

# TIA TECHNICAL MEMORANDUM

**Date:** September 2, 2022

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DeMichele Company

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Traffic Analysis & Design, Inc.

**Subject:** **Hackett Avenue Apartments – Milwaukee, WI**  
**Traffic Impact Analysis**

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## INTRODUCTION

A 77-bedroom, 55-unit four-story apartment building with underground parking is proposed to be constructed on property currently used by the St. Marks Episcopal Church on Hackett Avenue, in the City of Milwaukee, Wisconsin. The church plans to subdivide their property, demolish their northern building (“Box” building) and adjacent parking lot, and construct a new parish building within the boundaries of their southern lot. The apartments would be constructed on the northern lot with underground parking access via a new driveway ramp from Hackett Avenue. Construction of the new church parish building is planned for 2023 and the proposed opening for the apartments is in March 2024. A map showing the development site and proposed access locations is on [Exhibit 1](#). The proposed development site plan is shown on [Exhibit 2](#).

This traffic impact analysis (TIA) technical memorandum was prepared to document the peak hour traffic impacts expected at study intersections along Hackett Avenue with existing traffic volumes and with full buildout of the proposed apartment building.

## STUDY AREA

### Study Intersections

The study intersections are also identified on [Exhibit 1](#) and include the following:

- N. Downer Avenue & N. Hackett Avenue/E. Belleview Place
- N. Hackett Avenue & E. Park Place
- N. Hackett Avenue & Apartments Parking Ramp

The Downer Avenue intersection with Hackett Avenue/Belleview Place operates with traffic signal control and the Hackett Avenue intersection with Park Place operates with stop sign

control on Hackett Avenue. The existing geometrics, traffic control, posted speed limits, and distances between study intersections are shown on [Exhibit 3](#).

### **Study Area Roadways**

Hackett Avenue operates one-way northeast-bound only between Belleview Place and Park Place, and then operates with two-way operation north of Park Place. In the one-way segment, Hackett Avenue has a 36-foot cross-section for one travel lane and parking along either side of the roadway.

Except for the one-way portion of Hackett Avenue, all roadways within the study area have one travel lane in each direction plus on-street parking and pedestrian sidewalks along both sides of the roadway. Downer Avenue also has in-road bicycle lanes striped on both sides of the roadway. The speed limit on the study area roadways is 25 mph.

## **EXISTING & FUTURE TRAFFIC VOLUMES**

### **Existing Traffic Volumes**

TADI collected weekday turning movement counts at the study intersections on August 29 and 30, 2022. The counts were collected from 7:00 a.m. to 9:00 a.m. and from 4:00 p.m. to 6:00 p.m. Based on the combined counts, the peak traffic hours in the study area were determined to occur from 8:00-9:00 a.m. (AM Peak Hour) and from 4:45-5:45 p.m. (PM Peak Hour).

The existing turning movement volumes were compiled for the peak hours, balanced between intersections, and are shown along with available daily traffic volumes on [Exhibit 4](#). The traffic counts collected for this study area in [Appendix A](#).

### **Proposed Apartment Traffic Volumes**

The trips for the apartments were generated based on trip rates for the “Multi-Family Mid-Rise” land use from the Institute of Transportation Engineer’s (ITE) *Trip Generation Manual, 11<sup>th</sup> Edition*. As the development site is located in a fully developed area, with diverse and complimentary land uses, good pedestrian connectivity, and convenient and frequent transit (bus), trip rates for the setting/location category “Dense Multi-Use Urban” were used.

The trip generation for the proposed development is shown on [Exhibit 5](#). Based on ITE, the 55 apartment units generate 160 weekday daily trips, with 15 trips (0 in/15 out) in the weekday AM peak hour and 15 trips (10 in/5 out) in the PM peak hour.

The new site trips were distributed to the study intersections based on existing peak hour traffic patterns. The trip distribution is listed below and also shown on [Exhibit 5](#).

- 35% to/from the north on Downer Avenue
- 35% to/from the south on Downer Avenue
- 10% to/from the west on Park Place
- 7% to/from the east on Park Place
- 7% to/from the west on Belleview Place
- 4% to/from the east on Belleview Place
- 2% N. on Hackett Avenue

## Build Traffic Volumes

The peak hour traffic assignment for the proposed apartments is on [Exhibit 6](#). The Build traffic, which adds the proposed apartment new trips to the existing traffic volumes are on [Exhibit 7](#).

## PEAK HOUR TRAFFIC OPERATIONS & QUEUES

### LOS Definition/Description

Intersection operation is defined by “level of service.” Level of Service (LOS) is a quantitative measure that refers to the overall quality of flow at an intersection ranging from very good, represented by LOS ‘A’, to very poor, represented by LOS ‘F’. For the purposes of this study, LOS D or better was used to define acceptable peak hour operating conditions. The LOS descriptions for signalized and unsignalized intersections are in [Table 1](#).

**Table 1. LOS Descriptions**

LOS	Signalized Intersections Control Delay/Vehicle (sec/veh)	Unsignalized Intersections Avg. Control Delay (sec/veh)	Relative Delay
A	≤10	≤10	Short Delays
	Free-flow traffic operations at average travel speeds. Vehicles completely unimpeded in ability to maneuver. Minimal delay at signalized intersections		
B	> 10 - 20	> 10 - 15	
	Reasonably unimpeded traffic operations at average travel speeds. Vehicle maneuverability slightly restricted. Low traffic delays.		
C	> 20 - 35	> 15 - 25	
	Stable traffic operations. Lane changes becoming more restricted. Travel speeds reduced to half of average free flow travel speeds. Longer		
D	> 35 - 55	> 25 - 35	Moderate Delays
	Small increases in traffic flow can cause increased delays. Delays likely attributable to increased traffic, reduced signal progression, and adverse		
E	> 55 - 80	> 35 - 50	
	Significant delays. Travel speeds reduced to one-third of average free flow travel speed.		
F	> 80	> 50	Long Delays
	Extremely low speeds. Intersection congestion. Long delays. Extensive traffic queues at intersections.		

Source: *Highway Capacity Manual*, Transportation Research Board, Washington, D.C., 2010

### Peak Hour Traffic Operations

The study intersections were analyzed using the Synchro 11 traffic analysis model (outputs based on the *Highway Capacity Manual, 6th Edition*) and the peak hour turning movement volumes estimated for each intersection. The Existing traffic LOS, delays, and queues for each lane group are shown on [Exhibit 8](#) with the corresponding Synchro analysis files in [Appendix B](#). The Build traffic LOS, delays, and queues for each lane are also shown on [Exhibit 8](#) with the corresponding Synchro analysis files in [Appendix C](#).

As shown, all turning movements at the study intersections operate at LOS A and B during the peak hours with both the Existing and Build traffic volumes. With the additional traffic from the proposed apartments, minimal additional delay and vehicle queues are expected at each intersection. The proposed apartment parking ramp to Hackett Avenue operates with all movements at LOS A during the peak hours.

## **PARKING & PEDESTRIAN SAFETY**

### **Apartment Parking Supply & Demand**

The parking space demand for the building residents was estimated using the ITE *Parking Generation Manual, 5<sup>th</sup> Edition*. Parking demand rates for the “Multi-Family Mid-Rise” land use, “Dense Multi-Use Urban” setting/location category, and “Bedrooms” as the independent variable. According to ITE, the number of bedrooms directly relates to parking demand for residential sites. Based on ITE, the 77-bedroom apartment building has an average peak parking demand of 37 spaces. The peak periods with the highest parking demand for the apartment building is estimated to occur between 10:00 p.m. and 5:00 a.m.

A total of 69 underground parking spaces within the apartment building will be provided for residents. With a peak demand of 37 spaces, the parking occupancy for the underground lot is estimated at 54%.

### **On-Street Loading Zones**

The apartment site plan shows a new 40-foot loading zone will be provided in front of the proposed building for temporary stops and deliveries. This new loading zone will eliminate two on-street parking spaces on the east side of Hackett Avenue. The two parking spaces lost for the loading zone can be accommodated within the nearby public parking structure in the southeast corner of Downer Street & Belleview Place, the nearby public surface lot in the northwest corner of Downer Street & Park Place, or the on-street parking along Downer Street, Park Place, Belleview Place, and other adjacent neighborhood streets.

The existing 40-foot loading zone in front of the St. Mark’s Episcopal Church will be moved from its current location on Hackett Avenue to right in front of the proposed new parish building. Therefore, no net loss of parking spaces is expected with this change.

Note that if delivery or other vehicles stop in front of a parked vehicle rather than a loading zone, the 36-foot-wide sections of Hackett Avenue are wide enough to maintain one through lane of traffic past any double-parked vehicles. A recent observation of this occurrence on Hackett Avenue is shown on the figure below. With the additional loading zone provided in front of the proposed apartments, however, occasions for the double-parking related to apartment deliveries is expected to be reduced.



**Figure 1. Delivery Van Double Parked w/Travel Lane Free**

### **Pedestrian & Traffic Safety**

Due to the one-way operation, the apartment parking garage access will be via northbound right-in/right-out only movements. Right-turn movements require shorter gaps in traffic than other movements, resulting in less delay for vehicle turns. The limited turning movements reduce vehicle-pedestrian conflicts resulting in better safety than with full-access (both left-turns and right-turns allowed) configurations. Even with the buildout of the proposed apartments, the traffic volumes on Hackett Avenue are very low compared to other residential streets in the study area.

### **CONCLUSIONS**

The proposed apartment building on Hackett Avenue in Milwaukee, Wisconsin is expected to generate a low number of trips during the weekday and weekday peak hour time periods, with negligible impact to delays and queues at the intersections surrounding the site. The low traffic volumes and one-way operation of Hackett Avenue is expected to result in safe operations for pedestrians and bicyclists through the area.

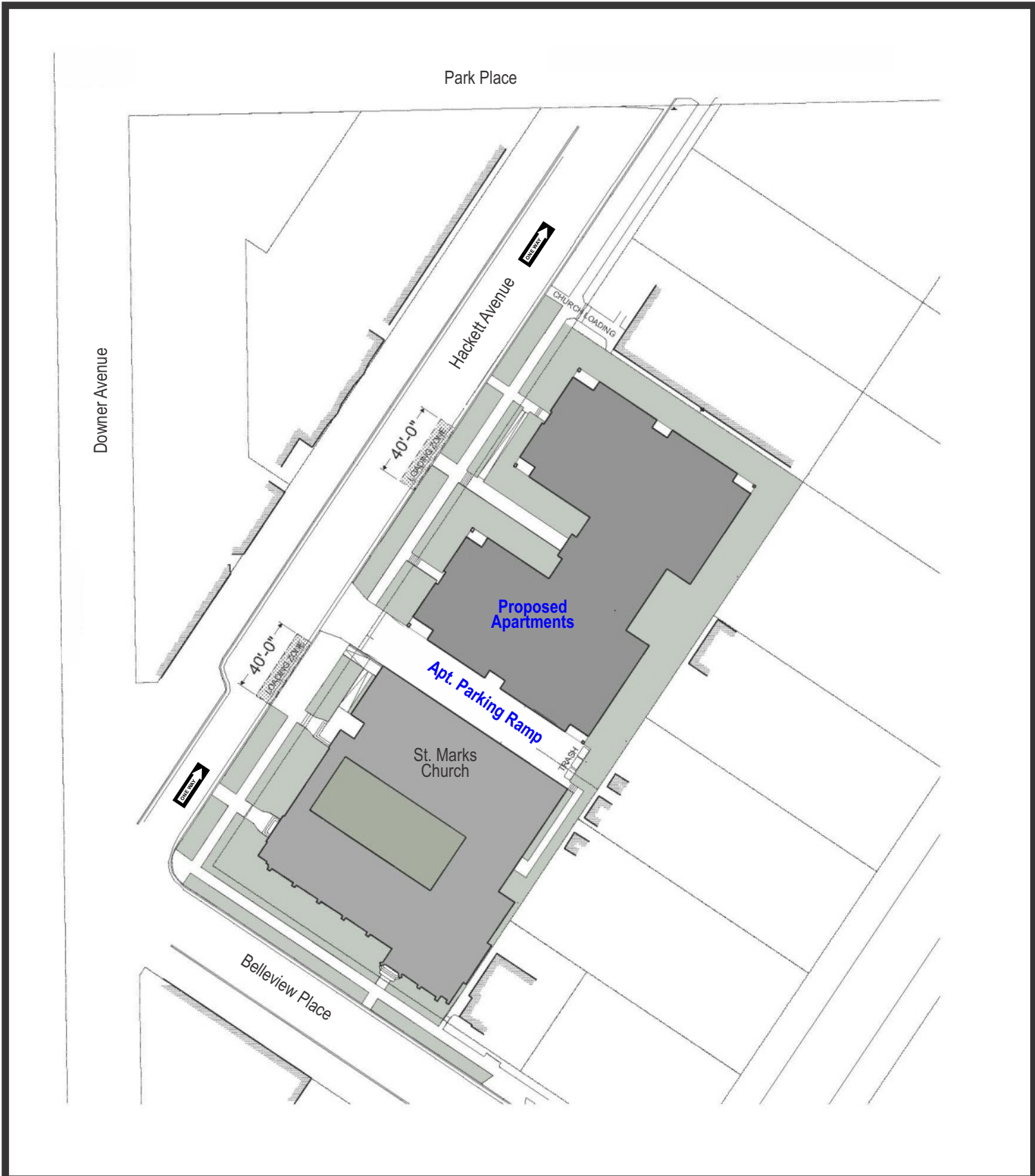
The underground parking garage within the apartment building is expected to accommodate the peak parking demand for the development (54% occupancy). A new loading zone will be provided for deliveries and drop-offs for the proposed apartment building. In the event of delivery vehicles double-parking in front of other cars parked on the street, the cross-section is wide enough to accommodate three rows of parked vehicles plus a travel lane for other vehicles to pass through.



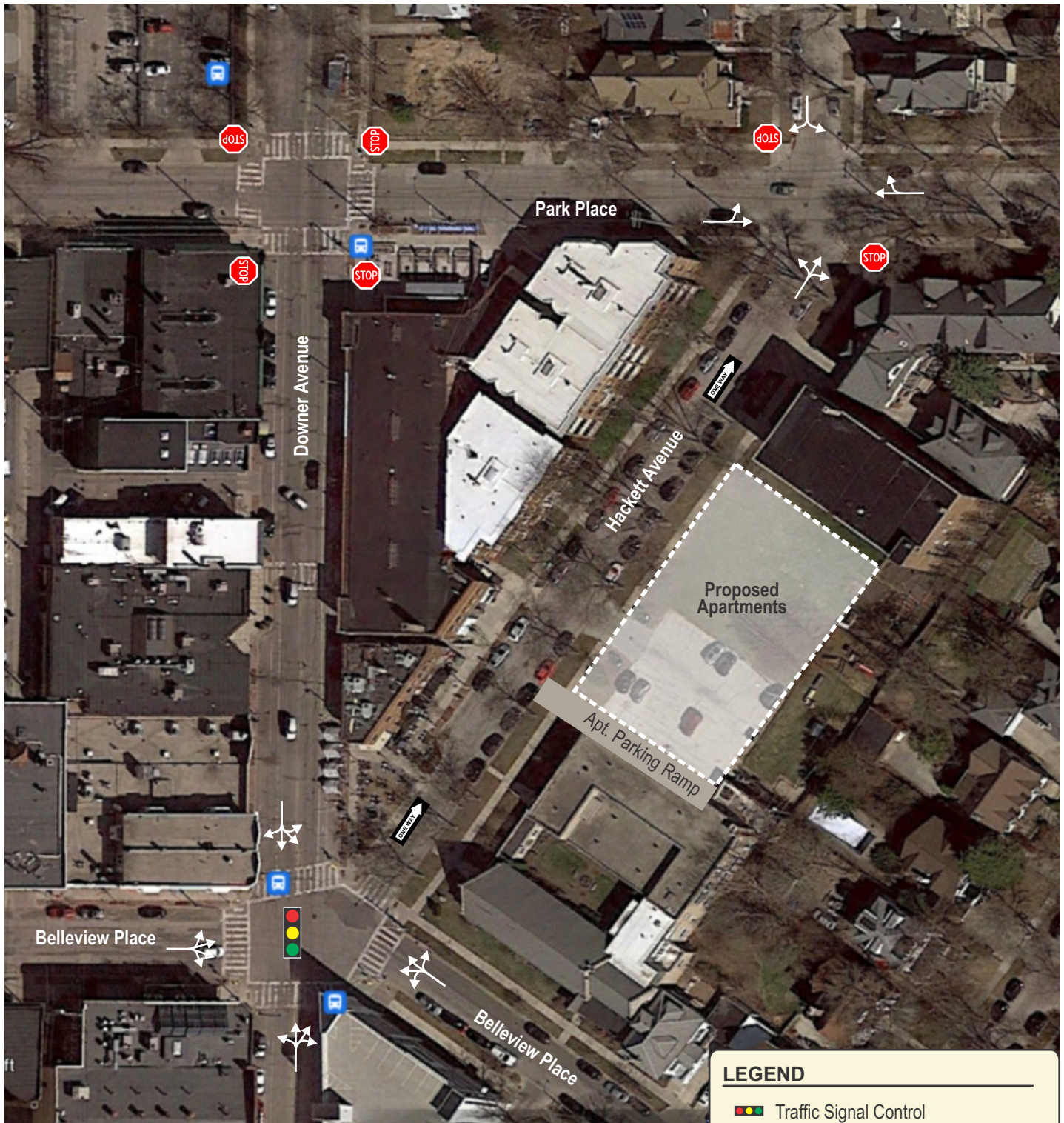
**LEGEND**

- Study Intersection
- Proposed Apartment Building










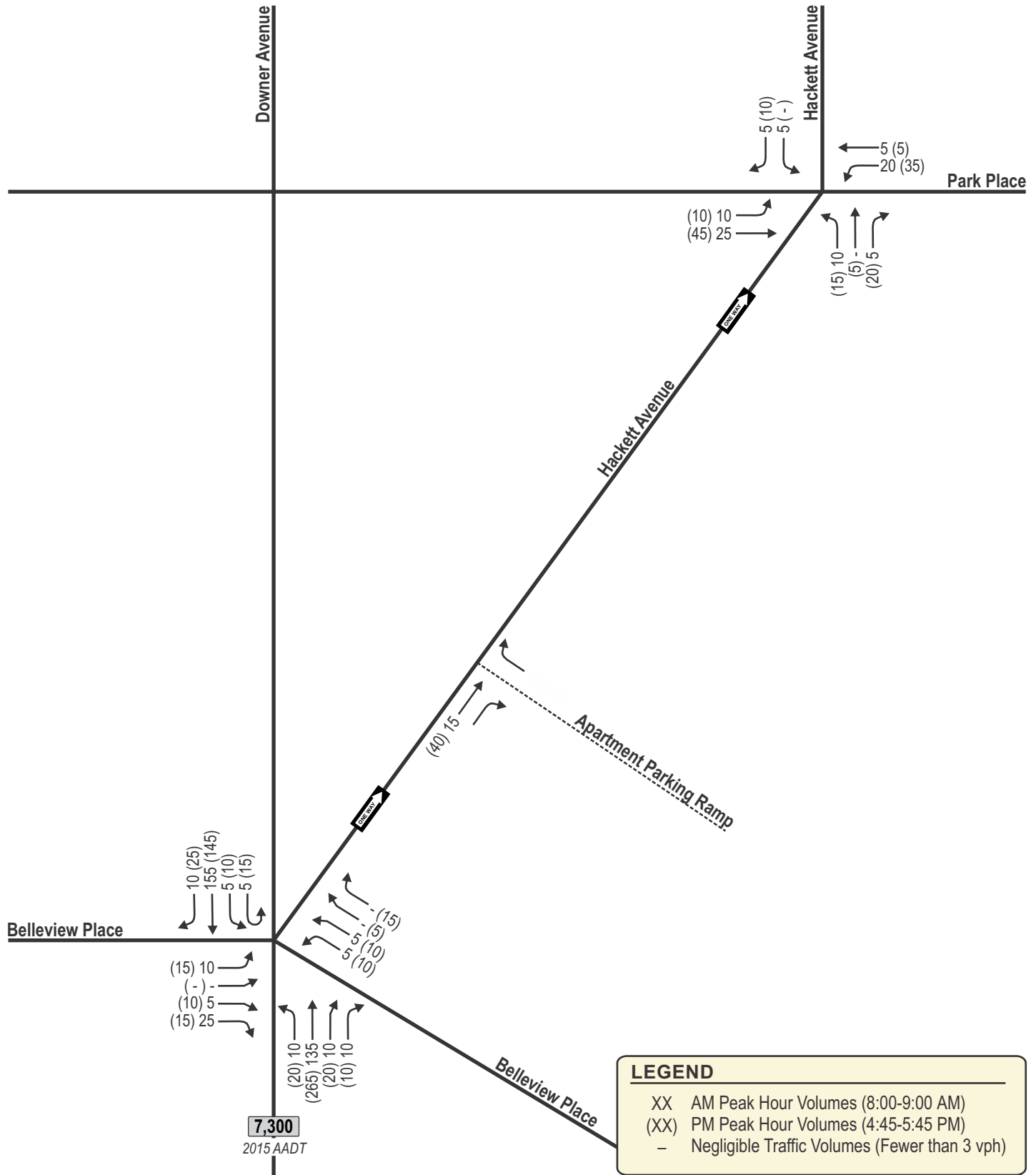




**LEGEND**

-  Traffic Signal Control
-  Stop Control
-  Existing Lane Configuration
-  Existing Storage Length (in Feet)
-  Distance Between Roadways (in Feet)





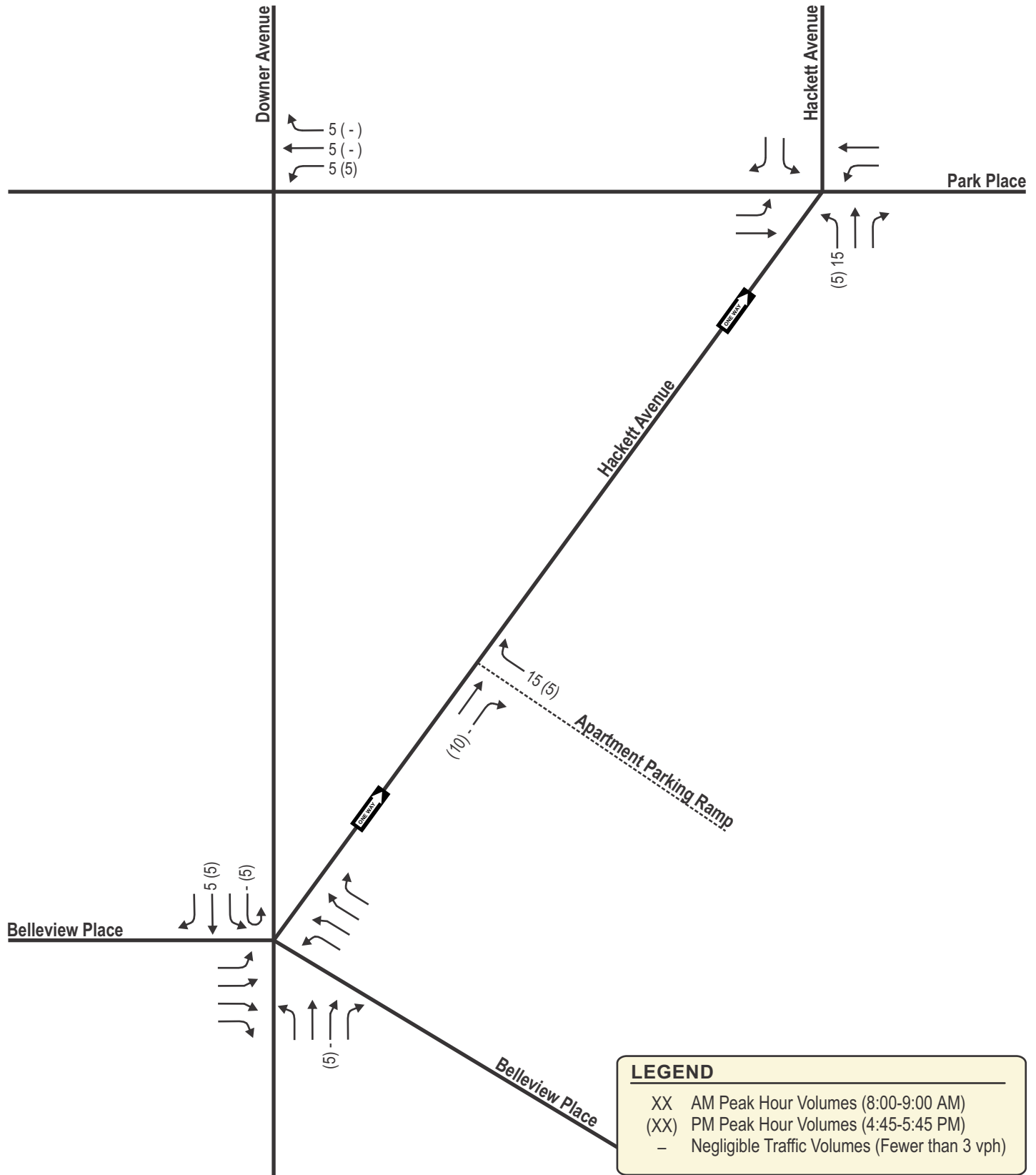
**Trip Generation Table<sup>1</sup>**

Land Use	ITE Code	Independent Variable/Size	Weekday Daily	AM Peak			PM Peak		
				In	Out	Total	In	Out	Total
Multifamily Housing (Mid-Rise) <i>(Dense Multi-Use Urban)</i>	221	55 Units	160 (2.93)	0 (15%)	15 (85%)	15 (0.28)	10 (73%)	5 (27%)	15 (0.26)
<b>Total New Trips</b>			<b>160</b>	<b>0</b>	<b>15</b>	<b>15</b>	<b>10</b>	<b>5</b>	<b>15</b>

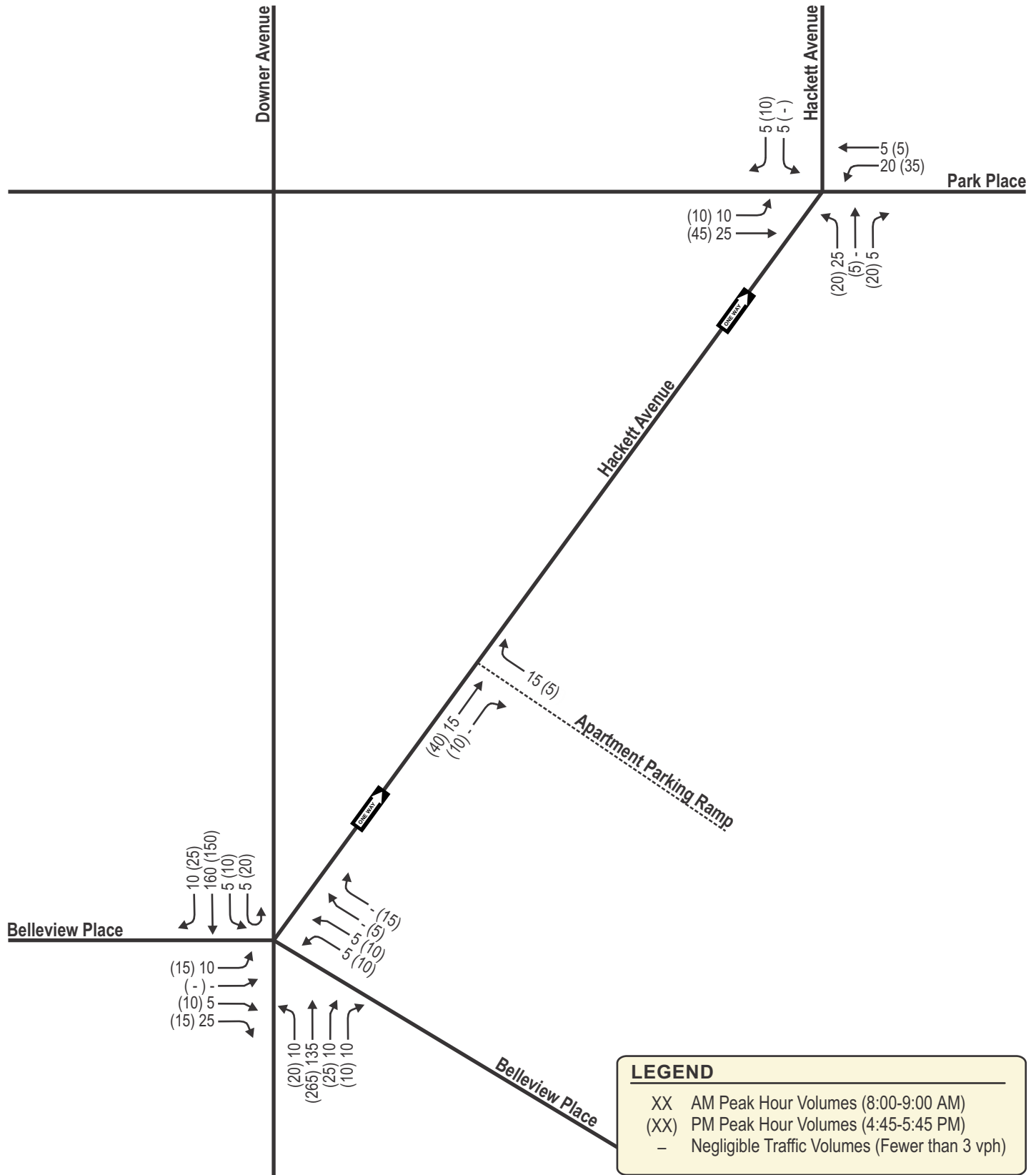
<sup>1</sup>ITE Trip Rates (X.XX) and/or Fitted Curve Equations (FCE) are from the ITE Trip Generation Manual, 11th Edition.

**TRIP DISTRIBUTION (New Trips)**

N. on Downer Avenue	35%	60	0	5	5	0
S. on Downer Avenue	35%	60	0	5	5	5
W. on Park Place	10%	20	0	5	0	0
E. on Park Place	7%	10	0	0	0	0
W. on Belleview Place	7%	10	0	0	0	0
E. on Belleview Place	4%	0	0	0	0	0
N. on Hackett Avenue	2%	0	0	0	0	0
	<b>100%</b>	<b>160</b>	<b>0</b>	<b>15</b>	<b>10</b>	<b>5</b>







**Existing Traffic Peak Hour Operating Conditions**  
**Existing Transportation System**

Intersection	Peak Hour	Metric	Level of Service (LOS) per Movement by Approach												I/S LOS & Delay
			Eastbound			Westbound			Northbound			Southbound			
			↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙	
Downer Avenue & Belleview Place/Hackett Avenue <i>Traffic Signal Control</i>	AM	Lanes->	1			1			1			1			B 10.4
		LOS	B			B			A			A			
		Delay	14.0			13.5			9.9			9.9			
	PM	Queue	30'			10'			70'			70'			
		LOS	B			B			B			B			
		Delay	13.9			13.9			11.3			10.0			
PM	Queue	30'			30'			125'			80'				
	Lanes->	1			-			1			1			A 3.6	
	LOS	A			-			*			A				
Delay	7.3			-			-			9.2					
Hackett Avenue & Park Place <i>Stop Sign Control (NB/SB)</i>	AM	Queue	0'			-			*			5'			
		LOS	A			-			*			A			
		Delay	7.3			-			-			8.8			
	PM	Queue	0'			-			*			0'			
		LOS	A			-			*			A			
		Delay	7.3			-			-			9.1			
PM	Queue	0'			-			*			5'				

(-) indicates a movement that is prohibited or does not exist; (\*) indicates a freeflow movement.  
Delay is reported in seconds. Queue is the maximum of the 50th & 95th percentile queue, measured in feet.

**Build Traffic Peak Hour Operating Conditions**  
**Existing Transportation System**

Intersection	Peak Hour	Metric	Level of Service (LOS) per Movement by Approach												I/S LOS & Delay
			Eastbound			Westbound			Northbound			Southbound			
			↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙	
Downer Avenue & Belleview Place/Hackett Avenue <i>Traffic Signal Control</i>	AM	Lanes->	1			1			1			1			B 10.5
		LOS	B			B			A			B			
		Delay	14.0			13.5			9.9			10.0			
	PM	Queue	30'			10'			70'			75'			
		LOS	B			B			B			B			
		Delay	13.9			13.9			11.3			10.2			
PM	Queue	30'			30'			130'			85'				
	Lanes->	1			-			1			1			A 4.5	
	LOS	A			-			*			A				
Delay	7.3			-			-			9.4					
Hackett Avenue & Park Place <i>Stop Sign Control (NB/SB)</i>	AM	Queue	0'			-			*			5'			
		LOS	A			-			*			A			
		Delay	7.3			-			-			8.6			
	PM	Queue	0'			-			*			0'			
		LOS	A			-			*			A			
		Delay	7.3			-			-			9.2			
PM	Queue	0'			-			*			5'				
	Lanes->	-			-			1			-			A 4.1	
	LOS	-			-			A			-				
Delay	-			-			0			-					
Hackett Avenue & Apartment Underground Parking Driveway <i>Stop Sign Control (WB)</i>	AM	Queue	-			-			0'			-			
		LOS	-			-			A			-			
		Delay	-			-			0			-			
	PM	Queue	-			-			0'			-			
		LOS	-			-			A			-			
		Delay	-			-			0			-			
PM	Queue	-			-			0'			-				

(-) indicates a movement that is prohibited or does not exist; (\*) indicates a freeflow movement.  
Delay is reported in seconds. Queue is the maximum of the 50th & 95th percentile queue, measured in feet.



# **APPENDIX A**

## **Traffic Counts & Parking Generation Worksheet**

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# Intersection Traffic Volume Report

<b>Count Basics</b>		<b>Version 2013.14.1</b>		<b>Page 1 of 13</b>	
Start Date:	Monday, August 29, 2022	Weekday	Schools Not in Session		
Total Number of Hours Counted:	4	Non-Holiday	No Special Events		

## Base Information, Observed (4) Hour and Estimated (24) Hour Volume Summaries

Intersection of: **Downer Avenue and Bellevue Place**

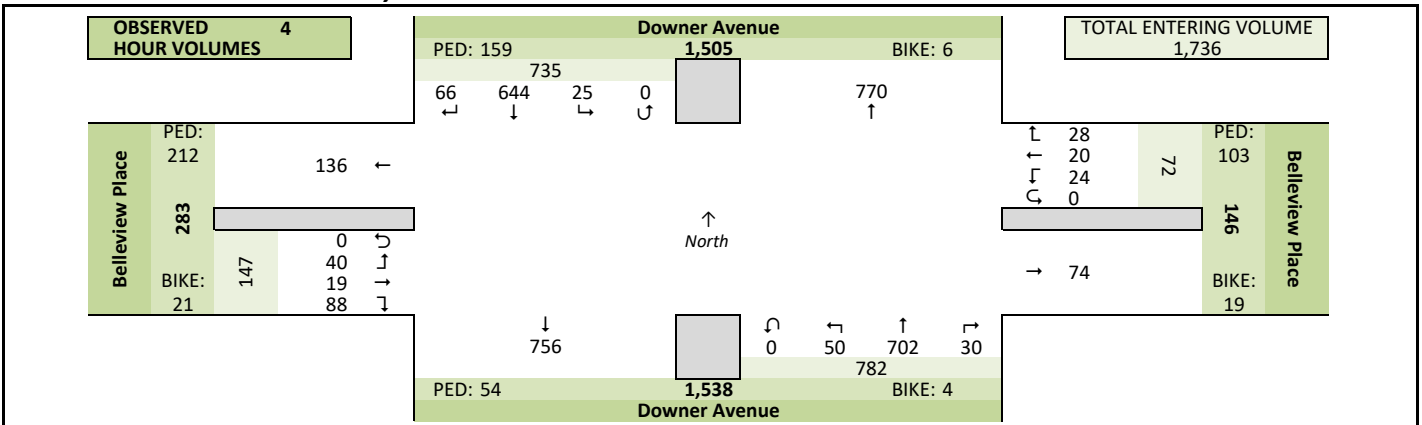
### Site Information

Municipality	City of Milwaukee		
County	Milwaukee	WisDOT Region	SE
Traffic Control	Traffic Signal		
Roadway Names	North Direction ↑		
North Leg	Downer Avenue		
East Leg	Bellevue Place		
South Leg	Downer Avenue		
West Leg	Bellevue Place		
Special Considerations			
Schools	Not in Session		
Holidays	None		
Special Events	None		
Special Pedestrians Observed			
Pre-school children	None		
Elementary school age children	None		
Visually impaired (white cane/helper dog)	None		
Elderly/disabled (except wheelchairs)	None		
Wheelchairs/electric scooters	None		
Other (describe)	None		

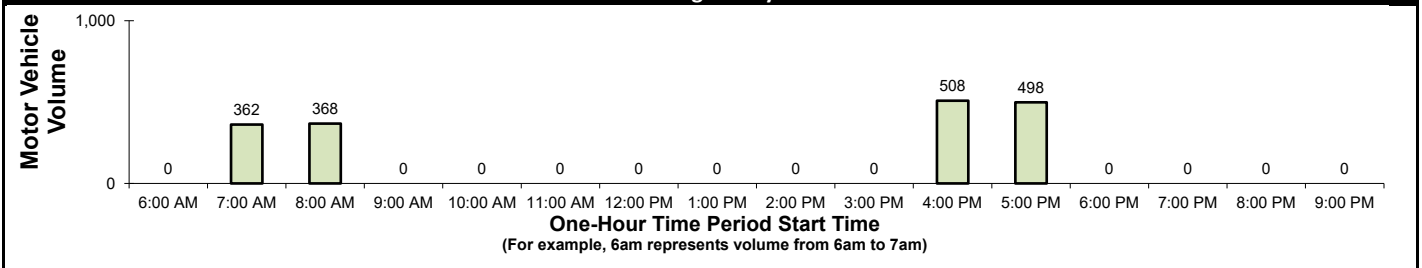
### Count Information

Hrs Counted:	7:00 AM-9:00 AM and 4:00 PM-6:00 PM		
1st Day of Count	Monday, August 29, 2022		Weather
AM Peak Period	Tuesday, August 30, 2022		Clear & Dry
Midday Peak Period	Tuesday, August 30, 2022		Clear & Dry
PM Peak Period	Monday, August 29, 2022		Clear & Dry
Calculated Peak Hours			
AM	8:00-9:00am	MD	PM 4:45-5:45pm
Peak Hours Selected for Analysis			
AM	8:00-9:00am	MD	PM 4:45-5:45pm
Daily/Seasonal Adjustment Group	(2) Urban Arterials & Collectors		
Count Expansion Group	(2) Urban Arterials & Collectors		
Daily/Seasonal Adjustment Factor	0.882	Count Expansion Factor	3.348
Company Name	TADI, Inc.		Manual Adj. 1.000
Observers	AM Peak Period	Amy Scheuerlein	
	Midday Peak Period	None	
	PM Peak Period	Amy Scheuerlein	
Comments	2019 DOT Seasonal Factors		

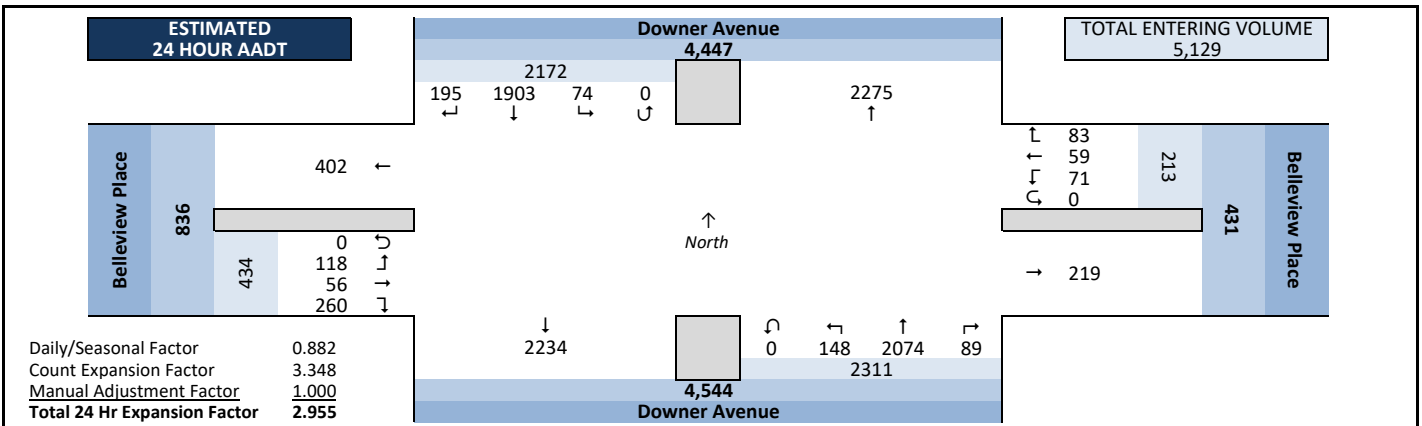
### Observed 4 Hour Volume Summary



Total Entering Hourly Volume



### Estimated 24 Hour AADT

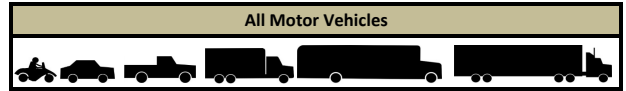




# Intersection Traffic Volume Report

## Peak Hour Volume Summary

### Downer Avenue and Bellevue Place



#### Peak Hour Volumes, Truck Percentages, and PHFs

Tuesday, August 30, 2022		↓ From North					← From East					↑ From South					→ From West					Totals
		Downer Avenue					Bellevue Place					Downer Avenue					Bellevue Place					
AM Peak Hour	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
	8:00 AM	2	30	2	0	34	1	0	1	0	2	2	27	0	0	29	11	1	0	0	12	77
	8:15 AM	1	44	1	0	46	0	0	1	0	1	2	24	1	0	27	6	0	3	0	9	83
	8:30 AM	3	41	2	0	46	0	2	0	0	2	2	40	2	0	44	3	2	2	0	7	99
	8:45 AM	2	41	1	0	44	0	1	2	0	3	4	44	5	0	53	5	0	4	0	9	109
	Peak Hour Volume	8	156	6	0	170	1	3	4	0	8	10	135	8	0	153	25	3	9	0	37	368
	Rounded Hourly Volume	10	155	5	0	170	0	5	5	0	10	10	135	10	0	155	25	5	10	0	40	375
	% Single Unit Trucks	0.0	5.1	0.0	0.0	4.7	0.0	0.0	0.0	0.0	0.0	0.0	9.6	0.0	0.0	8.5	0.0	0.0	0.0	0.0	0.0	5.7
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Trucks (Total)	0.0	5.1	0.0	0.0	4.7	0.0	0.0	0.0	0.0	0.0	0.0	9.6	0.0	0.0	8.5	0.0	0.0	0.0	0.0	0.0	5.7
	Peak Hour Factor (PHF)	0.67	0.89	0.75	0.00	0.92	0.25	0.37	0.50	0.00	0.67	0.62	0.77	0.40	0.00	0.72	0.57	0.37	0.56	0.00	0.77	0.84

N/A		↓ From North					← From East					↑ From South					→ From West					Totals
		Downer Avenue					Bellevue Place					Downer Avenue					Bellevue Place					
MD Peak Hour	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Peak Hour Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Rounded Hourly Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	% Single Unit Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Trucks (Total)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Peak Hour Factor (PHF)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Monday, August 29, 2022		↓ From North					← From East					↑ From South					→ From West					Totals
		Downer Avenue					Bellevue Place					Downer Avenue					Bellevue Place					
PM Peak Hour	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
	4:45 PM	7	38	2	0	47	3	2	0	0	5	2	73	7	0	82	6	0	6	0	12	146
	5:00 PM	10	35	1	0	46	1	2	4	0	7	1	71	4	0	76	1	3	4	0	8	137
	5:15 PM	5	43	3	0	51	5	5	1	0	11	2	63	4	0	69	3	2	1	0	6	137
	5:30 PM	5	29	2	0	36	5	1	3	0	9	3	59	6	0	68	6	3	5	0	14	127
	Peak Hour Volume	27	145	8	0	180	14	10	8	0	32	8	266	21	0	295	16	8	16	0	40	547
	Rounded Hourly Volume	25	145	10	0	180	15	10	10	0	35	10	265	20	0	295	15	10	15	0	40	550
	% Single Unit Trucks	0.0	6.9	0.0	0.0	5.6	0.0	0.0	0.0	0.0	0.0	0.0	3.8	0.0	0.0	3.4	0.0	0.0	0.0	0.0	0.0	3.7
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.2	0.0	0.0	0.0	2.5	0.2
	% Trucks (Total)	0.0	6.9	0.0	0.0	5.6	0.0	0.0	0.0	0.0	0.0	0.0	3.8	0.0	0.0	3.4	6.2	0.0	0.0	0.0	2.5	3.8
	Peak Hour Factor (PHF)	0.67	0.84	0.67	0.00	0.88	0.70	0.50	0.50	0.00	0.73	0.67	0.91	0.75	0.00	0.90	0.67	0.67	0.67	0.00	0.71	0.94

#### Peak Hour Pedestrian and Bicyclist Volumes

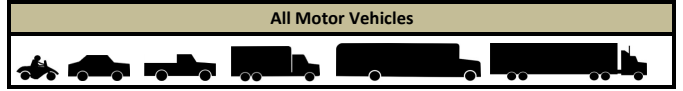
Pedestrians and Bicyclists		Crossing North Approach			Crossing East Approach			Crossing South Approach			Crossing West Approach			Total Ped & Bike Volume
		Downer Avenue			Bellevue Place			Downer Avenue			Bellevue Place			
15-Minute Start Time		Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	
AM	8:00 AM	8	0	8	5	0	5	4	0	4	6	2	8	25
	8:15 AM	7	0	7	7	0	7	1	0	1	9	2	11	26
	8:30 AM	7	0	7	8	0	8	2	0	2	7	2	9	26
	8:45 AM	8	0	8	2	1	3	0	1	1	10	0	10	22
	Total	30	0	30	22	1	23	7	1	8	32	6	38	99
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:45 PM	13	0	13	4	0	4	4	0	4	18	2	20	41
	5:00 PM	16	1	17	11	2	13	7	0	7	19	2	21	58
	5:15 PM	11	1	12	5	4	9	1	0	1	13	3	16	38
	5:30 PM	18	0	18	16	0	16	7	0	7	19	0	19	60
	Total	58	2	60	36	6	42	19	0	19	69	7	76	197



# Intersection Traffic Volume Report

## 15-Minute Motor Vehicle Data

### Downer Avenue and Bellevue Place



#### 15-Minute Motor Vehicle Data

15-Minute Time Period	From North					From East					From South					From West					15-Min Totals	Hourly Sum	PHF		
	Downer Avenue					Bellevue Place					Downer Avenue					Bellevue Place									
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total					
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
7:00 AM	0	45	0	0	45	2	0	0	0	2	0	28	2	0	30	6	1	1	0	8	85		362	0.82	
7:15 AM	1	40	2	0	43	1	0	0	0	1	0	19	1	0	20	6	0	2	0	8	72		354	0.80	
7:30 AM	2	62	1	0	65	2	0	4	0	6	1	25	2	0	28	8	2	2	0	12	111		365	0.82	
7:45 AM	3	42	1	0	46	0	0	3	0	3	1	27	2	0	30	9	3	3	0	15	94		353	0.89	
8:00 AM	2	30	2	0	34	1	0	1	0	2	2	27	0	0	29	11	1	0	0	12	77		368	0.84	
8:15 AM	1	44	1	0	46	0	0	1	0	1	2	24	1	0	27	6	0	3	0	9	83				
8:30 AM	3	41	2	0	46	0	2	0	0	2	2	40	2	0	44	3	2	2	0	7	99				
8:45 AM	2	41	1	0	44	0	1	2	0	3	4	44	5	0	53	5	0	4	0	9	109				
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
4:00 PM	6	42	2	0	50	2	3	1	0	6	3	68	6	0	77	2	0	3	0	5	138		508	0.87	
4:15 PM	6	41	1	0	48	3	2	0	0	5	4	42	2	0	48	3	1	0	0	4	105		507	0.87	
4:30 PM	9	38	2	0	49	2	1	2	0	5	2	55	2	0	59	3	1	2	0	6	119		539	0.92	
4:45 PM	7	38	2	0	47	3	2	0	0	5	2	73	7	0	82	6	0	6	0	12	146		547	0.94	
5:00 PM	10	35	1	0	46	1	2	4	0	7	1	71	4	0	76	1	3	4	0	8	137		498	0.91	
5:15 PM	5	43	3	0	51	5	5	1	0	11	2	63	4	0	69	3	2	1	0	6	137				
5:30 PM	5	29	2	0	36	5	1	3	0	9	3	59	6	0	68	6	3	5	0	14	127				
5:45 PM	4	33	2	0	39	1	1	2	0	4	1	37	4	0	42	10	0	2	0	12	97				
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
<b>Totals</b>	<b>66</b>	<b>644</b>	<b>25</b>	<b>0</b>	<b>735</b>	<b>28</b>	<b>20</b>	<b>24</b>	<b>0</b>	<b>72</b>	<b>30</b>	<b>702</b>	<b>50</b>	<b>0</b>	<b>782</b>	<b>88</b>	<b>19</b>	<b>40</b>	<b>0</b>	<b>147</b>	<b>1736</b>				

#### Peak Hour All Vehicle Volume Summary

Hourly Time Period	From North					From East					From South					From West					Total Hourly Volume	PHF	
	Downer Avenue					Bellevue Place					Downer Avenue					Bellevue Place							
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total			
AM 8:00 AM	8	156	6	0	170	1	3	4	0	8	10	135	8	0	153	25	3	9	0	37	368	0.84	
MD 12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PM 4:45 PM	27	145	8	0	180	14	10	8	0	32	8	266	21	0	295	16	8	16	0	40	547	0.94	

# Intersection Traffic Volume Report

<b>Count Basics</b>			<b>Page 9 of 13</b>
Start Date:	Monday, August 29, 2022	Weekday	Schools Not in Session
Total Number of Hours Counted:	4	Non-Holiday	No Special Events

## 15-Minute Heavy Vehicle Data

### Downer Avenue and Belleview Place



#### 15-Minute Heavy Vehicle Data

15-Minute Time Period	From North					From East					From South					From West					15-Min Totals	Hourly Sum	
	Downer Avenue					Belleview Place					Downer Avenue					Belleview Place							
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total			
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	3	0	0	3	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	6	26
7:15 AM	0	4	0	0	4	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	7	23
7:30 AM	0	2	0	0	2	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	8	21
7:45 AM	0	2	0	0	2	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	5	19
8:00 AM	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	3	21
8:15 AM	0	3	0	0	3	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	5	5
8:30 AM	0	2	0	0	2	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	6	6
8:45 AM	0	2	0	0	2	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	7	7
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	3	0	0	3	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	6	25
4:15 PM	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	4	25
4:30 PM	0	5	0	0	5	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	8	27
4:45 PM	0	4	0	0	4	0	0	0	0	0	0	2	0	0	2	1	0	0	0	0	1	7	21
5:00 PM	0	2	0	0	2	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	6	20
5:15 PM	0	4	0	0	4	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	6	6
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	2	2
5:45 PM	0	3	0	0	3	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	6	6
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Totals</b>	0	42	0	0	42	0	0	0	0	0	0	49	0	0	49	1	0	0	0	0	1	92	

#### Peak Hour Heavy Vehicle Volume Summary

Hourly Time Period	From North					From East					From South					From West					Total Hourly Volume	
	Downer Avenue					Belleview Place					Downer Avenue					Belleview Place						
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
AM 8:00 AM	0	8	0	0	8	0	0	0	0	0	0	13	0	0	13	0	0	0	0	0	0	21
MD 12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM 4:45 PM	0	10	0	0	10	0	0	0	0	0	0	10	0	0	10	1	0	0	0	0	1	21

# Intersection Traffic Volume Report

<b>Count Basics</b>		<b>Version 2013.J4.1</b>		<b>Page 1 of 13</b>	
Start Date:	Monday, August 29, 2022	Weekday	Schools Not in Session		
Total Number of Hours Counted:	3.75	Non-Holiday	No Special Events		

## Base Information, Observed (3.75) Hour and Estimated (24) Hour Volume Summaries

Intersection of: **Hackett Avenue and Bellevue Place**

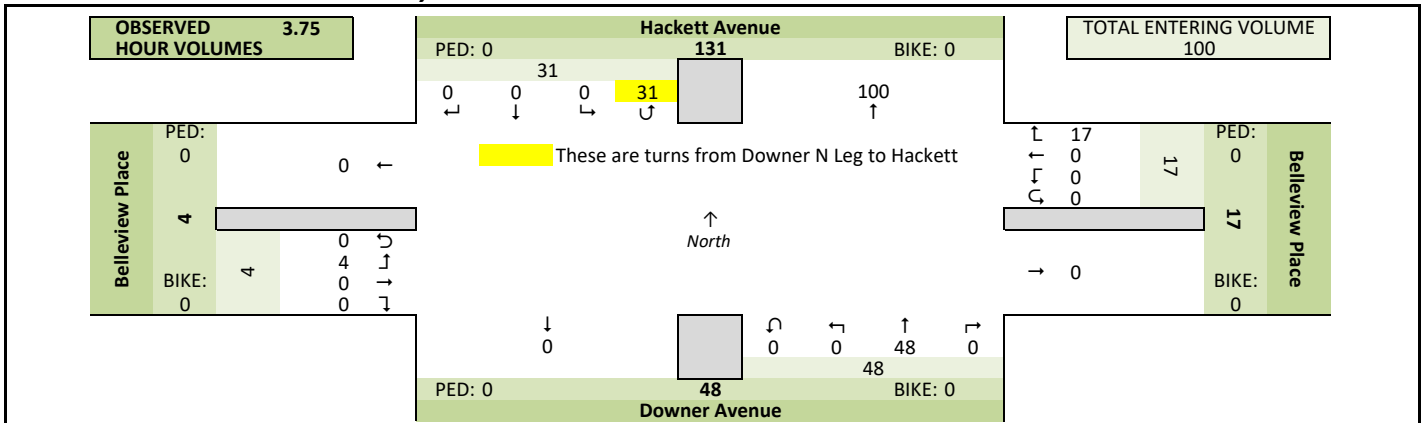
### Site Information

Municipality	City of Milwaukee		
County	Milwaukee	WisDOT Region	SE
Traffic Control	Traffic Signal		
Roadway Names	North Direction ↑		
North Leg	Hackett Avenue		
East Leg	Bellevue Place		
South Leg	Downer Avenue		
West Leg	Bellevue Place		
Special Considerations			
Schools	Not in Session		
Holidays	None		
Special Events	None		
Special Pedestrians Observed			
Pre-school children	None		
Elementary school age children	None		
Visually impaired (white cane/helper dog)	None		
Elderly/disabled (except wheelchairs)	None		
Wheelchairs/electric scooters	None		
Other (describe)	None		

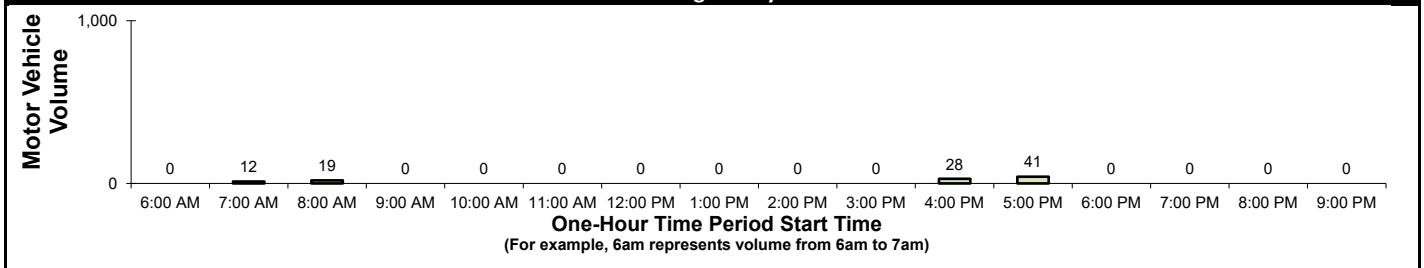
### Count Information

Hrs Counted:	7:00 AM-7:30 AM, 7:45 AM-9:00 AM, and 4:00 PM-6:00 PM		
1st Day of Count	Monday, August 29, 2022		Weather
AM Peak Period	Tuesday, August 30, 2022		Clear & Dry
Midday Peak Period	Tuesday, August 30, 2022		Clear & Dry
PM Peak Period	Monday, August 29, 2022		Clear & Dry
Calculated Peak Hours			
AM	7:45-8:45am	MD	PM 5:00-6:00pm
Peak Hours Selected for Analysis			
AM	8:00-9:00am	MD	PM 4:45-5:45pm
Daily/Seasonal Adjustment Group	(2) Urban Arterials & Collectors		
Count Expansion Group	(2) Urban Arterials & Collectors		
Daily/Seasonal Adjustment Factor	0.882	Count Expansion Factor	3.348
Company Name	TADI, Inc.		Manual Adj. 1.000
Observers	AM Peak Period	Amy Scheuerlein	
	Midday Peak Period	None	
	PM Peak Period	Amy Scheuerlein	
Comments	2019 DOT Seasonal Factors		

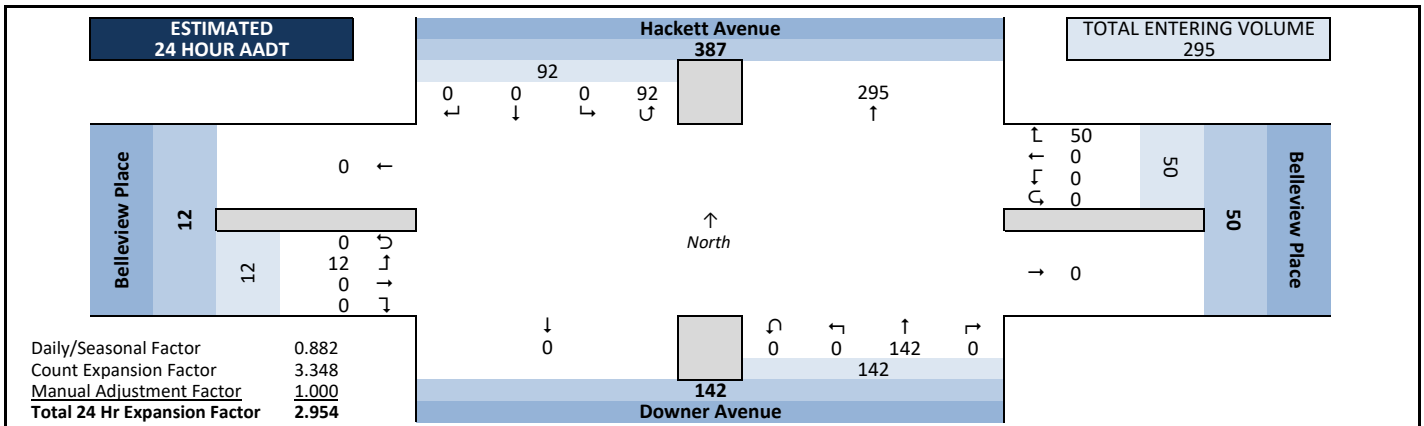
### Observed 3.75 Hour Volume Summary



Total Entering Hourly Volume



### Estimated 24 Hour AADT











# Intersection Traffic Volume Report

<b>Count Basics</b>			<b>Page 9 of 13</b>
Start Date:	Monday, August 29, 2022	Weekday	Schools Not in Session
Total Number of Hours Counted:	3.75	Non-Holiday	No Special Events

## 15-Minute Heavy Vehicle Data

### Hackett Avenue and Belleview Place



#### 15-Minute Heavy Vehicle Data

15-Minute Time Period	From North					From East					From South					From West					15-Min Totals	Hourly Sum	
	Hackett Avenue					Belleview Place					Downer Avenue					Belleview Place							
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total			
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	3
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	0	1	2
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Totals</b>	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	2	0	2	0	2	3

#### Peak Hour Heavy Vehicle Volume Summary

Hourly Time Period	From North					From East					From South					From West					Total Hourly Volume
	Hackett Avenue					Belleview Place					Downer Avenue					Belleview Place					
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
AM 8:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	2	0	2	3
MD 12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM 4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



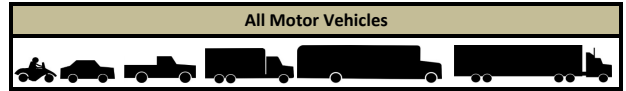


# Intersection Traffic Volume Report

<b>Count Basics</b>		<b>Page 3 of 13</b>	
Start Date: Monday, August 29, 2022	Weekday	Schools Not in Session	
Total Number of Hours Counted: 4	Non-Holiday	No Special Events	

## Peak Hour Volume Summary

### Hackett Avenue and Park Place



#### Peak Hour Volumes, Truck Percentages, and PHFs

Tuesday, August 30, 2022		From North					From East					From South					From West					Totals	
		Hackett Avenue					Park Place					Hackett Avenue					Park Place						
AM Peak Hour	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
	8:00 AM	1	0	1	0	2	0	6	0	0	6	3	0	0	0	3	0	9	3	0	0	12	23
	8:15 AM	0	0	2	0	2	4	8	0	1	13	0	0	3	0	3	0	5	2	0	0	7	25
	8:30 AM	1	0	2	0	3	0	2	0	0	2	2	0	0	0	2	0	4	3	0	0	7	14
	8:45 AM	1	0	1	0	2	2	4	0	0	6	1	0	4	0	5	0	5	4	0	0	9	22
	Peak Hour Volume	3	0	6	0	9	6	20	0	1	27	6	0	7	0	13	0	23	12	0	0	35	84
	Rounded Hourly Volume	5	0	5	0	10	5	20	0	0	25	5	0	5	0	10	0	25	10	0	0	35	80
	% Single Unit Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.7	0.0	28.6	0.0	23.1	0.0	0.0	8.3	0.0	2.9	4.8	4.8
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Trucks (Total)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.7	0.0	28.6	0.0	23.1	0.0	0.0	8.3	0.0	2.9	4.8	4.8
	Peak Hour Factor (PHF)	0.75	0.00	0.75	0.00	0.75	0.37	0.62	0.00	0.25	0.52	0.50	0.00	0.44	0.00	0.65	0.00	0.64	0.75	0.00	0.73	0.84	0.84

N/A		From North					From East					From South					From West					Totals	
		Hackett Avenue					Park Place					Hackett Avenue					Park Place						
MD Peak Hour	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Peak Hour Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Rounded Hourly Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	% Single Unit Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Trucks (Total)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Peak Hour Factor (PHF)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Monday, August 29, 2022		From North					From East					From South					From West					Totals	
		Hackett Avenue					Park Place					Hackett Avenue					Park Place						
PM Peak Hour	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
	4:45 PM	2	0	0	0	2	1	6	0	0	7	3	2	2	0	7	0	10	4	2	0	16	32
	5:00 PM	3	0	1	0	4	2	10	0	1	13	5	0	4	0	9	0	14	0	0	0	14	40
	5:15 PM	3	0	0	0	3	1	9	0	0	10	7	0	2	0	9	0	8	5	0	0	13	35
	5:30 PM	1	0	1	0	2	1	8	0	0	9	5	1	8	0	14	0	12	1	0	0	13	38
	Peak Hour Volume	9	0	2	0	11	5	33	0	1	39	20	3	16	0	39	0	44	10	2	0	56	145
	Rounded Hourly Volume	10	0	0	0	10	5	35	0	0	40	20	5	15	0	40	0	45	10	0	0	55	145
	% Single Unit Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Trucks (Total)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Peak Hour Factor (PHF)	0.75	0.00	0.50	0.00	0.69	0.62	0.82	0.00	0.25	0.75	0.71	0.37	0.50	0.00	0.70	0.00	0.79	0.50	0.25	0.87	0.91	0.91

#### Peak Hour Pedestrian and Bicyclist Volumes

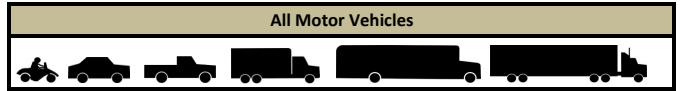
Pedestrians and Bicyclists		Crossing North Approach			Crossing East Approach			Crossing South Approach			Crossing West Approach			Total Ped & Bike Volume
		Hackett Avenue			Park Place			Hackett Avenue			Park Place			
15-Minute Start Time		Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	
AM	8:00 AM	1	0	1	3	0	3	1	0	1	3	0	3	8
	8:15 AM	3	0	3	3	0	3	8	0	8	4	0	4	18
	8:30 AM	2	2	4	0	0	0	7	1	8	2	0	2	14
	8:45 AM	1	0	1	0	0	0	4	1	5	8	0	8	14
	Total	7	2	9	6	0	6	20	2	22	17	0	17	54
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:45 PM	1	0	1	1	0	1	9	0	9	8	1	9	20
	5:00 PM	3	2	5	0	0	0	3	0	3	1	0	1	9
	5:15 PM	6	1	7	3	0	3	10	1	11	10	1	11	32
	5:30 PM	3	3	6	4	0	4	6	1	7	6	0	6	23
	Total	13	6	19	8	0	8	28	2	30	25	2	27	84



# Intersection Traffic Volume Report

## 15-Minute Motor Vehicle Data

### Hackett Avenue and Park Place



#### 15-Minute Motor Vehicle Data

15-Minute Time Period	From North					From East					From South					From West					15-Min Totals	Hourly Sum	PHF
	Hackett Avenue					Park Place					Hackett Avenue					Park Place							
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total			
Start Time																							
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
7:00 AM	4	0	0	0	4	0	1	0	0	1	0	0	1	0	1	0	9	2	1	12	18	76	0.86
7:15 AM	2	0	1	0	3	1	5	0	0	6	1	0	2	0	3	0	9	1	0	10	22	81	0.88
7:30 AM	1	0	1	0	2	0	9	0	0	9	0	1	0	0	1	0	7	0	0	7	19	84	0.84
7:45 AM	0	0	2	0	2	1	4	0	1	6	1	0	2	0	3	0	4	2	0	6	17	79	0.79
8:00 AM	1	0	1	0	2	0	6	0	0	6	3	0	0	0	3	0	9	3	0	12	23	84	0.84
8:15 AM	0	0	2	0	2	4	8	0	1	13	0	0	3	0	3	0	5	2	0	7	25		
8:30 AM	1	0	2	0	3	0	2	0	0	2	2	0	0	0	2	0	4	3	0	7	14		
8:45 AM	1	0	1	0	2	2	4	0	0	6	1	0	4	0	5	0	5	4	0	9	22		
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
4:00 PM	1	0	1	0	2	0	11	0	0	11	3	0	3	0	6	0	8	0	0	8	27	111	0.87
4:15 PM	2	0	1	0	3	1	7	0	0	8	1	3	0	0	4	0	11	1	0	12	27	124	0.78
4:30 PM	0	0	0	0	0	2	9	0	0	11	7	1	2	0	10	0	3	0	1	4	25	132	0.83
4:45 PM	2	0	0	0	2	1	6	0	0	7	3	2	2	0	7	0	10	4	2	16	32	145	0.91
5:00 PM	3	0	1	0	4	2	10	0	1	13	5	0	4	0	9	0	14	0	0	14	40	148	0.93
5:15 PM	3	0	0	0	3	1	9	0	0	10	7	0	2	0	9	0	8	5	0	13	35		
5:30 PM	1	0	1	0	2	1	8	0	0	9	5	1	8	0	14	0	12	1	0	13	38		
5:45 PM	2	0	1	0	3	0	11	0	0	11	4	1	4	0	9	0	10	2	0	12	35		
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Totals	24	0	15	0	39	16	110	0	3	129	43	9	37	0	89	0	128	30	4	162	419		

#### Peak Hour All Vehicle Volume Summary

Hourly Time Period	From North					From East					From South					From West					Total Hourly Volume	PHF
	Hackett Avenue					Park Place					Hackett Avenue					Park Place						
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
AM 8:00 AM	3	0	6	0	9	6	20	0	1	27	6	0	7	0	13	0	23	12	0	35	84	0.84
MD 12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PM 4:45 PM	9	0	2	0	11	5	33	0	1	39	20	3	16	0	39	0	44	10	2	56	145	0.91



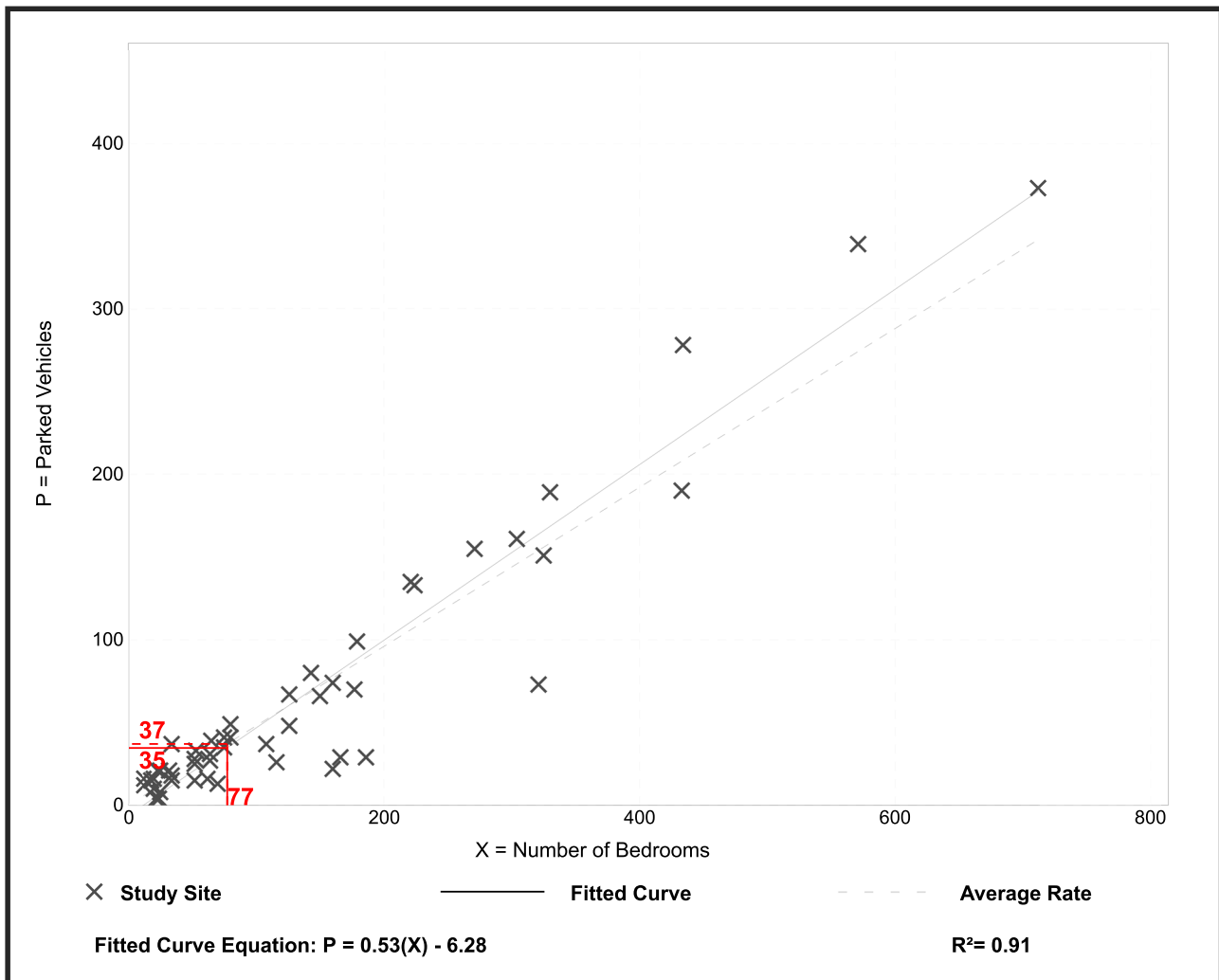
# Multifamily Housing (Mid-Rise) (221)

**Peak Period Parking Demand vs: Bedrooms**  
**On a: Weekday (Monday - Friday)**  
**Setting/Location: Dense Multi-Use Urban (no nearby rail transit)**  
**Peak Period of Parking Demand: 10:00 p.m. - 5:00 a.m.**  
 Number of Studies: 50  
 Avg. Num. of Bedrooms: 142

## Peak Period Parking Demand per Bedroom

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
0.48	0.14 - 1.33	0.44 / 0.71	0.44 - 0.52	0.16 (33%)

## Data Plot and Equation



# **APPENDIX B**

## **Existing Traffic Synchro Analysis Output**

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Lanes, Volumes, Timings  
100: Downer Avenue & Belleview Place

Background  
AM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	10	5	25	5	5	1	10	135	20	10	155	10
Future Volume (vph)	10	5	25	5	5	1	10	135	20	10	155	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			No			No			No			No
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		372			588			265			324	
Travel Time (s)		10.1			16.0			7.2			8.8	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	9%	9%	9%	5%	5%	5%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	48	0	0	13	0	0	197	0	0	209	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	15		9	15		9	15		9	15		9
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)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	16.0	16.0		16.0	16.0		15.5	15.5		15.5	15.5	
Total Split (s)	26.0	26.0		26.0	26.0		34.0	34.0		34.0	34.0	
Total Split (%)	43.3%	43.3%		43.3%	43.3%		56.7%	56.7%		56.7%	56.7%	
Maximum Green (s)	20.0	20.0		20.0	20.0		28.5	28.5		28.5	28.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.5	2.5		2.5	2.5		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		6.0			6.0			5.5			5.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	



Lanes, Volumes, Timings  
100: Downer Avenue & Belleview Place

Background  
AM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio	0.09				0.02				0.25		0.25	
Control Delay	14.4				13.7				10.4		10.4	
Queue Delay	0.0				0.0				0.0		0.0	
Total Delay	14.4				13.7				10.4		10.4	
Queue Length 50th (ft)	12				3				40		42	
Queue Length 95th (ft)	29				12				69		72	
Internal Link Dist (ft)	292				508				185		244	
Turn Bay Length (ft)												
Base Capacity (vph)	545				569				799		837	
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	0.09				0.02				0.25		0.25	

Intersection Summary

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 47 (78%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green  
 Natural Cycle: 40  
 Control Type: Pretimed

Splits and Phases: 100: Downer Avenue & Belleview Place



HCM 6th Signalized Intersection Summary  
 100: Downer Avenue & Belleview Place

Background  
 AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (veh/h)	10	5	25	5	5	1	10	135	20	10	155	10
Future Volume (veh/h)	10	5	25	5	5	1	10	135	20	10	155	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1767	1767	1767	1826	1826	1826
Adj Flow Rate, veh/h	12	6	30	6	6	1	12	161	24	12	185	12
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	1	1	1	1	1	1	9	9	9	5	5	5
Cap, veh/h	169	107	336	305	284	42	81	695	99	80	784	49
Arrive On Green	0.33	0.33	0.33	0.33	0.33	0.33	0.47	0.47	0.47	0.47	0.47	0.47
Sat Flow, veh/h	283	321	1007	651	851	125	37	1463	208	35	1651	103
Grp Volume(v), veh/h	48	0	0	13	0	0	197	0	0	209	0	0
Grp Sat Flow(s),veh/h/ln	1611	0	0	1626	0	0	1708	0	0	1788	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.2	0.0	0.0	0.3	0.0	0.0	4.1	0.0	0.0	4.1	0.0	0.0
Prop In Lane	0.25		0.62	0.46		0.08	0.06		0.12	0.06		0.06
Lane Grp Cap(c), veh/h	612	0	0	630	0	0	875	0	0	913	0	0
V/C Ratio(X)	0.08	0.00	0.00	0.02	0.00	0.00	0.23	0.00	0.00	0.23	0.00	0.00
Avail Cap(c_a), veh/h	612	0	0	630	0	0	875	0	0	913	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	13.7	0.0	0.0	13.4	0.0	0.0	9.3	0.0	0.0	9.4	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.1	0.0	0.0	0.6	0.0	0.0	0.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.0	0.1	0.0	0.0	1.5	0.0	0.0	1.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.0	0.0	0.0	13.5	0.0	0.0	9.9	0.0	0.0	9.9	0.0	0.0
LnGrp LOS	B	A	A	B	A	A	A	A	A	A	A	A
Approach Vol, veh/h		48			13			197			209	
Approach Delay, s/veh		14.0			13.5			9.9			9.9	
Approach LOS		B			B			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		34.0		26.0		34.0		26.0				
Change Period (Y+Rc), s		5.5		6.0		5.5		6.0				
Max Green Setting (Gmax), s		28.5		20.0		28.5		20.0				
Max Q Clear Time (g_c+I1), s		6.1		3.2		6.1		2.3				
Green Ext Time (p_c), s		1.2		0.2		1.2		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				10.4								
HCM 6th LOS				B								

Intersection												
Int Delay, s/veh	3.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	10	25	0	0	20	5	10	1	5	5	0	5
Future Vol, veh/h	10	25	0	0	20	5	10	1	5	5	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	3	3	3	1	1	1	23	23	23	1	1	1
Mvmt Flow	12	30	0	0	24	6	12	1	6	6	0	6

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	30	0	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	4.13	-	-	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	2.227	-	-	-
Pot Cap-1 Maneuver	1576	-	0	0
Stage 1	-	-	0	0
Stage 2	-	-	0	0
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	1576	-	-	-
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.1	0	9.2	8.8
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	878	1576	-	-	-	965
HCM Lane V/C Ratio	0.022	0.008	-	-	-	0.012
HCM Control Delay (s)	9.2	7.3	0	-	-	8.8
HCM Lane LOS	A	A	A	-	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	-	0

Lanes, Volumes, Timings  
100: Downer Avenue & Bellevue Place

Background  
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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	15	10	15	10	10	20	20	265	30	25	145	25
Future Volume (vph)	15	10	15	10	10	20	20	265	30	25	145	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			No			No			No			No
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		372			588			265			324	
Travel Time (s)		10.1			16.0			7.2			8.8	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	3%	3%	1%	1%	1%	3%	3%	3%	6%	6%	6%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	43	0	0	43	0	0	335	0	0	208	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	15		9	15		9	15		9	15		9
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)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	16.0	16.0		16.0	16.0		15.5	15.5		15.5	15.5	
Total Split (s)	26.0	26.0		26.0	26.0		34.0	34.0		34.0	34.0	
Total Split (%)	43.3%	43.3%		43.3%	43.3%		56.7%	56.7%		56.7%	56.7%	
Maximum Green (s)	20.0	20.0		20.0	20.0		28.5	28.5		28.5	28.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.5	2.5		2.5	2.5		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		6.0			6.0			5.5			5.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	

Lanes, Volumes, Timings  
 100: Downer Avenue & Belleview Place

Background  
 PM Peak Hour

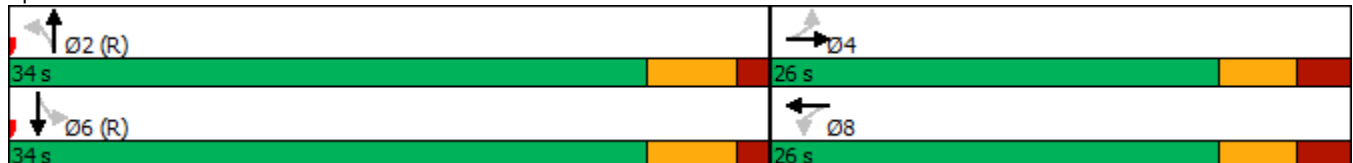


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio	0.08				0.08				0.40		0.27	
Control Delay	14.3				14.2				12.0		10.6	
Queue Delay	0.0				0.0				0.0		0.0	
Total Delay	14.3				14.2				12.0		10.6	
Queue Length 50th (ft)	10				10				73		42	
Queue Length 95th (ft)	29				29				127		80	
Internal Link Dist (ft)	292				508				185		244	
Turn Bay Length (ft)												
Base Capacity (vph)	534				553				844		780	
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	0.08				0.08				0.40		0.27	

Intersection Summary

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 47 (78%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green  
 Natural Cycle: 40  
 Control Type: Pretimed

Splits and Phases: 100: Downer Avenue & Belleview Place





HCM 6th Signalized Intersection Summary  
100: Downer Avenue & Belleview Place

Background  
PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (veh/h)	15	10	15	10	10	20	20	265	30	25	145	25
Future Volume (veh/h)	15	10	15	10	10	20	20	265	30	25	145	25
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1885	1885	1885	1856	1856	1856	1811	1811	1811
Adj Flow Rate, veh/h	16	11	16	11	11	21	21	282	32	27	154	27
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3	1	1	1	3	3	3	6	6	6
Cap, veh/h	242	171	196	174	180	266	86	750	82	127	634	103
Arrive On Green	0.33	0.33	0.33	0.33	0.33	0.33	0.47	0.47	0.47	0.47	0.47	0.47
Sat Flow, veh/h	479	512	587	297	541	799	47	1579	172	125	1335	218
Grp Volume(v), veh/h	43	0	0	43	0	0	335	0	0	208	0	0
Grp Sat Flow(s),veh/h/ln	1578	0	0	1637	0	0	1798	0	0	1678	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.0	0.0	0.0	1.0	0.0	0.0	7.1	0.0	0.0	4.2	0.0	0.0
Prop In Lane	0.37		0.37	0.26		0.49	0.06		0.10	0.13		0.13
Lane Grp Cap(c), veh/h	608	0	0	621	0	0	918	0	0	865	0	0
V/C Ratio(X)	0.07	0.00	0.00	0.07	0.00	0.00	0.36	0.00	0.00	0.24	0.00	0.00
Avail Cap(c_a), veh/h	608	0	0	621	0	0	918	0	0	865	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	13.7	0.0	0.0	13.7	0.0	0.0	10.1	0.0	0.0	9.4	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.2	0.0	0.0	1.1	0.0	0.0	0.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.0	0.4	0.0	0.0	2.8	0.0	0.0	1.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.9	0.0	0.0	13.9	0.0	0.0	11.3	0.0	0.0	10.0	0.0	0.0
LnGrp LOS	B	A	A	B	A	A	B	A	A	B	A	A
Approach Vol, veh/h		43			43			335			208	
Approach Delay, s/veh		13.9			13.9			11.3			10.0	
Approach LOS		B			B			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		34.0		26.0		34.0		26.0				
Change Period (Y+Rc), s		5.5		6.0		5.5		6.0				
Max Green Setting (Gmax), s		28.5		20.0		28.5		20.0				
Max Q Clear Time (g_c+I1), s		9.1		3.0		6.2		3.0				
Green Ext Time (p_c), s		2.1		0.1		1.3		0.1				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				11.2								
HCM 6th LOS				B								

Intersection												
Int Delay, s/veh	3.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	10	45	0	0	35	5	15	5	20	1	0	10
Future Vol, veh/h	10	45	0	0	35	5	15	5	20	1	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	11	49	0	0	38	5	16	5	22	1	0	11

Major/Minor	Major1		Major2		Minor1		Minor2					
Conflicting Flow All	43	0	-	-	-	0	117	114	49	126	112	41
Stage 1	-	-	-	-	-	-	71	71	-	41	41	-
Stage 2	-	-	-	-	-	-	46	43	-	85	71	-
Critical Hdwy	4.11	-	-	-	-	-	7.11	6.51	6.21	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Follow-up Hdwy	2.209	-	-	-	-	-	3.509	4.009	3.309	3.509	4.009	3.309
Pot Cap-1 Maneuver	1572	-	0	0	-	-	862	778	1022	850	780	1033
Stage 1	-	-	0	0	-	-	941	838	-	976	863	-
Stage 2	-	-	0	0	-	-	970	861	-	925	838	-
Platoon blocked, %		-			-	-						
Mov Cap-1 Maneuver	1572	-	-	-	-	-	848	773	1022	823	775	1033
Mov Cap-2 Maneuver	-	-	-	-	-	-	848	773	-	823	775	-
Stage 1	-	-	-	-	-	-	934	832	-	969	863	-
Stage 2	-	-	-	-	-	-	960	861	-	893	832	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.3	0	9.1	8.6
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	915	1572	-	-	-	1010
HCM Lane V/C Ratio	0.048	0.007	-	-	-	0.012
HCM Control Delay (s)	9.1	7.3	0	-	-	8.6
HCM Lane LOS	A	A	A	-	-	A
HCM 95th %tile Q(veh)	0.2	0	-	-	-	0

# **APPENDIX C**

## **Build Traffic Synchro Analysis Output**

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Lanes, Volumes, Timings  
100: Downer Avenue & Belleview Place

Build  
AM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	10	5	25	5	5	1	10	135	20	10	160	10
Future Volume (vph)	10	5	25	5	5	1	10	135	20	10	160	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			No			No			No			No
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		372			588			265			324	
Travel Time (s)		10.1			16.0			7.2			8.8	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	9%	9%	9%	5%	5%	5%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	48	0	0	13	0	0	197	0	0	214	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	15		9	15		9	15		9	15		9
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)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	16.0	16.0		16.0	16.0		15.5	15.5		15.5	15.5	
Total Split (s)	26.0	26.0		26.0	26.0		34.0	34.0		34.0	34.0	
Total Split (%)	43.3%	43.3%		43.3%	43.3%		56.7%	56.7%		56.7%	56.7%	
Maximum Green (s)	20.0	20.0		20.0	20.0		28.5	28.5		28.5	28.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.5	2.5		2.5	2.5		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		6.0			6.0			5.5			5.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	

Lanes, Volumes, Timings  
 100: Downer Avenue & Belleview Place

Build  
 AM Peak Hour

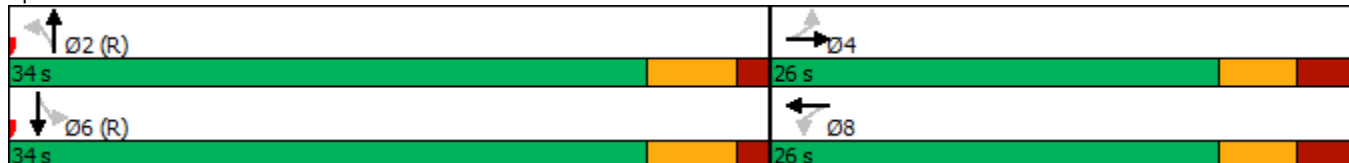


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio	0.09				0.02				0.25		0.26	
Control Delay	14.4				13.7				10.4		10.4	
Queue Delay	0.0				0.0				0.0		0.0	
Total Delay	14.4				13.7				10.4		10.4	
Queue Length 50th (ft)	12				3				40		43	
Queue Length 95th (ft)	29				12				69		74	
Internal Link Dist (ft)	292				508				185		244	
Turn Bay Length (ft)												
Base Capacity (vph)	545				569				799		838	
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	0.09				0.02				0.25		0.26	

Intersection Summary

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 47 (78%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green  
 Natural Cycle: 40  
 Control Type: Pretimed

Splits and Phases: 100: Downer Avenue & Belleview Place



HCM 6th Signalized Intersection Summary  
 100: Downer Avenue & Belleview Place

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 AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (veh/h)	10	5	25	5	5	1	10	135	20	10	160	10
Future Volume (veh/h)	10	5	25	5	5	1	10	135	20	10	160	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1767	1767	1767	1826	1826	1826
Adj Flow Rate, veh/h	12	6	30	6	6	1	12	161	24	12	190	12
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	1	1	1	1	1	1	9	9	9	5	5	5
Cap, veh/h	169	107	336	305	284	42	81	695	99	79	786	48
Arrive On Green	0.33	0.33	0.33	0.33	0.33	0.33	0.47	0.47	0.47	0.47	0.47	0.47
Sat Flow, veh/h	283	321	1007	651	851	125	37	1463	208	33	1656	100
Grp Volume(v), veh/h	48	0	0	13	0	0	197	0	0	214	0	0
Grp Sat Flow(s),veh/h/ln	1611	0	0	1626	0	0	1708	0	0	1789	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.2	0.0	0.0	0.3	0.0	0.0	4.1	0.0	0.0	4.2	0.0	0.0
Prop In Lane	0.25		0.62	0.46		0.08	0.06		0.12	0.06		0.06
Lane Grp Cap(c), veh/h	612	0	0	630	0	0	875	0	0	913	0	0
V/C Ratio(X)	0.08	0.00	0.00	0.02	0.00	0.00	0.23	0.00	0.00	0.23	0.00	0.00
Avail Cap(c_a), veh/h	612	0	0	630	0	0	875	0	0	913	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	13.7	0.0	0.0	13.4	0.0	0.0	9.3	0.0	0.0	9.4	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.1	0.0	0.0	0.6	0.0	0.0	0.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.0	0.1	0.0	0.0	1.5	0.0	0.0	1.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.0	0.0	0.0	13.5	0.0	0.0	9.9	0.0	0.0	10.0	0.0	0.0
LnGrp LOS	B	A	A	B	A	A	A	A	A	A	A	A
Approach Vol, veh/h		48			13			197			214	
Approach Delay, s/veh		14.0			13.5			9.9			10.0	
Approach LOS		B			B			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		34.0		26.0		34.0		26.0				
Change Period (Y+Rc), s		5.5		6.0		5.5		6.0				
Max Green Setting (Gmax), s		28.5		20.0		28.5		20.0				
Max Q Clear Time (g_c+I1), s		6.1		3.2		6.2		2.3				
Green Ext Time (p_c), s		1.2		0.2		1.2		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				10.5								
HCM 6th LOS				B								

Intersection												
Int Delay, s/veh	4.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	10	25	0	0	20	5	25	1	5	5	0	5
Future Vol, veh/h	10	25	0	0	20	5	25	1	5	5	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	3	3	3	1	1	1	23	23	23	1	1	1
Mvmt Flow	12	30	0	0	24	6	30	1	6	6	0	6

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	30	0	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	4.13	-	-	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	2.227	-	-	-
Pot Cap-1 Maneuver	1576	-	0	0
Stage 1	-	-	0	0
Stage 2	-	-	0	0
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	1576	-	-	-
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.1	0	9.4	8.8
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	861	1576	-	-	-	965
HCM Lane V/C Ratio	0.043	0.008	-	-	-	0.012
HCM Control Delay (s)	9.4	7.3	0	-	-	8.8
HCM Lane LOS	A	A	A	-	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	-	0



Intersection						
Int Delay, s/veh	4.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↘			
Traffic Vol, veh/h	0	15	15	1	0	0
Future Vol, veh/h	0	15	15	1	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	65	65	65	65	65	65
Heavy Vehicles, %	1	1	23	23	1	1
Mvmt Flow	0	23	23	2	0	0

Major/Minor	Minor1	Major1	
Conflicting Flow All	-	24	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.21	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.309	-
Pot Cap-1 Maneuver	0	1055	-
Stage 1	0	-	-
Stage 2	0	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	-	1055	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	WB	NB
HCM Control Delay, s	8.5	0
HCM LOS	A	

Minor Lane/Major Mvmt	NBT	NBRWBLn1
Capacity (veh/h)	-	1055
HCM Lane V/C Ratio	-	0.022
HCM Control Delay (s)	-	8.5
HCM Lane LOS	-	A
HCM 95th %tile Q(veh)	-	0.1

Lanes, Volumes, Timings  
100: Downer Avenue & Belleview Place

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	15	10	15	10	10	20	20	265	35	30	150	25
Future Volume (vph)	15	10	15	10	10	20	20	265	35	30	150	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			No			No			No			No
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		372			588			265			324	
Travel Time (s)		10.1			16.0			7.2			8.8	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	3%	3%	1%	1%	1%	3%	3%	3%	6%	6%	6%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	43	0	0	43	0	0	340	0	0	219	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	15		9	15		9	15		9	15		9
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)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	16.0	16.0		16.0	16.0		15.5	15.5		15.5	15.5	
Total Split (s)	26.0	26.0		26.0	26.0		34.0	34.0		34.0	34.0	
Total Split (%)	43.3%	43.3%		43.3%	43.3%		56.7%	56.7%		56.7%	56.7%	
Maximum Green (s)	20.0	20.0		20.0	20.0		28.5	28.5		28.5	28.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.5	2.5		2.5	2.5		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		6.0			6.0			5.5			5.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	

Lanes, Volumes, Timings  
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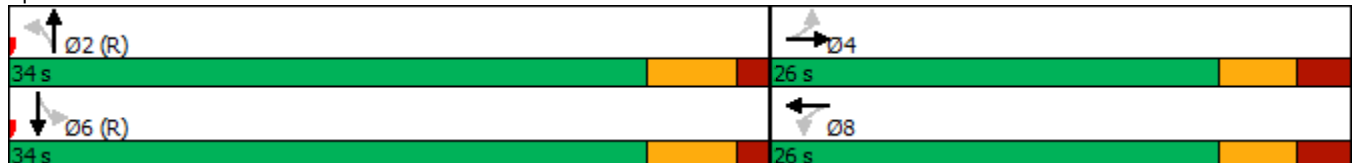


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio	0.08				0.08				0.40		0.28	
Control Delay	14.3				14.2				12.1		10.8	
Queue Delay	0.0				0.0				0.0		0.0	
Total Delay	14.3				14.2				12.1		10.8	
Queue Length 50th (ft)	10				10				75		45	
Queue Length 95th (ft)	29				29				130		84	
Internal Link Dist (ft)	292				508				185		244	
Turn Bay Length (ft)												
Base Capacity (vph)	534				553				842		771	
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	0.08				0.08				0.40		0.28	

Intersection Summary

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 47 (78%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green  
 Natural Cycle: 40  
 Control Type: Pretimed

Splits and Phases: 100: Downer Avenue & Belleview Place



HCM 6th Signalized Intersection Summary  
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 PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (veh/h)	15	10	15	10	10	20	20	265	35	30	150	25
Future Volume (veh/h)	15	10	15	10	10	20	20	265	35	30	150	25
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1885	1885	1885	1856	1856	1856	1811	1811	1811
Adj Flow Rate, veh/h	16	11	16	11	11	21	21	282	37	32	160	27
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3	1	1	1	3	3	3	6	6	6
Cap, veh/h	242	171	196	174	180	266	86	737	93	139	622	97
Arrive On Green	0.33	0.33	0.33	0.33	0.33	0.33	0.47	0.47	0.47	0.47	0.47	0.47
Sat Flow, veh/h	479	512	587	297	541	799	47	1552	195	148	1309	205
Grp Volume(v), veh/h	43	0	0	43	0	0	340	0	0	219	0	0
Grp Sat Flow(s),veh/h/ln	1578	0	0	1637	0	0	1794	0	0	1661	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.0	0.0	0.0	1.0	0.0	0.0	7.2	0.0	0.0	4.4	0.0	0.0
Prop In Lane	0.37		0.37	0.26		0.49	0.06		0.11	0.15		0.12
Lane Grp Cap(c), veh/h	608	0	0	621	0	0	916	0	0	858	0	0
V/C Ratio(X)	0.07	0.00	0.00	0.07	0.00	0.00	0.37	0.00	0.00	0.26	0.00	0.00
Avail Cap(c_a), veh/h	608	0	0	621	0	0	916	0	0	858	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	13.7	0.0	0.0	13.7	0.0	0.0	10.2	0.0	0.0	9.4	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.2	0.0	0.0	1.2	0.0	0.0	0.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.0	0.4	0.0	0.0	2.8	0.0	0.0	1.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.9	0.0	0.0	13.9	0.0	0.0	11.3	0.0	0.0	10.2	0.0	0.0
LnGrp LOS	B	A	A	B	A	A	B	A	A	B	A	A
Approach Vol, veh/h		43			43			340			219	
Approach Delay, s/veh		13.9			13.9			11.3			10.2	
Approach LOS		B			B			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		34.0		26.0		34.0		26.0				
Change Period (Y+Rc), s		5.5		6.0		5.5		6.0				
Max Green Setting (Gmax), s		28.5		20.0		28.5		20.0				
Max Q Clear Time (g_c+I1), s		9.2		3.0		6.4		3.0				
Green Ext Time (p_c), s		2.1		0.1		1.3		0.1				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				11.3								
HCM 6th LOS				B								

Intersection												
Int Delay, s/veh	3.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	10	45	0	0	35	5	20	5	20	1	0	10
Future Vol, veh/h	10	45	0	0	35	5	20	5	20	1	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	11	49	0	0	38	5	22	5	22	1	0	11

Major/Minor	Major1		Major2		Minor1		Minor2					
Conflicting Flow All	43	0	-	-	-	0	117	114	49	126	112	41
Stage 1	-	-	-	-	-	-	71	71	-	41	41	-
Stage 2	-	-	-	-	-	-	46	43	-	85	71	-
Critical Hdwy	4.11	-	-	-	-	-	7.11	6.51	6.21	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Follow-up Hdwy	2.209	-	-	-	-	-	3.509	4.009	3.309	3.509	4.009	3.309
Pot Cap-1 Maneuver	1572	-	0	0	-	-	862	778	1022	850	780	1033
Stage 1	-	-	0	0	-	-	941	838	-	976	863	-
Stage 2	-	-	0	0	-	-	970	861	-	925	838	-
Platoon blocked, %		-			-	-						
Mov Cap-1 Maneuver	1572	-	-	-	-	-	848	773	1022	823	775	1033
Mov Cap-2 Maneuver	-	-	-	-	-	-	848	773	-	823	775	-
Stage 1	-	-	-	-	-	-	934	832	-	969	863	-
Stage 2	-	-	-	-	-	-	960	861	-	893	832	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.3	0	9.2	8.6
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	907	1572	-	-	-	1010
HCM Lane V/C Ratio	0.055	0.007	-	-	-	0.012
HCM Control Delay (s)	9.2	7.3	0	-	-	8.6
HCM Lane LOS	A	A	A	-	-	A
HCM 95th %tile Q(veh)	0.2	0	-	-	-	0

Intersection						
Int Delay, s/veh	0.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↘			
Traffic Vol, veh/h	0	5	40	10	0	0
Future Vol, veh/h	0	5	40	10	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	70	70	70	70	70	70
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	0	7	57	14	0	0

Major/Minor	Minor1	Major1	
Conflicting Flow All	-	64	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.21	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.309	-
Pot Cap-1 Maneuver	0	1003	-
Stage 1	0	-	-
Stage 2	0	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	-	1003	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	WB	NB
HCM Control Delay, s	8.6	0
HCM LOS	A	

Minor Lane/Major Mvmt	NBT	NBRWBLn1
Capacity (veh/h)	-	- 1003
HCM Lane V/C Ratio	-	- 0.007
HCM Control Delay (s)	-	- 8.6
HCM Lane LOS	-	- A
HCM 95th %tile Q(veh)	-	- 0