4	5	1	10	45	2	51	13	66	14	42	0	56	122	167
09:45 10:00	3	7	18	28	3	7	2	12	40	2	58	5	65	10	54	1	65	130	170
11:30 11:45	5	6	23	34	2	3	2	7	41	0	61	14	75	12	60	1	73	148	189
11:45 12:00	7	17	16	40	2	2	4	8	48	1	58	13	72	11	53	1	65	137	185
12:00 12:15	9	12	29	50	0	1	4	5	55	1	66	9	76	15	56	4	75	151	206
12:15 12:30	6	8	27	41	1	3	0	4	45	0	74	10	84	20	56	3	79	163	208
12:30 12:45	5	11	18	34	1	8	2	11	45	0	67	6	73	14	48	3	65	138	183
12:45 13:00	7	5	16	28	0	5	1	6	34	1	78	7	86	16	65	5	86	172	206
13:00 13:15	3	8	14	25	3	5	2	10	35	0	57	13	70	8	71	2	81	151	186
13:15 13:30	5	2	13	20	1	1	1	3	23	0	79	5	84	17	57	5	79	163	186
15:00 15:15	6	14	14	34	3	4	0	7	41	1	70	8	79	21	76	2	99	178	219
15:15 15:30	12	9	23	44	1	5	2	8	52	1	74	16	91	34	65	1	100	191	243
15:30 15:45	3	14	28	45	2	6	1	9	54	0	90	8	98	34	70	1	105	203	257
15:45 16:00	5	11	18	34	2	14	4	20	54	0	99	8	107	27	56	1	85	192	246
16:00 16:15	5	15	18	38	1	9	2	12	50	0	63	6	69	23	79	2	104	173	223
16:15 16:30	9	4	25	38	2	5	0	7	45	1	78	11	90	21	72	4	97	187	232
16:30 16:45	5	14	26	45	3	6	2	11	56	1	82	6	89	21	83	5	109	198	254
16:45 17:00	10	13	20	43	2	5	0	7	50	2	92	6	100	19	82	2	103	203	253
17:00 17:15	4	5	32	41	4	7	0	11	52	1	81	12	94	18	75	4	97	191	243
17:15 17:30	8	13	22	43	0	9	3	12	55	0	71	7	78	16	72	3	91	169	224
17:30 17:45	8	7	29	44	1	6	1	8	52	1	61	9	71	16	46	3	65	136	188
17:45 18:00	4	9	23	36	2	4	1	7	43	2	69	8	79	14	54	4	72	151	194
Total:	171	258	630	1059	52	160	42	254	1313	25	2123	265	2413	523	1773	72	2369	4782	6,095

Note: U-Turns are included in Totals.



Transportation Services - Traffic Services

Turning Movement Count - Study Results

ROCHESTER ST @ SOMERSET ST

Survey Date: Tuesday, August 23, 2022

WO No: 40516

Start Time: 07:00

Device: Miovision

Full Study Cyclist Volume

Time Period	ROCHESTER ST			SOMERSET ST			Grand Total
	Northbound	Southbound	Street Total	Eastbound	Westbound	Street Total	
07:00 07:15	0	0	0	1	1	2	2
07:15 07:30	0	0	0	2	1	3	3
07:30 07:45	1	0	1	0	0	0	1
07:45 08:00	1	1	2	1	1	2	4
08:00 08:15	0	0	0	2	2	4	4
08:15 08:30	0	0	0	0	3	3	3
08:30 08:45	0	0	0	0	1	1	1
08:45 09:00	0	0	0	2	2	4	4
09:00 09:15	0	0	0	0	2	2	2
09:15 09:30	2	0	2	1	1	2	4
09:30 09:45	1	0	1	5	0	5	6
09:45 10:00	1	1	2	1	4	5	7
11:30 11:45	0	0	0	2	3	5	5
11:45 12:00	1	0	1	2	3	5	6
12:00 12:15	0	0	0	0	0	0	0
12:15 12:30	0	1	1	4	2	6	7
12:30 12:45	0	0	0	2	5	7	7
12:45 13:00	0	0	0	1	5	6	6
13:00 13:15	0	1	1	2	4	6	7
13:15 13:30	0	0	0	3	6	9	9
15:00 15:15	1	0	1	0	2	2	3
15:15 15:30	1	1	2	1	2	3	5
15:30 15:45	0	0	0	1	0	1	1
15:45 16:00	0	2	2	0	5	5	7
16:00 16:15	0	2	2	1	0	1	3
16:15 16:30	0	0	0	3	6	9	9
16:30 16:45	1	0	1	3	3	6	7
16:45 17:00	1	0	1	3	6	9	10
17:00 17:15	1	0	1	1	5	6	7
17:15 17:30	0	1	1	1	5	6	7
17:30 17:45	1	1	2	7	3	10	12
17:45 18:00	0	1	1	2	3	5	6
Total	13	12	25	54	86	140	165



Transportation Services - Traffic Services

Turning Movement Count - Study Results

ROCHESTER ST @ SOMERSET ST

Survey Date: Tuesday, August 23, 2022

WO No: 40516

Start Time: 07:00

Device: Miovision

Full Study Pedestrian Volume

ROCHESTER ST

SOMERSET ST

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	3	3	6	2	2	4	10
07:15 07:30	3	4	7	5	3	8	15
07:30 07:45	1	2	3	2	1	3	6
07:45 08:00	1	4	5	2	1	3	8
08:00 08:15	5	3	8	1	3	4	12
08:15 08:30	4	5	9	1	1	2	11
08:30 08:45	4	5	9	4	0	4	13
08:45 09:00	10	7	17	3	2	5	22
09:00 09:15	6	10	16	1	3	4	20
09:15 09:30	5	7	12	3	1	4	16
09:30 09:45	8	10	18	2	2	4	22
09:45 10:00	5	10	15	4	1	5	20
11:30 11:45	17	7	24	6	3	9	33
11:45 12:00	16	10	26	4	2	6	32
12:00 12:15	16	7	23	1	7	8	31
12:15 12:30	12	14	26	6	4	10	36
12:30 12:45	8	13	21	7	10	17	38
12:45 13:00	23	14	37	12	11	23	60
13:00 13:15	12	11	23	10	5	15	38
13:15 13:30	6	9	15	2	5	7	22
15:00 15:15	5	4	9	2	3	5	14
15:15 15:30	15	7	22	8	8	16	38
15:30 15:45	30	8	38	1	5	6	44
15:45 16:00	10	24	34	8	9	17	51
16:00 16:15	6	7	13	8	3	11	24
16:15 16:30	26	26	52	2	3	5	57
16:30 16:45	20	14	34	8	8	16	50
16:45 17:00	14	13	27	10	2	12	39
17:00 17:15	17	19	36	7	6	13	49
17:15 17:30	31	13	44	9	7	16	60
17:30 17:45	19	12	31	3	6	9	40
17:45 18:00	20	24	44	6	15	21	65
Total	378	326	704	150	142	292	996



Transportation Services - Traffic Services

Turning Movement Count - Study Results

ROCHESTER ST @ SOMERSET ST

Survey Date: Tuesday, August 23, 2022

WO No: 40516

Start Time: 07:00

Device: Miovision

Full Study Heavy Vehicles

ROCHESTER ST

SOMERSET ST

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	0	0	1	2	0	1	0	1	3	0	2	0	7	0	5	0	8	15	9
07:15 07:30	0	0	0	0	0	0	0	0	0	0	5	0	9	0	4	0	9	18	9
07:30 07:45	0	0	0	2	0	0	0	0	2	0	2	0	6	2	4	0	8	14	8
07:45 08:00	0	0	0	0	0	0	0	0	0	0	2	0	8	0	6	0	8	16	8
08:00 08:15	0	0	1	1	0	0	0	1	2	1	1	0	7	0	5	0	7	14	8
08:15 08:30	1	0	0	1	0	0	0	0	1	0	8	0	10	0	1	0	9	19	10
08:30 08:45	0	0	0	0	0	0	0	0	0	0	4	0	11	0	7	0	11	22	11
08:45 09:00	1	0	0	2	0	0	0	0	2	0	11	1	18	0	5	0	16	34	18
09:00 09:15	0	0	0	0	0	0	0	0	0	0	4	0	8	0	4	0	8	16	8
09:15 09:30	0	0	0	1	0	0	0	0	1	0	3	0	9	1	6	0	10	19	10
09:30 09:45	0	0	0	3	0	0	0	0	3	0	3	2	12	1	7	0	11	23	13
09:45 10:00	0	0	2	3	0	0	0	0	3	0	4	0	11	1	7	0	14	25	14
11:30 11:45	0	0	0	2	1	1	0	2	4	0	4	1	8	0	3	0	8	16	10
11:45 12:00	0	0	2	4	0	0	0	1	5	0	6	0	10	2	4	1	15	25	15
12:00 12:15	0	1	0	1	0	0	0	1	2	0	5	0	8	0	3	0	8	16	9
12:15 12:30	0	0	0	0	0	0	0	0	0	0	7	0	9	0	2	0	9	18	9
12:30 12:45	0	0	0	0	0	0	0	0	0	0	3	0	6	0	3	0	6	12	6
12:45 13:00	0	0	0	0	0	0	0	0	0	0	7	0	10	0	3	0	10	20	10
13:00 13:15	0	0	0	1	0	1	0	1	2	0	2	0	6	0	4	0	6	12	7
13:15 13:30	0	0	0	0	0	0	0	0	0	0	2	0	6	0	4	0	6	12	6
15:00 15:15	0	0	0	0	0	0	0	0	0	0	2	0	6	0	4	0	6	12	6
15:15 15:30	0	1	0	1	0	0	0	1	2	0	5	0	11	0	6	0	11	22	12
15:30 15:45	0	0	1	2	0	0	0	0	2	0	2	1	5	0	2	0	5	10	6
15:45 16:00	0	0	0	0	1	0	0	1	1	0	3	0	5	0	2	0	6	11	6
16:00 16:15	0	1	1	2	0	0	0	1	3	0	3	0	7	0	4	0	8	15	9
16:15 16:30	0	0	0	0	0	0	0	0	0	0	3	0	6	0	3	0	6	12	6
16:30 16:45	0	0	0	0	0	0	0	0	0	0	2	0	4	0	2	0	4	8	4
16:45 17:00	0	0	1	1	0	0	0	0	1	0	2	0	4	0	2	0	5	9	5
17:00 17:15	0	0	0	1	1	0	0	1	2	0	3	0	4	1	1	0	6	10	6
17:15 17:30	0	0	0	0	0	0	0	0	0	0	2	0	3	0	1	0	3	6	3
17:30 17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45 18:00	0	0	0	0	0	0	0	0	0	0	1	0	2	0	1	0	2	4	2
Total: None	2	3	9	30	3	3	0	11	41	1	113	5	236	8	115	1	249	485	263



Transportation Services - Traffic Services

Turning Movement Count - Study Results

ROCHESTER ST @ SOMERSET ST

Survey Date: Tuesday, August 23, 2022

WO No: 40516

Start Time: 07:00

Device: Miovision

Full Study 15 Minute U-Turn Total

ROCHESTER ST

SOMERSET ST

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	0	0	0	0	0
08:45	09:00	0	0	0	0	0
09:00	09:15	0	0	0	0	0
09:15	09:30	0	0	0	0	0
09:30	09:45	0	0	0	0	0
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	0	0	0	0	0
12:15	12:30	0	0	0	0	0
12:30	12:45	0	0	0	0	0
12:45	13:00	0	0	0	0	0
13:00	13:15	0	0	0	0	0
13:15	13:30	0	0	0	0	0
15:00	15:15	0	0	0	0	0
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	1	1
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	0	0	0	0	0
17:15	17:30	0	0	0	0	0
17:30	17:45	0	0	0	0	0
17:45	18:00	0	0	0	0	0
Total		0	0	0	1	1



Transportation Services - Traffic Services

Turning Movement Count - Study Results

SOMERSET ST @ EMPRESS AVE

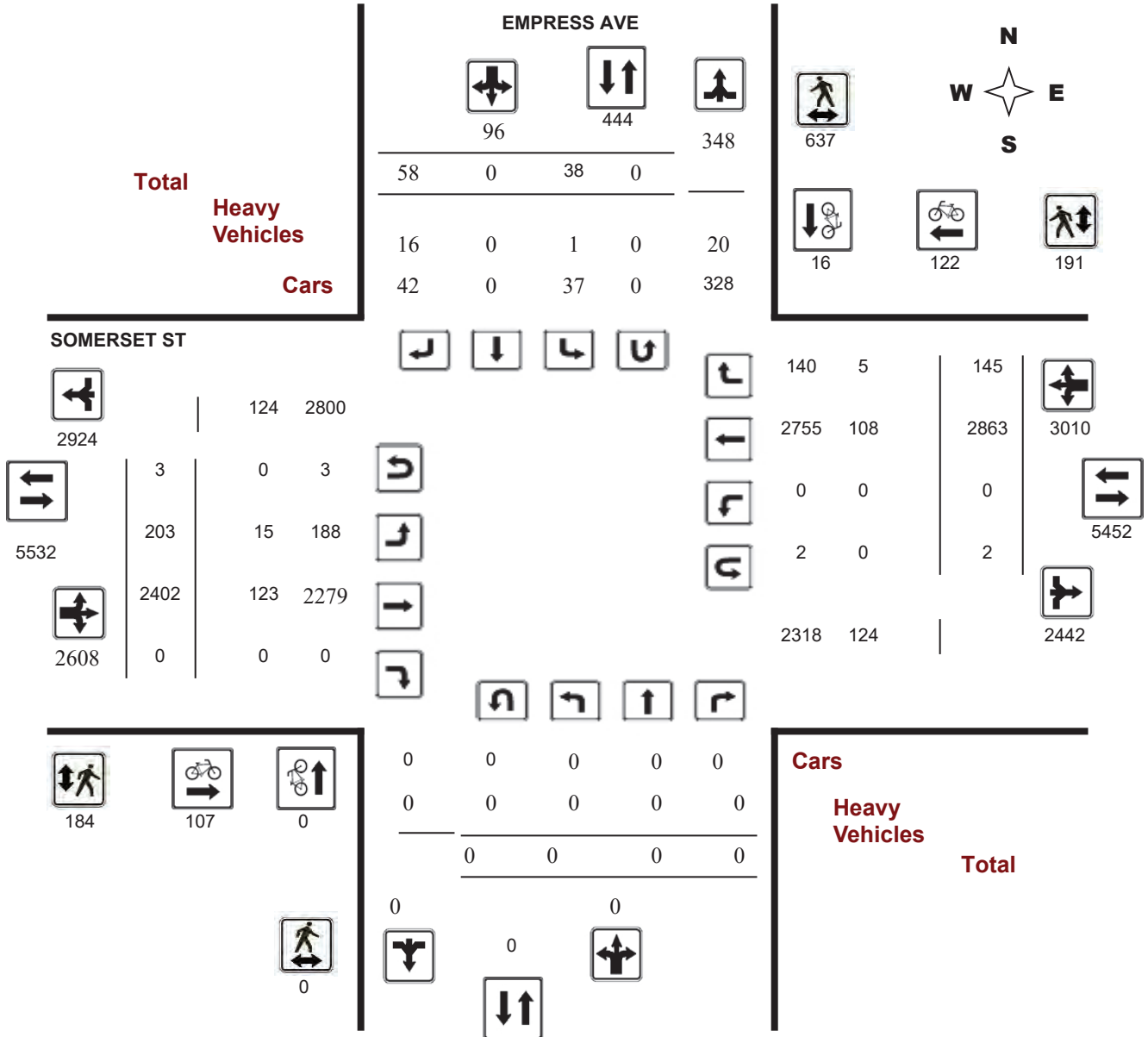
Survey Date: Wednesday, August 31, 2022

WO No: 40554

Start Time: 07:00

Device: Miovision

Full Study Diagram



Turning Movement Count - Study Results

SOMERSET ST @ EMPRESS AVE

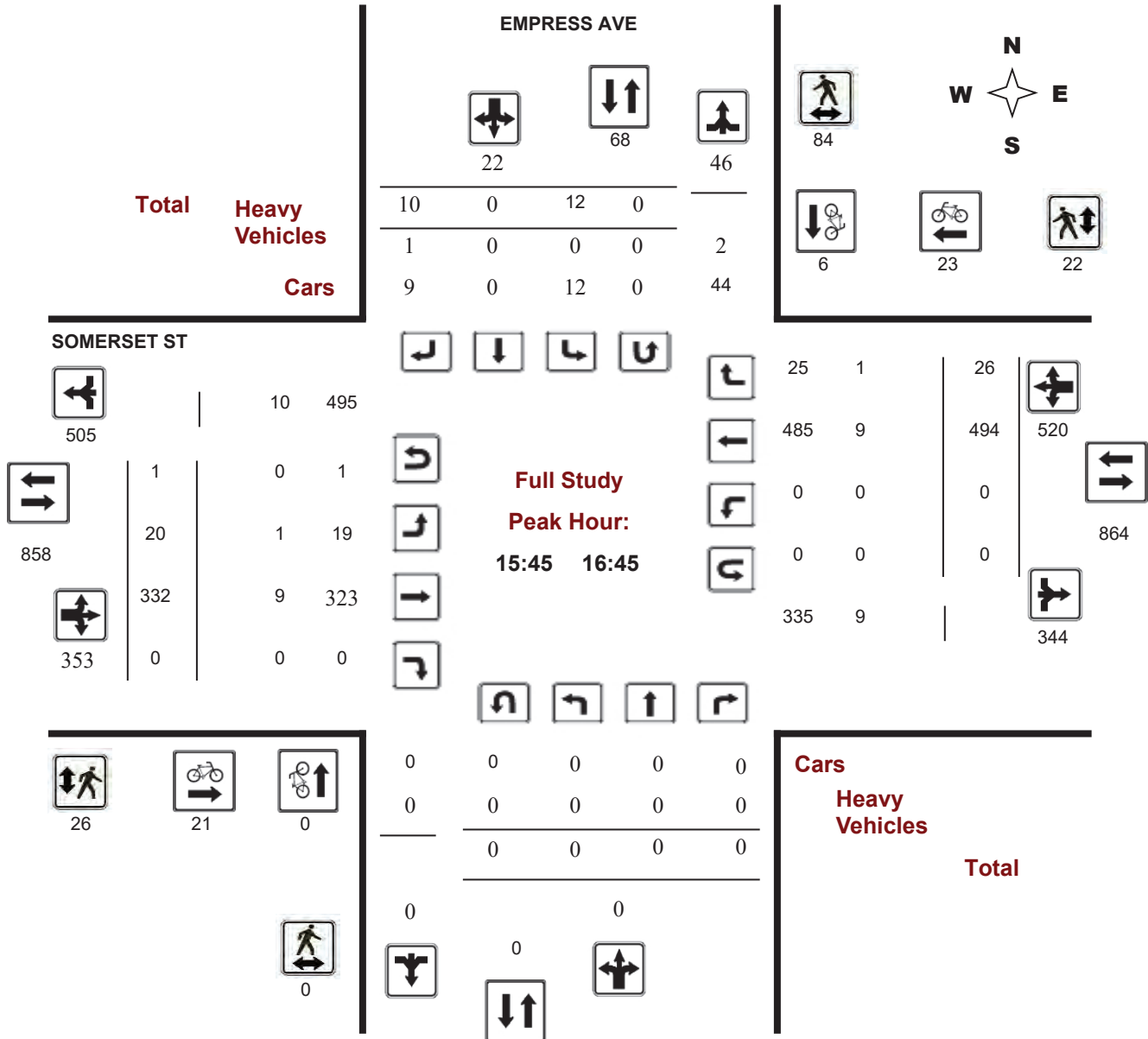
Survey Date: Wednesday, August 31, 2022

WO No: 40554

Start Time: 07:00

Device: Miovision

Full Study Peak Hour Diagram





Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

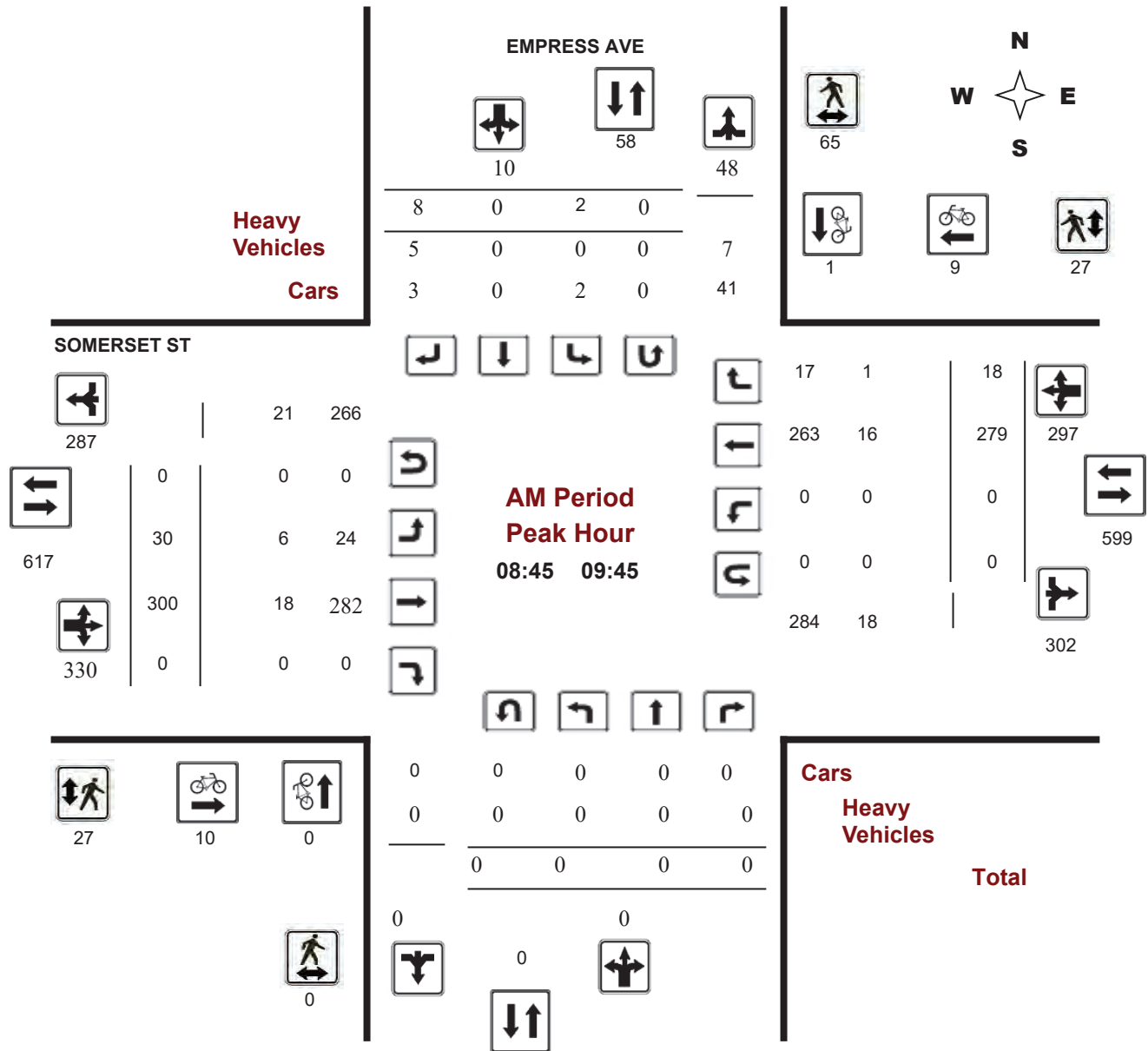
SOMERSET ST @ EMPRESS AVE

Survey Date: Wednesday, August 31, 2022

Start Time: 07:00

WO No: 40554

Device: Miovision





Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

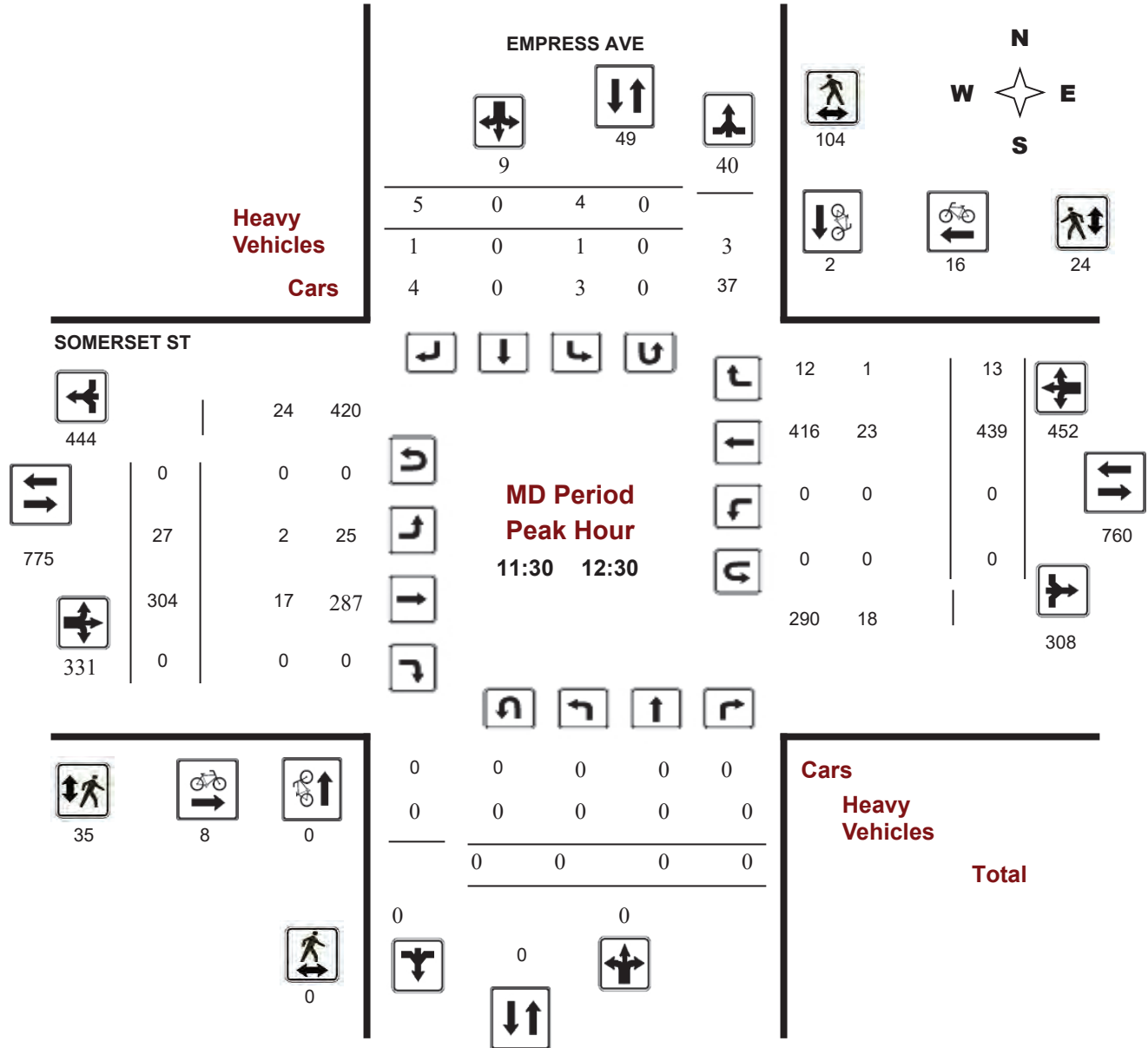
SOMERSET ST @ EMPRESS AVE

Survey Date: Wednesday, August 31, 2022

Start Time: 07:00

WO No: 40554

Device: Miovision





Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

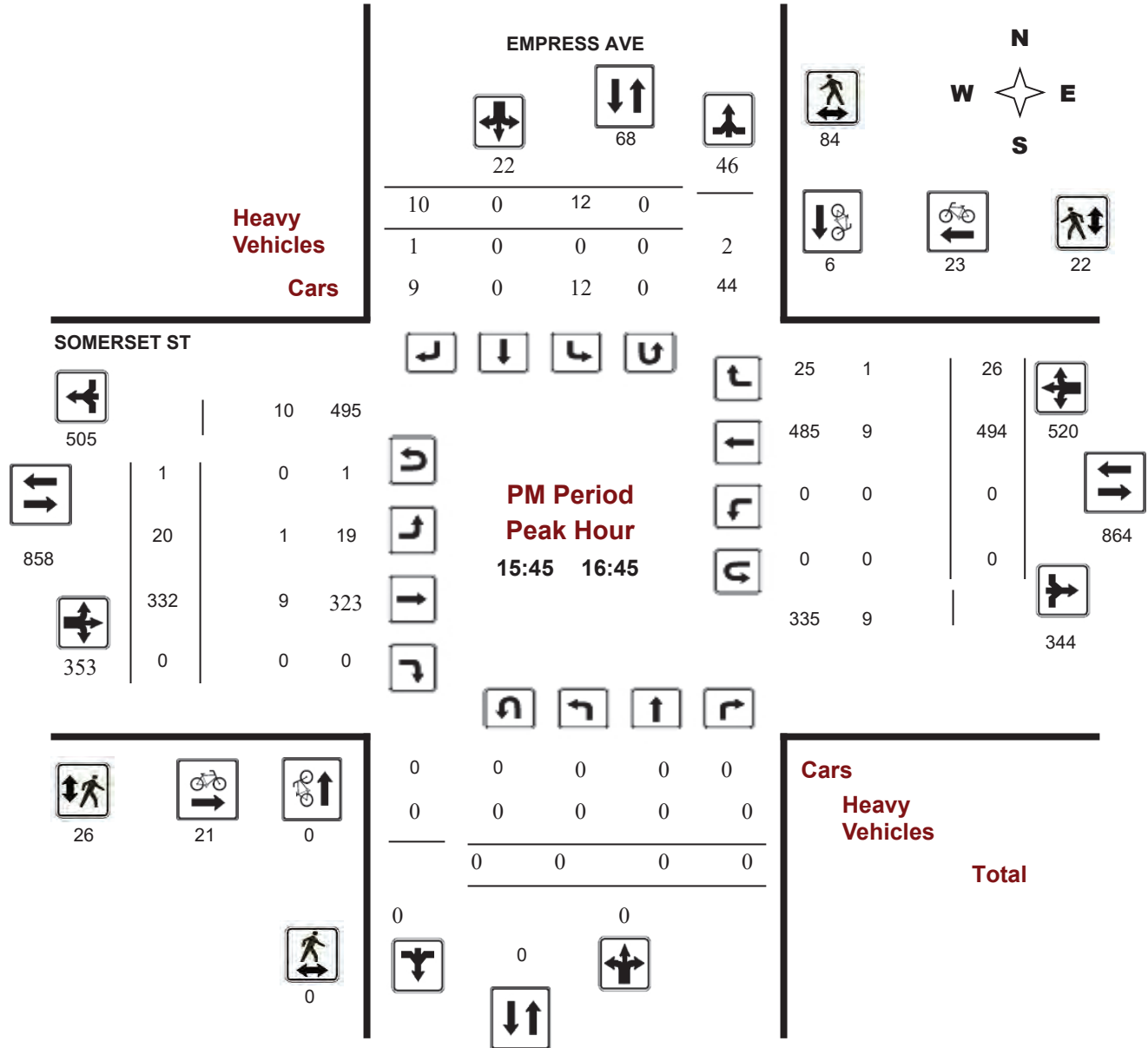
SOMERSET ST @ EMPRESS AVE

Survey Date: Wednesday, August 31, 2022

Start Time: 07:00

WO No: 40554

Device: Miovision





Transportation Services - Traffic Services

Turning Movement Count - Study Results

SOMERSET ST @ EMPRESS AVE

Survey Date: Wednesday, August 31, 2022

WO No: 40554

Start Time: 07:00

Device: Miovision

Full Study Summary (8 HR Standard)

Survey Date: Wednesday, August 31, 2022

Total Observed U-Turns

AADT Factor

Northbound: 0 Southbound: 0
 Eastbound: 3 Westbound: 2
 .90

EMPRESS AVE

SOMERSET ST

Period	EMPRESS AVE Northbound					EMPRESS AVE Southbound					SOMERSET ST Eastbound					SOMERSET ST Westbound			STR TOT	Grand Total	
	LT	ST	RT	NB TOT	STR TOT	LT	ST	RT	SB TOT	STR TOT	LT	ST	RT	EB TOT	STR TOT	LT	ST	RT			WB TOT
07:00 08:00	0	0	0	0	0	0	0	6	6	6	31	174	0	205	0	0	201	11	212	417	423
08:00 09:00	0	0	0	0	0	1	0	7	8	8	25	281	0	306	0	0	242	10	252	558	566
09:00 10:00	0	0	0	0	0	3	0	8	11	11	29	286	0	315	0	0	268	19	287	602	613
11:30 12:30	0	0	0	0	0	4	0	5	9	9	27	304	0	331	0	0	439	13	452	783	792
12:30 13:30	0	0	0	0	0	3	0	8	11	11	23	319	0	342	0	0	365	20	385	727	738
15:00 16:00	0	0	0	0	0	9	0	12	21	21	33	356	0	389	0	0	429	24	453	842	863
16:00 17:00	0	0	0	0	0	11	0	6	17	17	19	329	0	348	0	0	499	27	526	874	891
17:00 18:00	0	0	0	0	0	7	0	6	13	13	16	353	0	369	0	0	420	21	441	810	823
Sub Total	0	0	0	0	0	38	0	58	96	96	203	2402	0	2605	0	0	2863	145	3008	5613	5709
U Turns	0				0				0				3			2			5		5
Total	0	0	0	0	0	38	0	58	96	96	203	2402	0	2608	0	0	2863	145	3010	5618	5714
EQ 12Hr	0	0	0	0	0	53	0	81	133	133	282	3339	0	3625	0	0	3980	202	4184	7809	7942

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

1.39

AVG 12Hr	0	0	0	0	0	48	0	95	120	120	254	3005	0	3262	0	0	3582	182	3766	7028	7148
-----------------	---	---	---	---	---	----	---	----	-----	-----	-----	------	---	------	---	---	------	-----	------	------	------

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

.90

AVG 24Hr	0	0	0	0	0	63	0	124	157	157	333	3937	0	4273	0	0	4692	238	4933	9207	9364
-----------------	---	---	---	---	---	----	---	-----	-----	-----	-----	------	---	------	---	---	------	-----	------	------	------

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

SOMERSET ST @ EMPRESS AVE

Survey Date: Wednesday, August 31, 2022

WO No: 40554

Start Time: 07:00

Device: Miovision

Full Study 15 Minute Increments

EMPRESS AVE

SOMERSET ST

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	0	0	0	0	0	0	0	0	11	40	0	51	0	36	3	39	90	90
07:15 07:30	0	0	0	0	0	0	2	2	2	9	37	0	46	0	38	4	42	88	90
07:30 07:45	0	0	0	0	0	0	2	2	2	6	40	0	46	0	59	2	61	107	109
07:45 08:00	0	0	0	0	0	0	2	2	2	5	57	0	62	0	68	2	70	132	134
08:00 08:15	0	0	0	0	1	0	1	2	2	10	55	0	65	0	55	3	58	123	125
08:15 08:30	0	0	0	0	0	0	3	3	3	5	71	0	76	0	60	3	63	139	142
08:30 08:45	0	0	0	0	0	0	1	1	1	3	78	0	81	0	55	0	55	136	137
08:45 09:00	0	0	0	0	0	0	2	2	2	7	77	0	84	0	72	4	76	160	162
09:00 09:15	0	0	0	0	0	0	1	1	1	10	75	0	85	0	72	7	79	164	165
09:15 09:30	0	0	0	0	0	0	3	3	3	6	77	0	83	0	73	5	78	161	164
09:30 09:45	0	0	0	0	2	0	2	4	4	7	71	0	78	0	62	2	64	142	146
09:45 10:00	0	0	0	0	1	0	2	3	3	6	63	0	69	0	61	5	66	135	138
11:30 11:45	0	0	0	0	1	0	0	1	1	7	69	0	76	0	113	2	115	191	192
11:45 12:00	0	0	0	0	0	0	2	2	2	7	75	0	82	0	125	2	127	209	211
12:00 12:15	0	0	0	0	1	0	1	2	2	7	78	0	85	0	94	5	99	184	186
12:15 12:30	0	0	0	0	2	0	2	4	4	6	82	0	88	0	107	4	111	199	203
12:30 12:45	0	0	0	0	2	0	1	3	3	4	81	0	85	0	77	7	84	169	172
12:45 13:00	0	0	0	0	0	0	5	5	5	4	74	0	78	0	96	7	103	181	186
13:00 13:15	0	0	0	0	1	0	0	1	1	7	75	0	82	0	105	3	109	191	192
13:15 13:30	0	0	0	0	0	0	2	2	2	8	89	0	97	0	87	3	90	187	189
15:00 15:15	0	0	0	0	1	0	2	3	3	11	85	0	98	0	99	6	105	203	206
15:15 15:30	0	0	0	0	4	0	1	5	5	11	87	0	98	0	99	8	107	205	210
15:30 15:45	0	0	0	0	2	0	5	7	7	6	101	0	107	0	116	2	118	225	232
15:45 16:00	0	0	0	0	2	0	4	6	6	5	83	0	88	0	115	8	123	211	217
16:00 16:15	0	0	0	0	3	0	3	6	6	6	82	0	88	0	120	7	127	215	221
16:15 16:30	0	0	0	0	6	0	1	7	7	3	80	0	84	0	119	9	128	212	219
16:30 16:45	0	0	0	0	1	0	2	3	3	6	87	0	93	0	140	2	142	235	238
16:45 17:00	0	0	0	0	1	0	0	1	1	4	80	0	84	0	120	9	129	213	214
17:00 17:15	0	0	0	0	4	0	1	5	5	4	83	0	87	0	99	7	106	193	198
17:15 17:30	0	0	0	0	1	0	2	3	3	5	103	0	108	0	113	4	117	225	228
17:30 17:45	0	0	0	0	0	0	1	1	1	4	101	0	105	0	102	6	109	214	215
17:45 18:00	0	0	0	0	2	0	2	4	4	3	66	0	69	0	106	4	110	179	183
Total:	0	0	0	0	38	0	58	96	96	203	2402	0	2608	0	2863	145	3010	5618	5,714

Note: U-Turns are included in Totals.



Transportation Services - Traffic Services

Turning Movement Count - Study Results

SOMERSET ST @ EMPRESS AVE

Survey Date: Wednesday, August 31, 2022

WO No: 40554

Start Time: 07:00

Device: Miovision

Full Study Cyclist Volume

Time Period	EMPRESS AVE			SOMERSET ST			Grand Total
	Northbound	Southbound	Street Total	Eastbound	Westbound	Street Total	
07:00 07:15	0	1	1	3	2	5	6
07:15 07:30	0	1	1	2	2	4	5
07:30 07:45	0	0	0	1	2	3	3
07:45 08:00	0	0	0	2	5	7	7
08:00 08:15	0	0	0	5	6	11	11
08:15 08:30	0	0	0	8	5	13	13
08:30 08:45	0	0	0	5	2	7	7
08:45 09:00	0	1	1	0	1	1	2
09:00 09:15	0	0	0	3	3	6	6
09:15 09:30	0	0	0	4	1	5	5
09:30 09:45	0	0	0	3	4	7	7
09:45 10:00	0	0	0	5	5	10	10
11:30 11:45	0	1	1	2	3	5	6
11:45 12:00	0	0	0	4	5	9	9
12:00 12:15	0	1	1	1	6	7	8
12:15 12:30	0	0	0	1	2	3	3
12:30 12:45	0	1	1	9	3	12	13
12:45 13:00	0	0	0	4	2	6	6
13:00 13:15	0	0	0	3	3	6	6
13:15 13:30	0	1	1	2	6	8	9
15:00 15:15	0	0	0	0	3	3	3
15:15 15:30	0	0	0	2	5	7	7
15:30 15:45	0	0	0	1	1	2	2
15:45 16:00	0	1	1	7	7	14	15
16:00 16:15	0	3	3	6	7	13	16
16:15 16:30	0	1	1	3	5	8	9
16:30 16:45	0	1	1	5	4	9	10
16:45 17:00	0	1	1	6	7	13	14
17:00 17:15	0	0	0	3	3	6	6
17:15 17:30	0	1	1	3	4	7	8
17:30 17:45	0	0	0	3	5	8	8
17:45 18:00	0	1	1	1	3	4	5
Total	0	16	16	107	122	229	245



Transportation Services - Traffic Services

Turning Movement Count - Study Results

SOMERSET ST @ EMPRESS AVE

Survey Date: Wednesday, August 31, 2022

WO No: 40554

Start Time: 07:00

Device: Miovision

Full Study Pedestrian Volume

EMPRESS AVE

SOMERSET ST

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	2	2	1	4	5	7
07:15 07:30	0	8	8	4	4	8	16
07:30 07:45	0	9	9	1	5	6	15
07:45 08:00	0	9	9	1	1	2	11
08:00 08:15	0	6	6	4	3	7	13
08:15 08:30	0	23	23	4	2	6	29
08:30 08:45	0	11	11	6	2	8	19
08:45 09:00	0	11	11	6	3	9	20
09:00 09:15	0	14	14	6	5	11	25
09:15 09:30	0	17	17	4	2	6	23
09:30 09:45	0	23	23	11	17	28	51
09:45 10:00	0	15	15	6	8	14	29
11:30 11:45	0	22	22	10	7	17	39
11:45 12:00	0	21	21	6	8	14	35
12:00 12:15	0	28	28	7	4	11	39
12:15 12:30	0	33	33	12	5	17	50
12:30 12:45	0	30	30	12	5	17	47
12:45 13:00	0	32	32	10	18	28	60
13:00 13:15	0	26	26	8	7	15	41
13:15 13:30	0	45	45	2	11	13	58
15:00 15:15	0	9	9	5	4	9	18
15:15 15:30	0	13	13	2	9	11	24
15:30 15:45	0	19	19	9	5	14	33
15:45 16:00	0	13	13	3	3	6	19
16:00 16:15	0	19	19	11	2	13	32
16:15 16:30	0	26	26	8	7	15	41
16:30 16:45	0	26	26	4	10	14	40
16:45 17:00	0	29	29	3	14	17	46
17:00 17:15	0	28	28	11	3	14	42
17:15 17:30	0	20	20	4	1	5	25
17:30 17:45	0	33	33	1	5	6	39
17:45 18:00	0	17	17	2	7	9	26
Total	0	637	637	184	191	375	1012



Transportation Services - Traffic Services

Turning Movement Count - Study Results

SOMERSET ST @ EMPRESS AVE

Survey Date: Wednesday, August 31, 2022

WO No: 40554

Start Time: 07:00

Device: Miovision

Full Study Heavy Vehicles

EMPRESS AVE

SOMERSET ST

Northbound

Southbound

Eastbound

Westbound

Time Period	Northbound				Southbound				Eastbound				Westbound				Grand Total		
	LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT		W TOT	STR TOT
07:00 07:15	0	0	0	0	0	0	0	0	0	0	3	0	10	0	7	0	10	20	10
07:15 07:30	0	0	0	0	0	0	1	2	2	1	2	0	8	0	4	0	6	14	8
07:30 07:45	0	0	0	0	0	0	1	2	2	1	2	0	7	0	3	0	5	12	7
07:45 08:00	0	0	0	0	0	0	1	2	2	1	4	0	9	0	3	0	7	16	9
08:00 08:15	0	0	0	0	0	0	1	1	1	0	6	0	9	0	2	0	8	17	9
08:15 08:30	0	0	0	0	0	0	2	3	3	1	7	0	11	0	1	0	8	19	11
08:30 08:45	0	0	0	0	0	0	0	0	0	0	11	0	12	0	1	0	12	24	12
08:45 09:00	0	0	0	0	0	0	0	2	2	2	7	0	12	0	3	0	10	22	12
09:00 09:15	0	0	0	0	0	0	1	4	4	3	2	0	10	0	4	0	6	16	10
09:15 09:30	0	0	0	0	0	0	2	4	4	1	3	0	11	0	5	1	9	20	12
09:30 09:45	0	0	0	0	0	0	2	2	2	0	6	0	12	0	4	0	10	22	12
09:45 10:00	0	0	0	0	0	0	0	0	0	0	3	0	6	0	3	0	6	12	6
11:30 11:45	0	0	0	0	0	0	0	0	0	0	6	0	13	0	7	0	13	26	13
11:45 12:00	0	0	0	0	0	0	0	2	2	1	3	0	9	0	5	1	9	18	10
12:00 12:15	0	0	0	0	1	0	1	3	3	1	5	0	14	0	7	0	13	27	15
12:15 12:30	0	0	0	0	0	0	0	0	0	0	3	0	7	0	4	0	7	14	7
12:30 12:45	0	0	0	0	0	0	0	0	0	0	3	0	5	0	2	0	5	10	5
12:45 13:00	0	0	0	0	0	0	1	2	2	1	6	0	14	0	6	0	12	26	14
13:00 13:15	0	0	0	0	0	0	0	0	0	0	1	0	6	0	5	0	6	12	6
13:15 13:30	0	0	0	0	0	0	1	2	2	1	6	0	10	0	2	0	8	18	10
15:00 15:15	0	0	0	0	0	0	1	2	2	0	4	0	11	0	6	1	11	22	12
15:15 15:30	0	0	0	0	0	0	0	0	0	0	5	0	8	0	3	0	8	16	8
15:30 15:45	0	0	0	0	0	0	0	1	1	0	2	0	4	0	2	1	5	9	5
15:45 16:00	0	0	0	0	0	0	1	2	2	0	4	0	9	0	4	1	9	18	10
16:00 16:15	0	0	0	0	0	0	0	0	0	0	1	0	2	0	1	0	2	4	2
16:15 16:30	0	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	3	6	3
16:30 16:45	0	0	0	0	0	0	0	1	1	1	1	0	6	0	4	0	5	11	6
16:45 17:00	0	0	0	0	0	0	0	0	0	0	4	0	6	0	2	0	6	12	6
17:00 17:15	0	0	0	0	0	0	0	0	0	0	3	0	6	0	3	0	6	12	6
17:15 17:30	0	0	0	0	0	0	0	0	0	0	4	0	6	0	2	0	6	12	6
17:30 17:45	0	0	0	0	0	0	0	0	0	0	2	0	4	0	2	0	4	8	4
17:45 18:00	0	0	0	0	0	0	0	0	0	0	1	0	2	0	1	0	2	4	2
Total: None	0	0	0	0	1	0	16	37	37	15	123	0	262	0	108	5	237	499	268



Transportation Services - Traffic Services

Turning Movement Count - Study Results

SOMERSET ST @ EMPRESS AVE

Survey Date: Wednesday, August 31, 2022

WO No: 40554

Start Time: 07:00

Device: Miovision

Full Study 15 Minute U-Turn Total

EMPRESS AVE

SOMERSET ST

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	0	0	0	0	0
08:45	09:00	0	0	0	0	0
09:00	09:15	0	0	0	0	0
09:15	09:30	0	0	0	0	0
09:30	09:45	0	0	0	0	0
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	0	0	0	0	0
12:15	12:30	0	0	0	0	0
12:30	12:45	0	0	0	0	0
12:45	13:00	0	0	0	0	0
13:00	13:15	0	0	0	1	1
13:15	13:30	0	0	0	0	0
15:00	15:15	0	0	2	0	2
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
16:15	16:30	0	0	1	0	1
16:30	16:45	0	0	0	0	0
16:45	17:00	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	0	0	0	1	1
17:45	18:00	0	0	0	0	0
Total		0	0	3	2	5

Intersection: Somerset St. W / Bell St.

Morning Peak Hour Results (April 19, 2023) Heavy Vehicle Factor: 1

Time Period	Westbound			Northbound			Eastbound			Southbound			Total	All	Peak Hr Totals
	RT	Heavy	Passenger	RT	Heavy	Passenger	RT	Heavy	Passenger	RT	Heavy	Passenger			
From To															
7:15-7:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30-7:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45-8:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00-8:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15-8:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30-8:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45-9:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Accumulated Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Heavy Vehicle %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Peak Hr Registration	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

13

Afternoon Peak Hour Results (April 19, 2023)

Time Period	Westbound			Northbound			Eastbound			Southbound			Total	All	Peak Hr Totals
	RT	Heavy	Passenger	RT	Heavy	Passenger	RT	Heavy	Passenger	RT	Heavy	Passenger			
From To															
3:30-3:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45-4:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00-4:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15-4:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30-4:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45-5:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00-5:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15-5:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30-5:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45-6:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Accumulated Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Heavy Vehicle %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Peak Hr Registration	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

17

Intersection: Parking Lot on Empress Avenue

Morning Peak Hour Results (April 19, 2023)

Time Period	Westbound			Northbound			Eastbound			Southbound			Total	All	Peak Hr Totals
	RT	Heavy	Passenger	RT	Heavy	Passenger	RT	Heavy	Passenger	RT	Heavy	Passenger			
From To															
7:00-7:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15-7:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30-7:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45-8:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00-8:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15-8:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30-8:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45-9:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Accumulated Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Heavy Vehicle %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Peak Hr Registration	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

0

Afternoon Peak Hour Results (April 19, 2023)

Time Period	Westbound			Northbound			Eastbound			Southbound			Total	All	Peak Hr Totals
	RT	Heavy	Passenger	RT	Heavy	Passenger	RT	Heavy	Passenger	RT	Heavy	Passenger			
From To															
3:00-3:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15-3:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30-3:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45-4:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00-4:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15-4:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30-4:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45-5:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00-5:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15-5:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30-5:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45-6:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Accumulated Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Heavy Vehicle %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Peak Hr Registration	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6

Traffic Signal Timing

City of Ottawa, Public Works Department

Traffic Operations Unit

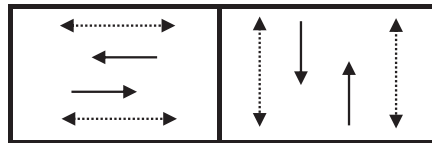
Intersection:	<i>Main:</i> Somerset	<i>Side:</i> Booth
Controller:	MS3200	TSD: 5017
Author:	Bianca Amaral-Stewart	Date: 2023-Apr-26

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	70	65	70	55	65			
Offset	2	42	1	42	42			
EB Thru	30	35	35	27	35	7	8	3.3+2.2
WB Thru	30	35	35	27	35	7	8	3.3+2.2
NB Thru	40	30	35	28	30	7	11	3.3+2.9
SB Thru	40	30	35	28	30	7	11	3.3+2.9

Phasing Sequence[‡]

Plans: All



Schedule

Weekday		Weekend	
Time	Plan	Time	Plan
0:15	4	0:15	4
6:00	1	8:00	2
9:30	2	12:00	5
15:00	3	18:00	2
18:00	2	22:00	4
22:00	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

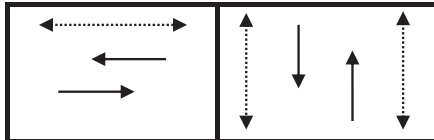
Intersection:	<i>Main:</i> Somerset	<i>Side:</i> Empress
Controller:	ATC3	TSD: 5290
Author:	Bianca Amaral-Stewart	Date: 2023-Apr-14

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	70	65	70	55	65			
Offset	15	27	33	27	27			
EB Thru	44	39	44	29	39	9	9	3.3+2.4
WB Thru	44	39	44	29	39	9	9	3.3+2.4
NB Thru	26	26	26	26	26	10	10	3.3+2.6
SB Thru	26	26	26	26	26	10	10	3.3+2.6

Phasing Sequence[‡]

Plan: All



Schedule

Weekday		Weekend	
Time	Plan	Time	Plan
0:15	4	0:15	4
6:30	1	8:00	2
9:30	2	12:00	5
15:00	3	18:00	2
18:00	2	22:00	4
22:00	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, Transportation Services Department

Traffic Signal Operations Unit

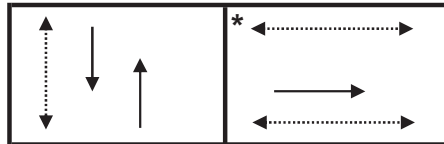
Intersection:	<i>Main:</i> Bronson	<i>Side:</i> Primrose
Controller:	MS3200	TSD: 5309
Author:	Bianca Amaral-Stewart	Date: 2023-Apr-26

Existing Timing Plans[†]

	Plan				Ped Minimum Time		
	AM Peak 1	Off Peak 2	PM Peak 3	Night 4	Walk	DW	A+R
Cycle	75	75	75	55			
Offset	13	60	30	21			
NB Thru	47	47	47	27	-	-	3.3+1.9
SB Thru	47	47	47	27	11	7	3.3+1.9
EB Thru	28	28	28	28	10	12	3.3+1.9

Phasing Sequence[‡]

Plan: All



Schedule

Weekday

Time	Plan
0:15	4
7:00	1
9:30	2
15:00	3
18:00	2
22:30	4

Saturday

Time	Plan
0:10	4
8:00	2
22:00	4

Sunday

Time	Plan
0:15	4
8:00	2
22:00	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

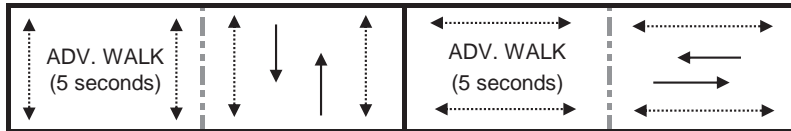
Intersection:	<i>Main:</i> Bronson	<i>Side:</i> Somerset
Controller:	ATC 3	TSD: 5418
Author:	Bianca Amaral-Stewart	Date: 2023-Apr-26

Existing Timing Plans†

	Plan						Ped Minimum Time		
	Early AM 1	Off Peak 2	PM Peak 3	Night 4	Weekend 5	Am Peak 11	Walk	DW	A+R
Cycle	95	85	100	55	85	95			
Offset	43	7	74	3	7	35			
NB Thru	58	43	52	30	43	58	7	10	3.3+2.7
SB Thru	58	43	52	30	43	58	7	10	3.3+2.7
EB Thru	37	42	48	25	42	37	7	11	3.3+2.4
WB Thru	37	42	48	25	42	37	7	11	3.3+2.4

Phasing Sequence‡

Plan: All



Notes: 1) In all directions, the right turn on red is prohibited 7:00 AM to 7:00 PM Monday - Friday.

Schedule

Weekday

Time	Plan
0:15	4
6:00	1
7:30	11
9:30	2
15:00	3
18:00	2
22:00	4

Saturday

Time	Plan
0:15	4
8:00	2
12:00	5
18:00	2
22:00	4

Sunday

Time	Plan
0:15	4
8:00	2
12:00	5
18:00	2
22:00	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

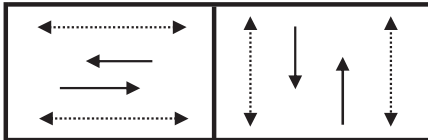
Intersection:	<i>Main:</i> Somerset	<i>Side:</i> Rochester
Controller:	MS3200	TSD: 5439
Author:	Bianca Amaral-Stewart	Date: 2023-Apr-26

Existing Timing Plans[†]

	Plan					Ped Minimum Time		
	Early AM 1	Off Peak 2	PM Peak 3	Night 4	Weekend 5	Walk	DW	A+R
Cycle	70	65	70	60	65			
Offset	62	38	61	X	38			
EB Thru	46	41	46	36	41	15	6	3.3+1.9
WB Thru	46	41	46	36	41	15	6	3.3+1.9
NB Thru	24	24	24	24	24	11	7	3.3+2.7
SB Thru	24	24	24	24	24	11	7	3.3+2.7

Phasing Sequence[‡]

Plan: All



Schedule

Weekday

Time	Plan
0:15	4
6:00	1
9:30	2
15:00	3
18:00	2
22:00	4

Weekend

Time	Plan
0:15	4
8:00	2
12:00	5
18:00	2
22:00	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

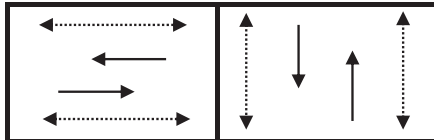
Intersection:	<i>Main:</i> Somerset	<i>Side:</i> Arthur
Controller:	ATC3	TSD: 6049
Author:	Bianca Amaral-Stewart	Date: 2023-Apr-14

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	70	65	70	55	65			
Offset	16	29	48	34	29			
EB Thru	45	40	45	30	40	17	5	3.3+2.4
WB Thru	45	40	45	30	40	17	5	3.3+2.4
NB Thru	25	25	25	25	25	7	11	3.3+3.3
SB Thru	25	25	25	25	25	7	11	3.3+3.3

Phasing Sequence[‡]

Plan: All



Schedule

Weekday		Weekend	
Time	Plan	Time	Plan
0:15	4	0:15	4
6:00	1	8:00	2
9:30	2	12:00	5
15:00	3	18:00	2
18:00	2	22:00	4
22:00	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)



Transportation Services - Traffic Services

Collision Details Report - Public Version

From: January 1, 2017 To: December 31, 2021

Location: ARTHUR ST @ SOMERSET ST

Traffic Control: Traffic signal

Total Collisions: 7

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2017-May-18, Thu, 21:25	Clear	SMV other	Non-fatal injury	Dry	South	Turning left	Automobile, station wagon	Pedestrian	1
2017-Oct-11, Wed, 17:57	Clear	Sideswipe	P.D. only	Dry	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2017-Nov-06, Mon, 19:50	Clear	Turning movement	P.D. only	Dry	East	Turning right	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2018-Sep-12, Wed, 18:56	Clear	Angle	P.D. only	Dry	South	Pulling away from shoulder or curb	Automobile, station wagon	Other motor vehicle	0
					West	Turning left	Automobile, station wagon	Other motor vehicle	
2018-Oct-03, Wed, 11:19	Clear	Rear end	P.D. only	Dry	East	Going ahead	Unknown	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2019-Sep-22, Sun, 12:41	Clear	SMV other	Non-fatal injury	Dry	East	Reversing	Automobile, station wagon	Pedestrian	1
2020-Oct-08, Thu, 12:25	Clear	SMV other	Non-fatal injury	Dry	South	Turning left	Pick-up truck	Pedestrian	1

Location: BOOTH ST @ PRIMROSE AVE

Traffic Control: Traffic signal

Total Collisions: 2

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2017-Nov-24, Fri, 19:21	Clear	SMV other	Non-fatal injury	Dry	South	Going ahead	Automobile, station wagon	Pedestrian	1
2017-Dec-11, Mon, 15:20	Clear	Rear end	P.D. only	Dry	North	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					North	Stopped	Passenger van	Other motor vehicle	

Location: BOOTH ST @ SOMERSET ST

Traffic Control: Traffic signal

Total Collisions: 12

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2017-Feb-25, Sat, 19:20	Rain	Sideswipe	P.D. only	Wet	East	Unknown	Unknown	Other motor vehicle	0
					East	Changing lanes	Automobile, station wagon	Other motor vehicle	



Transportation Services - Traffic Services

Collision Details Report - Public Version

From: January 1, 2017 To: December 31, 2021

Location: BOOTH ST @ SOMERSET ST

Traffic Control: Traffic signal

Total Collisions: 12

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2017-Aug-19, Sat,16:06	Clear	Angle	P.D. only	Dry	East	Unknown	Unknown	Other motor vehicle	0
2017-Oct-04, Wed,14:57	Clear	SMV other	P.D. only	Dry	North	Turning right	Truck - tractor	Pole (utility, power)	0
2017-Nov-29, Wed,10:08	Clear	Rear end	P.D. only	Dry	South	Going ahead	Automobile, station wagon	Other motor vehicle	0
2018-Apr-28, Sat,20:04	Clear	Sideswipe	P.D. only	Dry	South	Turning left	Automobile, station wagon	Other motor vehicle	0
2018-Sep-04, Tue,08:50	Clear	SMV unattended vehicle	P.D. only	Dry	North	Pulling away from shoulder or curb	Automobile, station wagon	Other motor vehicle	0
2019-Jan-06, Sun,10:19	Clear	SMV other	Non-fatal injury	Dry	North	Unknown	Unknown	Other motor vehicle	0
2019-Jul-26, Fri,21:13	Clear	Angle	Non-fatal injury	Dry	South	Going ahead	Pick-up truck	Unattended vehicle	0
2020-Jan-04, Sat,15:45	Snow	Rear end	P.D. only	Wet	South	Turning right	Automobile, station wagon	Pedestrian	1
2021-Jul-02, Fri,14:55	Clear	Rear end	P.D. only	Dry	West	Turning right	Automobile, station wagon	Other motor vehicle	0
2021-Oct-20, Wed,08:30	Clear	SMV other	Non-fatal injury	Dry	South	Going ahead	Automobile, station wagon	Other motor vehicle	0
2021-Dec-21, Tue,15:40	Clear	Sideswipe	P.D. only	Dry	North	Turning right	Automobile, station wagon	Other motor vehicle	0
					West	Stopped	Pick-up truck	Other motor vehicle	0
					East	Turning right	Automobile, station wagon	Pedestrian	1
					East	Unknown	Pick-up truck	Other motor vehicle	0
					East	Unknown	Automobile, station wagon	Other motor vehicle	0

Location: BRONSON AVE @ PRIMROSE AVE

Traffic Control: Traffic signal

Total Collisions: 4

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
					West	Stopped	Pick-up truck	Other motor vehicle	0
					East	Turning right	Automobile, station wagon	Pedestrian	1
					East	Unknown	Pick-up truck	Other motor vehicle	0
					East	Unknown	Automobile, station wagon	Other motor vehicle	0



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Collision Details Report - Public Version

From: January 1, 2017 To: December 31, 2021

Location: BRONSON AVE @ PRIMROSE AVE

Traffic Control: Traffic signal

Total Collisions: 4

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2017-May-29, Mon, 13:38	Rain	Rear end	Non-fatal injury	Wet	North	Going ahead	Pick-up truck	Other motor vehicle	0
2020-Feb-08, Sat, 18:27	Clear	SMV other	Non-fatal injury	Wet	North	Going ahead	Automobile, station wagon	Other motor vehicle	1
2020-Feb-20, Thu, 09:00	Clear	Sideswipe	P.D. only	Dry	North	Unknown	Unknown	Other motor vehicle	0
2021-Aug-10, Tue, 10:15	Clear	Rear end	P.D. only	Dry	South	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					South	Stopped	Pick-up truck	Other motor vehicle	

Location: BRONSON AVE @ SOMERSET ST

Traffic Control: Traffic signal

Total Collisions: 48

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2017-Jan-19, Thu, 16:33	Clear	Sideswipe	P.D. only	Wet	North	Changing lanes	Unknown	Other motor vehicle	0
2017-Feb-13, Mon, 07:45	Clear	Sideswipe	P.D. only	Packed snow	South	Going ahead	Unknown	Other motor vehicle	0
2017-Mar-12, Sun, 06:28	Clear	SMV other	P.D. only	Dry	South	Stopped	Municipal transit bus	Other motor vehicle	0
2017-Mar-30, Thu, 17:26	Clear	Sideswipe	P.D. only	Dry	North	Turning right	Automobile, station wagon	Curb	0
2017-Sep-02, Sat, 13:46	Clear	Rear end	P.D. only	Dry	North	Changing lanes	Pick-up truck	Other motor vehicle	0
2017-Sep-02, Sat, 20:11	Clear	Rear end	Non-fatal injury	Dry	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
2017-Dec-27, Wed, 15:30	Clear	Rear end	P.D. only	Loose snow	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Stopped	Automobile, station wagon	Other motor vehicle	



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Collision Details Report - Public Version

From: January 1, 2017 **To:** December 31, 2021

Location: BRONSON AVE @ SOMERSET ST

Traffic Control: Traffic signal

Total Collisions: 48

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2017-Dec-30, Sat, 19:48	Strong wind	Turning movement	P.D. only	Ice	West	Turning left	Automobile, station wagon	Other motor vehicle	0
2018-Apr-05, Thu, 10:01	Clear	Sideswipe	P.D. only	Dry	West	Turning left	Automobile, station wagon	Other motor vehicle	0
2018-Apr-21, Sat, 08:20	Clear	SMV other	Non-fatal injury	Dry	North	Turning right	Pick-up truck	Pedestrian	1
2018-Apr-29, Sun, 13:09	Clear	Rear end	Non-fatal injury	Dry	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
2018-Apr-29, Sun, 14:04	Clear	Rear end	P.D. only	Dry	East	Stopped	Automobile, station wagon	Other motor vehicle	0
2018-Jun-08, Fri, 15:50	Clear	Rear end	P.D. only	Dry	East	Stopped	Automobile, station wagon	Other motor vehicle	0
2018-Jun-22, Fri, 13:07	Clear	Angle	Non-fatal injury	Dry	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
2018-Jun-29, Fri, 14:00	Clear	Rear end	P.D. only	Dry	North	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
2018-Jul-13, Fri, 19:21	Clear	Rear end	Non-fatal injury	Dry	North	Stopped	Pick-up truck	Other motor vehicle	0
2018-Aug-07, Tue, 19:14	Clear	Turning movement	P.D. only	Dry	North	Turning left	Automobile, station wagon	Cyclist	0
2018-Aug-26, Sun, 14:24	Clear	Angle	P.D. only	Dry	South	Going ahead	Bicycle	Other motor vehicle	0
2018-Oct-27, Sat, 20:00	Rain	Rear end	P.D. only	Wet	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	0



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Collision Details Report - Public Version

From: January 1, 2017 **To:** December 31, 2021

Location: BRONSON AVE @ SOMERSET ST

Traffic Control: Traffic signal

Total Collisions: 48

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2018-Dec-19, Wed, 20:10	Clear	Sideswipe	P.D. only	Dry	North	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					North	Going ahead	Automobile, station wagon	Other motor vehicle	
					North	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-Jan-29, Tue, 11:40	Snow	Turning movement	P.D. only	Packed snow	East	Turning left	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Unknown	Other motor vehicle	
2019-Feb-08, Fri, 13:35	Clear	Sideswipe	P.D. only	Dry	East	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2019-Feb-11, Mon, 01:39	Clear	Sideswipe	P.D. only	Slush	West	Changing lanes	Pick-up truck	Other motor vehicle	0
					West	Stopped	Truck and trailer	Other motor vehicle	
2019-Feb-23, Sat, 23:00	Clear	Sideswipe	P.D. only	Dry	North	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					North	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-Mar-04, Mon, 16:05	Clear	Sideswipe	P.D. only	Dry	South	Unknown	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-Mar-20, Wed, 10:50	Clear	Rear end	P.D. only	Dry	North	Unknown	Unknown	Other motor vehicle	0
					North	Stopped	Automobile, station wagon	Other motor vehicle	
2019-Jun-03, Mon, 12:58	Clear	Sideswipe	P.D. only	Dry	South	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-Sep-01, Sun, 12:16	Clear	Turning movement	P.D. only	Dry	East	Turning left	Automobile, station wagon	Other motor vehicle	0
					West	Turning right	Automobile, station wagon	Other motor vehicle	
2019-Oct-31, Thu, 18:11	Rain	Turning movement	Non-fatal injury	Wet	South	Turning left	Automobile, station wagon	Other motor vehicle	0
					North	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-Nov-18, Mon, 18:10	Clear	Sideswipe	P.D. only	Dry	North	Going ahead	Truck and trailer	Other motor vehicle	0
					North	Stopped	Automobile, station wagon	Other motor vehicle	



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Collision Details Report - Public Version

From: January 1, 2017 **To:** December 31, 2021

Location: BRONSON AVE @ SOMERSET ST

Traffic Control: Traffic signal

Total Collisions: 48

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2019-Dec-26, Thu, 21:55	Clear	Other	P.D. only	Wet	North	Going ahead	Automobile, station wagon	Unattended vehicle	0
2019-Dec-27, Fri, 22:30	Clear	Sideswipe	P.D. only	Wet	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
2020-Jan-18, Sat, 18:01	Clear	Sideswipe	P.D. only	Packed snow	West	Going ahead	Unknown	Other motor vehicle	0
2020-Jan-30, Thu, 07:21	Clear	Turning movement	P.D. only	Wet	West	Turning left	Pick-up truck	Other motor vehicle	0
2020-Feb-16, Sun, 17:00	Clear	Rear end	P.D. only	Dry	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
2020-Feb-25, Tue, 15:20	Clear	Sideswipe	P.D. only	Dry	North	Stopped	Automobile, station wagon	Other motor vehicle	0
2020-Mar-16, Mon, 22:26	Clear	SMV other	Non-fatal injury	Dry	West	Turning left	Pick-up truck	Pole (utility, power)	0
2020-Jun-17, Wed, 11:50	Clear	Rear end	Non-fatal injury	Dry	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
2020-Aug-06, Thu, 15:29	Clear	Rear end	Non-fatal injury	Dry	North	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
2020-Aug-24, Mon, 11:46	Clear	Sideswipe	P.D. only	Dry	North	Going ahead	Pick-up truck	Other motor vehicle	0
2020-Sep-02, Wed, 09:07	Clear	Sideswipe	P.D. only	Dry	North	Turning left	Passenger van	Other motor vehicle	0
2020-Sep-17, Thu, 06:35	Clear	Sideswipe	P.D. only	Dry	South	Changing lanes	Unknown	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Municipal transit bus	Other motor vehicle	0



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Collision Details Report - Public Version

From: January 1, 2017 **To:** December 31, 2021

Location: BRONSON AVE @ SOMERSET ST

Traffic Control: Traffic signal

Total Collisions: 48

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2020-Nov-10, Tue, 11:49	Clear	Rear end	Non-fatal injury	Dry	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
2021-Feb-11, Thu, 16:30	Clear	Sideswipe	P.D. only	Dry	North	Changing lanes	Automobile, station wagon	Other motor vehicle	0
2021-Aug-16, Mon, 11:39	Clear	Angle	Non-fatal injury	Dry	West	Going ahead	Bicycle	Other motor vehicle	0
2021-Sep-25, Sat, 21:00	Clear	Turning movement	P.D. only	Dry	East	Turning right	Pick-up truck	Other motor vehicle	0
2021-Sep-28, Tue, 18:52	Clear	SMV other	Fatal injury	Dry	North	Turning left	Pick-up truck	Pedestrian	1
2021-Nov-19, Fri, 16:50	Clear	Sideswipe	P.D. only	Dry	North	Changing lanes	Pick-up truck	Other motor vehicle	0
					North	Going ahead	Automobile, station wagon	Other motor vehicle	

Location: EMPRESS AVE btwn PRIMROSE AVE & SOMERSET ST W

Traffic Control: No control

Total Collisions: 1

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2018-Nov-29, Thu, 00:00	Clear	SMV unattended vehicle	P.D. only	Dry	Unknown	Unknown	Unknown	Unattended vehicle	0

Location: LEBRETON ST @ SOMERSET ST

Traffic Control: Stop sign

Total Collisions: 6

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2017-Jan-19, Thu, 10:26	Clear	Sideswipe	P.D. only	Wet	East	Stopped	Automobile, station wagon	Other motor vehicle	0
2017-May-08, Mon, 12:19	Snow	Angle	P.D. only	Wet	North	Turning right	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Passenger van	Other motor vehicle	



Transportation Services - Traffic Services

Collision Details Report - Public Version

From: January 1, 2017 To: December 31, 2021

Location: LEBRETON ST @ SOMERSET ST

Traffic Control: Stop sign

Total Collisions: 6

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2018-Aug-28, Tue, 11:45	Clear	SMV other	P.D. only	Dry	East	Pulling onto shoulder or toward curb	Truck - closed	Pole (utility, power)	0
2019-Oct-19, Sat, 19:43	Clear	SMV other	P.D. only	Dry	East	Going ahead	Automobile, station wagon	Curb	0
2020-Jan-13, Mon, 20:30	Clear	Angle	P.D. only	Loose snow	North	Going ahead	Passenger van	Other motor vehicle	0
2021-Jul-22, Thu, 12:13	Clear	Turning movement	P.D. only	Dry	West	Turning left	Automobile, station wagon	Other motor vehicle	0
					West	Turning left	Pick-up truck	Cyclist	0
					West	Going ahead	Bicycle	Other motor vehicle	0

Location: LORNE AVE @ SOMERSET ST

Traffic Control: Stop sign

Total Collisions: 3

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2017-Aug-23, Wed, 16:36	Clear	Sideswipe	Non-fatal injury	Dry	West	Pulling onto shoulder or toward curb	Pick-up truck	Cyclist	0
2017-Oct-28, Sat, 13:37	Clear	Sideswipe	P.D. only	Dry	North	Stopped	Automobile, station wagon	Other motor vehicle	0
2019-Sep-28, Sat, 01:42	Clear	SMV other	P.D. only	Dry	East	Going ahead	Pick-up truck	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Pole (sign, parking meter)	0

Location: ROCHESTER ST @ SOMERSET ST

Traffic Control: Traffic signal

Total Collisions: 5

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2017-Feb-14, Tue, 23:43	Snow	Rear end	P.D. only	Packed snow	East	Overtaking	Automobile, station wagon	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	0



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Collision Details Report - Public Version

From: January 1, 2017 To: December 31, 2021

Location: ROCHESTER ST @ SOMERSET ST

Traffic Control: Traffic signal

Total Collisions: 5

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2017-Feb-20, Mon, 18:40	Clear	Turning movement	P.D. only	Dry	East	Turning left	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2017-May-07, Sun, 18:13	Rain	Angle	P.D. only	Wet	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
2017-Nov-14, Tue, 14:39	Clear	Other	P.D. only	Dry	South	Going ahead	Automobile, station wagon	Other motor vehicle	
					South	Reversing	Pick-up truck	Other motor vehicle	0
					North	Unknown	Automobile, station wagon	Other motor vehicle	
2020-Feb-03, Mon, 12:36	Clear	Angle	Non-fatal injury	Dry	North	Turning right	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	

Location: SOMERSET ST W btwn ARTHUR ST & BELL ST N

Traffic Control: No control

Total Collisions: 2

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2019-Jun-26, Wed, 00:00	Clear	SMV unattended vehicle	P.D. only	Dry	West	Unknown	Unknown	Unattended vehicle	0
2019-Jul-21, Sun, 07:50	Clear	Other	P.D. only	Dry	East	Overtaking	Passenger van	Other motor vehicle	0
					West	Reversing	Automobile, station wagon	Other motor vehicle	

Location: SOMERSET ST W btwn BELL ST N & EMPRESS AVE

Traffic Control: No control

Total Collisions: 1

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2019-Nov-04, Mon, 19:30	Clear	SMV unattended vehicle	P.D. only	Dry	West	Going ahead	Municipal transit bus	Unattended vehicle	0

Location: SOMERSET ST W btwn BOOTH ST & UPPER LORNE PL

Traffic Control: No control

Total Collisions: 7

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped



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From: January 1, 2017 To: December 31, 2021

Location: SOMERSET ST W btwn BOOTH ST & UPPER LORNE PL

Traffic Control: No control

Total Collisions: 7

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2017-Sep-28, Thu,20:42	Clear	SMV unattended vehicle	P.D. only	Dry	East	Going ahead	Automobile, station wagon	Unattended vehicle	0
2017-Oct-19, Thu,00:03	Clear	Sideswipe	P.D. only	Dry	East	Pulling away from shoulder or curb	Automobile, station wagon	Other motor vehicle	0
2018-Jan-11, Thu,20:27	Clear	Sideswipe	P.D. only	Wet	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
2019-Apr-24, Wed,12:51	Clear	Other	P.D. only	Dry	West	Reversing	Automobile, station wagon	Other motor vehicle	0
2020-Aug-10, Mon,00:00	Clear	SMV unattended vehicle	P.D. only	Dry	West	Unknown	Unknown	Unattended vehicle	0
2020-Aug-30, Sun,13:30	Clear	Sideswipe	P.D. only	Dry	West	Pulling away from shoulder or curb	Automobile, station wagon	Other motor vehicle	0
2021-Apr-02, Fri,18:30	Clear	Sideswipe	P.D. only	Dry	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Stopped	Pick-up truck	Other motor vehicle	0

Location: SOMERSET ST W btwn EMPRESS AVE & LEBRETON ST N

Traffic Control: No control

Total Collisions: 4

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2017-Jun-09, Fri,22:28	Clear	Sideswipe	P.D. only	Dry	West	Pulling away from shoulder or curb	Automobile, station wagon	Other motor vehicle	0
2017-Nov-30, Thu,00:00	Clear	SMV unattended vehicle	P.D. only	Dry	Unknown	Unknown	Unknown	Unattended vehicle	0
2017-Dec-19, Tue,00:00	Snow	SMV unattended vehicle	P.D. only	Ice	East	Going ahead	Unknown	Unattended vehicle	0



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From: January 1, 2017 To: December 31, 2021

Location: SOMERSET ST W btwn EMPRESS AVE & LEBRETON ST N

Traffic Control: No control

Total Collisions: 4

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2019-Feb-15, Fri,00:00	Clear	SMV unattended vehicle	P.D. only	Dry	Unknown	Unknown	Unknown	Unattended vehicle	0

Location: SOMERSET ST W btwn LEBRETON ST N & UPPER LORNE PL

Traffic Control: No control

Total Collisions: 4

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2019-Jun-22, Sat,00:00	Clear	SMV unattended vehicle	P.D. only	Dry	East	Unknown	Unknown	Unattended vehicle	0
2019-Sep-15, Sun,11:33	Clear	Angle	P.D. only	Dry	North	Turning right	Automobile, station wagon	Other motor vehicle	0
2019-Dec-15, Sun,20:20	Freezing Rain	SMV unattended vehicle	P.D. only	Wet	Unknown	Unknown	Unknown	Unattended vehicle	0
2020-Aug-29, Sat,20:00	Clear	Sideswipe	P.D. only	Dry	East	Stopped	Pick-up truck	Other motor vehicle	0
					East	Going ahead	Pick-up truck	Other motor vehicle	

Location: SOMERSET ST @ BELL ST

Traffic Control: No control

Total Collisions: 1

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2017-Jun-09, Fri,15:06	Clear	Rear end	P.D. only	Dry	North	Going ahead	Delivery van	Other motor vehicle	0
					North	Stopped	Delivery van	Other motor vehicle	

Location: SOMERSET ST @ EMPRESS AVE

Traffic Control: Traffic signal

Total Collisions: 5

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2017-Jan-13, Fri,19:26	Clear	Rear end	P.D. only	Dry	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Stopped	Pick-up truck	Other motor vehicle	



Transportation Services - Traffic Services

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From: January 1, 2017 **To:** December 31, 2021

Location: SOMERSET ST @ EMPRESS AVE

Traffic Control: Traffic signal

Total Collisions: 5

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2017-Nov-11, Sat, 10:40	Clear	Rear end	P.D. only	Dry	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
2017-Dec-26, Tue, 15:50	Clear	Rear end	Non-fatal injury	Slush	East	Stopped	Automobile, station wagon	Other motor vehicle	0
2021-Aug-31, Tue, 12:12	Clear	Rear end	P.D. only	Dry	West	Stopped	Passenger van	Other motor vehicle	0
2021-Nov-11, Thu, 16:32	Rain	Rear end	P.D. only	Wet	East	Going ahead	Pick-up truck	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
					East	Stopped	Pick-up truck	Other motor vehicle	
					West	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					West	Stopped	Delivery van	Other motor vehicle	



**Castleglenn
Consultants**

Engineers, Project Managers & Planners

APPENDIX D:

EXISTING (2023) SYNCHRO ANALYSIS

DRAFT

Lanes, Volumes, Timings
1: Bronson Avenue & Primrose Avenue E

725 Somerset - Existing 2023 AM
05/15/2023



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	19	16	36	552	318	11
Future Volume (vph)	19	16	36	552	318	11
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (m)	3.7	3.7	3.3	3.3	3.3	3.3
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Ped Bike Factor	0.90			0.99	0.99	
Frt	0.938				0.995	
Flt Protected	0.974			0.997		
Satd. Flow (prot)	1488	0	0	3177	3058	0
Flt Permitted	0.974			0.912		
Satd. Flow (perm)	1407	0	0	2884	3058	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	18				7	
Link Speed (k/h)	50			50	50	
Link Distance (m)	269.5			207.6	103.3	
Travel Time (s)	19.4			14.9	7.4	
Confl. Peds. (#/hr)	100	100	100			100
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	11%	0%	0%	4%	7%	0%
Adj. Flow (vph)	21	18	40	613	353	12
Shared Lane Traffic (%)						
Lane Group Flow (vph)	39	0	0	653	365	0
Turn Type	Prot		Perm	NA	NA	
Protected Phases	4			2	6	
Permitted Phases			2			
Detector Phase	4		2	2	6	
Switch Phase						
Minimum Initial (s)	5.0		5.0	5.0	5.0	
Minimum Split (s)	27.2		23.5	23.5	23.5	
Total Split (s)	28.0		47.0	47.0	47.0	
Total Split (%)	37.3%		62.7%	62.7%	62.7%	
Maximum Green (s)	22.8		41.8	41.8	41.8	
Yellow Time (s)	3.3		3.3	3.3	3.3	
All-Red Time (s)	1.9		1.9	1.9	1.9	
Lost Time Adjust (s)	0.0			0.0	0.0	
Total Lost Time (s)	5.2			5.2	5.2	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Recall Mode	Ped		C-Max	C-Max	C-Max	
Walk Time (s)	10.0		7.0	7.0	7.0	
Flash Dont Walk (s)	12.0		11.0	11.0	11.0	
Pedestrian Calls (#/hr)	100		100	100	100	
Act Effct Green (s)	22.0			42.6	42.6	
Actuated g/C Ratio	0.29			0.57	0.57	
v/c Ratio	0.09			0.40	0.21	
Control Delay	13.4			10.0	8.2	
Queue Delay	0.0			0.0	0.0	

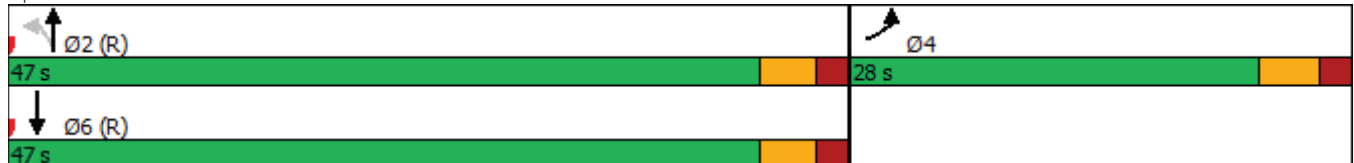
Lanes, Volumes, Timings
 1: Bronson Avenue & Primrose Avenue E



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Total Delay	13.4			10.0	8.2	
LOS	B			A	A	
Approach Delay	13.4			10.0	8.2	
Approach LOS	B			A	A	
Queue Length 50th (m)	2.1			24.7	11.8	
Queue Length 95th (m)	8.5			35.3	18.3	
Internal Link Dist (m)	245.5			183.6	79.3	
Turn Bay Length (m)						
Base Capacity (vph)	464			1638	1739	
Starvation Cap Reductn	0			0	0	
Spillback Cap Reductn	0			0	0	
Storage Cap Reductn	0			0	0	
Reduced v/c Ratio	0.08			0.40	0.21	

Intersection Summary	
Area Type:	Other
Cycle Length:	75
Actuated Cycle Length:	75
Offset:	13 (17%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle:	55
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.40
Intersection Signal Delay:	9.5
Intersection LOS:	A
Intersection Capacity Utilization	63.5%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 1: Bronson Avenue & Primrose Avenue E



Lanes, Volumes, Timings
2: Bronson Avenue & Somerset Street W

725 Somerset - Existing 2023 AM

05/15/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	104	193	56	47	166	17	82	467	54	16	277	41
Future Volume (vph)	104	193	56	47	166	17	82	467	54	16	277	41
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (m)	3.2	4.0	4.0	3.2	4.0	4.0	3.7	3.7	3.7	3.7	3.7	3.7
Storage Length (m)	18.0		0.0	18.0		0.0	0.0		0.0	0.0		0.0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (m)	7.6			7.6			7.6			7.6		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor	0.89	0.96		0.91	0.98			0.95			0.96	
Frt		0.966			0.986			0.987			0.981	
Flt Protected	0.950			0.950				0.993			0.998	
Satd. Flow (prot)	1556	1629	0	1602	1736	0	0	3156	0	0	3048	0
Flt Permitted	0.582			0.480				0.827			0.911	
Satd. Flow (perm)	849	1629	0	738	1736	0	0	2569	0	0	2770	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		80.9			235.2			299.8			207.6	
Travel Time (s)		5.8			16.9			21.6			14.9	
Confl. Peds. (#/hr)	100		100	100		100	100		100	100		100
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	5%	8%	5%	2%	5%	6%	1%	5%	6%	0%	7%	10%
Adj. Flow (vph)	116	214	62	52	184	19	91	519	60	18	308	46
Shared Lane Traffic (%)												
Lane Group Flow (vph)	116	276	0	52	203	0	0	670	0	0	372	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	24.0	24.0		24.0	24.0		24.0	24.0		24.0	24.0	
Total Split (s)	32.0	32.0		32.0	32.0		53.0	53.0		53.0	53.0	
Total Split (%)	33.7%	33.7%		33.7%	33.7%		55.8%	55.8%		55.8%	55.8%	
Maximum Green (s)	26.3	26.3		26.3	26.3		47.0	47.0		47.0	47.0	
Yellow Time (s)	3.3	3.3		3.3	3.3		3.3	3.3		3.3	3.3	
All-Red Time (s)	2.4	2.4		2.4	2.4		2.7	2.7		2.7	2.7	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	5.7	5.7		5.7	5.7			6.0			6.0	
Lead/Lag	Lag	Lag		Lag	Lag		Lag	Lag		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Max	Max		Max	Max		C-Max	C-Max		C-Max	C-Max	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		10.0	10.0		10.0	10.0	
Pedestrian Calls (#/hr)	100	100		100	100		100	100		100	100	
Act Effect Green (s)	31.3	31.3		31.3	31.3			52.0			52.0	
Actuated g/C Ratio	0.33	0.33		0.33	0.33			0.55			0.55	

Lane Group	Ø1	Ø3	Ø5	Ø7
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Lane Width (m)				
Storage Length (m)				
Storage Lanes				
Taper Length (m)				
Lane Util. Factor				
Ped Bike Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (k/h)				
Link Distance (m)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Heavy Vehicles (%)				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Turn Type				
Protected Phases	1	3	5	7
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	1.0	1.0	1.0	1.0
Minimum Split (s)	3.0	3.0	6.5	6.5
Total Split (s)	5.0	5.0	5.0	5.0
Total Split (%)	5%	5%	5%	5%
Maximum Green (s)	3.0	3.0	3.0	3.0
Yellow Time (s)	2.0	2.0	2.0	2.0
All-Red Time (s)	0.0	0.0	0.0	0.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lead	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None
Walk Time (s)				
Flash Dont Walk (s)				
Pedestrian Calls (#/hr)				
Act Effct Green (s)				
Actuated g/C Ratio				

Lanes, Volumes, Timings
 2: Bronson Avenue & Somerset Street W

725 Somerset - Existing 2023 AM

05/15/2023

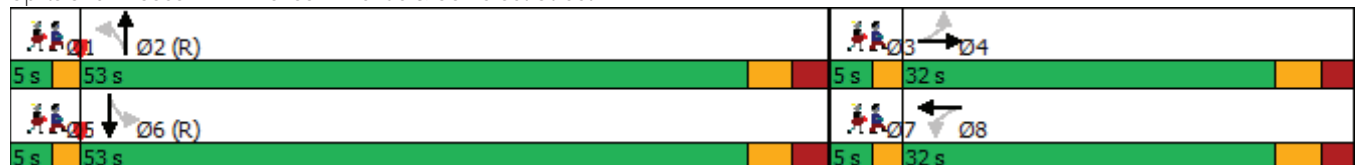


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.42	0.51		0.21	0.36			0.48			0.25	
Control Delay	30.4	29.9		26.0	26.4			14.6			11.8	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	30.4	29.9		26.0	26.4			14.6			11.8	
LOS	C	C		C	C			B			B	
Approach Delay		30.0			26.3			14.6			11.8	
Approach LOS		C			C			B			B	
Queue Length 50th (m)	16.4	40.5		6.8	28.0			37.2			17.6	
Queue Length 95th (m)	32.5	64.6		16.3	46.3			51.2			25.7	
Internal Link Dist (m)		56.9			211.2			275.8			183.6	
Turn Bay Length (m)	18.0			18.0								
Base Capacity (vph)	279	536		243	571			1406			1516	
Starvation Cap Reductn	0	0		0	0			0			0	
Spillback Cap Reductn	0	0		0	0			0			0	
Storage Cap Reductn	0	0		0	0			0			0	
Reduced v/c Ratio	0.42	0.51		0.21	0.36			0.48			0.25	

Intersection Summary

Area Type:	Other
Cycle Length:	95
Actuated Cycle Length:	95
Offset:	35 (37%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle:	65
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.51
Intersection Signal Delay:	19.3
Intersection LOS:	B
Intersection Capacity Utilization	73.2%
ICU Level of Service	D
Analysis Period (min)	15

Splits and Phases: 2: Bronson Avenue & Somerset Street W



Lane Group	Ø1	Ø3	Ø5	Ø7
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (m)				
Queue Length 95th (m)				
Internal Link Dist (m)				
Turn Bay Length (m)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				
Intersection Summary				

Lanes, Volumes, Timings
3: Arthur Street & Somerset Street W

725 Somerset - Existing 2023 AM

05/15/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕	↗		↕			↕	
Traffic Volume (vph)	9	341	7	11	273	4	14	5	7	4	4	14
Future Volume (vph)	9	341	7	11	273	4	14	5	7	4	4	14
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5	3.7	3.7	3.7	3.7	3.7	3.7
Storage Length (m)	0.0		10.0	0.0		10.0	0.0		0.0	0.0		0.0
Storage Lanes	0		1	0		1	0		0	0		0
Taper Length (m)	7.6			7.6			7.6			7.6		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00	0.82		1.00	0.82		0.85			0.83	
Frt			0.850			0.850		0.964			0.910	
Flt Protected		0.999			0.998			0.974			0.992	
Satd. Flow (prot)	0	1645	1513	0	1711	1513	0	1555	0	0	1349	0
Flt Permitted		0.991			0.983			0.863			0.962	
Satd. Flow (perm)	0	1628	1247	0	1679	1247	0	1239	0	0	1268	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			56			56		8			16	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		65.4			78.9			162.7			156.8	
Travel Time (s)		4.7			5.7			11.7			11.3	
Confl. Peds. (#/hr)	100		100	100		100	100		100	100		100
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	11%	8%	0%	0%	4%	0%	7%	0%	0%	0%	0%	7%
Adj. Flow (vph)	10	379	8	12	303	4	16	6	8	4	4	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	389	8	0	315	4	0	30	0	0	24	0
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			6			4			8	
Permitted Phases	2		2	6		6	4			8		
Detector Phase	2	2	2	6	6	6	4	4		8	8	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	34.6	34.6	34.6	34.6	34.6	34.6	24.6	24.6		24.6	24.6	
Total Split (s)	45.0	45.0	45.0	45.0	45.0	45.0	25.0	25.0		25.0	25.0	
Total Split (%)	64.3%	64.3%	64.3%	64.3%	64.3%	64.3%	35.7%	35.7%		35.7%	35.7%	
Maximum Green (s)	39.3	39.3	39.3	39.3	39.3	39.3	18.4	18.4		18.4	18.4	
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3		3.3	3.3	
All-Red Time (s)	2.4	2.4	2.4	2.4	2.4	2.4	3.3	3.3		3.3	3.3	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0		0.0			0.0	
Total Lost Time (s)		5.7	5.7		5.7	5.7		6.6			6.6	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max	Min	Min		Min	Min	
Walk Time (s)	17.0	17.0	17.0	17.0	17.0	17.0	7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	5.0	5.0	5.0	5.0	5.0	5.0	11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	100	100	100	100	100	100	100	100		100	100	
Act Effct Green (s)		42.2	42.2		42.2	42.2		15.5			15.5	
Actuated g/C Ratio		0.60	0.60		0.60	0.60		0.22			0.22	

Lanes, Volumes, Timings
3: Arthur Street & Somerset Street W

725 Somerset - Existing 2023 AM

05/15/2023

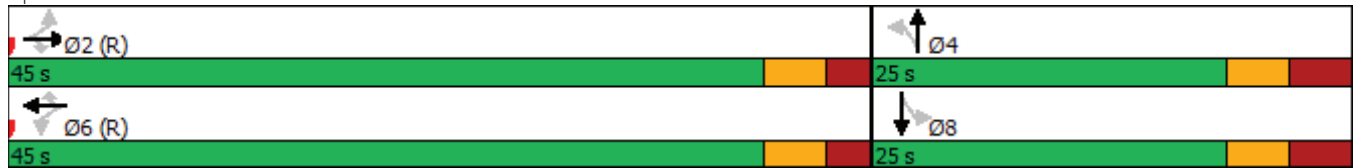


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.40	0.01		0.31	0.01		0.11				0.08
Control Delay		2.8	0.0		8.7	0.0		17.1				12.9
Queue Delay		0.1	0.0		0.0	0.0		0.0				0.0
Total Delay		2.8	0.0		8.7	0.0		17.1				12.9
LOS		A	A		A	A		B				B
Approach Delay		2.8			8.6			17.1				12.9
Approach LOS		A			A			B				B
Queue Length 50th (m)		3.9	0.0		19.9	0.0		2.2				0.8
Queue Length 95th (m)		4.1	m0.0		33.7	0.0		8.1				5.9
Internal Link Dist (m)		41.4			54.9			138.7				132.8
Turn Bay Length (m)			10.0			10.0						
Base Capacity (vph)		981	774		1012	774		331				345
Starvation Cap Reductn		55	0		0	0		0				0
Spillback Cap Reductn		0	0		0	0		0				0
Storage Cap Reductn		0	0		0	0		0				0
Reduced v/c Ratio		0.42	0.01		0.31	0.01		0.09				0.07

Intersection Summary

Area Type: Other
 Cycle Length: 70
 Actuated Cycle Length: 70
 Offset: 16 (23%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.40
 Intersection Signal Delay: 6.1 Intersection LOS: A
 Intersection Capacity Utilization 67.4% ICU Level of Service C
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Arthur Street & Somerset Street W



Lanes, Volumes, Timings
 4: Bell St. N & Somerset Street W

725 Somerset - Existing 2023 AM

05/15/2023



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	360	6	7	301	0	0
Future Volume (vph)	360	6	7	301	0	0
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (m)	3.7	3.5	3.7	3.7	3.7	3.7
Storage Length (m)		10.0	0.0		0.0	0.0
Storage Lanes		1	0		0	0
Taper Length (m)			7.6		7.6	
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt		0.850				
Flt Protected				0.999		
Satd. Flow (prot)	1601	1437	0	1750	0	0
Flt Permitted				0.999		
Satd. Flow (perm)	1601	1437	0	1750	0	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	35.6			65.4	166.5	
Travel Time (s)	2.6			4.7	12.0	
Confl. Peds. (#/hr)		100	100		100	100
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	8%	0%	0%	4%	0%	0%
Adj. Flow (vph)	400	7	8	334	0	0
Shared Lane Traffic (%)		10%				
Lane Group Flow (vph)	401	6	0	342	0	0
Sign Control	Free			Free	Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	42.3%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings
5: Somerset Street W & Empress Avenue

725 Somerset - Existing 2023 AM

05/15/2023



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	30	364	283	18	2	8
Future Volume (vph)	30	364	283	18	2	8
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5
Storage Length (m)	0.0			26.0	0.0	0.0
Storage Lanes	0			1	1	0
Taper Length (m)	7.6				7.6	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99		0.79	0.82	
Frt				0.850	0.890	
Flt Protected		0.996			0.991	
Satd. Flow (prot)	0	1656	1679	1513	874	0
Flt Permitted		0.960			0.991	
Satd. Flow (perm)	0	1581	1679	1194	846	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				20	9	
Link Speed (k/h)		50	50		50	
Link Distance (m)		100.6	35.6		204.4	
Travel Time (s)		7.2	2.6		14.7	
Confl. Peds. (#/hr)	100			100	100	100
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	20%	6%	6%	0%	0%	63%
Adj. Flow (vph)	33	404	314	20	2	9
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	437	314	20	11	0
Turn Type	Perm	NA	NA	Perm	Prot	
Protected Phases		4	8		6	
Permitted Phases	4			8		
Detector Phase	4	4	8	8	6	
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	25.7	25.7	25.9	25.9	25.9	
Total Split (s)	44.0	44.0	44.0	44.0	26.0	
Total Split (%)	62.9%	62.9%	62.9%	62.9%	37.1%	
Maximum Green (s)	38.3	38.3	38.3	38.3	20.1	
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3	
All-Red Time (s)	2.4	2.4	2.4	2.4	2.6	
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	
Total Lost Time (s)		5.7	5.7	5.7	5.9	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Recall Mode	C-Max	C-Max	C-Max	C-Max	Min	
Walk Time (s)	9.0	9.0	9.0	9.0	10.0	
Flash Dont Walk (s)	9.0	9.0	9.0	9.0	10.0	
Pedestrian Calls (#/hr)	100	100	100	100	100	
Act Effect Green (s)		41.3	41.3	41.3	17.1	
Actuated g/C Ratio		0.59	0.59	0.59	0.24	

Lanes, Volumes, Timings
 5: Somerset Street W & Empress Avenue

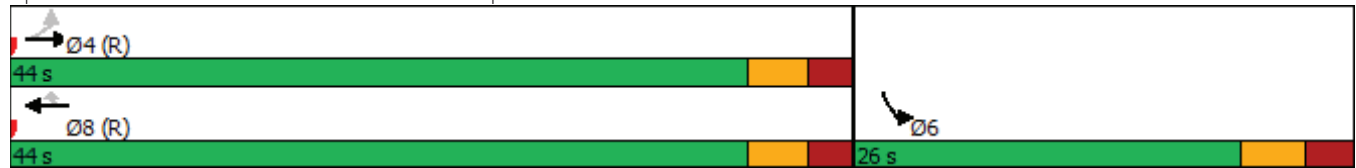


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
v/c Ratio		0.47	0.32	0.03	0.05	
Control Delay		8.8	5.2	1.4	12.2	
Queue Delay		0.0	0.2	0.0	0.0	
Total Delay		8.8	5.4	1.4	12.2	
LOS		A	A	A	B	
Approach Delay		8.8	5.1		12.2	
Approach LOS		A	A		B	
Queue Length 50th (m)		45.8	8.8	0.1	0.2	
Queue Length 95th (m)		14.4	14.5	m0.3	3.5	
Internal Link Dist (m)		76.6	11.6		180.4	
Turn Bay Length (m)				26.0		
Base Capacity (vph)		932	990	713	257	
Starvation Cap Reductn		0	167	0	0	
Spillback Cap Reductn		0	0	0	0	
Storage Cap Reductn		0	0	0	0	
Reduced v/c Ratio		0.47	0.38	0.03	0.04	

Intersection Summary

Area Type: Other
 Cycle Length: 70
 Actuated Cycle Length: 70
 Offset: 15 (21%), Referenced to phase 4:EBTL and 8:WBT, Start of Green
 Natural Cycle: 55
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.47
 Intersection Signal Delay: 7.3
 Intersection LOS: A
 Intersection Capacity Utilization 68.4%
 ICU Level of Service C
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: Somerset Street W & Empress Avenue



Lanes, Volumes, Timings
6: Booth Street & Somerset Street W

725 Somerset - Existing 2023 AM

05/15/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	25	293	35	11	231	33	14	212	13	69	255	76
Future Volume (vph)	25	293	35	11	231	33	14	212	13	69	255	76
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (m)	3.3	3.7	3.7	3.3	3.7	3.7	4.5	4.5	4.5	4.5	4.5	4.5
Storage Length (m)	20.0		0.0	20.0		0.0	0.0		0.0	0.0		0.0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (m)	7.6			7.6			7.6			7.6		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.86	0.97		0.89	0.97			0.98			0.94	
Frt		0.984			0.981			0.993			0.974	
Flt Protected	0.950			0.950				0.997			0.991	
Satd. Flow (prot)	1653	1664	0	1517	1651	0	0	1888	0	0	1767	0
Flt Permitted	0.549			0.479				0.962			0.895	
Satd. Flow (perm)	824	1664	0	679	1651	0	0	1813	0	0	1561	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9			11			6			23	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		118.5			73.8			130.2			238.3	
Travel Time (s)		8.5			5.3			9.4			17.2	
Confl. Peds. (#/hr)	100		100	100		100	100		100	100		100
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	5%	3%	9%	5%	3%	0%	3%	0%	0%	6%	0%
Adj. Flow (vph)	28	326	39	12	257	37	16	236	14	77	283	84
Shared Lane Traffic (%)												
Lane Group Flow (vph)	28	365	0	12	294	0	0	266	0	0	444	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		
Detector Phase	2	2		6	6		4	4		8	8	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	23.5	23.5		23.5	23.5		24.2	24.2		24.2	24.2	
Total Split (s)	30.0	30.0		30.0	30.0		40.0	40.0		40.0	40.0	
Total Split (%)	42.9%	42.9%		42.9%	42.9%		57.1%	57.1%		57.1%	57.1%	
Maximum Green (s)	24.5	24.5		24.5	24.5		33.8	33.8		33.8	33.8	
Yellow Time (s)	3.3	3.3		3.3	3.3		3.3	3.3		3.3	3.3	
All-Red Time (s)	2.2	2.2		2.2	2.2		2.9	2.9		2.9	2.9	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	5.5	5.5		5.5	5.5			6.2			6.2	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	C-Max	C-Max		C-Max	C-Max		Ped	Ped		Ped	Ped	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	8.0	8.0		8.0	8.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	100	100		100	100		100	100		100	100	
Act Effect Green (s)	32.9	32.9		32.9	32.9			25.4			25.4	
Actuated g/C Ratio	0.47	0.47		0.47	0.47			0.36			0.36	

Lanes, Volumes, Timings
6: Booth Street & Somerset Street W

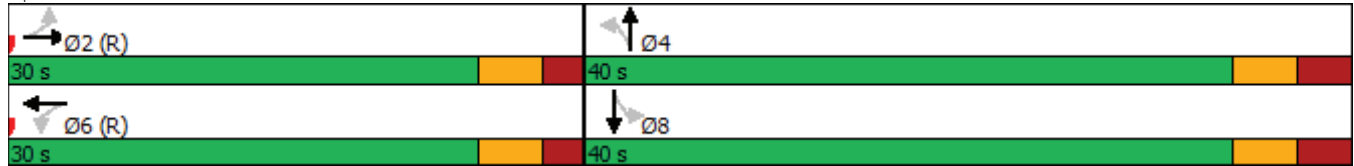


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.07	0.46		0.04	0.38			0.40				0.77
Control Delay	9.8	12.0		29.1	29.8			17.0				27.1
Queue Delay	0.0	0.0		0.0	0.0			0.0				0.0
Total Delay	9.8	12.0		29.1	29.8			17.0				27.1
LOS	A	B		C	C			B				C
Approach Delay		11.8			29.8			17.0				27.1
Approach LOS		B			C			B				C
Queue Length 50th (m)	1.2	16.1		1.6	42.1			24.9				47.7
Queue Length 95th (m)	m3.8	65.5		m5.5	64.7			34.0				64.4
Internal Link Dist (m)		94.5			49.8			106.2				214.3
Turn Bay Length (m)	20.0			20.0								
Base Capacity (vph)	387	787		319	782			878				765
Starvation Cap Reductn	0	0		0	0			0				0
Spillback Cap Reductn	0	0		0	0			0				0
Storage Cap Reductn	0	0		0	0			0				0
Reduced v/c Ratio	0.07	0.46		0.04	0.38			0.30				0.58

Intersection Summary

Area Type: Other
 Cycle Length: 70
 Actuated Cycle Length: 70
 Offset: 2 (3%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
 Natural Cycle: 50
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.77
 Intersection Signal Delay: 21.5 Intersection LOS: C
 Intersection Capacity Utilization 76.1% ICU Level of Service D
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: Booth Street & Somerset Street W



Lanes, Volumes, Timings
7: Rochester Street & Somerset Street W

725 Somerset - Existing 2023 AM

05/15/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	4	289	36	51	267	3	16	14	58	6	24	5
Future Volume (vph)	4	289	36	51	267	3	16	14	58	6	24	5
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (m)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.98			0.98			0.83			0.94	
Frt		0.985			0.999			0.912			0.980	
Flt Protected		0.999			0.992			0.991			0.991	
Satd. Flow (prot)	0	1670	0	0	1704	0	0	1413	0	0	1768	0
Flt Permitted		0.997			0.899			0.949			0.954	
Satd. Flow (perm)	0	1665	0	0	1522	0	0	1308	0	0	1652	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		15			1			64			6	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		124.6			118.5			112.1			151.0	
Travel Time (s)		9.0			8.5			8.1			10.9	
Confl. Peds. (#/hr)	100		100	100		100	100		100	100		100
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	25%	9%	3%	0%	11%	0%	13%	0%	2%	0%	0%	0%
Adj. Flow (vph)	4	321	40	57	297	3	18	16	64	7	27	6
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	365	0	0	357	0	0	98	0	0	40	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		
Detector Phase	2	2		6	6		4	4		8	8	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	31.2	31.2		31.2	31.2		24.0	24.0		24.0	24.0	
Total Split (s)	46.0	46.0		46.0	46.0		24.0	24.0		24.0	24.0	
Total Split (%)	65.7%	65.7%		65.7%	65.7%		34.3%	34.3%		34.3%	34.3%	
Maximum Green (s)	40.8	40.8		40.8	40.8		18.0	18.0		18.0	18.0	
Yellow Time (s)	3.3	3.3		3.3	3.3		3.3	3.3		3.3	3.3	
All-Red Time (s)	1.9	1.9		1.9	1.9		2.7	2.7		2.7	2.7	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		5.2			5.2			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	C-Max	C-Max		C-Max	C-Max		Ped	Ped		Ped	Ped	
Walk Time (s)	15.0	15.0		15.0	15.0		11.0	11.0		11.0	11.0	
Flash Dont Walk (s)	6.0	6.0		6.0	6.0		7.0	7.0		7.0	7.0	
Pedestrian Calls (#/hr)	100	100		100	100		100	100		100	100	
Act Effct Green (s)		40.8			40.8			18.0			18.0	
Actuated g/C Ratio		0.58			0.58			0.26			0.26	
v/c Ratio		0.37			0.40			0.26			0.09	
Control Delay		8.8			5.3			11.4			18.3	
Queue Delay		0.0			0.0			0.0			0.0	

Lanes, Volumes, Timings
7: Rochester Street & Somerset Street W

725 Somerset - Existing 2023 AM

05/15/2023

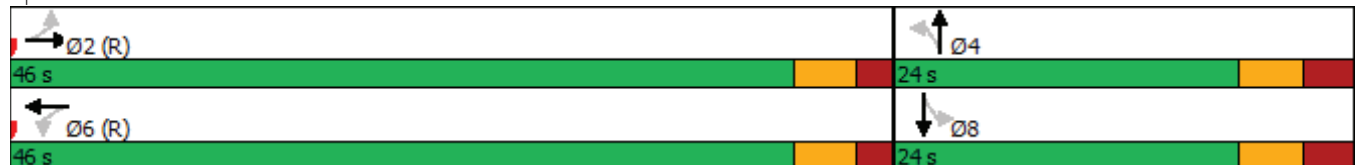


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay		8.8			5.3			11.4			18.3	
LOS		A			A			B			B	
Approach Delay		8.8			5.3			11.4			18.3	
Approach LOS		A			A			B			B	
Queue Length 50th (m)		21.8			13.7			3.4			3.4	
Queue Length 95th (m)		36.8			16.4			14.0			10.1	
Internal Link Dist (m)		100.6			94.5			88.1			127.0	
Turn Bay Length (m)												
Base Capacity (vph)		976			887			383			429	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.37			0.40			0.26			0.09	

Intersection Summary

Area Type:	Other
Cycle Length:	70
Actuated Cycle Length:	70
Offset:	62 (89%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle:	60
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.40
Intersection Signal Delay:	8.1
Intersection LOS:	A
Intersection Capacity Utilization	66.0%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 7: Rochester Street & Somerset Street W



Lanes, Volumes, Timings
8: Booth Street & Primrose Avenue

725 Somerset - Existing 2023 AM

05/15/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↕			↕	
Traffic Volume (vph)	9	2	1	0	0	0	9	254	7	0	399	10
Future Volume (vph)	9	2	1	0	0	0	9	254	7	0	399	10
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (m)	3.7	3.7	3.7	3.7	3.7	3.7	3.5	3.5	3.5	3.7	3.7	3.7
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.88						0.99			1.00	
Frt		0.990						0.996			0.997	
Flt Protected		0.963						0.998				
Satd. Flow (prot)	0	1466	0	0	0	0	0	1723	0	0	1786	0
Flt Permitted		0.963						0.985				
Satd. Flow (perm)	0	1310	0	0	0	0	0	1696	0	0	1786	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1						3			3	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		165.7			64.7			238.3			54.6	
Travel Time (s)		11.9			4.7			17.2			3.9	
Confl. Peds. (#/hr)	100		100	100		100	100		100	100		100
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	22%	0%	0%	0%	0%	0%	0%	2%	14%	0%	1%	10%
Adj. Flow (vph)	10	2	1	0	0	0	10	282	8	0	443	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	13	0	0	0	0	0	300	0	0	454	0
Turn Type	Perm	NA					Perm	NA			NA	
Protected Phases		4						2			6	
Permitted Phases	4						2			6		
Detector Phase	4	4					2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0					5.0	5.0		5.0	5.0	
Minimum Split (s)	23.3	23.3					23.5	23.5		23.5	23.5	
Total Split (s)	23.3	23.3					26.7	26.7		26.7	26.7	
Total Split (%)	46.6%	46.6%					53.4%	53.4%		53.4%	53.4%	
Maximum Green (s)	18.0	18.0					21.4	21.4		21.4	21.4	
Yellow Time (s)	3.3	3.3					3.3	3.3		3.3	3.3	
All-Red Time (s)	2.0	2.0					2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0						0.0			0.0	
Total Lost Time (s)		5.3						5.3			5.3	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0					3.0	3.0		3.0	3.0	
Recall Mode	Min	Min					C-Max	C-Max		C-Max	C-Max	
Walk Time (s)	7.0	7.0					7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0					10.0	10.0		10.0	10.0	
Pedestrian Calls (#/hr)	20	20					0	0		0	0	
Act Effct Green (s)		8.3						31.1			31.1	
Actuated g/C Ratio		0.17						0.62			0.62	
v/c Ratio		0.06						0.28			0.41	
Control Delay		14.6						6.6			7.6	
Queue Delay		0.0						0.0			0.0	

Lanes, Volumes, Timings
 8: Booth Street & Primrose Avenue

725 Somerset - Existing 2023 AM

05/15/2023

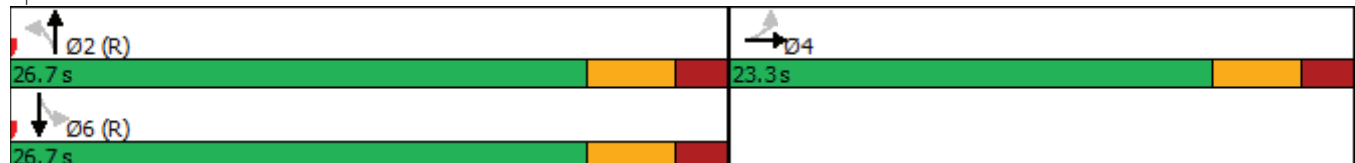


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay		14.6						6.6			7.6	
LOS		B						A			A	
Approach Delay		14.6						6.6			7.6	
Approach LOS		B						A			A	
Queue Length 50th (m)		1.0						8.0			13.4	
Queue Length 95th (m)		3.2						32.4			51.7	
Internal Link Dist (m)		141.7			40.7			214.3			30.6	
Turn Bay Length (m)												
Base Capacity (vph)		472						1056			1112	
Starvation Cap Reductn		0						0			0	
Spillback Cap Reductn		0						0			0	
Storage Cap Reductn		0						0			0	
Reduced v/c Ratio		0.03						0.28			0.41	

Intersection Summary

Area Type:	Other
Cycle Length:	50
Actuated Cycle Length:	50
Offset:	0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle:	50
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.41
Intersection Signal Delay:	7.3
Intersection LOS:	A
Intersection Capacity Utilization	46.5%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 8: Booth Street & Primrose Avenue



Lanes, Volumes, Timings
1: Bronson Avenue & Primrose Avenue E

725 Somerset - Existing 2023 PM

05/15/2023



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	42	74	55	531	525	26
Future Volume (vph)	42	74	55	531	525	26
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (m)	3.7	3.7	3.3	3.3	3.3	3.3
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Ped Bike Factor	0.89			0.99	0.99	
Frt	0.914				0.993	
Flt Protected	0.982			0.995		
Satd. Flow (prot)	1497	0	0	3174	3158	0
Flt Permitted	0.982			0.844		
Satd. Flow (perm)	1441	0	0	2671	3158	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	82				11	
Link Speed (k/h)	50			50	50	
Link Distance (m)	269.5			207.6	103.3	
Travel Time (s)	19.4			14.9	7.4	
Confl. Peds. (#/hr)	100	100	100			100
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	1%	0%	4%	3%	0%
Adj. Flow (vph)	47	82	61	590	583	29
Shared Lane Traffic (%)						
Lane Group Flow (vph)	129	0	0	651	612	0
Turn Type	Prot		Perm	NA	NA	
Protected Phases	4			2	6	
Permitted Phases			2			
Detector Phase	4		2	2	6	
Switch Phase						
Minimum Initial (s)	5.0		5.0	5.0	5.0	
Minimum Split (s)	27.2		23.5	23.5	23.5	
Total Split (s)	28.0		47.0	47.0	47.0	
Total Split (%)	37.3%		62.7%	62.7%	62.7%	
Maximum Green (s)	22.8		41.8	41.8	41.8	
Yellow Time (s)	3.3		3.3	3.3	3.3	
All-Red Time (s)	1.9		1.9	1.9	1.9	
Lost Time Adjust (s)	0.0			0.0	0.0	
Total Lost Time (s)	5.2			5.2	5.2	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Recall Mode	Ped		C-Max	C-Max	C-Max	
Walk Time (s)	10.0		7.0	7.0	7.0	
Flash Dont Walk (s)	12.0		11.0	11.0	11.0	
Pedestrian Calls (#/hr)	100		100	100	100	
Act Effct Green (s)	22.0			42.6	42.6	
Actuated g/C Ratio	0.29			0.57	0.57	
v/c Ratio	0.26			0.43	0.34	
Control Delay	10.4			10.4	9.2	
Queue Delay	0.0			0.0	0.0	

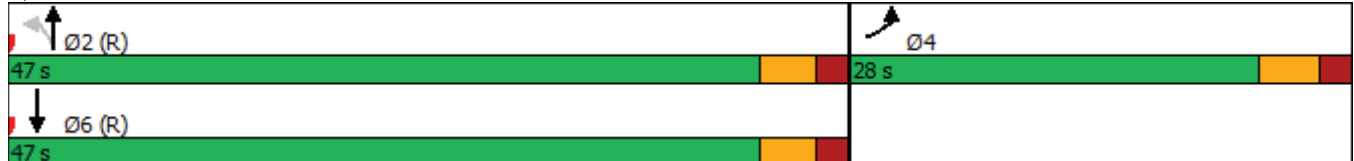
Lanes, Volumes, Timings
 1: Bronson Avenue & Primrose Avenue E



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Total Delay	10.4			10.4	9.2	
LOS	B			B	A	
Approach Delay	10.4			10.4	9.2	
Approach LOS	B			B	A	
Queue Length 50th (m)	4.8			25.2	21.7	
Queue Length 95th (m)	16.5			36.4	31.2	
Internal Link Dist (m)	245.5			183.6	79.3	
Turn Bay Length (m)						
Base Capacity (vph)	512			1517	1798	
Starvation Cap Reductn	0			0	0	
Spillback Cap Reductn	0			0	0	
Storage Cap Reductn	0			0	0	
Reduced v/c Ratio	0.25			0.43	0.34	

Intersection Summary	
Area Type:	Other
Cycle Length:	75
Actuated Cycle Length:	75
Offset:	30 (40%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle:	55
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.43
Intersection Signal Delay:	9.8
Intersection LOS:	A
Intersection Capacity Utilization	65.0%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 1: Bronson Avenue & Primrose Avenue E



Lanes, Volumes, Timings
2: Bronson Avenue & Somerset Street W

725 Somerset - Existing 2023 PM
05/15/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	76	233	112	109	273	28	95	482	45	21	496	82
Future Volume (vph)	76	233	112	109	273	28	95	482	45	21	496	82
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (m)	3.2	4.0	4.0	3.2	4.0	4.0	3.7	3.7	3.7	3.7	3.7	3.7
Storage Length (m)	18.0		0.0	18.0		0.0	0.0		0.0	0.0		0.0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (m)	7.6			7.6			7.6			7.6		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor	0.92	0.94		0.93	0.98			0.96			0.96	
Frt		0.951			0.986			0.989			0.979	
Flt Protected	0.950			0.950				0.992			0.998	
Satd. Flow (prot)	1634	1611	0	1618	1753	0	0	3211	0	0	3137	0
Flt Permitted	0.461			0.410				0.682			0.914	
Satd. Flow (perm)	730	1611	0	651	1753	0	0	2178	0	0	2864	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		80.9			235.2			299.8			207.6	
Travel Time (s)		5.8			16.9			21.6			14.9	
Confl. Peds. (#/hr)	100		100	100		100	100		100	100		100
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	5%	4%	1%	4%	4%	4%	3%	5%	0%	3%	5%
Adj. Flow (vph)	84	259	124	121	303	31	106	536	50	23	551	91
Shared Lane Traffic (%)												
Lane Group Flow (vph)	84	383	0	121	334	0	0	692	0	0	665	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	24.0	24.0		24.0	24.0		24.0	24.0		24.0	24.0	
Total Split (s)	43.0	43.0		43.0	43.0		47.0	47.0		47.0	47.0	
Total Split (%)	43.0%	43.0%		43.0%	43.0%		47.0%	47.0%		47.0%	47.0%	
Maximum Green (s)	37.3	37.3		37.3	37.3		41.0	41.0		41.0	41.0	
Yellow Time (s)	3.3	3.3		3.3	3.3		3.3	3.3		3.3	3.3	
All-Red Time (s)	2.4	2.4		2.4	2.4		2.7	2.7		2.7	2.7	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	5.7	5.7		5.7	5.7			6.0			6.0	
Lead/Lag	Lag	Lag		Lag	Lag		Lag	Lag		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Max	Max		Max	Max		C-Max	C-Max		C-Max	C-Max	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		10.0	10.0		10.0	10.0	
Pedestrian Calls (#/hr)	100	100		100	100		100	100		100	100	
Act Effect Green (s)	42.3	42.3		42.3	42.3			46.0			46.0	
Actuated g/C Ratio	0.42	0.42		0.42	0.42			0.46			0.46	

Lane Group	Ø1	Ø3	Ø5	Ø7
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Lane Width (m)				
Storage Length (m)				
Storage Lanes				
Taper Length (m)				
Lane Util. Factor				
Ped Bike Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (k/h)				
Link Distance (m)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Heavy Vehicles (%)				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Turn Type				
Protected Phases	1	3	5	7
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	1.0	1.0	1.0	1.0
Minimum Split (s)	3.0	3.0	6.5	6.5
Total Split (s)	5.0	5.0	5.0	5.0
Total Split (%)	5%	5%	5%	5%
Maximum Green (s)	3.0	3.0	3.0	3.0
Yellow Time (s)	2.0	2.0	2.0	2.0
All-Red Time (s)	0.0	0.0	0.0	0.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lead	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None
Walk Time (s)				
Flash Dont Walk (s)				
Pedestrian Calls (#/hr)				
Act Effct Green (s)				
Actuated g/C Ratio				

Lanes, Volumes, Timings
2: Bronson Avenue & Somerset Street W

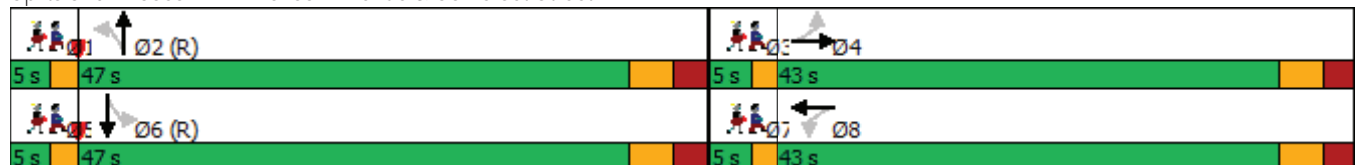


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.27	0.56		0.44	0.45			0.69			0.50	
Control Delay	21.9	25.8		26.8	23.0			25.9			20.7	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	21.9	25.8		26.8	23.0			25.9			20.7	
LOS	C	C		C	C			C			C	
Approach Delay		25.1			24.0			25.9			20.7	
Approach LOS		C			C			C			C	
Queue Length 50th (m)	10.4	54.8		16.2	45.0			54.1			46.2	
Queue Length 95th (m)	21.9	83.4		33.1	68.8			75.3			62.1	
Internal Link Dist (m)		56.9			211.2			275.8			183.6	
Turn Bay Length (m)	18.0			18.0								
Base Capacity (vph)	308	681		275	741			1001			1317	
Starvation Cap Reductn	0	0		0	0			0			0	
Spillback Cap Reductn	0	0		0	0			0			0	
Storage Cap Reductn	0	0		0	0			0			0	
Reduced v/c Ratio	0.27	0.56		0.44	0.45			0.69			0.50	

Intersection Summary

Area Type:	Other
Cycle Length:	100
Actuated Cycle Length:	100
Offset:	69 (69%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle:	65
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.69
Intersection Signal Delay:	23.8
Intersection LOS:	C
Intersection Capacity Utilization:	85.6%
ICU Level of Service:	E
Analysis Period (min):	15

Splits and Phases: 2: Bronson Avenue & Somerset Street W



Lane Group	Ø1	Ø3	Ø5	Ø7
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (m)				
Queue Length 95th (m)				
Internal Link Dist (m)				
Turn Bay Length (m)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				
Intersection Summary				

Lanes, Volumes, Timings
3: Arthur Street & Somerset Street W

725 Somerset - Existing 2023 PM

05/15/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕	↗		↕			↕	
Traffic Volume (vph)	10	349	17	18	471	13	28	6	9	15	10	34
Future Volume (vph)	10	349	17	18	471	13	28	6	9	15	10	34
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5	3.7	3.7	3.7	3.7	3.7	3.7
Storage Length (m)	0.0		10.0	0.0		10.0	0.0		0.0	0.0		0.0
Storage Lanes	0		1	0		1	0		0	0		0
Taper Length (m)	7.6			7.6			7.6			7.6		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00	0.82		1.00	0.82		0.85			0.84	
Frt			0.850			0.850		0.972			0.922	
Flt Protected		0.999			0.998			0.969			0.987	
Satd. Flow (prot)	0	1723	1513	0	1739	1513	0	1568	0	0	1455	0
Flt Permitted		0.985			0.980			0.791			0.920	
Satd. Flow (perm)	0	1696	1247	0	1702	1247	0	1133	0	0	1293	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			56			56		10			38	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		65.4			78.9			162.7			156.8	
Travel Time (s)		4.7			5.7			11.7			11.3	
Confl. Peds. (#/hr)	100		100	100		100	100		100	100		100
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	10%	3%	0%	6%	2%	0%	7%	0%	0%	0%	0%	0%
Adj. Flow (vph)	11	388	19	20	523	14	31	7	10	17	11	38
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	399	19	0	543	14	0	48	0	0	66	0
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			6			4			8	
Permitted Phases	2		2	6		6	4			8		
Detector Phase	2	2	2	6	6	6	4	4		8	8	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	34.6	34.6	34.6	34.6	34.6	34.6	24.6	24.6		24.6	24.6	
Total Split (s)	45.0	45.0	45.0	45.0	45.0	45.0	25.0	25.0		25.0	25.0	
Total Split (%)	64.3%	64.3%	64.3%	64.3%	64.3%	64.3%	35.7%	35.7%		35.7%	35.7%	
Maximum Green (s)	39.3	39.3	39.3	39.3	39.3	39.3	18.4	18.4		18.4	18.4	
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3		3.3	3.3	
All-Red Time (s)	2.4	2.4	2.4	2.4	2.4	2.4	3.3	3.3		3.3	3.3	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0		0.0			0.0	
Total Lost Time (s)		5.7	5.7		5.7	5.7		6.6			6.6	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max	Min	Min		Min	Min	
Walk Time (s)	17.0	17.0	17.0	17.0	17.0	17.0	7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	5.0	5.0	5.0	5.0	5.0	5.0	11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	100	100	100	100	100	100	100	100		100	100	
Act Effct Green (s)		42.2	42.2		42.2	42.2		15.5			15.5	
Actuated g/C Ratio		0.60	0.60		0.60	0.60		0.22			0.22	

Lanes, Volumes, Timings
 3: Arthur Street & Somerset Street W

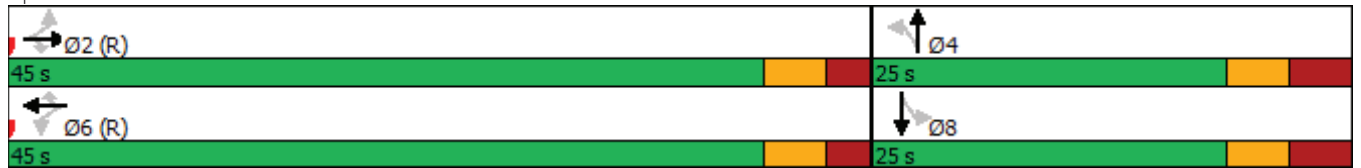


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.39	0.02		0.53	0.02		0.19				0.21
Control Delay		7.0	0.6		11.4	0.1		19.0				13.1
Queue Delay		0.4	0.0		0.0	0.0		0.0				0.0
Total Delay		7.4	0.6		11.4	0.1		19.0				13.1
LOS		A	A		B	A		B				B
Approach Delay		7.1			11.1			19.0				13.1
Approach LOS		A			B			B				B
Queue Length 50th (m)		43.4	0.2		41.0	0.0		3.8				2.8
Queue Length 95th (m)		43.0	m0.2		66.6	0.0		11.5				11.5
Internal Link Dist (m)		41.4			54.9			138.7				132.8
Turn Bay Length (m)			10.0			10.0						
Base Capacity (vph)		1022	774		1026	774		305				367
Starvation Cap Reductn		248	0		0	0		0				0
Spillback Cap Reductn		0	0		0	0		0				0
Storage Cap Reductn		0	0		0	0		0				0
Reduced v/c Ratio		0.52	0.02		0.53	0.02		0.16				0.18

Intersection Summary

Area Type: Other
 Cycle Length: 70
 Actuated Cycle Length: 70
 Offset: 48 (69%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.53
 Intersection Signal Delay: 10.0 Intersection LOS: B
 Intersection Capacity Utilization 75.3% ICU Level of Service D
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Arthur Street & Somerset Street W



Lanes, Volumes, Timings
4: Bell St. N & Somerset Street W

725 Somerset - Existing 2023 PM

05/15/2023



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	377	7	10	533	0	0
Future Volume (vph)	377	7	10	533	0	0
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (m)	3.7	3.5	3.7	3.7	3.7	3.7
Storage Length (m)		10.0	0.0		0.0	0.0
Storage Lanes		1	0		0	0
Taper Length (m)			7.6		7.6	
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt		0.850				
Flt Protected				0.999		
Satd. Flow (prot)	1679	1437	0	1783	0	0
Flt Permitted				0.999		
Satd. Flow (perm)	1679	1437	0	1783	0	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	35.6			65.4	166.5	
Travel Time (s)	2.6			4.7	12.0	
Confl. Peds. (#/hr)		100	100		100	100
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	3%	0%	0%	2%	0%	0%
Adj. Flow (vph)	419	8	11	592	0	0
Shared Lane Traffic (%)		10%				
Lane Group Flow (vph)	420	7	0	603	0	0
Sign Control	Free			Free	Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	57.7%
ICU Level of Service	B
Analysis Period (min)	15

Lanes, Volumes, Timings
5: Somerset Street W & Empress Avenue

725 Somerset - Existing 2023 PM

05/15/2023



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↑	↗	↘	
Traffic Volume (vph)	20	365	501	26	12	10
Future Volume (vph)	20	365	501	26	12	10
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5
Storage Length (m)	0.0			26.0	0.0	0.0
Storage Lanes	0			1	1	0
Taper Length (m)	7.6				7.6	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00		0.79	0.83	
Frt				0.850	0.938	
Flt Protected		0.997			0.974	
Satd. Flow (prot)	0	1721	1745	1455	1418	0
Flt Permitted		0.963			0.974	
Satd. Flow (perm)	0	1657	1745	1148	1284	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				26	11	
Link Speed (k/h)		50	50		50	
Link Distance (m)		100.6	35.6		204.4	
Travel Time (s)		7.2	2.6		14.7	
Confl. Peds. (#/hr)	100			100	100	100
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	5%	3%	2%	4%	0%	10%
Adj. Flow (vph)	22	406	557	29	13	11
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	428	557	29	24	0
Turn Type	Perm	NA	NA	Perm	Prot	
Protected Phases		4	8		6	
Permitted Phases	4			8		
Detector Phase	4	4	8	8	6	
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	25.7	25.7	25.9	25.9	25.9	
Total Split (s)	44.0	44.0	44.0	44.0	26.0	
Total Split (%)	62.9%	62.9%	62.9%	62.9%	37.1%	
Maximum Green (s)	38.3	38.3	38.3	38.3	20.1	
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3	
All-Red Time (s)	2.4	2.4	2.4	2.4	2.6	
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	
Total Lost Time (s)		5.7	5.7	5.7	5.9	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Recall Mode	C-Max	C-Max	C-Max	C-Max	Min	
Walk Time (s)	9.0	9.0	9.0	9.0	10.0	
Flash Dont Walk (s)	9.0	9.0	9.0	9.0	10.0	
Pedestrian Calls (#/hr)	100	100	100	100	100	
Act Effect Green (s)		41.3	41.3	41.3	17.1	
Actuated g/C Ratio		0.59	0.59	0.59	0.24	

Lanes, Volumes, Timings
 5: Somerset Street W & Empress Avenue

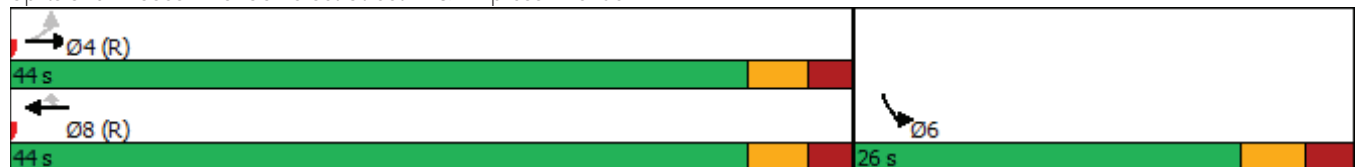


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
v/c Ratio		0.44	0.54	0.04	0.07	
Control Delay		16.8	11.0	4.6	13.7	
Queue Delay		0.1	0.2	0.0	0.0	
Total Delay		16.9	11.2	4.6	13.7	
LOS		B	B	A	B	
Approach Delay		16.9	10.9		13.7	
Approach LOS		B	B		B	
Queue Length 50th (m)		52.9	31.0	0.1	1.2	
Queue Length 95th (m)		77.2	57.8	m2.1	6.1	
Internal Link Dist (m)		76.6	11.6		180.4	
Turn Bay Length (m)				26.0		
Base Capacity (vph)		977	1029	687	415	
Starvation Cap Reductn		0	84	0	0	
Spillback Cap Reductn		39	0	0	0	
Storage Cap Reductn		0	0	0	0	
Reduced v/c Ratio		0.46	0.59	0.04	0.06	

Intersection Summary

Area Type: Other
 Cycle Length: 70
 Actuated Cycle Length: 70
 Offset: 33 (47%), Referenced to phase 4:EBTL and 8:WBT, Start of Green
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.54
 Intersection Signal Delay: 13.4
 Intersection Capacity Utilization 63.4%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service B
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: Somerset Street W & Empress Avenue



Lanes, Volumes, Timings
6: Booth Street & Somerset Street W

725 Somerset - Existing 2023 PM

05/15/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	70	355	33	28	423	49	37	364	28	37	185	57
Future Volume (vph)	70	355	33	28	423	49	37	364	28	37	185	57
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (m)	3.3	3.7	3.7	3.3	3.7	3.7	4.5	4.5	4.5	4.5	4.5	4.5
Storage Length (m)	20.0		0.0	20.0		0.0	0.0		0.0	0.0		0.0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (m)	7.6			7.6			7.6			7.6		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.93	0.98		0.90	0.97			0.98			0.95	
Frt		0.987			0.985			0.991			0.973	
Flt Protected	0.950			0.950				0.996			0.993	
Satd. Flow (prot)	1637	1711	0	1653	1709	0	0	1911	0	0	1780	0
Flt Permitted	0.348			0.429				0.949			0.874	
Satd. Flow (perm)	557	1711	0	674	1709	0	0	1804	0	0	1551	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8			10			6			22	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		118.5			73.8			130.2			238.3	
Travel Time (s)		8.5			5.3			9.4			17.2	
Confl. Peds. (#/hr)	100		100	100		100	100		100	100		100
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	1%	3%	0%	0%	2%	4%	0%	1%	0%	11%	0%	7%
Adj. Flow (vph)	78	394	37	31	470	54	41	404	31	41	206	63
Shared Lane Traffic (%)												
Lane Group Flow (vph)	78	431	0	31	524	0	0	476	0	0	310	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		
Detector Phase	2	2		6	6		4	4		8	8	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	23.5	23.5		23.5	23.5		24.2	24.2		24.2	24.2	
Total Split (s)	35.0	35.0		35.0	35.0		35.0	35.0		35.0	35.0	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	29.5	29.5		29.5	29.5		28.8	28.8		28.8	28.8	
Yellow Time (s)	3.3	3.3		3.3	3.3		3.3	3.3		3.3	3.3	
All-Red Time (s)	2.2	2.2		2.2	2.2		2.9	2.9		2.9	2.9	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	5.5	5.5		5.5	5.5			6.2			6.2	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	C-Max	C-Max		C-Max	C-Max		Ped	Ped		Ped	Ped	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	8.0	8.0		8.0	8.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	100	100		100	100		100	100		100	100	
Act Effect Green (s)	34.7	34.7		34.7	34.7			23.6			23.6	
Actuated g/C Ratio	0.50	0.50		0.50	0.50			0.34			0.34	

Lanes, Volumes, Timings
6: Booth Street & Somerset Street W

725 Somerset - Existing 2023 PM

05/15/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.28	0.51		0.09	0.62			0.78				0.58
Control Delay	11.8	11.4		10.1	17.8			29.5				21.5
Queue Delay	0.0	0.2		0.0	0.0			0.0				0.0
Total Delay	11.8	11.5		10.1	17.8			29.5				21.5
LOS	B	B		B	B			C				C
Approach Delay		11.6			17.4			29.5				21.5
Approach LOS		B			B			C				C
Queue Length 50th (m)	3.3	18.1		1.8	50.3			54.2				30.3
Queue Length 95th (m)	12.8	72.7		m4.7	104.7			76.6				46.8
Internal Link Dist (m)		94.5			49.8			106.2				214.3
Turn Bay Length (m)	20.0			20.0								
Base Capacity (vph)	275	851		333	851			745				651
Starvation Cap Reductn	0	60		0	0			0				0
Spillback Cap Reductn	0	0		0	0			0				0
Storage Cap Reductn	0	0		0	0			0				0
Reduced v/c Ratio	0.28	0.54		0.09	0.62			0.64				0.48

Intersection Summary

Area Type: Other

Cycle Length: 70

Actuated Cycle Length: 70

Offset: 1 (1%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 55

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.78

Intersection Signal Delay: 19.6

Intersection LOS: B

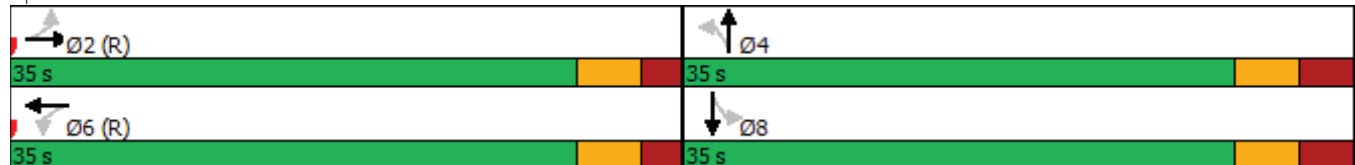
Intersection Capacity Utilization 75.2%

ICU Level of Service D

Analysis Period (min) 15

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

Splits and Phases: 6: Booth Street & Somerset Street W



Lanes, Volumes, Timings
7: Rochester Street & Somerset Street W

725 Somerset - Existing 2023 PM
05/15/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	5	344	35	79	423	15	28	36	103	11	23	2
Future Volume (vph)	5	344	35	79	423	15	28	36	103	11	23	2
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (m)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.98			0.98			0.84			0.95	
Frt		0.988			0.996			0.917			0.993	
Flt Protected		0.999			0.992			0.992			0.985	
Satd. Flow (prot)	0	1777	0	0	1801	0	0	1479	0	0	1772	0
Flt Permitted		0.993			0.877			0.946			0.895	
Satd. Flow (perm)	0	1765	0	0	1572	0	0	1367	0	0	1544	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12			4			111			2	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		124.6			118.5			112.1			151.0	
Travel Time (s)		9.0			8.5			8.1			10.9	
Confl. Peds. (#/hr)	100		100	100		100	100		100	100		100
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	3%	0%	1%	3%	0%	0%	0%	1%	9%	0%	0%
Adj. Flow (vph)	6	382	39	88	470	17	31	40	114	12	26	2
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	427	0	0	575	0	0	185	0	0	40	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		
Detector Phase	2	2		6	6		4	4		8	8	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	31.2	31.2		31.2	31.2		24.0	24.0		24.0	24.0	
Total Split (s)	46.0	46.0		46.0	46.0		24.0	24.0		24.0	24.0	
Total Split (%)	65.7%	65.7%		65.7%	65.7%		34.3%	34.3%		34.3%	34.3%	
Maximum Green (s)	40.8	40.8		40.8	40.8		18.0	18.0		18.0	18.0	
Yellow Time (s)	3.3	3.3		3.3	3.3		3.3	3.3		3.3	3.3	
All-Red Time (s)	1.9	1.9		1.9	1.9		2.7	2.7		2.7	2.7	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		5.2			5.2			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	C-Max	C-Max		C-Max	C-Max		Ped	Ped		Ped	Ped	
Walk Time (s)	15.0	15.0		15.0	15.0		11.0	11.0		11.0	11.0	
Flash Dont Walk (s)	6.0	6.0		6.0	6.0		7.0	7.0		7.0	7.0	
Pedestrian Calls (#/hr)	100	100		100	100		100	100		100	100	
Act Effct Green (s)		40.8			40.8			18.0			18.0	
Actuated g/C Ratio		0.58			0.58			0.26			0.26	
v/c Ratio		0.41			0.63			0.43			0.10	
Control Delay		9.3			6.6			13.0			20.0	
Queue Delay		0.0			0.0			0.0			0.0	

Lanes, Volumes, Timings
7: Rochester Street & Somerset Street W



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay		9.3			6.6			13.0			20.0	
LOS		A			A			B			B	
Approach Delay		9.3			6.6			13.0			20.0	
Approach LOS		A			A			B			B	
Queue Length 50th (m)		26.6			12.8			7.6			3.8	
Queue Length 95th (m)		43.8			41.2			23.4			10.6	
Internal Link Dist (m)		100.6			94.5			88.1			127.0	
Turn Bay Length (m)												
Base Capacity (vph)		1033			917			433			398	
Starvation Cap Reductn		0			7			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.41			0.63			0.43			0.10	

Intersection Summary	
Area Type:	Other
Cycle Length:	70
Actuated Cycle Length:	70
Offset:	61 (87%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle:	60
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.63
Intersection Signal Delay:	9.0
Intersection LOS:	A
Intersection Capacity Utilization	80.5%
ICU Level of Service	D
Analysis Period (min)	15

Splits and Phases: 7: Rochester Street & Somerset Street W



Lanes, Volumes, Timings
8: Booth Street & Primrose Avenue

725 Somerset - Existing 2023 PM

05/15/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	17	5	2	0	0	0	4	469	10	4	277	10
Future Volume (vph)	17	5	2	0	0	0	4	469	10	4	277	10
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (m)	3.7	3.7	3.7	3.7	3.7	3.7	3.5	3.5	3.5	3.7	3.7	3.7
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.89						1.00			0.99	
Frt		0.990						0.997			0.995	
Flt Protected		0.966									0.999	
Satd. Flow (prot)	0	1583	0	0	0	0	0	1769	0	0	1782	0
Flt Permitted		0.966						0.998			0.995	
Satd. Flow (perm)	0	1428	0	0	0	0	0	1764	0	0	1774	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2						3			4	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		165.7			64.7			238.3			54.6	
Travel Time (s)		11.9			4.7			17.2			3.9	
Confl. Peds. (#/hr)	100		100	100		100	100		100	100		100
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	6%	20%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%
Adj. Flow (vph)	19	6	2	0	0	0	4	521	11	4	308	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	27	0	0	0	0	0	536	0	0	323	0
Turn Type	Perm	NA					Perm	NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4						2			6		
Detector Phase	4	4					2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0					5.0	5.0		5.0	5.0	
Minimum Split (s)	23.3	23.3					23.5	23.5		23.5	23.5	
Total Split (s)	23.3	23.3					26.7	26.7		26.7	26.7	
Total Split (%)	46.6%	46.6%					53.4%	53.4%		53.4%	53.4%	
Maximum Green (s)	18.0	18.0					21.4	21.4		21.4	21.4	
Yellow Time (s)	3.3	3.3					3.3	3.3		3.3	3.3	
All-Red Time (s)	2.0	2.0					2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0						0.0			0.0	
Total Lost Time (s)		5.3						5.3			5.3	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0					3.0	3.0		3.0	3.0	
Recall Mode	Min	Min					C-Max	C-Max		C-Max	C-Max	
Walk Time (s)	7.0	7.0					7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0					10.0	10.0		10.0	10.0	
Pedestrian Calls (#/hr)	20	20					0	0		0	0	
Act Effct Green (s)		8.5						30.9			30.9	
Actuated g/C Ratio		0.17						0.62			0.62	
v/c Ratio		0.11						0.49			0.29	
Control Delay		15.0						9.1			6.7	
Queue Delay		0.0						0.0			0.0	

Lanes, Volumes, Timings
8: Booth Street & Primrose Avenue

725 Somerset - Existing 2023 PM

05/15/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay		15.0						9.1			6.7	
LOS		B						A			A	
Approach Delay		15.0						9.1			6.7	
Approach LOS		B						A			A	
Queue Length 50th (m)		2.0						17.6			9.0	
Queue Length 95th (m)		5.2						#68.5			34.5	
Internal Link Dist (m)		141.7			40.7			214.3			30.6	
Turn Bay Length (m)												
Base Capacity (vph)		515						1092			1099	
Starvation Cap Reductn		0						0			0	
Spillback Cap Reductn		0						0			0	
Storage Cap Reductn		0						0			0	
Reduced v/c Ratio		0.05						0.49			0.29	

Intersection Summary

Area Type:	Other
Cycle Length:	50
Actuated Cycle Length:	50
Offset:	0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle:	55
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.49
Intersection Signal Delay:	8.4
Intersection LOS:	A
Intersection Capacity Utilization:	52.8%
ICU Level of Service:	A
Analysis Period (min):	15
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.	

Splits and Phases: 8: Booth Street & Primrose Avenue

