



LSC TRANSPORTATION CONSULTANTS, INC.

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May 22, 2026

Ms. Ashley Bedell
The Garrett Companies
abedell@thegarrettco.com

Re: Zaharius Property
Superior, CO
LSC #260230

Dear Ms. Bedell:

In response to your request, LSC Transportation Consultants, Inc. has prepared this traffic impact analysis for the proposed Zaharius Property residential redevelopment. The property is proposed to be rezoned from PUD (Regional Activity and Employment Center) to PUD (residential). As shown on Figure 1, the site is located east of S. 88th Street, and southwest of US Highway 36 in Superior, Colorado.

REPORT CONTENTS

The report contains the following: the existing roadway and traffic conditions in the vicinity of the site including the lane geometries, traffic controls, posted speed limits, etc.; the existing weekday peak-hour traffic volumes; the typical weekday site-generated traffic volume projections for the site; the assignment of the projected traffic volumes to the area roadways; the projected background and resulting total traffic volumes on the area roadways; the site's projected traffic impacts; and any recommended roadway improvements to mitigate growth in background traffic or from the impact of the site.

LAND USE AND ACCESS

The site could include up to 110 single-family detached dwelling units and 116 townhome dwelling units. Access is proposed from S. 88th Street as shown in the conceptual site plan in Figure 2.

ROADWAY AND TRAFFIC CONDITIONS

Area Roadways

The major roadways in the site's vicinity are shown on Figure 1 and are described below.

- **S. 88th Street** is a north-south, two-lane collector roadway west of the site. The intersections with S. Promenade Drive and Shamrock Drive are stop-sign controlled and the intersection with Rock Creek Parkway is roundabout controlled. There is a pedestrian-activated

signalized pedestrian crossing of S. 88th Street on the south leg of the S. Promenade Drive intersection. The posted speed limit in the vicinity of the site is 35 mph.

- **S. Promenade Drive** is an east-west, two-lane local roadway west of the site. The intersection with S. 88th Street is stop-sign controlled, but planned to be signalized in the future.
- **E. Weldona Way** is an east-west, two-lane local roadway west of the site. The intersection with S. 88th Street is emergency-only access.
- **Shamrock Drive** is an east-west, two-lane local roadway south of the site. The intersections with S. 88th Street is stop-sign controlled. There is alternative access to the residential community served by Shamrock Drive via Rock Creek Parkway.
- **Rock Creek Parkway** is a north-south, four-lane arterial roadway southwest of the site. The intersection with S. 88th Street is roundabout controlled. The Town has an upcoming plan to reconstruct the roundabout with less capacity to improve operations. The posted speed limit in the vicinity of the site is 35 mph.

Existing Traffic Conditions

Figure 3a shows the existing traffic volumes, existing traffic control, and lane geometry in the site's vicinity on a typical weekday. Figure 3b shows the existing pedestrian volumes, and Figure 3c shows the existing off-street bicycle volumes. The weekday peak-hour traffic volumes, pedestrian, counts, and bicycle counts are from the attached traffic counts conducted by Sustainable Traffic Solutions and Counter Measures in 2026. The through traffic on S. 88th Street was balanced to be consistent from one intersection to the next because the peak-hour traffic counts were conducted on different days. The daily traffic on S. 88th Street is based on the 2024 volume in the 2025 *Town Transportation Plan* (TP) grown for two years at an annual rate of 1.35 percent per the Chapter 4, Table 3 of the TP.

2030 and 2050 Background Traffic

Figure 4 shows the estimated 2030 background traffic. The 2025 *Superior Transportation Plan* estimates an annual growth rate of 1.35 percent on 88th Street adjacent to the site (Chapter 4, Table 3). The existing roundabout at Intersection #4 is assumed to have been improved/reduced per plans provided by the Town.

Figure 5 shows the estimated 2050 background traffic. The 2025 *Superior Transportation Plan* estimates an annual growth rate of 1.35 percent on 88th Street adjacent to the site (Chapter 4, Table 3).

Figures 4 and 5 also show the assumed traffic control and lane geometry.

It is important to note the background traffic estimates assume growth in existing traffic but includes no trips from the Zaharius Property.

Existing, 2030, and 2050 Background Levels of Service

Level of service (LOS) is a quantitative measure of the level of congestion or delay at an intersection. Level of service is indicated on a scale from “A” to “F.” LOS A is indicative of little congestion or delay and LOS F is indicative of a high level of congestion or delay. Attached are specific level of service definitions for signalized and unsignalized intersections.

The intersections in the study area were analyzed as appropriate to determine the existing, 2030, and 2050 background levels of service using Synchro without development of the Zaharius Property. Table 1 shows the level of service analysis results. The level of service reports are attached.

1. **S. 88th Street/Promenade Drive/North Site Access:** All movements at this unsignalized intersection currently operate at LOS “D” or better during both morning and afternoon peak-hours and are expected to do so through 2030. By 2050, the eastbound left-turn is expected to operate at LOS “F” in both peak-hours with stop-sign control and no development of the Zaharius Property.
2. **S. 88th Street/South Site Access:** This intersection was analyzed only in the total traffic scenarios.
3. **S. 88th Street/Shamrock Drive:** All movements at this unsignalized intersection currently operate at LOS “D” or better during both morning and afternoon peak-hours and are expected to do so through 2030. By 2050, the westbound left is expected to operate at LOS “E” in the morning peak-hour and LOS “F” in the afternoon peak-hour with stop-sign control and no development of the Zaharius Property. Drivers have alternative access south to Rock Creek Parkway where they can head northwest on Rock Creek Parkway or use the roundabout at S. 88th Street to complete a U-Turn and head southeast on Rock Creek Parkway.
4. **S. 88th Street/Rock Creek Parkway:** This roundabout controlled intersection currently operates at an overall LOS “A” during both morning and afternoon peak-hours and is expected to operate at LOS “B” or better through 2050.

TRIP GENERATION

Table 2 shows the estimated average weekday, morning peak-hour, and afternoon peak-hour trip generation for the proposed site based on the rates from *Trip Generation, 12th Edition, 2025* by the Institute of Transportation Engineers (ITE).

The site is projected to generate about 1,762 vehicle-trips on the average weekday, with about half entering and half exiting during a 24-hour period. During the morning peak-hour, which generally occurs for one hour between 6:30 and 8:30 a.m., about 34 vehicles would enter and about 97 vehicles would exit the site. During the afternoon peak-hour, which generally occurs for one hour between 4:00 and 6:00 p.m., about 97 vehicles would enter and about 64 vehicles would exit.

This trip generation potential is considerably less than the trip generation potential for the existing PUD which is for Regional Activity and Employment Center (RAC) with permitted uses including hotels, retail, light industrial., and regional office/job centers.

TRIP DISTRIBUTION

Figure 6 shows the estimated directional distribution of the site-generated traffic volumes on the area roadways. The estimates were based on the location of the site with respect to the regional population, employment, and activity centers; and the site's proposed land use.

TRIP ASSIGNMENT

Figure 7a shows the site-generated traffic volumes which are the directional distribution percentages (from Figure 6) applied to the trip generation estimate (from Table 2).

Figure 7b shows an estimate of the site-generated pedestrian and bicycle traffic.

2030 AND 2050 TOTAL TRAFFIC

Figure 8a shows the 2030 total traffic which is the sum of the 2030 background traffic volumes (from Figure 4) and the site-generated traffic volumes (from Figure 7a). Figure 8a also shows the 2030 total traffic lane geometry and traffic control.

Figures 8b and 8c show the estimated 2030 pedestrian and off-street bicycle traffic.

Figure 9a shows the 2050 total traffic which is the sum of the 2050 background traffic volumes (from Figure 5) and the site-generated traffic volumes (from Figure 7a). Figure 9a also shows the 2050 total traffic lane geometry and traffic control.

Figures 9b and 9c show the estimated 2050 pedestrian and off-street bicycle traffic.

PROJECTED LEVELS OF SERVICE

The intersections in the study area were analyzed to determine the 2030 and 2050 total levels of service. Table 1 shows the level of service analysis results for each movement or lane group. The level of service reports are attached.

1. **S. 88th Street/Promenade Drive/North Site Access:** This signalized intersection is expected to operate at LOS "C" or better during both morning and afternoon peak-hours through 2050. The Zaharius property is being required to signalize this intersection which provides much better levels of service than provided by the existing stop-sign control.
2. **S. 88th Street/South Site Access:** All movements at this unsignalized intersection are expected to operate at LOS "D" or better during both morning and afternoon peak-hours through 2030. By 2050, the westbound left is expected to operate at LOS "E" in the morning peak-hour and LOS "F" in the afternoon peak-hour. The lower level of service over time is due to an increase in traffic on S. 88th Street projected in the Town's *2025 Transportation Plan*. Drivers will have the option to use the signalized access (#1) during peak times because the two access intersections are connected internally.
3. **S. 88th Street/Shamrock Drive:** All movements at this unsignalized intersection are expected to operate at LOS "D" or better during both morning and afternoon peak-hours through 2030. By 2050, the westbound left is expected to operate at LOS "F" in both peak-hours with stop-sign control. The lower level of service over time is due to an increase in

traffic on S. 88th Street projected in the Town's *2025 Transportation Plan*. Drivers have alternative access south to Rock Creek Parkway where they can head northwest on Rock Creek Parkway or use the roundabout at S. 88th Street to complete a U-Turn and head southeast on Rock Creek Parkway.

4. **S. 88th Street/Rock Creek Parkway:** This roundabout controlled intersection is expected to operate at LOS "B" or better during both morning and afternoon peak-hours through 2050.

RECOMMENDED IMPROVEMENTS

The recommended improvements are shown in Figures 8a and 9a and detailed below:

- The intersection of S. 88th Street/Promenade Drive should be signalized per feedback from the Town. This will significantly improve operations at this intersection.
- Southbound left-turn lanes should be provided on S. 88th Street approaching Intersections #1 and #2. An appropriate length is 100 feet plus a 100-foot transition taper because the queue lengths are expected to be minimal.
- A westbound left-turn lane should be provided at Intersection #1. An appropriate length is 50 feet because the queue lengths are expected to be minimal.
- A westbound left-turn lane should be provided at Intersection #2. An appropriate length is 75 feet based on the projected queue length.

CONCLUSIONS AND RECOMMENDATIONS

Trip Generation

1. The site is projected to generate about 1,762 vehicle-trips on the average weekday, with about half entering and half exiting during a 24-hour period. During the morning peak-hour, about 34 vehicles would enter and about 97 vehicles would exit the site. During the afternoon peak-hour, about 97 vehicles would enter and about 64 vehicles would exit.

Projected Levels of Service

2. All movements at the unsignalized intersections analyzed are expected to operate at acceptable levels of service during both morning and afternoon peak-hours through 2030 with or without development of the site. All movements are expected to operate at acceptable levels of service through 2050 with the following exceptions: The westbound left movements at the S. 88th Street/South Site Access (#2) and S. 88th Street/Shamrock Drive (#3) are expected to operate at LOS "E" or "F" in one or both peak-hours by 2050. The lower level of service over time is due to an increase in traffic on S. 88th Street projected in the Town's *2025 Transportation Plan*. Drivers using either intersection have alternative access that can be used during peak times as discussed in the body of the report.
3. The signalized S. 88th Street/Promenade Drive/North Access intersection (#1) is expected to operate at an overall LOS "C" or better through 2050. The Zaharius Property is being

required to signalize this intersection which provides much better levels of service than provided by the existing stop-sign control.

4. The roundabout controlled S. 88th Street/Rock Creek Parkway intersection (#4) is expected to operate at an overall LOS "B" or better through 2050.

Conclusions

5. The impact of the Zaharius Property residential development can be accommodated by the existing and planned roadway network with the following recommendations.

Recommendations

6. The intersection of S. 88th Street/Promenade Drive should be signalized per feedback from the Town. This will significantly improve operations for this intersection.
7. Southbound left-turn lanes should be provided on S. 88th Street approaching Intersections #1 and #2. An appropriate length is 100 feet plus a 100-foot transition taper because the queue lengths are expected to be minimal.
8. A westbound left-turn lane should be provided at Intersections #1. An appropriate length is 50 feet because the queue lengths are expected to be minimal.
9. A westbound left-turn lane should be provided at Intersection #2. An appropriate length is 75 feet based on the projected queue length.

* * * * *

We trust our findings will assist you in gaining approval of the proposed rezone for the Zaharius Property. Please contact me if you have any questions or need further assistance.

Respectfully submitted,

LSC Transportation Consultants, Inc.

By:


Christopher S. McGrath, P.E.
Principal/President



CSM/wc

5-22-26

Enclosures: Tables 1 and 2
Figures 1 - 9c
Traffic Count Reports
Level of Service Definitions
Level of Service Reports

Table 1
Reaction Levels of Service Analysis
Zaharius Property
Superior, CO
LSC #260230; May, 2026

[illegible]

Table 2
ESTIMATED TRAFFIC GENERATION
Zaharias Property
Superior, CO
LSC #260230; May, 2026

Trip Generating Category	Quantity	Trip Generation Rates ⁽¹⁾					Vehicle - Trips Generated				
		Average Weekday	AM Peak Hour		PM Peak Hour		Average Weekday	AM Peak Hour		PM Peak - Hour	
			In	Out	In	Out		In	Out	In	Out
Currently Proposed Land Use											
Single-Family Detached Housing ⁽²⁾	110 DU ⁽³⁾	9.09	0.189	0.511	0.577	0.353	1,000	21	56	63	39
Townhomes ⁽⁴⁾	116 DU ⁽³⁾	6.57	0.118	0.353	0.291	0.219	762	13	41	34	25
Total =							1,762	34	97	97	64

Notes:

- (1) Source: *Trip Generation*, Institute of Transportation Engineers, 12th Edition, 2025
- (2) ITE Land Use No. 210 - Single-Family Detached Housing
- (3) DU = Dwelling Units
- (4) ITE Land Use No. 215 - Single-Family Attached Housing



Approximate Scale
Scale: 1"=600'

Figure 1

Vicinity Map

Zaharius Property (LSC #260230)

Full Movement Unsignalized Access

Emergency Only Access

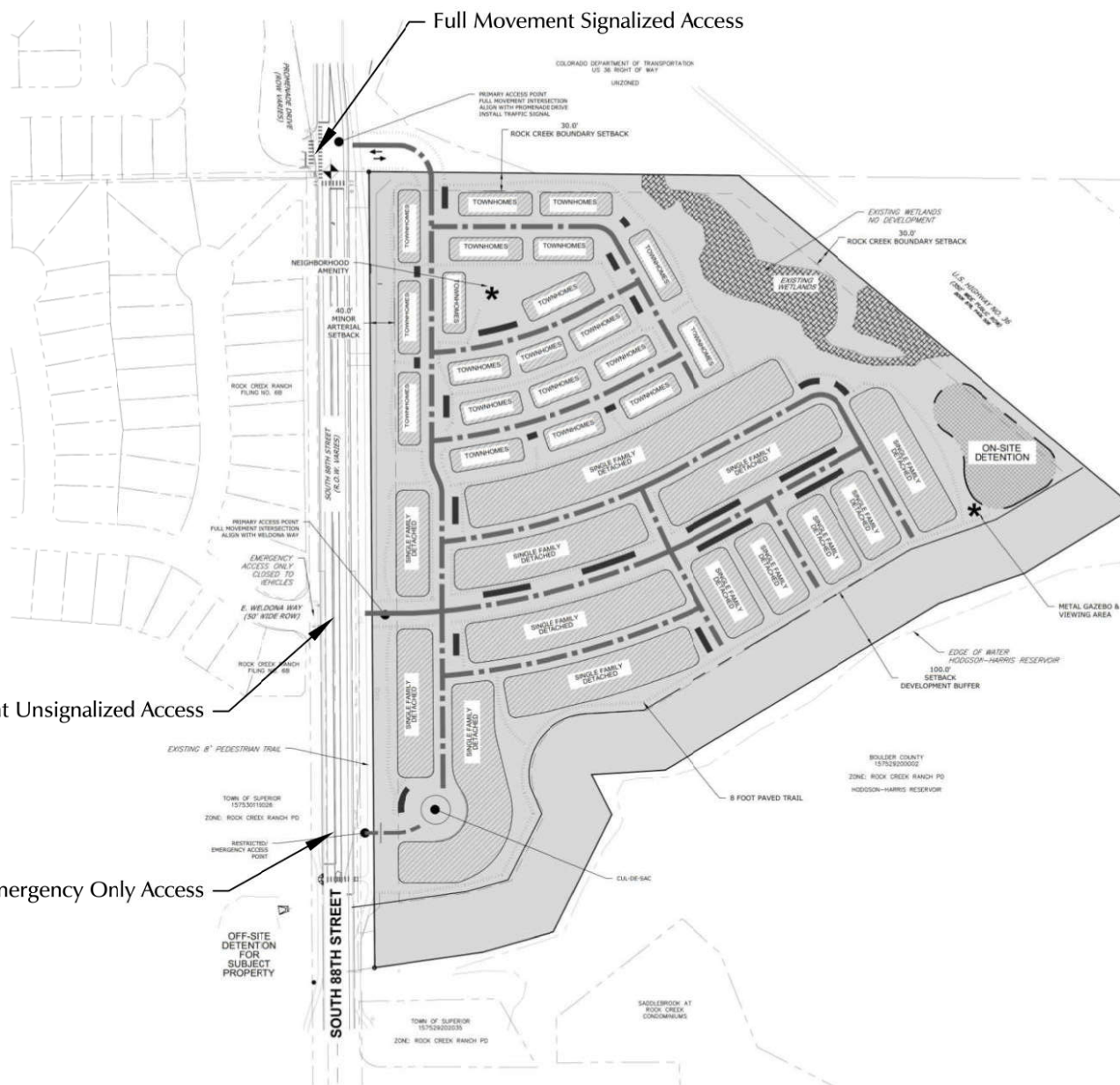


Figure 2

Site Plan

Zaharius Property (LSC #260230)

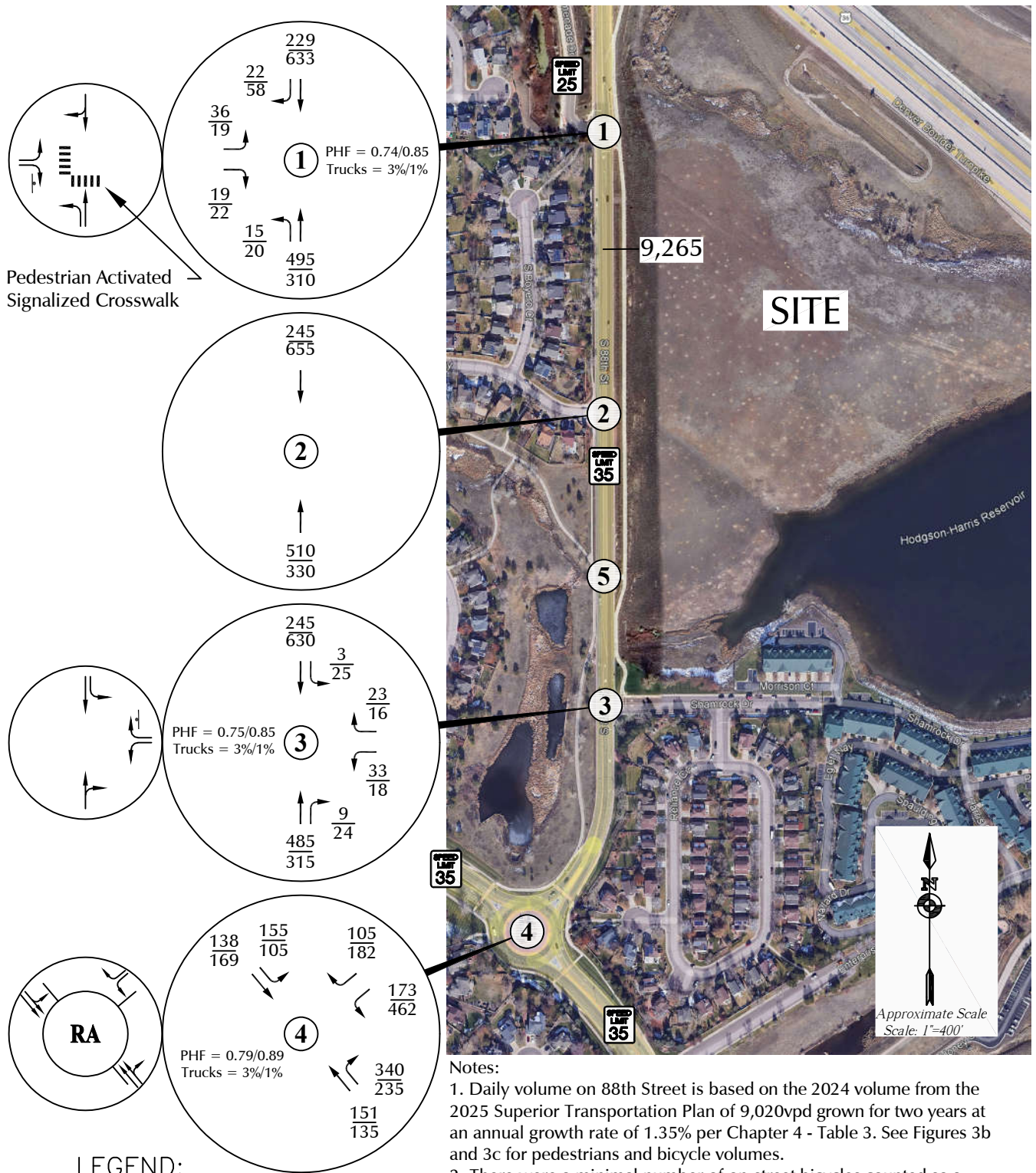
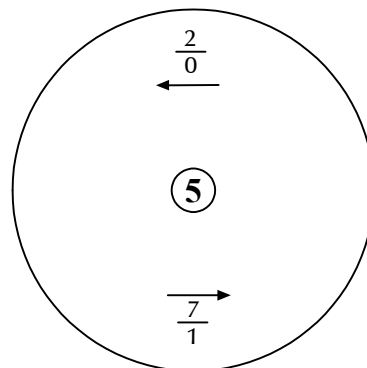
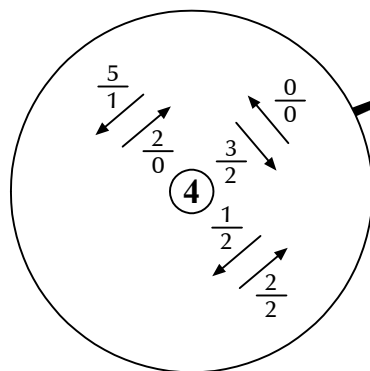
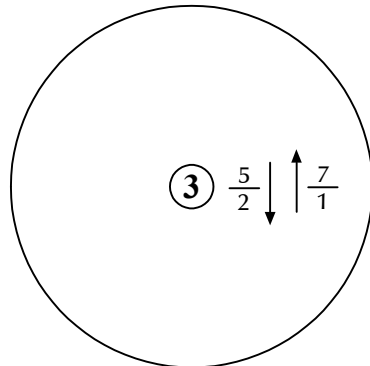
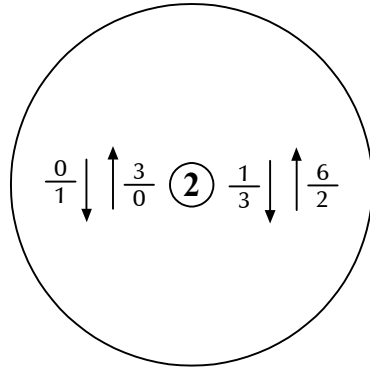
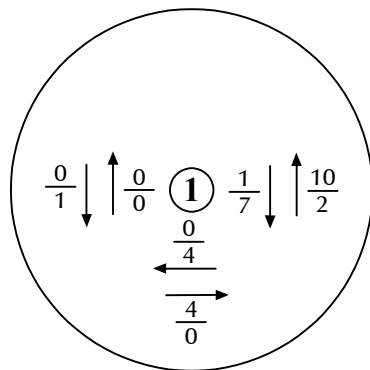


Figure 3a

Existing Traffic, Lane Geometry and Traffic Control

Zaharius Property (LSC #260230)



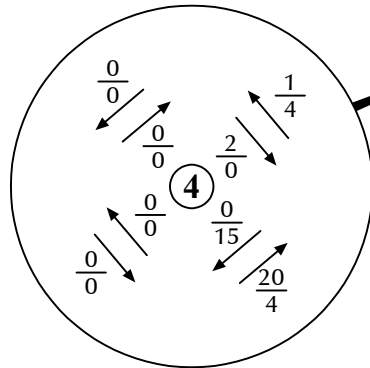
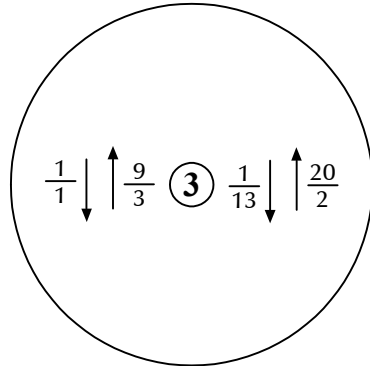
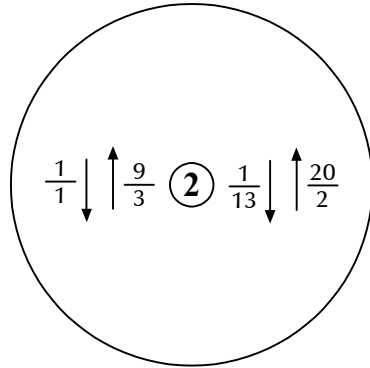
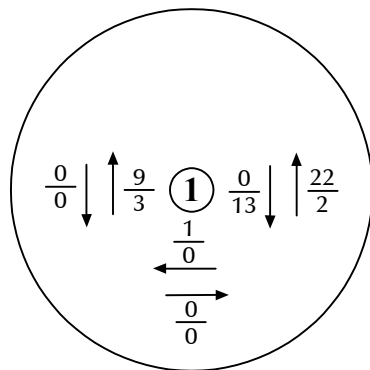
LEGEND:

$\frac{26}{35} = \frac{\text{AM Peak Hour Volume}}{\text{PM Peak Hour Volume}}$



Figure 3b
**Existing
Pedestrian Volumes**

Zaharius Property (LSC #260230)



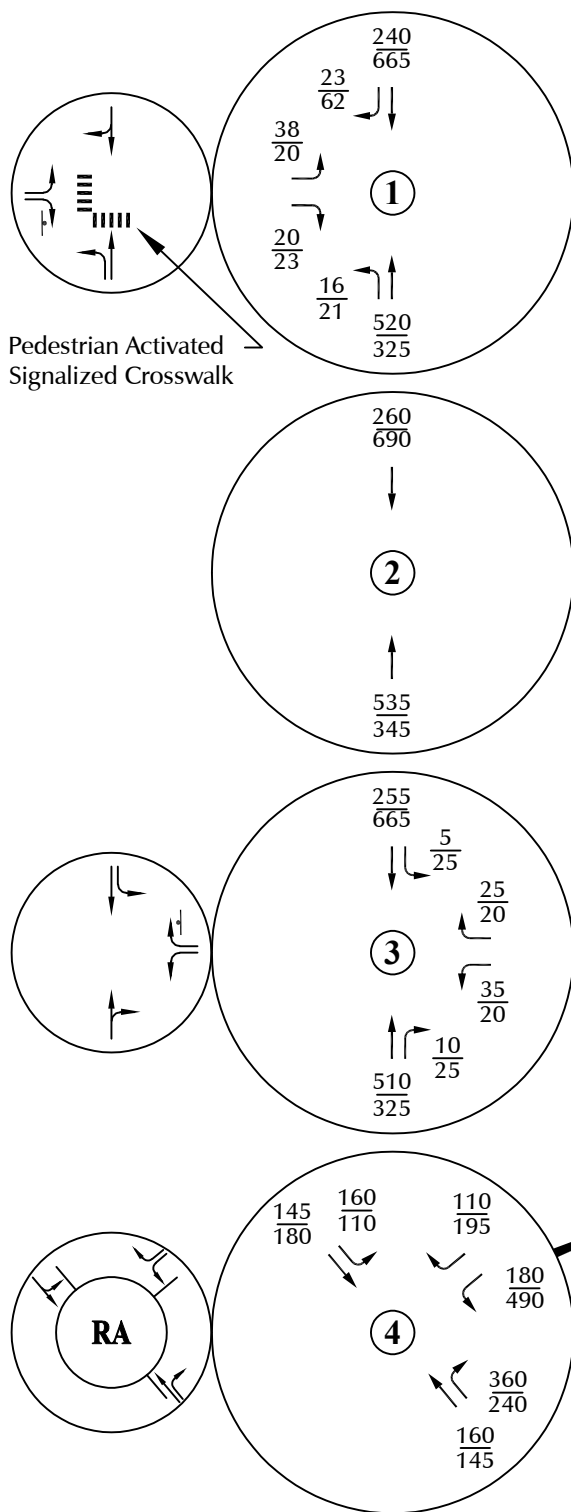
LEGEND:

$$\frac{26}{35} = \frac{\text{AM Peak Hour Volume}}{\text{PM Peak Hour Volume}}$$

Figure 3c

Existing Bicycle Off-Street Volumes

Zaharius Property (LSC #260230)



Pedestrian Activated
Signalized Crosswalk



Note: The 2025 Superior Transportation Plan estimates an annual growth rate of 1.35% on 88th Street adjacent to the site (Chapter 4, Table 3). The existing roundabout at Intersection #4 is assumed to have been improved/reduced per plans provided by the Town.

The projections in this figure do not include development of the Zaharius Property.

LEGEND:

⊥ = Stop Sign

⊙ = Modern Roundabout

$\frac{26}{35}$ = $\frac{\text{AM Peak Hour Traffic}}{\text{PM Peak Hour Traffic}}$

1,000 = Average Daily Traffic

Figure 4

Year 2030 Background Traffic, Lane Geometry and Traffic Control

Zaharius Property (LSC #260230)

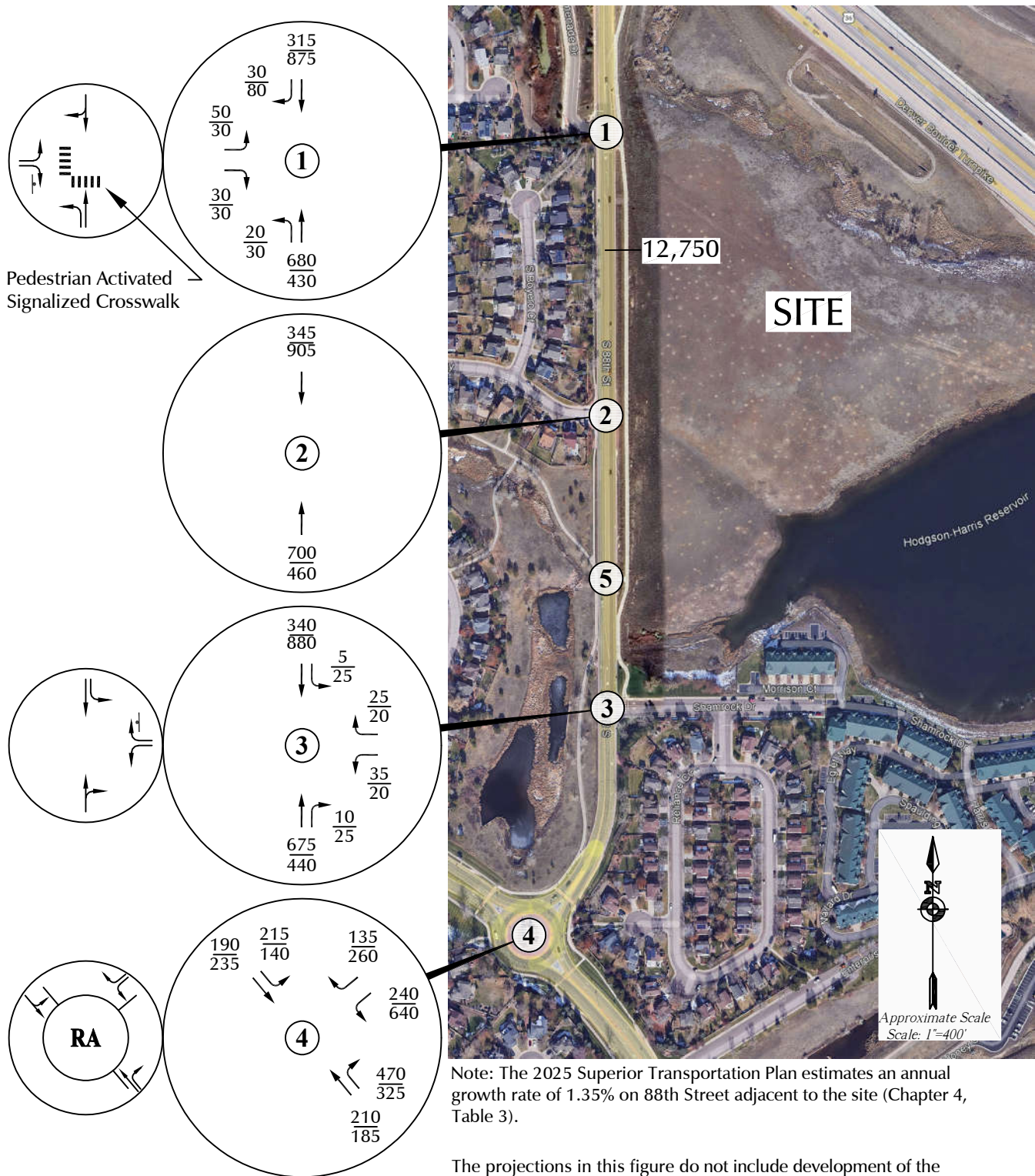


Figure 5

Year 2050 Background Traffic, Lane Geometry and Traffic Control

Zaharius Property (LSC #260230)



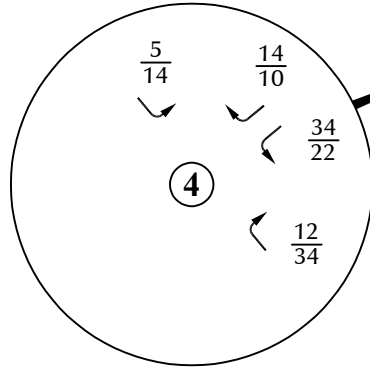
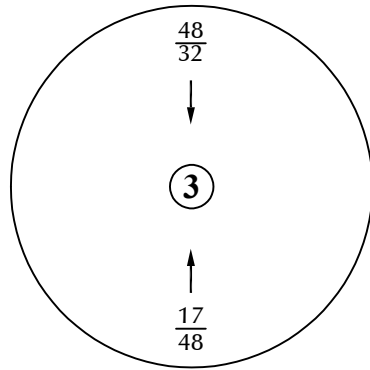
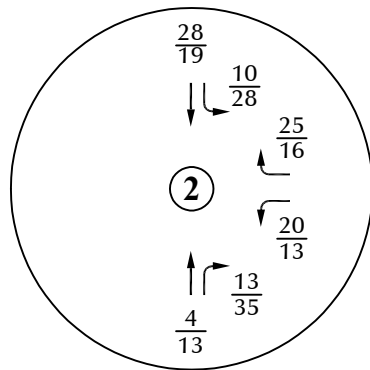
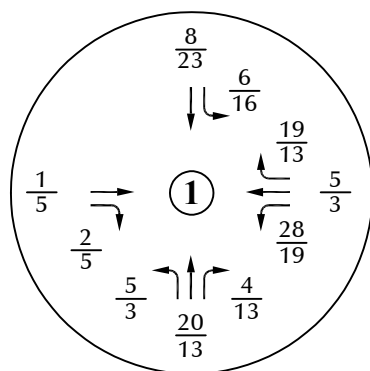
LEGEND:

↔ = Percent Directional Distribution

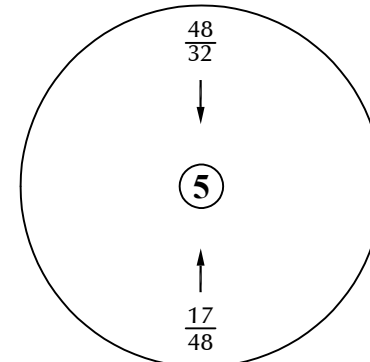
Directional Distribution of Site-Generated Traffic

Zaharius Property (LSC #260230)

Figure 6



Note: These volumes are the trips in Table 2 assigned per the percentages shown in Figure 6.



LEGEND:

$\frac{26}{35}$ = AM Peak Hour Traffic
 PM Peak Hour Traffic
 1,000 = Average Daily Traffic

Figure 7a

Assignment of Site-Generated Traffic

Zaharius Property (LSC #260230)

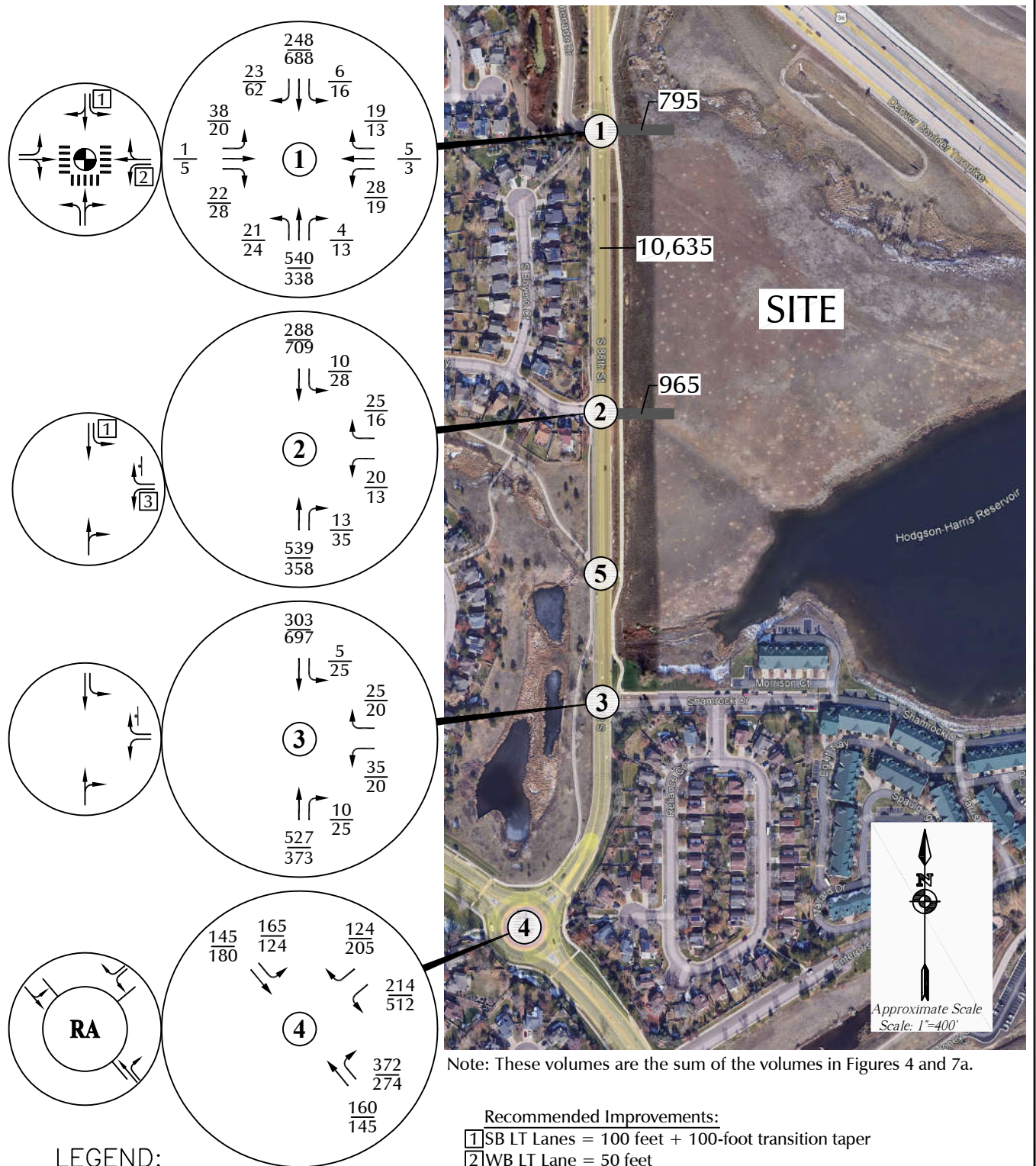
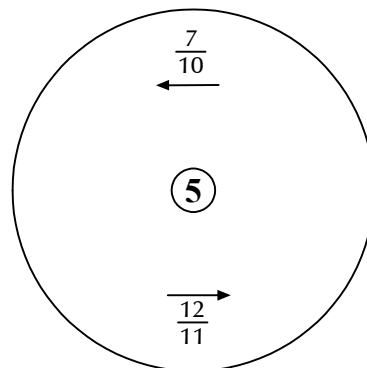
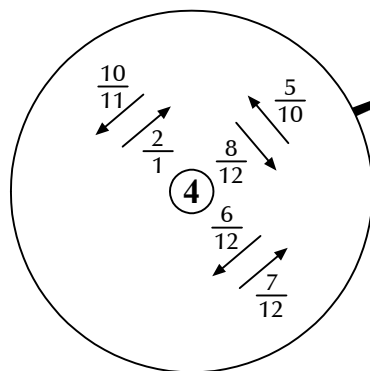
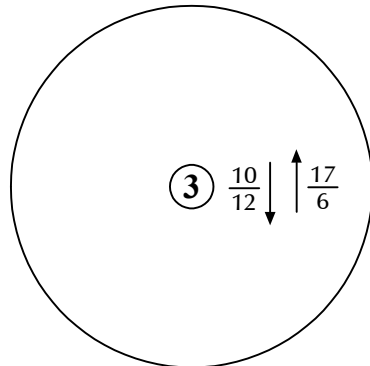
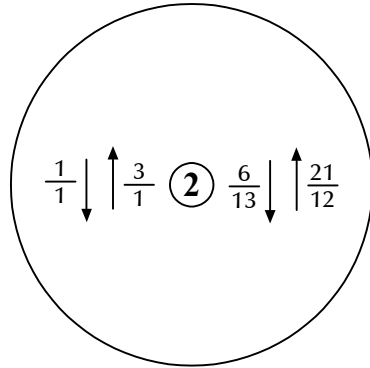
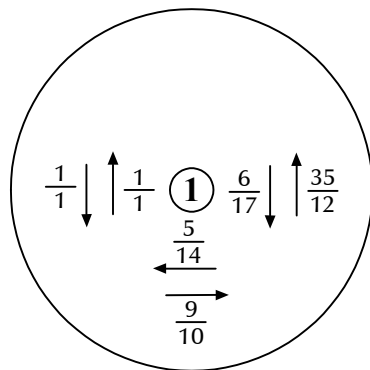


Figure 8a

Year 2030 Total Traffic, Lane Geometry and Traffic Control

Zaharius Property (LSC #260230)



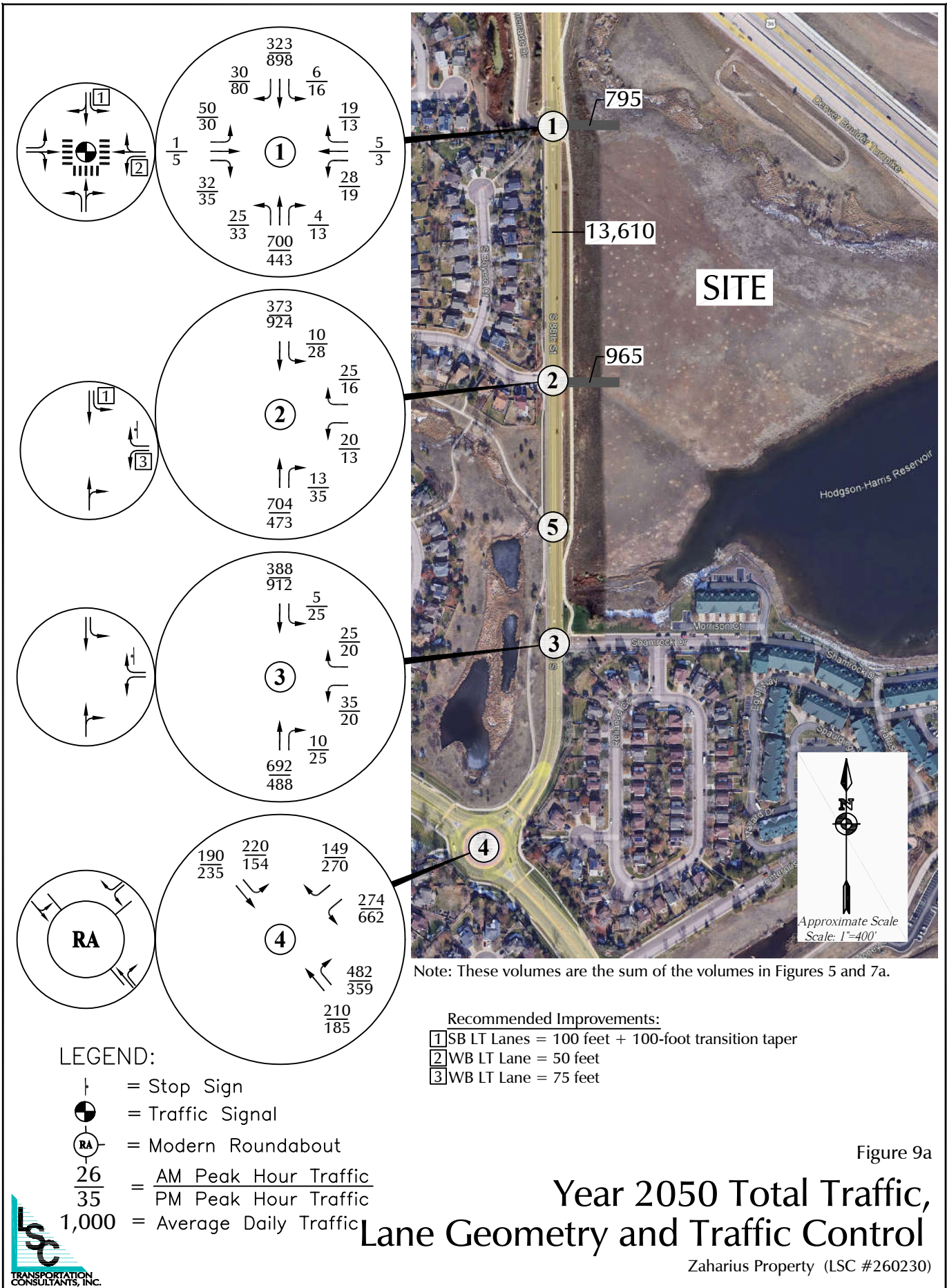
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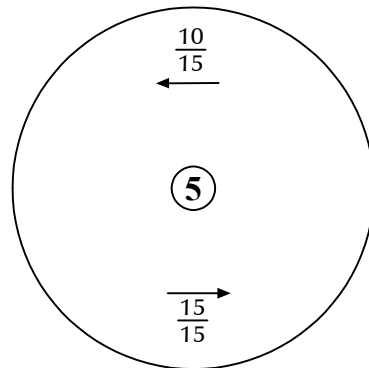
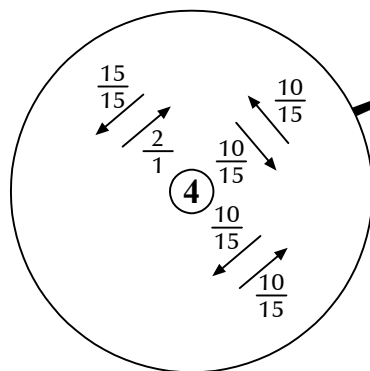
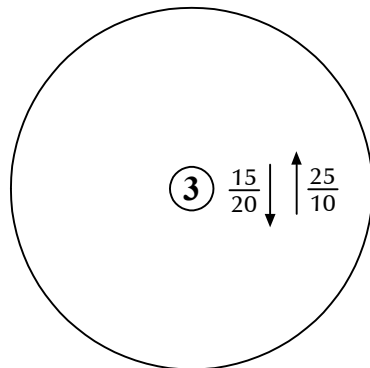
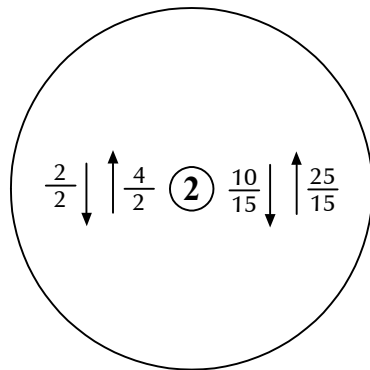
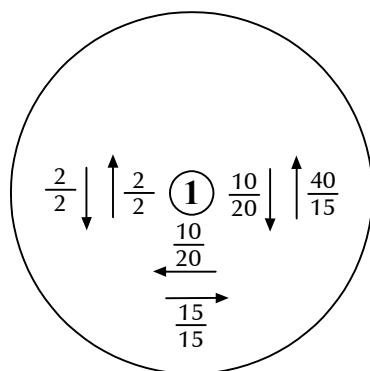
$$\frac{26}{35} = \frac{\text{AM Peak Hour Volume}}{\text{PM Peak Hour Volume}}$$



Figure 8b
Year 2030 Total
Pedestrian Volumes

Zaharius Property (LSC #260230)





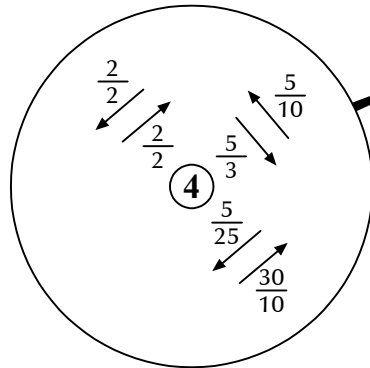
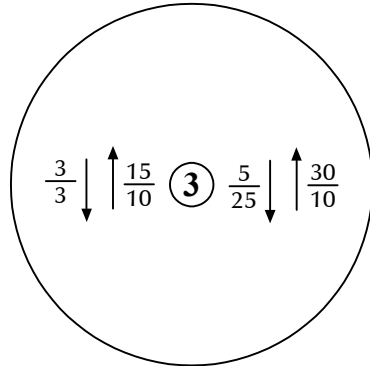
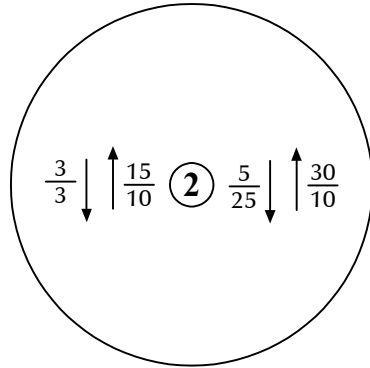
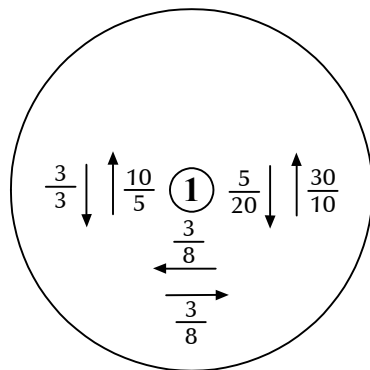
LEGEND:

$$\frac{26}{35} = \frac{\text{AM Peak Hour Volume}}{\text{PM Peak Hour Volume}}$$

Figure 9b

Year 2050 Total Pedestrian Volumes

Zaharius Property (LSC #260230)



LEGEND:

$$\frac{26}{35} = \frac{\text{AM Peak Hour Volume}}{\text{PM Peak Hour Volume}}$$

Figure 9c

Year 2050 Total Off-Street Bicycle Volumes

Zaharius Property (LSC #260230)

**LSC
TRANSPORTATION
CONSULTANTS,
INC.**

1889 YORK ST
DENVER COLORADO
303-333-7409

N/S STREET: 88TH ST
E/W STREET: CROSSWALK
CITY: SUPERIOR
COUNTY: BOULDER

File Name : 88th st crosswalk
Site Code : 00000025
Start Date : 4/7/2026
Page No : 1

Groups Printed- Unshifted

	88TH ST SOUTHBOUND				CROSSWALK WESTBOUND				88TH ST NORTHBOUND				CROSSWALK EASTBOUND				Int. Total
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
06:30 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
06:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
Total	0	2	0	0	0	0	0	0	0	0	0	1	0	0	0	0	3
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	2
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2
Total	0	0	0	0	0	0	0	0	0	0	0	3	0	1	0	0	4
08:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
Total	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	2
04:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2
04:15 PM	0	0	0	0	0	2	0	0	0	0	0	0	1	0	0	0	3
04:45 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	2	2	0	5
Total	0	1	0	1	0	2	0	0	0	0	0	0	1	3	2	0	10
05:00 PM	0	0	0	2	0	3	0	0	0	0	0	0	0	1	0	0	6
05:30 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	2
Total	0	0	0	3	0	3	0	0	0	0	0	0	0	2	0	0	8
Grand Total	0	3	0	4	0	6	0	0	0	0	0	4	1	7	2	0	27
Apprch %	0	42.9	0	57.1	0	100	0	0	0	0	0	100	10	70	20	0	
Total %	0	11.1	0	14.8	0	22.2	0	0	0	0	0	14.8	3.7	25.9	7.4	0	

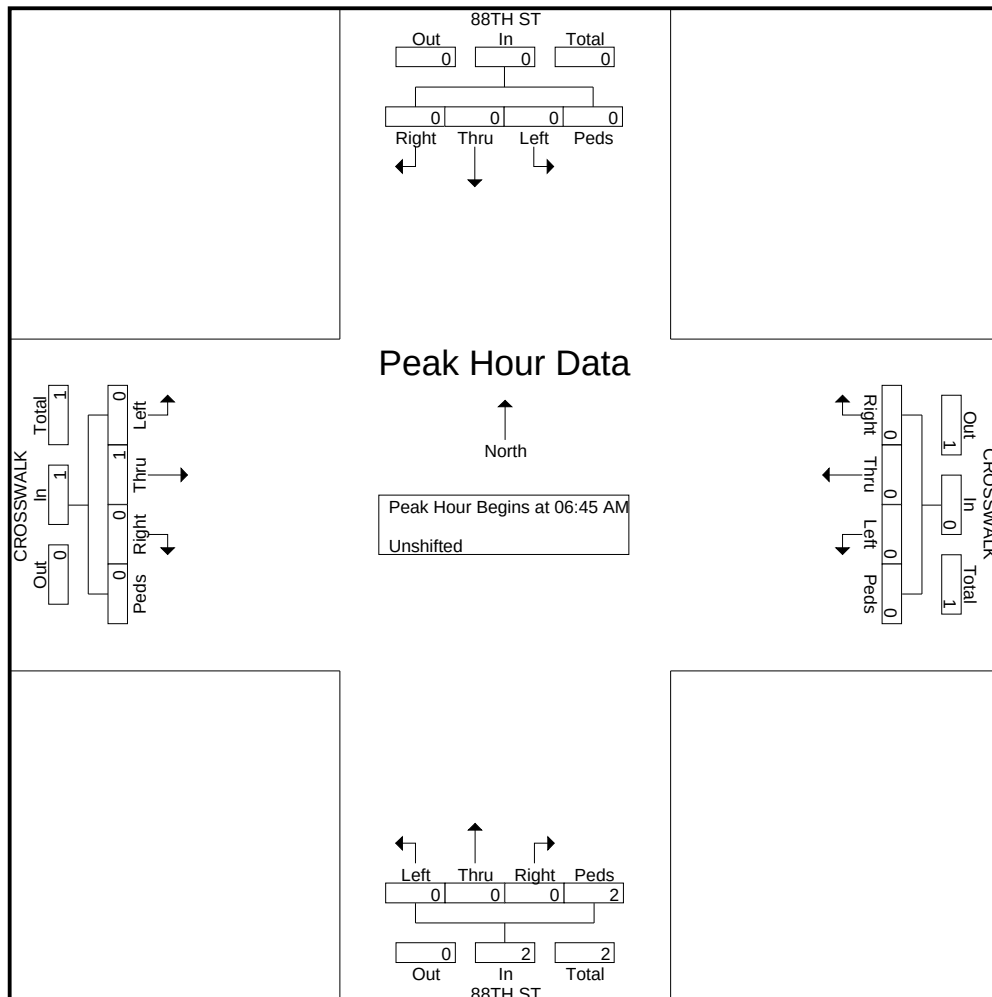
**LSC
TRANSPORTATION
CONSULTANTS,
INC.**

1889 YORK ST
DENVER COLORADO
303-333-7409

N/S STREET: 88TH ST
E/W STREET: CROSSWALK
CITY: SUPERIOR
COUNTY: BOULDER

File Name : 88th st crosswalk
Site Code : 00000025
Start Date : 4/7/2026
Page No : 2

	88TH ST SOUTHBOUND					CROSSWALK WESTBOUND					88TH ST NORTHBOUND					CROSSWALK EASTBOUND					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 06:45 AM to 07:30 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 06:45 AM																					
06:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0	0	1	2
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	1	0	0	1	3
% App. Total	0	0	0	0	0	0	0	0	0	0	0	0	0	100	100	0	100	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.500	.500	.000	.250	.000	.000	.250	.375



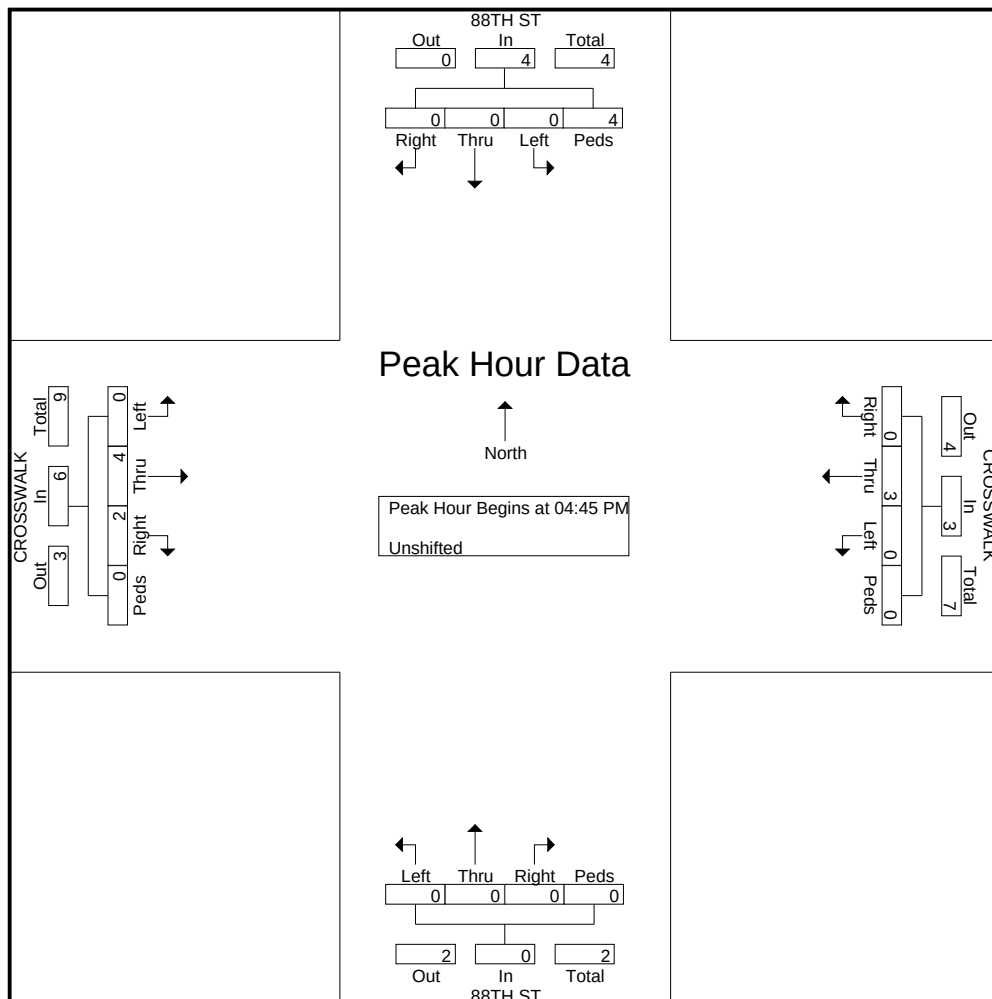
**LSC
TRANSPORTATION
CONSULTANTS,
INC.**

1889 YORK ST
DENVER COLORADO
303-333-7409

N/S STREET: 88TH ST
E/W STREET: CROSSWALK
CITY: SUPERIOR
COUNTY: BOULDER

File Name : 88th st crosswalk
Site Code : 00000025
Start Date : 4/7/2026
Page No : 3

	88TH ST SOUTHBOUND					CROSSWALK WESTBOUND					88TH ST NORTHBOUND					CROSSWALK EASTBOUND					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2	2	0	4	5
05:00 PM	0	0	0	2	2	0	3	0	0	3	0	0	0	0	0	0	1	0	0	1	6
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2
Total Volume	0	0	0	4	4	0	3	0	0	3	0	0	0	0	0	0	4	2	0	6	13
% App. Total	0	0	0	100		0	100	0	0		0	0	0	0		0	66.7	33.3	0		
PHF	.000	.000	.000	.500	.500	.000	.250	.000	.000	.250	.000	.000	.000	.000	.000	.000	.500	.250	.000	.375	.542



**LSC
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1889 YORK ST
DENVER COLORADO
303-333-7409

N/S STREET: 88TH ST BIKES
E/W STREET: SHAMROCK DR
CITY: SUPERIOR
COUNTY: BOULDER

File Name : 88TH ST SHAMROCK DR BIKES
Site Code : 00000015
Start Date : 4/7/2026
Page No : 1

Groups Printed- Bank 1

	88TH ST SOUTHBOUND				SHAMROCK DR WESTBOUND				88TH ST NORTHBOUND				NO ACCESS EASTBOUND				Int. Total
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
06:30 AM	0	1	0	0	0	0	0	0	0	0	0	5	0	0	0	0	6
06:45 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	1	1	0	0	0	0	0	0	0	0	0	5	0	0	0	0	7
07:15 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
07:30 AM	0	0	0	0	0	0	0	0	0	1	0	2	0	0	0	0	3
Total	0	0	0	0	0	0	0	0	0	3	0	2	0	0	0	0	5
08:00 AM	0	0	0	0	0	0	0	0	0	1	0	3	0	0	0	0	4
Total	0	0	0	0	0	0	0	0	0	1	0	3	0	0	0	0	4
04:00 PM	0	1	0	0	0	0	0	0	0	0	0	5	0	0	0	0	6
04:15 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
04:45 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
Total	1	1	0	0	0	0	0	0	0	2	0	5	0	0	0	0	9
05:00 PM	0	0	0	0	0	0	0	0	0	1	0	2	0	0	0	0	3
05:30 PM	0	0	0	0	0	0	0	0	0	1	0	3	0	0	0	0	4
Total	0	0	0	0	0	0	0	0	0	2	0	5	0	0	0	0	7
Grand Total	2	2	0	0	0	0	0	0	0	8	0	20	0	0	0	0	32
Apprch %	50	50	0	0	0	0	0	0	0	28.6	0	71.4	0	0	0	0	
Total %	6.2	6.2	0	0	0	0	0	0	0	25	0	62.5	0	0	0	0	

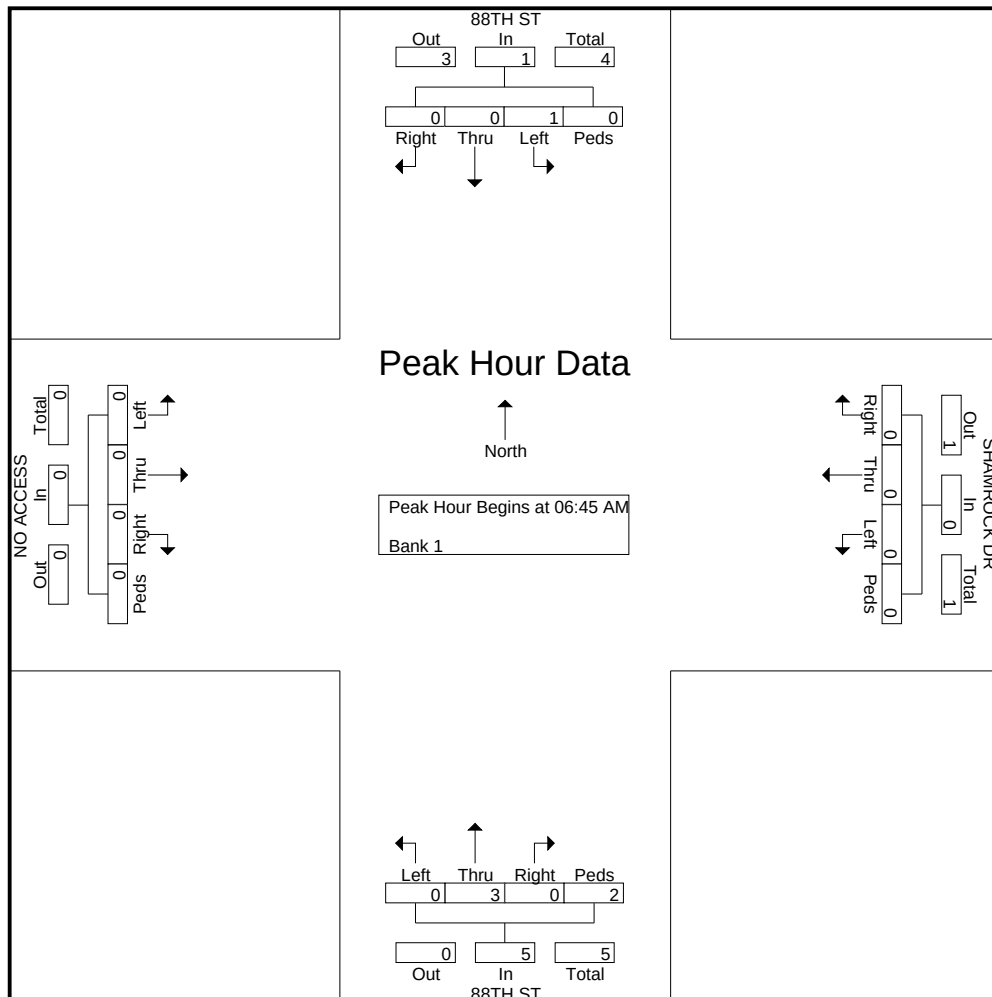
**LSC
TRANSPORTATION
CONSULTANTS,
INC.**

1889 YORK ST
DENVER COLORADO
303-333-7409

N/S STREET: 88TH ST BIKES
E/W STREET: SHAMROCK DR
CITY: SUPERIOR
COUNTY: BOULDER

File Name : 88TH ST SHAMROCK DR BIKES
Site Code : 00000015
Start Date : 4/7/2026
Page No : 2

	88TH ST SOUTHBOUND					SHAMROCK DR WESTBOUND					88TH ST NORTHBOUND					NO ACCESS EASTBOUND					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 06:45 AM to 07:30 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 06:45 AM																					
06:45 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	2	3	0	0	0	0	0	3
Total Volume	1	0	0	0	1	0	0	0	0	0	0	3	0	2	5	0	0	0	0	0	6
% App. Total	100	0	0	0		0	0	0	0		0	60	0	40		0	0	0	0		
PHF	.250	.000	.000	.000	.250	.000	.000	.000	.000	.000	.000	.375	.000	.250	.417	.000	.000	.000	.000	.000	.500



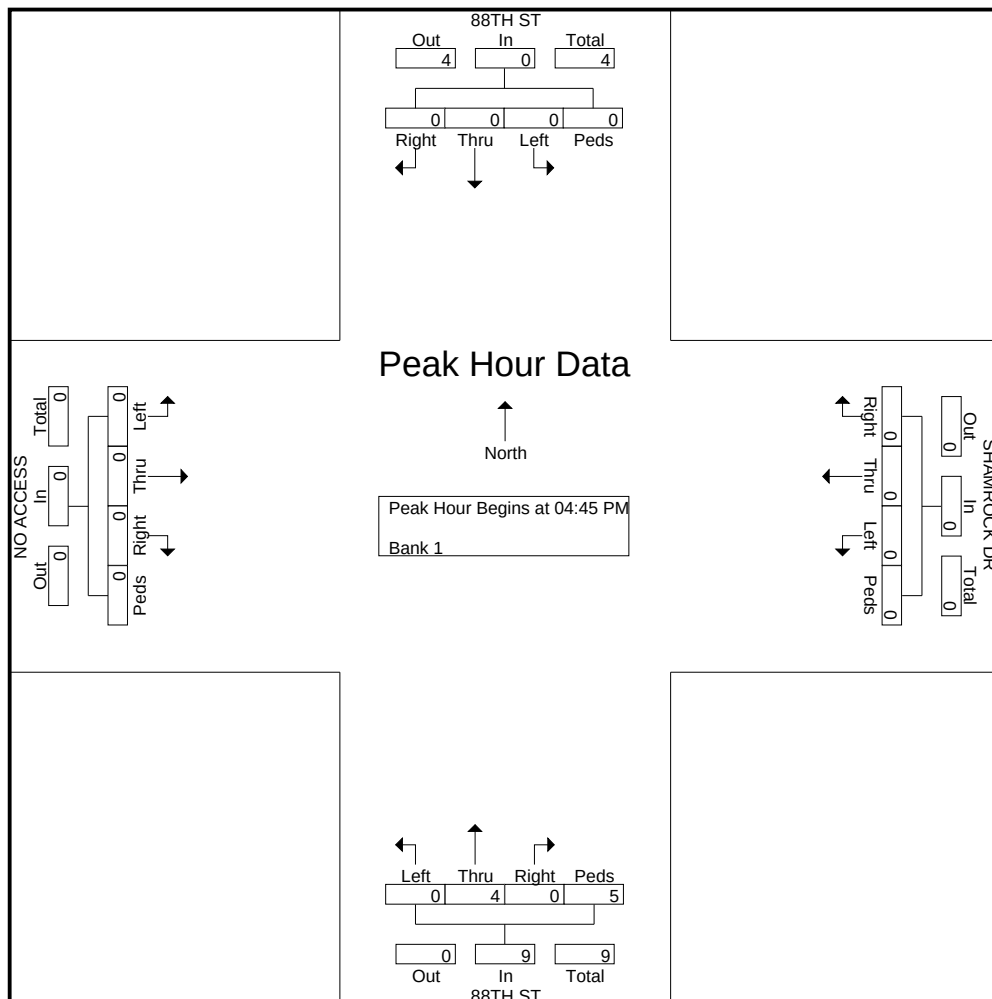
**LSC
TRANSPORTATION
CONSULTANTS,
INC.**

1889 YORK ST
DENVER COLORADO
303-333-7409

N/S STREET: 88TH ST BIKES
E/W STREET: SHAMROCK DR
CITY: SUPERIOR
COUNTY: BOULDER

File Name : 88TH ST SHAMROCK DR BIKES
Site Code : 00000015
Start Date : 4/7/2026
Page No : 3

	88TH ST SOUTHBOUND					SHAMROCK DR WESTBOUND					88TH ST NORTHBOUND					NO ACCESS EASTBOUND					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	2	3	0	0	0	0	0	3
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	3	4	0	0	0	0	0	4
Total Volume	0	0	0	0	0	0	0	0	0	0	0	4	0	5	9	0	0	0	0	0	9
% App. Total	0	0	0	0	0	0	0	0	0	0	0	44.4	0	55.6		0	0	0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.500	.000	.417	.563	.000	.000	.000	.000	.000	.563



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INC.**

1889 YORK ST
DENVER COLORADO
303-333-7409

N/S STREET: 88TH ST
E/W STREET: SHAMROCK DR
CITY: SUPERIOR
COUNTY: BOULDER

File Name : 88TH ST SHAMROCK DR
Site Code : 00000015
Start Date : 4/7/2026
Page No : 1

Groups Printed- Unshifted

	88TH ST SOUTHBOUND				SHAMROCK DR WESTBOUND				88TH ST NORTHBOUND				NO ACCESS EASTBOUND				Int. Total
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
06:30 AM	1	15	0	0	4	0	4	0	0	46	1	1	0	0	0	0	72
06:45 AM	0	23	0	0	4	0	3	0	0	68	0	2	0	0	0	0	100
Total	1	38	0	0	8	0	7	0	0	114	1	3	0	0	0	0	172
07:00 AM	1	24	0	0	4	0	3	0	0	74	3	1	0	0	0	0	110
07:15 AM	1	31	0	0	17	0	5	0	0	119	2	1	0	0	0	0	176
07:30 AM	1	53	0	0	8	0	12	0	0	178	4	8	0	0	0	0	264
07:45 AM	3	75	0	0	14	0	16	1	0	235	7	9	0	0	0	0	360
Total	6	183	0	0	43	0	36	1	0	606	16	19	0	0	0	0	910
08:00 AM	3	114	0	0	6	0	8	0	0	208	1	2	0	0	0	0	342
Total	3	114	0	0	6	0	8	0	0	208	1	2	0	0	0	0	342
04:00 PM	8	215	0	0	3	0	7	0	0	75	5	3	0	0	0	0	316
04:15 PM	4	120	0	0	5	0	5	0	0	94	6	2	0	0	0	0	236
04:30 PM	2	116	0	0	3	0	1	0	0	94	7	0	0	0	0	0	223
04:45 PM	2	146	0	0	3	0	3	0	0	102	5	1	0	0	0	0	262
Total	16	597	0	0	14	0	16	0	0	365	23	6	0	0	0	0	1037
05:00 PM	11	170	0	0	2	0	5	0	0	117	6	1	0	0	0	0	312
05:15 PM	9	171	0	0	7	0	5	0	0	87	9	3	0	0	0	0	291
05:30 PM	3	137	0	0	6	0	3	0	0	83	4	0	0	0	0	0	236
05:45 PM	5	116	0	0	5	0	6	0	0	89	3	0	0	0	0	0	224
Total	28	594	0	0	20	0	19	0	0	376	22	4	0	0	0	0	1063
Grand Total	54	1526	0	0	91	0	86	1	0	1669	63	34	0	0	0	0	3524
Apprch %	3.4	96.6	0	0	51.1	0	48.3	0.6	0	94.5	3.6	1.9	0	0	0	0	
Total %	1.5	43.3	0	0	2.6	0	2.4	0	0	47.4	1.8	1	0	0	0	0	

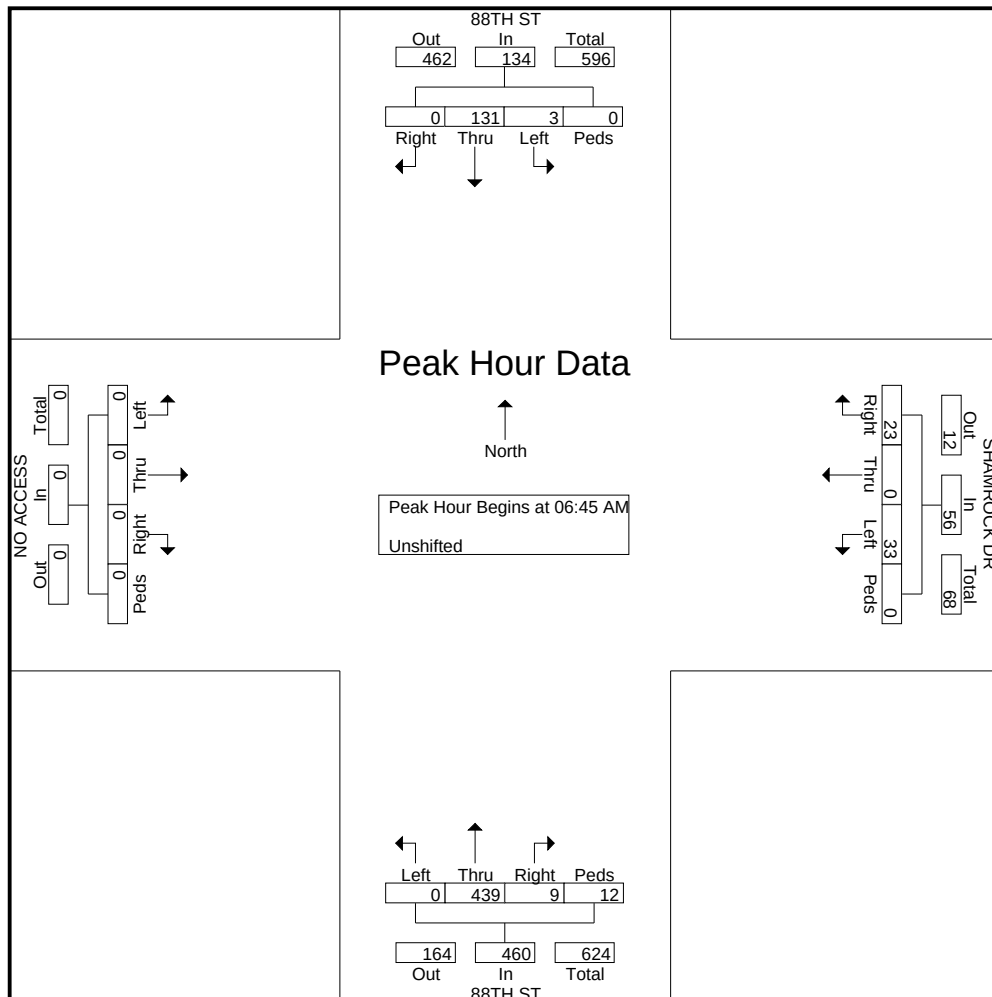
**LSC
TRANSPORTATION
CONSULTANTS,
INC.**

1889 YORK ST
DENVER COLORADO
303-333-7409

N/S STREET: 88TH ST
E/W STREET: SHAMROCK DR
CITY: SUPERIOR
COUNTY: BOULDER

File Name : 88TH ST SHAMROCK DR
Site Code : 00000015
Start Date : 4/7/2026
Page No : 2

	88TH ST SOUTHBOUND					SHAMROCK DR WESTBOUND					88TH ST NORTHBOUND					NO ACCESS EASTBOUND					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 06:45 AM to 07:30 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 06:45 AM																					
06:45 AM	0	23	0	0	23	4	0	3	0	7	0	68	0	2	70	0	0	0	0	0	100
07:00 AM	1	24	0	0	25	4	0	3	0	7	0	74	3	1	78	0	0	0	0	0	110
07:15 AM	1	31	0	0	32	17	0	5	0	22	0	119	2	1	122	0	0	0	0	0	176
07:30 AM	1	53	0	0	54	8	0	12	0	20	0	178	4	8	190	0	0	0	0	0	264
Total Volume	3	131	0	0	134	33	0	23	0	56	0	439	9	12	460	0	0	0	0	0	650
% App. Total	2.2	97.8	0	0		58.9	0	41.1	0		0	95.4	2	2.6		0	0	0	0		
PHF	.750	.618	.000	.000	.620	.485	.000	.479	.000	.636	.000	.617	.563	.375	.605	.000	.000	.000	.000	.000	.616



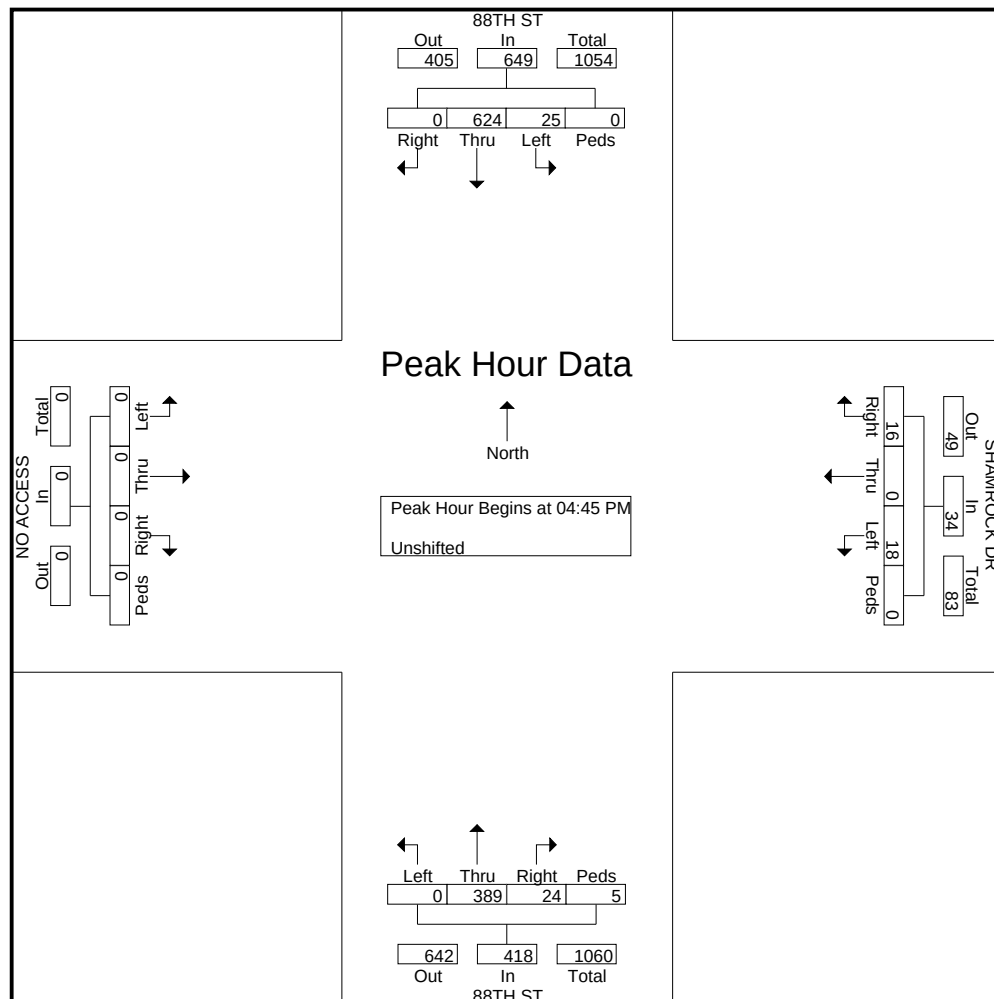
**LSC
TRANSPORTATION
CONSULTANTS,
INC.**

1889 YORK ST
DENVER COLORADO
303-333-7409

N/S STREET: 88TH ST
E/W STREET: SHAMROCK DR
CITY: SUPERIOR
COUNTY: BOULDER

File Name : 88TH ST SHAMROCK DR
Site Code : 00000015
Start Date : 4/7/2026
Page No : 3

	88TH ST SOUTHBOUND					SHAMROCK DR WESTBOUND					88TH ST NORTHBOUND					NO ACCESS EASTBOUND					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	2	146	0	0	148	3	0	3	0	6	0	102	5	1	108	0	0	0	0	0	262
05:00 PM	11	170	0	0	181	2	0	5	0	7	0	117	6	1	124	0	0	0	0	0	312
05:15 PM	9	171	0	0	180	7	0	5	0	12	0	87	9	3	99	0	0	0	0	0	291
05:30 PM	3	137	0	0	140	6	0	3	0	9	0	83	4	0	87	0	0	0	0	0	236
Total Volume	25	624	0	0	649	18	0	16	0	34	0	389	24	5	418	0	0	0	0	0	1101
% App. Total	3.9	96.1	0	0		52.9	0	47.1	0		0	93.1	5.7	1.2		0	0	0	0		
PHF	.568	.912	.000	.000	.896	.643	.000	.800	.000	.708	.000	.831	.667	.417	.843	.000	.000	.000	.000	.000	.882



**LSC
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CONSULTANTS,
INC.**

1889 YORK ST
DENVER COLORADO
303-333-7409

N/S STREET: 88TH ST
E/W STREET: WELDONA WY
CITY: SUPERIOR
COUNTY: BOULDER

File Name : 88th st weldona way
Site Code : 00000025
Start Date : 4/7/2026
Page No : 1

Groups Printed- Bank 1

	88TH ST SOUTHBOUND				NO ACCESS WESTBOUND				88TH ST NORTHBOUND				WELDONA WY -NO CARS- EASTBOUND				Int. Total
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
06:30 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
06:45 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2
Total	0	2	0	0	0	0	0	0	0	0	0	2	0	0	0	0	4
07:00 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0	3
07:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
07:30 AM	0	0	0	1	0	0	0	0	0	0	0	9	0	6	0	0	16
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	7
Total	0	0	0	1	0	2	0	0	0	1	0	16	0	7	0	0	27
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	6
Total	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	7
04:00 PM	0	3	0	0	0	0	0	0	0	0	0	2	0	0	0	0	5
04:15 PM	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	3
04:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2
04:45 PM	0	1	0	1	0	0	0	0	0	1	0	0	0	0	0	0	3
Total	0	7	0	2	0	0	0	0	0	1	0	2	0	0	1	0	13
05:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2
05:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	1	0	0	0	0	0	0	0	1	0	2	0	1	0	0	5
Grand Total	0	10	0	3	0	2	0	0	0	3	0	29	0	8	1	0	56
Apprch %	0	76.9	0	23.1	0	100	0	0	0	9.4	0	90.6	0	88.9	11.1	0	
Total %	0	17.9	0	5.4	0	3.6	0	0	0	5.4	0	51.8	0	14.3	1.8	0	

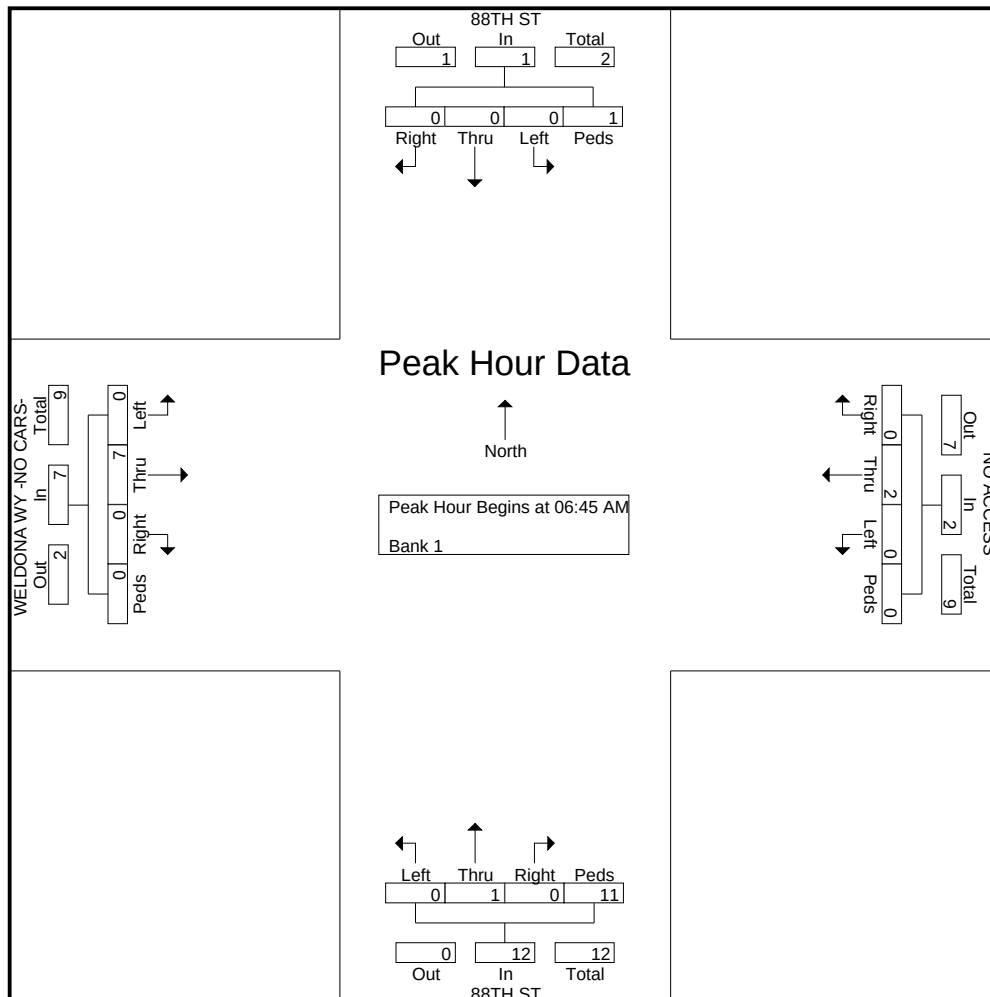
**LSC
TRANSPORTATION
CONSULTANTS,
INC.**

1889 YORK ST
DENVER COLORADO
303-333-7409

N/S STREET: 88TH ST
E/W STREET: WELDONA WY
CITY: SUPERIOR
COUNTY: BOULDER

File Name : 88th st weldona way
Site Code : 00000025
Start Date : 4/7/2026
Page No : 2

	88TH ST SOUTHBOUND					NO ACCESS WESTBOUND					88TH ST NORTHBOUND					WELDONA WY -NO CARS- EASTBOUND					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 06:45 AM to 07:30 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 06:45 AM																					
06:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	2
07:00 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	3
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
07:30 AM	0	0	0	1	1	0	0	0	0	0	0	0	0	9	9	0	6	0	0	6	16
Total Volume	0	0	0	1	1	0	2	0	0	2	0	1	0	11	12	0	7	0	0	7	22
% App. Total	0	0	0	100		0	100	0	0		0	8.3	0	91.7		0	100	0	0		
PHF	.000	.000	.000	.250	.250	.000	.250	.000	.000	.250	.000	.250	.000	.306	.333	.000	.292	.000	.000	.292	.344



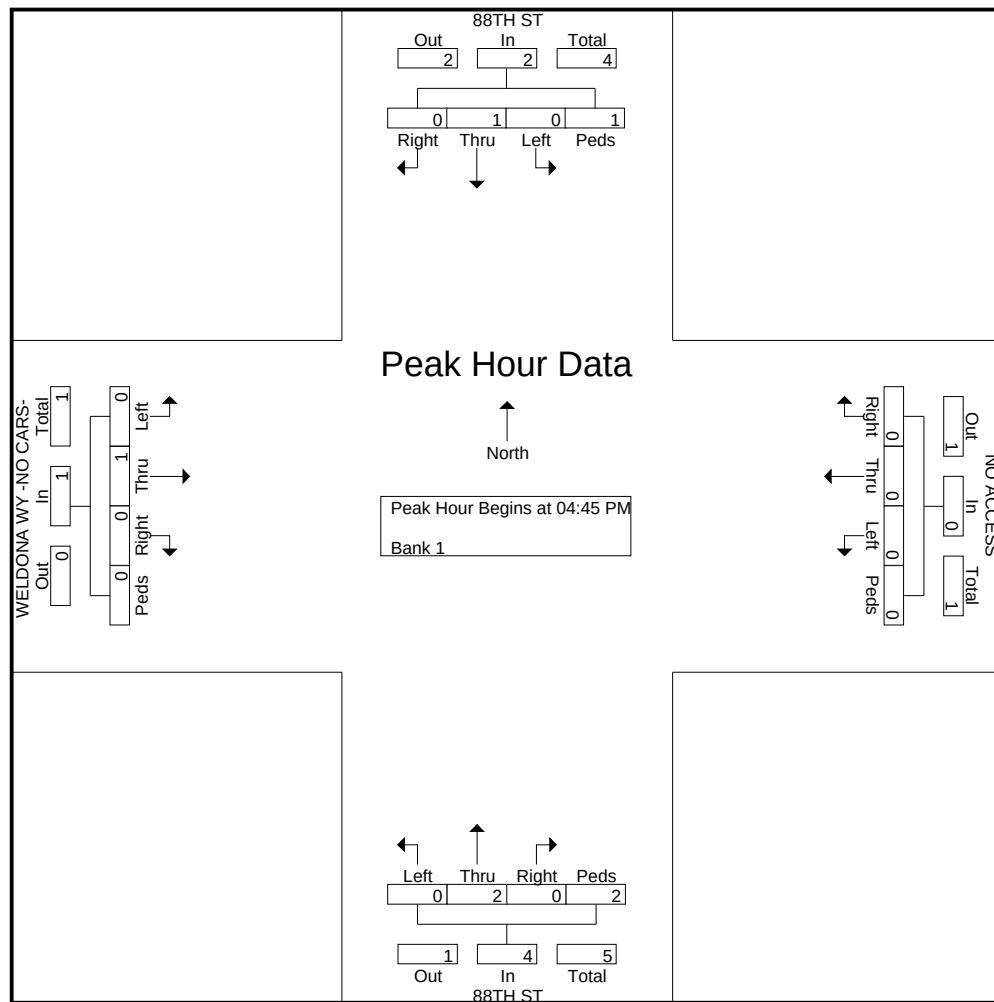
**LSC
TRANSPORTATION
CONSULTANTS,
INC.**

1889 YORK ST
DENVER COLORADO
303-333-7409

N/S STREET: 88TH ST
E/W STREET: WELDONA WY
CITY: SUPERIOR
COUNTY: BOULDER

File Name : 88th st weldona way
Site Code : 00000025
Start Date : 4/7/2026
Page No : 3

	88TH ST SOUTHBOUND					NO ACCESS WESTBOUND					88TH ST NORTHBOUND					WELDONA WY -NO CARS- EASTBOUND					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	0	1	0	1	2	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	3
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1	2
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	2
Total Volume	0	1	0	1	2	0	0	0	0	0	0	2	0	2	4	0	1	0	0	1	7
% App. Total	0	50	0	50		0	0	0	0		0	50	0	50		0	100	0	0		
PHF	.000	.250	.000	.250	.250	.000	.000	.000	.000	.000	.000	.500	.000	.250	.500	.000	.250	.000	.000	.250	.583





88TH ST / PROMENADE DR JAN 13, 2026

1

MORNING

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Interval Start Time	88th Street Northbound				88th Street Southbound				Promenade Drive Eastbound				Promenade Drive Westbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
7:00	1	2	46	0	0	0	21	5	0	4	0	1	---	---	---	---	80
7:15	0	1	77	0	0	0	24	5	0	5	0	2	---	---	---	---	114
7:30	0	3	111	0	0	0	38	2	0	5	0	4	---	---	---	---	163
7:45	0	3	129	0	0	0	25	3	0	4	0	7	---	---	---	---	171
8:00	0	5	98	0	0	0	47	5	0	7	0	3	---	---	---	---	163
8:15	0	3	113	0	0	0	45	5	0	7	0	7	---	---	---	---	180
8:30	0	2	116	0	0	0	56	6	0	11	0	7	---	---	---	---	198
8:45	0	5	170	0	0	0	81	6	0	11	0	2	---	---	---	---	275
Count Total	1	24	858	0	0	0	337	37	0	54	0	33	---	---	---	---	1,344
Peak Hour	0	15	495	0	0	0	229	22	0	36	0	19	---	---	---	---	816
Peak Hour Factor	0.73				0.72				0.76				---				---
Peak Hour % Trucks	0%	7%	2%	0%	0%	0%	5%	9%	0%	3%	0%	5%	---	---	---	---	3%

Intersection PHF	0.74
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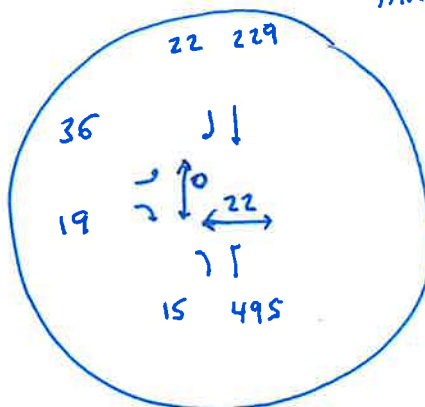
Peak Hour Inbound & Outbound Traffic

North Leg		South Leg		East Leg		West Leg	
In	Out	In	Out	In	Out	In	Out
251	531	510	248	0	0	55	37

Peak Hour Passenger Car Equivalent Inbound & Outbound Traffic

Northbound				Southbound				Eastbound				Westbound			
L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total
16	504	0	520	0	241	24	265	37	0	20	57	0	0	0	0

AM Peak Hour



PHF = 0.74



88TH ST / PROMENADE DR JAN 13, 2026

2

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MORNING Passenger Vehicles

Interval Start Time	88th Street Northbound				88th Street Southbound				Promenade Drive Eastbound				Promenade Drive Westbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
7:00	1	2	46	0	0	0	21	5	0	4	0	1	---	---	---	---	80
7:15	0	1	76	0	0	0	24	5	0	5	0	2	---	---	---	---	113
7:30	0	3	111	0	0	0	35	2	0	5	0	4	---	---	---	---	160
7:45	0	3	127	0	0	0	25	3	0	4	0	7	---	---	---	---	169
8:00	0	4	94	0	0	0	43	5	0	7	0	3	---	---	---	---	156
8:15	0	3	113	0	0	0	43	5	0	7	0	6	---	---	---	---	177
8:30	0	2	113	0	0	0	52	5	0	10	0	7	---	---	---	---	189
8:45	0	5	166	0	0	0	79	5	0	11	0	2	---	---	---	---	268
Count Total	1	23	846	0	0	0	322	35	0	53	0	32	---	---	---	---	1,312
Peak Hour	0	14	486	0	0	0	217	20	0	35	0	18	---	---	---	---	790

Trucks Less Than 40' Long

Interval Start Time	88th Street Northbound				88th Street Southbound				Promenade Drive Eastbound				Promenade Drive Westbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
7:00	0	0	0	0	0	0	0	0	0	0	0	0	---	---	---	---	0
7:15	0	0	1	0	0	0	0	0	0	0	0	0	---	---	---	---	1
7:30	0	0	0	0	0	0	3	0	0	0	0	0	---	---	---	---	3
7:45	0	0	2	0	0	0	0	0	0	0	0	0	---	---	---	---	2
8:00	0	1	2	0	0	0	4	0	0	0	0	0	---	---	---	---	7
8:15	0	0	0	0	0	0	2	0	0	0	0	1	---	---	---	---	3
8:30	0	0	3	0	0	0	4	1	0	1	0	0	---	---	---	---	9
8:45	0	0	4	0	0	0	2	1	0	0	0	0	---	---	---	---	7
Count Total	0	1	12	0	0	0	15	2	0	1	0	1	---	---	---	---	32
Peak Hour	0	1	9	0	0	0	12	2	0	1	0	1	---	---	---	---	26

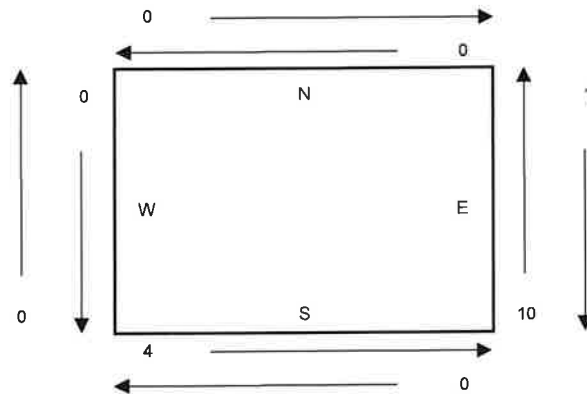
Trucks Greater Than 40' Long

Interval Start Time	88th Street Northbound				88th Street Southbound				Promenade Drive Eastbound				Promenade Drive Westbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
7:00	0	0	0	0	0	0	0	0	0	0	0	0	---	---	---	---	0
7:15	0	0	0	0	0	0	0	0	0	0	0	0	---	---	---	---	0
7:30	0	0	0	0	0	0	0	0	0	0	0	0	---	---	---	---	0
7:45	0	0	0	0	0	0	0	0	0	0	0	0	---	---	---	---	0
8:00	0	0	0	0	0	0	0	0	0	0	0	0	---	---	---	---	0
8:15	0	0	0	0	0	0	0	0	0	0	0	0	---	---	---	---	0
8:30	0	0	0	0	0	0	0	0	0	0	0	0	---	---	---	---	0
8:45	0	0	0	0	0	0	0	0	0	0	0	0	---	---	---	---	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	---	---	---	---	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	---	---	---	---	0

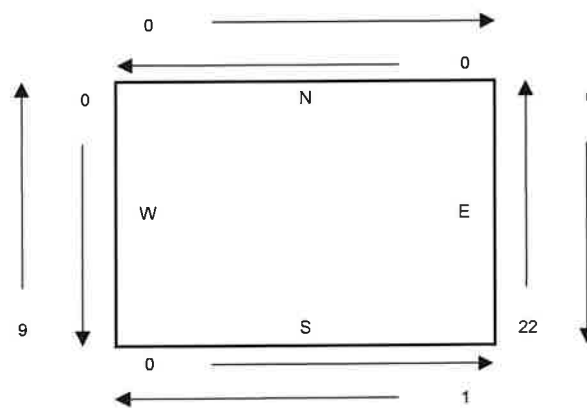
88TH ST / PROMENADE DR
JAN 13, 2026

MORNING

Pedestrians in Intersection (Peak Hour)



Bikes in Intersection (Peak Hour)



Bikes in Road

[illegible]



88TH ST / PROMENADE DR

JAN 13, 2026

4

EVENING

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Interval Start Time	88th Street Northbound				88th Street Southbound				Promenade Drive Eastbound				Promenade Drive Westbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
16:00	0	2	84	0	0	0	210	10	0	2	0	4	---	---	---	---	312
16:15	0	7	88	0	1	0	179	19	1	3	0	4	---	---	---	---	302
16:30	0	7	75	0	0	0	147	10	0	6	0	9	---	---	---	---	254
16:45	0	4	63	0	0	0	97	19	0	8	0	5	---	---	---	---	196
17:00	0	6	74	0	0	0	157	15	2	9	0	6	---	---	---	---	269
17:15	0	5	70	0	0	0	141	8	0	5	0	7	---	---	---	---	236
17:30	0	6	73	0	0	0	99	10	0	4	0	5	---	---	---	---	197
17:45	0	7	62	0	0	0	102	9	0	5	0	3	---	---	---	---	188
Count Total	0	44	589	0	1	0	1,132	100	3	42	0	43	---	---	---	---	1,954
Peak Hour	0	20	310	0	1	0	633	58	1	19	0	22	---	---	---	---	1,064
Peak Hour Factor	0.87				0.79				0.70				---				---
Peak Hour % Trucks	0%	0%	1%	0%	0%	0%	0%	2%	0%	5%	0%	0%	---	---	---	---	1%

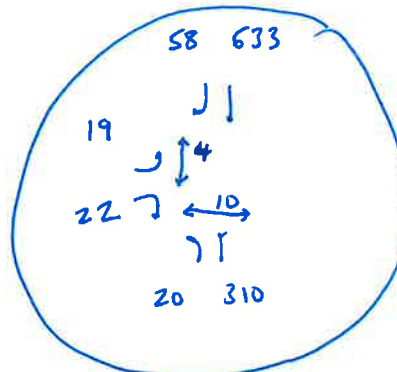
Intersection PHF	0.85
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Peak Hour Inbound & Outbound Traffic

North Leg		South Leg		East Leg		West Leg	
In	Out	In	Out	In	Out	In	Out
692	330	330	655	0	0	42	79

Peak Hour Passenger Car Equivalent Inbound & Outbound Traffic

Northbound				Southbound				Eastbound				Westbound			
L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total
20	313	0	333	0	636	59	695	20	0	22	42	0	0	0	0



PM Peak Hour

PHF = 0.85



88TH ST / PROMENADE DR JAN 13, 2026

5

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EVENING

Passenger Vehicles

Interval Start Time	88th Street Northbound				88th Street Southbound				Promenade Drive Eastbound				Promenade Drive Westbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
16:00	0	2	83	0	0	0	208	10	0	2	0	4	---	---	---	---	309
16:15	0	7	87	0	1	0	179	18	1	2	0	4	---	---	---	---	299
16:30	0	7	74	0	0	0	147	10	0	6	0	9	---	---	---	---	253
16:45	0	4	63	0	0	0	98	19	0	8	0	5	---	---	---	---	195
17:00	0	6	74	0	0	0	157	15	2	9	0	6	---	---	---	---	269
17:15	0	5	70	0	0	0	141	8	0	5	0	7	---	---	---	---	236
17:30	0	6	73	0	0	0	99	9	0	3	0	5	---	---	---	---	195
17:45	0	7	62	0	0	0	102	9	0	5	0	3	---	---	---	---	188
Count Total	0	44	586	0	1	0	1,129	98	3	40	0	43	---	---	---	---	1,944
Peak Hour	0	20	307	0	1	0	630	57	1	18	0	22	---	---	---	---	1,056

Trucks Less Than 40' Long

Interval Start Time	88th Street Northbound				88th Street Southbound				Promenade Drive Eastbound				Promenade Drive Westbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
16:00	0	0	1	0	0	0	2	0	0	0	0	0	---	---	---	---	3
16:15	0	0	1	0	0	0	0	1	0	1	0	0	---	---	---	---	3
16:30	0	0	1	0	0	0	0	0	0	0	0	0	---	---	---	---	1
16:45	0	0	0	0	0	0	1	0	0	0	0	0	---	---	---	---	1
17:00	0	0	0	0	0	0	0	0	0	0	0	0	---	---	---	---	0
17:15	0	0	0	0	0	0	0	0	0	0	0	0	---	---	---	---	0
17:30	0	0	0	0	0	0	0	1	0	1	0	0	---	---	---	---	2
17:45	0	0	0	0	0	0	0	0	0	0	0	0	---	---	---	---	0
Count Total	0	0	3	0	0	0	3	2	0	2	0	0	---	---	---	---	10
Peak Hour	0	0	3	0	0	0	3	1	0	1	0	0	---	---	---	---	8

Trucks Greater Than 40' Long

Interval Start Time	88th Street Northbound				88th Street Southbound				Promenade Drive Eastbound				Promenade Drive Westbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
16:00	0	0	0	0	0	0	0	0	0	0	0	0	---	---	---	---	0
16:15	0	0	0	0	0	0	0	0	0	0	0	0	---	---	---	---	0
16:30	0	0	0	0	0	0	0	0	0	0	0	0	---	---	---	---	0
16:45	0	0	0	0	0	0	0	0	0	0	0	0	---	---	---	---	0
17:00	0	0	0	0	0	0	0	0	0	0	0	0	---	---	---	---	0
17:15	0	0	0	0	0	0	0	0	0	0	0	0	---	---	---	---	0
17:30	0	0	0	0	0	0	0	0	0	0	0	0	---	---	---	---	0
17:45	0	0	0	0	0	0	0	0	0	0	0	0	---	---	---	---	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	---	---	---	---	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	---	---	---	---	0



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Solutions

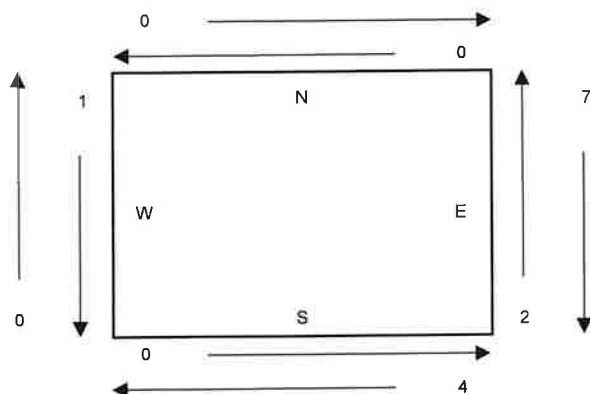
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88TH ST / PROMENADE DR JAN 13, 2026

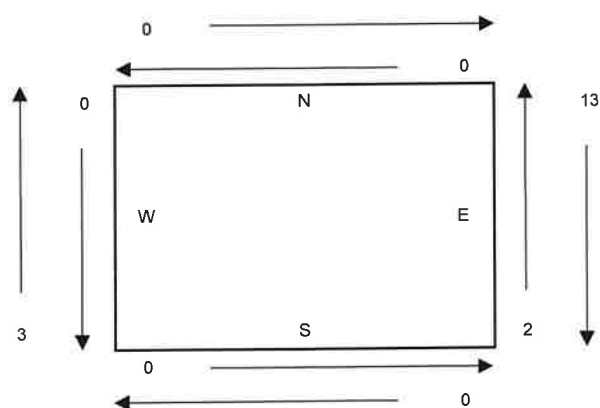
6

EVENING

Pedestrians in Intersection (Peak Hour)



Bikes in Intersection (Peak Hour)



Bikes in Road

Interval Start Time	88th Street Northbound				88th Street Southbound				Promenade Drive Eastbound				Promenade Drive Westbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
16:00	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
16:15	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	2
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	2
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	1	0	0	0	3	0	0	0	0	2	0	0	0	0	6



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88TH ST / ROCK CREEK PKWY

JAN 13, 2026

1

MORNING

Interval Start Time	Northbound				88th Street Southbound				Rock Creek Parkway Eastbound				Rock Creek Parkway Westbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
7:00	---	---	---	---	0	13	0	7	0	8	10	0	0	0	15	39	92
7:15	---	---	---	---	0	25	0	7	0	16	10	0	0	0	17	63	138
7:30	---	---	---	---	0	28	0	24	0	19	11	0	0	0	29	96	207
7:45	---	---	---	---	1	22	0	12	0	28	14	0	0	0	22	96	195
8:00	---	---	---	---	0	24	0	22	0	30	19	0	0	0	47	67	209
8:15	---	---	---	---	0	43	0	23	0	32	28	0	0	0	26	61	233
8:30	---	---	---	---	0	46	0	28	0	35	26	0	0	0	48	64	267
8:45	---	---	---	---	0	50	0	26	0	53	65	0	0	0	30	106	330
Count Total	---	---	---	---	1	251	0	149	0	221	183	0	0	0	234	632	1,671
Peak Hour	---	---	---	---	0	163	0	99	0	150	138	0	0	0	151	338	1,039
Peak Hour Factor	---				0.86				0.61				0.90				---
Peak Hour % Trucks	---	---	---	---	0%	5%	0%	3%	0%	2%	1%	0%	0%	0%	4%	2%	3%

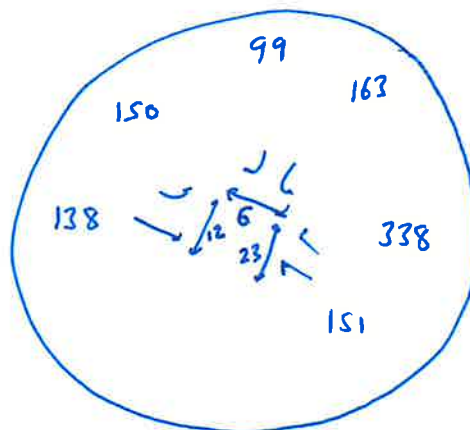
Intersection PHF 0.79

Peak Hour Inbound & Outbound Traffic

North Leg		South Leg		East Leg		West Leg	
In	Out	In	Out	In	Out	In	Out
262	488	0	0	489	301	288	250

Peak Hour Passenger Car Equivalent Inbound & Outbound Traffic

Northbound				Southbound				Eastbound				Westbound			
L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total
0	0	0	0	172	0	102	274	153	140	0	293	0	157	345	502



Am Peak Hour

PHF = 0.79



88TH ST / ROCK CREEK PKWY
JAN 13, 2026

MORNING

Interval Start Time	88th Street				Rock Creek Parkway				Rock Creek Parkway				Total				
	Northbound				Southbound				Eastbound					Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right		U-Turn	Left	Thru	Right
7:00	---	---	---	---	0	13	0	7	0	8	10	0	0	0	15	39	92
7:15	---	---	---	---	0	24	0	7	0	16	10	0	0	0	16	62	135
7:30	---	---	---	---	0	26	0	23	0	19	11	0	0	0	28	96	203
7:45	---	---	---	---	1	22	0	12	0	28	13	0	0	0	22	93	191
8:00	---	---	---	---	0	24	0	21	0	29	19	0	0	0	43	65	201
8:15	---	---	---	---	0	40	0	23	0	32	27	0	0	0	28	81	229
8:30	---	---	---	---	0	43	0	26	0	34	28	0	0	0	46	81	256
8:45	---	---	---	---	0	48	0	26	0	52	64	0	0	0	30	104	324
Count Total	---	---	---	---	1	240	0	145	0	218	180	0	0	0	226	621	1,631
Peak Hour	---	---	---	---	0	155	0	96	0	147	136	0	0	0	145	331	1,010

Interval Start Time	88th Street				Rock Creek Parkway				Rock Creek Parkway				Total				
	Northbound				Southbound				Eastbound					Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right		U-Turn	Left	Thru	Right
7:00	---	---	---	---	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15	---	---	---	---	0	1	0	0	0	0	0	0	0	0	1	1	3
7:30	---	---	---	---	0	2	0	1	0	0	0	0	0	0	1	0	4
7:45	---	---	---	---	0	0	0	0	0	0	1	0	0	0	0	3	4
8:00	---	---	---	---	0	0	0	1	0	1	0	0	0	0	4	2	8
8:15	---	---	---	---	0	2	0	0	0	0	1	0	0	0	0	0	3
8:30	---	---	---	---	0	3	0	2	0	1	0	0	0	0	2	3	11
8:45	---	---	---	---	0	2	0	0	0	1	1	0	0	0	0	2	6
Count Total	---	---	---	---	0	10	0	4	0	3	3	0	0	0	8	11	39
Peak Hour	---	---	---	---	0	7	0	3	0	3	2	0	0	0	6	7	28

[illegible]



88TH ST / ROCK CREEK PKWY
JAN 13, 2026

MORNING

A diagram of a rectangular room. The top horizontal boundary is labeled '3' with an arrow pointing right. The bottom horizontal boundary is labeled '0' with an arrow pointing right. The left vertical boundary is labeled '5' with an arrow pointing up. The right vertical boundary is labeled '2' with an arrow pointing up. Inside the rectangle, the letters 'N', 'S', 'E', and 'W' are placed in the top, bottom, right, and left quadrants respectively.

[illegible]



88TH ST / ROCK CREEK PKWY JAN 13, 2026

4

EVENING

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Interval Start Time	Northbound				88th Street Southbound				Rock Creek Parkway Eastbound				Rock Creek Parkway Westbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
16:00	---	---	---	---	0	143	0	62	0	28	35	0	0	0	36	52	358
16:15	---	---	---	---	0	137	0	52	0	25	38	0	0	0	30	67	349
16:30	---	---	---	---	0	113	0	34	0	28	50	0	0	0	27	55	307
16:45	---	---	---	---	0	69	0	34	0	19	46	0	0	0	42	48	258
17:00	---	---	---	---	0	120	0	40	0	29	45	0	0	0	43	52	329
17:15	---	---	---	---	0	110	0	26	1	30	72	0	0	0	49	59	347
17:30	---	---	---	---	0	62	0	34	0	25	49	0	1	0	43	50	264
17:45	---	---	---	---	0	70	0	33	1	18	66	0	0	0	24	51	263
Count Total	---	---	---	---	0	824	0	315	2	202	401	0	1	0	294	434	2,473
Peak Hour	---	---	---	---	0	462	0	182	0	100	169	0	0	0	135	222	1,270
Peak Hour Factor	---	---	---	---	0.79	---	---	---	0.86	---	---	---	0.92	---	---	---	---
Peak Hour % Trucks	---	---	---	---	0%	1%	0%	0%	0%	1%	2%	0%	0%	0%	1%	1%	1%

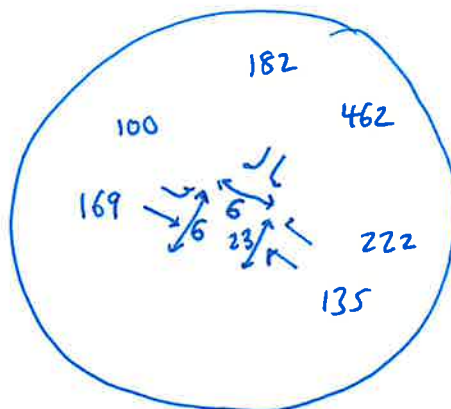
Intersection PHF	0.89
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Peak Hour Inbound & Outbound Traffic

North Leg		South Leg		East Leg		West Leg	
In	Out	In	Out	In	Out	In	Out
644	322	0	0	357	631	269	317

Peak Hour Passenger Car Equivalent Inbound & Outbound Traffic

Northbound				Southbound				Eastbound				Westbound			
L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total
0	0	0	0	465	0	182	647	101	172	0	273	0	137	224	361



pm Peak Hour

PHF = 0.89



88TH ST / ROCK CREEK PKWY
JAN 13, 2026

EVENING

Interval Start Time	88th Street				Rock Creek Parkway				Rock Creek Parkway				Total				
	Northbound				Southbound				Eastbound					Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right		U-Turn	Left	Thru	Right
16:00	---	---	---	---	0	141	0	62	0	27	34	0	0	0	35	52	351
16:15	---	---	---	---	0	137	0	52	0	25	37	0	0	0	29	66	346
16:30	---	---	---	---	0	113	0	34	0	28	50	0	0	0	27	54	306
16:45	---	---	---	---	0	68	0	34	0	19	45	0	0	0	42	48	258
17:00	---	---	---	---	0	120	0	40	0	29	45	0	0	0	43	52	329
17:15	---	---	---	---	0	110	0	26	1	30	72	0	0	0	48	59	346
17:30	---	---	---	---	0	62	0	34	0	25	49	0	1	0	43	50	264
17:45	---	---	---	---	0	70	0	33	1	18	65	0	0	0	24	51	262
Count Total	---	---	---	---	0	821	0	315	2	201	397	0	1	0	291	432	2,460
Peak Hour	---	---	---	---	0	459	0	182	0	99	166	0	0	0	133	220	1,259

Interval Start Time	88th Street				Rock Creek Parkway				Rock Creek Parkway				Total				
	Northbound				Southbound				Eastbound					Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right		U-Turn	Left	Thru	Right
16:00	---	---	---	---	0	2	0	0	0	1	1	0	0	0	1	0	5
16:15	---	---	---	---	0	0	0	0	0	0	1	0	0	0	1	1	3
16:30	---	---	---	---	0	0	0	0	0	0	0	0	0	0	0	1	1
16:45	---	---	---	---	0	1	0	0	0	0	1	0	0	0	0	0	2
17:00	---	---	---	---	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	---	---	---	---	0	0	0	0	0	0	0	0	0	0	1	0	1
17:30	---	---	---	---	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	---	---	---	---	0	0	0	0	0	0	1	0	0	0	0	0	1
Count Total	---	---	---	---	0	3	0	0	0	1	4	0	0	0	3	2	13
Peak Hour	---	---	---	---	0	3	0	0	0	1	3	0	0	0	2	2	11

[illegible]



	88th Street	Rock Creek Parkway	Rock Creek Parkway
Northbound	Southbound	Eastbound	Westbound

[illegible]



88TH ST / ROCK CREEK PKWY JAN 13, 2026

1

MORNING

www.sustainabletrafficsolutions.com

Interval Start Time	Northbound				88th Street Southbound				Rock Creek Parkway Eastbound				Rock Creek Parkway Westbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
7:00	---	---	---	---	0	13	0	7	0	8	10	0	0	0	15	39	92
7:15	---	---	---	---	0	25	0	7	0	16	10	0	0	0	17	63	138
7:30	---	---	---	---	0	28	0	24	0	19	11	0	0	0	29	96	207
7:45	---	---	---	---	1	22	0	12	0	28	14	0	0	0	22	96	195
8:00	---	---	---	---	0	24	0	22	0	30	19	0	0	0	47	67	209
8:15	---	---	---	---	0	43	0	23	0	32	28	0	0	0	28	81	233
8:30	---	---	---	---	0	46	0	28	0	35	28	0	0	0	48	84	267
8:45	---	---	---	---	0	50	0	26	0	53	65	0	0	0	30	106	330
Count Total	---	---	---	---	1	251	0	149	0	221	183	0	0	0	234	632	1,671
Peak Hour	---	---	---	---	0	163	0	99	0	150	138	0	0	0	151	338	1,039
Peak Hour Factor	---				0.86				0.61				0.90				---
Peak Hour % Trucks	---	---	---	---	0%	5%	0%	3%	0%	2%	1%	0%	0%	0%	4%	2%	3%

Intersection PHF	0.79
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Peak Hour Inbound & Outbound Traffic

North Leg		South Leg		East Leg		West Leg	
In	Out	In	Out	In	Out	In	Out
262	488	0	0	489	301	288	250

Peak Hour Passenger Car Equivalent Inbound & Outbound Traffic

Northbound				Southbound				Eastbound				Westbound			
L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total
0	0	0	0	172	0	102	274	153	140	0	293	0	157	345	502



2

Passenger Vehicles

Trucks Less Than 40' Long

Trucks Greater Than 40' Long

[illegible]



88TH ST / ROCK CREEK PKWY JAN 13, 2026

4

EVENING

www.sustainabletrafficsolutions.com

Interval Start Time	Northbound				88th Street Southbound				Rock Creek Parkway Eastbound				Rock Creek Parkway Westbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
16:00	---	---	---	---	0	143	0	62	0	28	35	0	0	0	36	52	356
16:15	---	---	---	---	0	137	0	52	0	25	38	0	0	0	30	67	349
16:30	---	---	---	---	0	113	0	34	0	28	50	0	0	0	27	55	307
16:45	---	---	---	---	0	69	0	34	0	19	46	0	0	0	42	48	258
17:00	---	---	---	---	0	120	0	40	0	29	45	0	0	0	43	52	329
17:15	---	---	---	---	0	110	0	26	1	30	72	0	0	0	49	59	347
17:30	---	---	---	---	0	62	0	34	0	25	49	0	1	0	43	50	264
17:45	---	---	---	---	0	70	0	33	1	18	66	0	0	0	24	51	263
Count Total	---	---	---	---	0	824	0	315	2	202	401	0	1	0	294	434	2,473
Peak Hour	---	---	---	---	0	462	0	182	0	100	169	0	0	0	135	222	1,270
Peak Hour Factor	---	---	---	---	0.79	---	---	---	0.86	---	---	---	0.92	---	---	---	---
Peak Hour % Trucks	---	---	---	---	0%	1%	0%	0%	0%	1%	2%	0%	0%	0%	1%	1%	1%

Intersection PHF	0.89
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Peak Hour Inbound & Outbound Traffic

North Leg		South Leg		East Leg		West Leg	
In	Out	In	Out	In	Out	In	Out
644	322	0	0	357	631	269	317

Peak Hour Passenger Car Equivalent Inbound & Outbound Traffic

Northbound				Southbound				Eastbound				Westbound			
L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total
0	0	0	0	465	0	182	647	101	172	0	273	0	137	224	361



88TH ST / ROCK CREEK PKWY
JAN 13, 2026

EVENING

Passenger Vehicles

Trucks Less Than 40' Long

Trucks Greater Than 40' Long

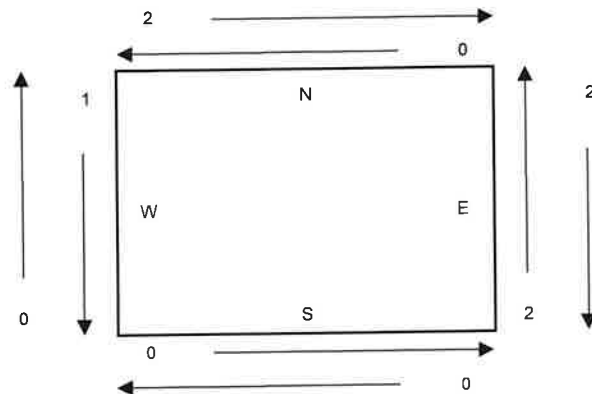
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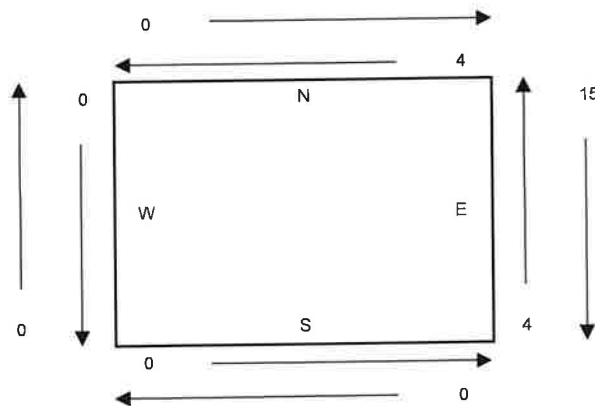
88TH ST / ROCK CREEK PKWY
JAN 13, 2026

EVENING

Pedestrians in Intersection (Peak Hour)



Bikes in Intersection (Peak Hour)



Bikes in Road

[illegible]

LEVEL OF SERVICE DEFINITIONS

From *Highway Capacity Manual*, Transportation Research Board

SIGNALIZED INTERSECTION LEVEL OF SERVICE (LOS)

LOS	<u>Average Vehicle Delay</u> sec/vehicle	<u>Operational Characteristics</u>
A	<10 seconds	Describes operations with low control delay, up to 10 sec/veh. This LOS occurs when progression is extremely favorable and most vehicles arrive during the green phase. Many vehicles do not stop at all. Short cycle lengths may tend to contribute to low delay values.
B	10 to 20 seconds	Describes operations with control delay greater than 10 seconds and up to 20 sec/veh. This level generally occurs with good progression, short cycle lengths, or both. More vehicles stop than with LOS A, causing higher levels of delay.
C	20 to 35 seconds	Describes operations with control delay greater than 20 and up to 35 sec/veh. These higher delays may result from only fair progression, longer cycle length, or both. Individual cycle failures may begin to appear at this level. Cycle failure occurs when a given green phase does not serve queued vehicles, and overflows occur. The number of vehicles stopping is significant at this level, though many still pass through the intersection without stopping.
D	35 to 55 seconds	Describes operations with control delay greater than 35 and up to 55 sec/veh. At LOS D, the influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, and high v/c ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.
E	55 to 80 seconds	Describes operations with control delay greater than 55 and up to 80 sec/veh. These high delay values generally indicate poor progression, long cycle lengths, and high v/c ratios. Individual cycle failures are frequent.
F	>80 seconds	Describes operations with control delay in excess of 80 sec/veh. This level, considered unacceptable to most drivers, often occurs with over-saturation, that is, when arrival flow rates exceed the capacity of lane groups. It may also occur at high v/c ratios with many individual cycle failures. Poor progression and long cycle lengths may also contribute significantly to high delay levels.

LEVEL OF SERVICE DEFINITIONS

From *Highway Capacity Manual*, Transportation Research Board

UNSIGNALIZED INTERSECTION LEVEL OF SERVICE (LOS)

Applicable to Two-Way Stop Control, All-Way Stop Control, and Roundabouts

LOS	Average Vehicle Control Delay	Operational Characteristics
A	<10 seconds	Normally, vehicles on the stop-controlled approach only have to wait up to 10 seconds before being able to clear the intersection. Left-turning vehicles on the uncontrolled street do not have to wait to make their turn.
B	10 to 15 seconds	Vehicles on the stop-controlled approach will experience delays before being able to clear the intersection. <u>The delay could be up to 15 seconds.</u> Left-turning vehicles on the uncontrolled street may have to wait to make their turn.
C	15 to 25 seconds	Vehicles on the stop-controlled approach can expect delays in the range of 15 to 25 seconds before clearing the intersection. Motorists may begin to take chances due to the long delays, thereby posing a safety risk to through traffic. <u>Left-turning vehicles on the uncontrolled street will now be required to wait to make their turn causing a queue to be created in the turn lane.</u>
D	25 to 35 seconds	<u>This is the point at which a traffic signal may be warranted for this intersection.</u> The delays for the stop-controlled intersection are not considered to be excessive. The length of the queue may begin to block other public and private access points.
E	35 to 50 seconds	The delays for all critical traffic movements are considered to be unacceptable. The length of the queues for the stop-controlled approaches as well as the left-turn movements are extremely long. <u>There is a high probability that this intersection will meet traffic signal warrants.</u> The ability to install a traffic signal is affected by the location of other existing traffic signals. Consideration may be given to restricting the accesses by eliminating the left-turn movements from and to the stop-controlled approach.
F	>50 seconds	The delay for the critical traffic movements are probably in excess of 100 seconds. The length of the queues are extremely long. Motorists are selecting alternative routes due to the long delays. <u>The only remedy for these long delays is installing a traffic signal or restricting the accesses.</u> The potential for accidents at this intersection are extremely high due to motorist taking more risky chances. If the median permits, motorists begin making two-stage left-turns.

HCM 6th TWSC
1: S. 88th Street & Promenade Drive

Existing
AM Peak

Intersection						
Int Delay, s/veh	1.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	36	19	15	495	229	22
Future Vol, veh/h	36	19	15	495	229	22
Conflicting Peds, #/hr	0	4	4	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	40	0	95	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	74	74	74	74	74	74
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	49	26	20	669	309	30
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1037	332	343	0	-	0
Stage 1	328	-	-	-	-	-
Stage 2	709	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	255	707	1210	-	-	-
Stage 1	728	-	-	-	-	-
Stage 2	486	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	249	702	1206	-	-	-
Mov Cap-2 Maneuver	249	-	-	-	-	-
Stage 1	713	-	-	-	-	-
Stage 2	485	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	18.5	0.2		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1206	-	249	702	-	-
HCM Lane V/C Ratio	0.017	-	0.195	0.037	-	-
HCM Control Delay (s)	8	-	22.9	10.3	-	-
HCM Lane LOS	A	-	C	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.7	0.1	-	-

HCM 6th TWSC
3: S. 88th Street & Shamrock Drive

Existing
AM Peak

Intersection						
Int Delay, s/veh	1.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	33	23	485	9	3	245
Future Vol, veh/h	33	23	485	9	3	245
Conflicting Peds, #/hr	33	33	0	33	33	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	50	0	-	-	60	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	44	31	647	12	4	327
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1054	719	0	0	692	0
Stage 1	686	-	-	-	-	-
Stage 2	368	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	249	427	-	-	898	-
Stage 1	498	-	-	-	-	-
Stage 2	698	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	235	404	-	-	873	-
Mov Cap-2 Maneuver	235	-	-	-	-	-
Stage 1	485	-	-	-	-	-
Stage 2	676	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	20	0	0.1			
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT		
Capacity (veh/h)	-	- 235 404	873	-		
HCM Lane V/C Ratio	-	- 0.187 0.076	0.005	-		
HCM Control Delay (s)	-	- 23.8 14.6	9.1	-		
HCM Lane LOS	-	- C B	A	-		
HCM 95th %tile Q(veh)	-	- 0.7 0.2	0	-		

HCM 6th Roundabout
4: Rock Creek Parkway & S. 88th Street

Existing
AM Peak

Intersection					
Intersection Delay, s/veh	5.9				
Intersection LOS	A				
Approach	EB	WB		SW	
Entry Lanes	2	2		2	
Conflicting Circle Lanes	1	1		1	
Adj Approach Flow, veh/h	371	621		352	
Demand Flow Rate, veh/h	382	640		363	
Vehicles Circulating, veh/h	226	202		197	
Vehicles Exiting, veh/h	334	406		645	
Ped Vol Crossing Leg, #/h	10	3		10	
Ped Cap Adj	0.991	0.997		0.990	
Approach Delay, s/veh	6.5	6.2		4.6	
Approach LOS	A	A		A	
Lane	Left	Left	Right	Left	Right
Designated Moves	LT	LT	R	L	TR
Assumed Moves	LT	LT	R	L	TR
RT Channelized					
Lane Util	1.000	0.308	0.692	0.623	0.377
Follow-Up Headway, s	2.535	2.535	2.535	2.535	2.535
Critical Headway, s	4.544	4.544	4.544	4.544	4.544
Entry Flow, veh/h	382	197	443	226	137
Cap Entry Lane, veh/h	1156	1182	1182	1187	1187
Entry HV Adj Factor	0.971	0.971	0.971	0.969	0.971
Flow Entry, veh/h	371	191	430	219	133
Cap Entry, veh/h	1112	1144	1144	1139	1141
V/C Ratio	0.334	0.167	0.376	0.192	0.117
Control Delay, s/veh	6.5	4.6	6.9	4.9	4.2
LOS	A	A	A	A	A
95th %tile Queue, veh	1	1	2	1	0

HCM 6th TWSC
1: S. 88th Street & Promenade Drive

Existing
PM Peak

Intersection						
Int Delay, s/veh	1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	19	22	20	310	633	58
Future Vol, veh/h	19	22	20	310	633	58
Conflicting Peds, #/hr	4	8	8	0	0	4
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	40	0	95	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	22	26	24	365	745	68
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1204	795	821	0	-	0
Stage 1	787	-	-	-	-	-
Stage 2	417	-	-	-	-	-
Critical Hdwy	6.41	6.21	4.11	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	2.209	-	-	-
Pot Cap-1 Maneuver	204	389	813	-	-	-
Stage 1	450	-	-	-	-	-
Stage 2	667	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	195	384	808	-	-	-
Mov Cap-2 Maneuver	195	-	-	-	-	-
Stage 1	433	-	-	-	-	-
Stage 2	662	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	20.1	0.6		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	808	-	195	384	-	-
HCM Lane V/C Ratio	0.029	-	0.115	0.067	-	-
HCM Control Delay (s)	9.6	-	25.8	15.1	-	-
HCM Lane LOS	A	-	D	C	-	-
HCM 95th %tile Q(veh)	0.1	-	0.4	0.2	-	-

HCM 6th TWSC
3: S. 88th Street & Shamrock Drive

Existing
PM Peak

Intersection						
Int Delay, s/veh	0.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	18	16	315	24	25	630
Future Vol, veh/h	18	16	315	24	25	630
Conflicting Peds, #/hr	18	18	0	18	18	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	50	0	-	-	60	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	21	19	371	28	29	741
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	1220	421	0	0	417	0
Stage 1	403	-	-	-	-	-
Stage 2	817	-	-	-	-	-
Critical Hdwy	6.41	6.21	-	-	4.11	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	-	-	2.209	-
Pot Cap-1 Maneuver	200	635	-	-	1147	-
Stage 1	677	-	-	-	-	-
Stage 2	436	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	189	616	-	-	1130	-
Mov Cap-2 Maneuver	189	-	-	-	-	-
Stage 1	667	-	-	-	-	-
Stage 2	418	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	19.2	0		0.3		
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	189	616	1130	-
HCM Lane V/C Ratio	-	-	0.112	0.031	0.026	-
HCM Control Delay (s)	-	-	26.4	11	8.3	-
HCM Lane LOS	-	-	D	B	A	-
HCM 95th %tile Q(veh)	-	-	0.4	0.1	0.1	-

HCM 6th Roundabout
4: Rock Creek Parkway & S. 88th Street

Existing
PM Peak

Intersection					
Intersection Delay, s/veh	6.2				
Intersection LOS	A				
Approach	EB	WB	SW		
Entry Lanes	2	2	2		
Conflicting Circle Lanes	1	1	1		
Adj Approach Flow, veh/h	308	416	723		
Demand Flow Rate, veh/h	311	421	730		
Vehicles Circulating, veh/h	524	119	154		
Vehicles Exiting, veh/h	360	716	386		
Ped Vol Crossing Leg, #/h	3	2	6		
Ped Cap Adj	0.998	0.998	0.994		
Approach Delay, s/veh	8.1	4.4	6.5		
Approach LOS	A	A	A		
Lane	Left	Left	Right	Left	Right
Designated Moves	LT	LT	R	L	TR
Assumed Moves	LT	LT	R	L	TR
RT Channelized					
Lane Util	1.000	0.366	0.634	0.718	0.282
Follow-Up Headway, s	2.535	2.535	2.535	2.535	2.535
Critical Headway, s	4.544	4.544	4.544	4.544	4.544
Entry Flow, veh/h	311	154	267	524	206
Cap Entry Lane, veh/h	881	1274	1274	1234	1234
Entry HV Adj Factor	0.991	0.990	0.989	0.990	0.990
Flow Entry, veh/h	308	152	264	519	204
Cap Entry, veh/h	872	1259	1257	1215	1215
V/C Ratio	0.353	0.121	0.210	0.427	0.168
Control Delay, s/veh	8.1	3.9	4.7	7.3	4.4
LOS	A	A	A	A	A
95th %tile Queue, veh	2	0	1	2	1

HCM 6th TWSC
1: S. 88th Street & Promenade Drive

2030 Background
AM Peak

Intersection						
Int Delay, s/veh	1.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	38	20	16	520	240	23
Future Vol, veh/h	38	20	16	520	240	23
Conflicting Peds, #/hr	0	4	4	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	40	0	95	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	74	74	74	74	74	74
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	51	27	22	703	324	31
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1091	348	359	0	-	0
Stage 1	344	-	-	-	-	-
Stage 2	747	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	237	693	1194	-	-	-
Stage 1	716	-	-	-	-	-
Stage 2	466	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	231	688	1190	-	-	-
Mov Cap-2 Maneuver	231	-	-	-	-	-
Stage 1	701	-	-	-	-	-
Stage 2	465	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	20	0.2		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1190	-	231	688	-	-
HCM Lane V/C Ratio	0.018	-	0.222	0.039	-	-
HCM Control Delay (s)	8.1	-	25	10.4	-	-
HCM Lane LOS	A	-	D	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.8	0.1	-	-

HCM 6th TWSC
3: S. 88th Street & Shamrock Drive

2030 Background
AM Peak

Intersection						
Int Delay, s/veh	1.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	35	25	510	10	5	255
Future Vol, veh/h	35	25	510	10	5	255
Conflicting Peds, #/hr	33	33	0	33	33	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	50	0	-	-	60	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	47	33	680	13	7	340
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1107	753	0	0	726	0
Stage 1	720	-	-	-	-	-
Stage 2	387	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	232	408	-	-	872	-
Stage 1	480	-	-	-	-	-
Stage 2	684	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	218	386	-	-	848	-
Mov Cap-2 Maneuver	218	-	-	-	-	-
Stage 1	467	-	-	-	-	-
Stage 2	660	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	21.5	0	0.2			
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT		
Capacity (veh/h)	-	- 218 386	848	-		
HCM Lane V/C Ratio	-	- 0.214 0.086	0.008	-		
HCM Control Delay (s)	-	- 26 15.2	9.3	-		
HCM Lane LOS	-	- D C	A	-		
HCM 95th %tile Q(veh)	-	- 0.8 0.3	0	-		

HCM 6th Roundabout
4: Rock Creek Parkway & S. 88th Street

2030 Background
AM Peak

Intersection					
Intersection Delay, s/veh	6.2				
Intersection LOS	A				
Approach	EB	WB		SW	
Entry Lanes	1	2		2	
Conflicting Circle Lanes	1	1		1	
Adj Approach Flow, veh/h	387	659		367	
Demand Flow Rate, veh/h	399	679		378	
Vehicles Circulating, veh/h	235	209		209	
Vehicles Exiting, veh/h	352	425		679	
Ped Vol Crossing Leg, #/h	10	3		10	
Ped Cap Adj	0.999	0.997		0.990	
Approach Delay, s/veh	7.2	6.5		4.7	
Approach LOS	A	A		A	
Lane	Left	Left	Right	Left	Right
Designated Moves	LT	LT	R	L	TR
Assumed Moves	LT	LT	R	L	TR
RT Channelized					
Lane Util	1.000	0.308	0.692	0.622	0.378
Follow-Up Headway, s	2.609	2.535	2.535	2.535	2.535
Critical Headway, s	4.976	4.544	4.544	4.544	4.544
Entry Flow, veh/h	399	209	470	235	143
Cap Entry Lane, veh/h	1086	1174	1174	1174	1174
Entry HV Adj Factor	0.971	0.971	0.970	0.970	0.972
Flow Entry, veh/h	387	203	456	228	139
Cap Entry, veh/h	1053	1137	1136	1128	1130
V/C Ratio	0.368	0.179	0.401	0.202	0.123
Control Delay, s/veh	7.2	4.7	7.3	5.0	4.2
LOS	A	A	A	A	A
95th %tile Queue, veh	2	1	2	1	0

HCM 6th TWSC
1: S. 88th Street & Promenade Drive

2030 Background
PM Peak

Intersection						
Int Delay, s/veh	1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	20	23	21	325	665	62
Future Vol, veh/h	20	23	21	325	665	62
Conflicting Peds, #/hr	4	8	8	0	0	4
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	40	0	95	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	24	27	25	382	782	73
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1263	835	863	0	-	0
Stage 1	827	-	-	-	-	-
Stage 2	436	-	-	-	-	-
Critical Hdwy	6.41	6.21	4.11	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	2.209	-	-	-
Pot Cap-1 Maneuver	188	369	784	-	-	-
Stage 1	431	-	-	-	-	-
Stage 2	654	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	179	364	779	-	-	-
Mov Cap-2 Maneuver	179	-	-	-	-	-
Stage 1	414	-	-	-	-	-
Stage 2	649	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	21.5	0.6		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	779	-	179	364	-	-
HCM Lane V/C Ratio	0.032	-	0.131	0.074	-	-
HCM Control Delay (s)	9.8	-	28.1	15.7	-	-
HCM Lane LOS	A	-	D	C	-	-
HCM 95th %tile Q(veh)	0.1	-	0.4	0.2	-	-

HCM 6th TWSC
3: S. 88th Street & Shamrock Drive

2030 Background
PM Peak

Intersection						
Int Delay, s/veh	0.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	20	20	325	25	25	665
Future Vol, veh/h	20	20	325	25	25	665
Conflicting Peds, #/hr	18	18	0	18	18	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	50	0	-	-	60	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	24	24	382	29	29	782
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1273	433	0	0	429	0
Stage 1	415	-	-	-	-	-
Stage 2	858	-	-	-	-	-
Critical Hdwy	6.41	6.21	-	-	4.11	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	-	-	2.209	-
Pot Cap-1 Maneuver	186	625	-	-	1136	-
Stage 1	669	-	-	-	-	-
Stage 2	417	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	176	606	-	-	1119	-
Mov Cap-2 Maneuver	176	-	-	-	-	-
Stage 1	659	-	-	-	-	-
Stage 2	400	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	19.9	0	0.3			
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT		
Capacity (veh/h)	-	- 176 606	1119	-		
HCM Lane V/C Ratio	-	- 0.134 0.039	0.026	-		
HCM Control Delay (s)	-	- 28.6 11.2	8.3	-		
HCM Lane LOS	-	- D B	A	-		
HCM 95th %tile Q(veh)	-	- 0.5 0.1	0.1	-		

HCM 6th Roundabout
4: Rock Creek Parkway & S. 88th Street

2030 Background
PM Peak

Intersection					
Intersection Delay, s/veh	6.9				
Intersection LOS	A				
Approach	EB	WB		SW	
Entry Lanes	1	2		2	
Conflicting Circle Lanes	1	1		1	
Adj Approach Flow, veh/h	326	433		770	
Demand Flow Rate, veh/h	329	438		778	
Vehicles Circulating, veh/h	557	125		165	
Vehicles Exiting, veh/h	386	761		398	
Ped Vol Crossing Leg, #/h	3	2		6	
Ped Cap Adj	1.000	0.998		0.994	
Approach Delay, s/veh	10.1	4.4		6.9	
Approach LOS	B	A		A	
Lane	Left	Left	Right	Left	Right
Designated Moves	LT	LT	R	L	TR
Assumed Moves	LT	LT	R	L	TR
RT Channelized					
Lane Util	1.000	0.377	0.623	0.716	0.284
Follow-Up Headway, s	2.609	2.535	2.535	2.535	2.535
Critical Headway, s	4.976	4.544	4.544	4.544	4.544
Entry Flow, veh/h	329	165	273	557	221
Cap Entry Lane, veh/h	782	1267	1267	1222	1222
Entry HV Adj Factor	0.991	0.990	0.989	0.989	0.991
Flow Entry, veh/h	326	163	270	551	219
Cap Entry, veh/h	774	1252	1251	1202	1204
V/C Ratio	0.421	0.130	0.216	0.459	0.182
Control Delay, s/veh	10.1	4.0	4.7	7.8	4.6
LOS	B	A	A	A	A
95th %tile Queue, veh	2	0	1	2	1

HCM 6th Signalized Intersection Summary

1: S. 88th Street & Promenade Drive/North Site Access

2030 Total
AM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	38	1	22	28	5	19	21	540	4	6	248	23
Future Volume (veh/h)	38	1	22	28	5	19	21	540	4	6	248	23
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.96		0.91	0.94		0.92	0.98		0.93	0.99		0.93
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	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	51	1	29	37	7	25	28	720	5	8	331	31
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	309	7	197	307	47	169	707	1202	8	456	1083	101
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.65	0.65	0.65	0.65	0.65	0.65
Sat Flow, veh/h	1306	48	1388	1291	332	1187	987	1839	13	717	1658	155
Grp Volume(v), veh/h	51	0	30	37	0	32	28	0	725	8	0	362
Grp Sat Flow(s),veh/h/ln	1306	0	1435	1291	0	1519	987	0	1852	717	0	1813
Q Serve(g_s), s	1.7	0.0	0.9	1.3	0.0	0.9	0.6	0.0	10.9	0.3	0.0	4.2
Cycle Q Clear(g_c), s	2.6	0.0	0.9	2.2	0.0	0.9	4.9	0.0	10.9	11.2	0.0	4.2
Prop In Lane	1.00		0.97	1.00		0.78	1.00		0.01	1.00		0.09
Lane Grp Cap(c), veh/h	309	0	204	307	0	216	707	0	1210	456	0	1185
V/C Ratio(X)	0.17	0.00	0.15	0.12	0.00	0.15	0.04	0.00	0.60	0.02	0.00	0.31
Avail Cap(c_a), veh/h	603	0	528	598	0	558	707	0	1210	456	0	1185
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	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.6	0.0	18.4	19.3	0.0	18.4	4.7	0.0	4.8	8.0	0.0	3.7
Incr Delay (d2), s/veh	0.2	0.0	0.3	0.2	0.0	0.3	0.1	0.0	2.2	0.1	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.3	0.4	0.0	0.3	0.1	0.0	2.7	0.0	0.0	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.8	0.0	18.7	19.5	0.0	18.7	4.8	0.0	7.0	8.1	0.0	4.3
LnGrp LOS	B	A	B	B	A	B	A	A	A	A	A	A
Approach Vol, veh/h	81			69			753			370		
Approach Delay, s/veh	19.4			19.1			6.9			4.4		
Approach LOS	B			B			A			A		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	37.0			12.0			37.0			12.0		
Change Period (Y+Rc), s	5.0			5.0			5.0			5.0		
Max Green Setting (Gmax), s	32.0			18.0			32.0			18.0		
Max Q Clear Time (g_c+l1), s	12.9			4.6			13.2			4.2		
Green Ext Time (p_c), s	5.0			0.2			2.1			0.2		
Intersection Summary												
HCM 6th Ctrl Delay	7.7											
HCM 6th LOS	A											

HCM 6th TWSC
2: S. 88th Street & South Site Access

2030 Total
AM Peak

Intersection						
Int Delay, s/veh	1.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	20	25	539	13	10	288
Future Vol, veh/h	20	25	539	13	10	288
Conflicting Peds, #/hr	54	54	0	54	54	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	50	0	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	27	33	719	17	13	384
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1246	836	0	0	790	0
Stage 1	782	-	-	-	-	-
Stage 2	464	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	191	366	-	-	826	-
Stage 1	449	-	-	-	-	-
Stage 2	631	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	171	334	-	-	789	-
Mov Cap-2 Maneuver	171	-	-	-	-	-
Stage 1	429	-	-	-	-	-
Stage 2	593	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	22.7	0	0.3			
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT		
Capacity (veh/h)	-	- 171 334	789	-		
HCM Lane V/C Ratio	-	- 0.156 0.1	0.017	-		
HCM Control Delay (s)	-	- 29.9 17	9.6	-		
HCM Lane LOS	-	- D C	A	-		
HCM 95th %tile Q(veh)	-	- 0.5 0.3	0.1	-		

HCM 6th TWSC
3: S. 88th Street & Shamrock Drive

2030 Total
AM Peak

Intersection						
Int Delay, s/veh	1.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	35	25	527	10	5	303
Future Vol, veh/h	35	25	527	10	5	303
Conflicting Peds, #/hr	53	53	0	53	53	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	50	0	-	-	60	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	47	33	703	13	7	404
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1234	816	0	0	769	0
Stage 1	763	-	-	-	-	-
Stage 2	471	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	194	375	-	-	841	-
Stage 1	459	-	-	-	-	-
Stage 2	626	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	176	343	-	-	804	-
Mov Cap-2 Maneuver	176	-	-	-	-	-
Stage 1	439	-	-	-	-	-
Stage 2	593	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	26	0	0.2			
HCM LOS	D					
Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT		
Capacity (veh/h)	-	- 176 343	804	-		
HCM Lane V/C Ratio	-	- 0.265 0.097	0.008	-		
HCM Control Delay (s)	-	- 32.7 16.6	9.5	-		
HCM Lane LOS	-	- D C	A	-		
HCM 95th %tile Q(veh)	-	- 1 0.3	0	-		

HCM 6th Roundabout
4: Rock Creek Parkway & S. 88th Street

2030 Total
AM Peak

Intersection					
Intersection Delay, s/veh	6.6				
Intersection LOS	A				
Approach	EB	WB		SW	
Entry Lanes	1	2		2	
Conflicting Circle Lanes	1	1		1	
Adj Approach Flow, veh/h	387	665		423	
Demand Flow Rate, veh/h	398	685		436	
Vehicles Circulating, veh/h	276	212		206	
Vehicles Exiting, veh/h	366	462		691	
Ped Vol Crossing Leg, #/h	25	31		26	
Ped Cap Adj	0.997	0.970		0.975	
Approach Delay, s/veh	7.7	6.9		5.1	
Approach LOS	A	A		A	
Lane	Left	Left	Right	Left	Right
Designated Moves	LT	LT	R	L	TR
Assumed Moves	LT	LT	R	L	TR
RT Channelized					
Lane Util	1.000	0.301	0.699	0.633	0.367
Follow-Up Headway, s	2.609	2.535	2.535	2.535	2.535
Critical Headway, s	4.976	4.544	4.544	4.544	4.544
Entry Flow, veh/h	398	206	479	276	160
Cap Entry Lane, veh/h	1041	1171	1171	1177	1177
Entry HV Adj Factor	0.971	0.971	0.971	0.971	0.969
Flow Entry, veh/h	387	200	465	268	155
Cap Entry, veh/h	1008	1103	1103	1115	1112
V/C Ratio	0.384	0.181	0.422	0.240	0.139
Control Delay, s/veh	7.7	4.9	7.7	5.5	4.5
LOS	A	A	A	A	A
95th %tile Queue, veh	2	1	2	1	0

HCM 6th Signalized Intersection Summary

1: S. 88th Street & Promenade Drive/North Site Access

2030 Total
PM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	5	28	19	3	13	24	338	13	16	688	62
Future Volume (veh/h)	20	5	28	19	3	13	24	338	13	16	688	62
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.92		0.89	0.93		0.89	1.00		0.96	0.99		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	24	6	33	22	4	15	28	398	15	19	809	73
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	324	34	185	306	47	175	355	1169	44	680	1101	99
Arrive On Green	0.15	0.15	0.15	0.15	0.15	0.15	0.65	0.65	0.65	0.65	0.65	0.65
Sat Flow, veh/h	1298	227	1249	1282	315	1183	634	1801	68	972	1696	153
Grp Volume(v), veh/h	24	0	39	22	0	19	28	0	413	19	0	882
Grp Sat Flow(s),veh/h/ln	1298	0	1476	1282	0	1498	634	0	1869	972	0	1849
Q Serve(g_s), s	0.8	0.0	1.1	0.8	0.0	0.5	1.5	0.0	4.9	0.4	0.0	15.8
Cycle Q Clear(g_c), s	1.3	0.0	1.1	1.9	0.0	0.5	17.3	0.0	4.9	5.3	0.0	15.8
Prop In Lane	1.00		0.85	1.00		0.79	1.00		0.04	1.00		0.08
Lane Grp Cap(c), veh/h	324	0	219	306	0	222	355	0	1213	680	0	1200
V/C Ratio(X)	0.07	0.00	0.18	0.07	0.00	0.09	0.08	0.00	0.34	0.03	0.00	0.73
Avail Cap(c_a), veh/h	606	0	539	584	0	547	355	0	1213	680	0	1200
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	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.7	0.0	18.4	19.2	0.0	18.1	11.6	0.0	3.9	5.1	0.0	5.8
Incr Delay (d2), s/veh	0.1	0.0	0.4	0.1	0.0	0.2	0.4	0.0	0.8	0.1	0.0	4.0
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	0.2	0.0	0.4	0.2	0.0	0.2	0.2	0.0	1.2	0.1	0.0	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.8	0.0	18.8	19.3	0.0	18.3	12.0	0.0	4.7	5.2	0.0	9.8
LnGrp LOS	B	A	B	B	A	B	B	A	A	A	A	A
Approach Vol, veh/h	63			41			441			901		
Approach Delay, s/veh	18.8			18.8			5.1			9.7		
Approach LOS	B			B			A			A		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	37.0			12.3			37.0			12.3		
Change Period (Y+Rc), s	5.0			5.0			5.0			5.0		
Max Green Setting (Gmax), s	32.0			18.0			32.0			18.0		
Max Q Clear Time (g_c+l1), s	19.3			3.3			17.8			3.9		
Green Ext Time (p_c), s	2.2			0.2			5.7			0.1		
Intersection Summary												
HCM 6th Ctrl Delay	9.0											
HCM 6th LOS	A											

HCM 6th TWSC
2: S. 88th Street & South Site Access

2030 Total
PM Peak

Intersection						
Int Delay, s/veh	0.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	13	16	358	35	28	709
Future Vol, veh/h	13	16	358	35	28	709
Conflicting Peds, #/hr	25	25	0	25	25	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	50	0	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	15	19	421	41	33	834
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1392	492	0	0	487	0
Stage 1	467	-	-	-	-	-
Stage 2	925	-	-	-	-	-
Critical Hdwy	6.41	6.21	-	-	4.11	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	-	-	2.209	-
Pot Cap-1 Maneuver	157	579	-	-	1081	-
Stage 1	633	-	-	-	-	-
Stage 2	388	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	146	555	-	-	1058	-
Mov Cap-2 Maneuver	146	-	-	-	-	-
Stage 1	620	-	-	-	-	-
Stage 2	368	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	21	0	0.3			
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT		
Capacity (veh/h)	-	- 146 555 1058		-		
HCM Lane V/C Ratio	-	- 0.105 0.034 0.031		-		
HCM Control Delay (s)	-	- 32.5 11.7 8.5		-		
HCM Lane LOS	-	- D B A		-		
HCM 95th %tile Q(veh)	-	- 0.3 0.1 0.1		-		

HCM 6th TWSC
3: S. 88th Street & Shamrock Drive

2030 Total
PM Peak

Intersection						
Int Delay, s/veh	0.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	20	20	373	25	25	697
Future Vol, veh/h	20	20	373	25	25	697
Conflicting Peds, #/hr	18	18	0	18	18	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	50	0	-	-	60	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	24	24	439	29	29	820
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1368	490	0	0	486	0
Stage 1	472	-	-	-	-	-
Stage 2	896	-	-	-	-	-
Critical Hdwy	6.41	6.21	-	-	4.11	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	-	-	2.209	-
Pot Cap-1 Maneuver	163	580	-	-	1082	-
Stage 1	630	-	-	-	-	-
Stage 2	400	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	154	563	-	-	1066	-
Mov Cap-2 Maneuver	154	-	-	-	-	-
Stage 1	621	-	-	-	-	-
Stage 2	383	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	22.1	0	0.3			
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT		
Capacity (veh/h)	-	- 154 563	1066	-		
HCM Lane V/C Ratio	-	- 0.153 0.042	0.028	-		
HCM Control Delay (s)	-	- 32.5 11.7	8.5	-		
HCM Lane LOS	-	- D B	A	-		
HCM 95th %tile Q(veh)	-	- 0.5 0.1	0.1	-		

HCM 6th Roundabout
4: Rock Creek Parkway & S. 88th Street

2030 Total
PM Peak

Intersection					
Intersection Delay, s/veh	7.5				
Intersection LOS	A				
Approach	EB	WB		SW	
Entry Lanes	1	2		2	
Conflicting Circle Lanes	1	1		1	
Adj Approach Flow, veh/h	341	471		805	
Demand Flow Rate, veh/h	344	476		813	
Vehicles Circulating, veh/h	581	140		165	
Vehicles Exiting, veh/h	397	785		451	
Ped Vol Crossing Leg, #/h	31	46		33	
Ped Cap Adj	0.996	0.953		0.967	
Approach Delay, s/veh	10.9	5.0		7.4	
Approach LOS	B	A		A	
Lane	Left	Left	Right	Left	Right
Designated Moves	LT	LT	R	L	TR
Assumed Moves	LT	LT	R	L	TR
RT Channelized					
Lane Util	1.000	0.347	0.653	0.715	0.285
Follow-Up Headway, s	2.609	2.535	2.535	2.535	2.535
Critical Headway, s	4.976	4.544	4.544	4.544	4.544
Entry Flow, veh/h	344	165	311	581	232
Cap Entry Lane, veh/h	763	1250	1250	1222	1222
Entry HV Adj Factor	0.991	0.990	0.990	0.990	0.991
Flow Entry, veh/h	341	163	308	575	230
Cap Entry, veh/h	753	1180	1180	1170	1172
V/C Ratio	0.453	0.138	0.261	0.492	0.196
Control Delay, s/veh	10.9	4.2	5.4	8.5	4.8
LOS	B	A	A	A	A
95th %tile Queue, veh	2	0	1	3	1

HCM 6th TWSC
1: S. 88th Street & Promenade Drive

2050 Background
AM Peak

Intersection

Int Delay, s/veh 2.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	50	30	20	680	315	30
Future Vol, veh/h	50	30	20	680	315	30
Conflicting Peds, #/hr	0	4	4	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	40	0	95	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	74	74	74	74	74	74
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	68	41	27	919	426	41

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	1424	455	471
Stage 1	451	-	-
Stage 2	973	-	-
Critical Hdwy	6.43	6.23	4.13
Critical Hdwy Stg 1	5.43	-	-
Critical Hdwy Stg 2	5.43	-	-
Follow-up Hdwy	3.527	3.327	2.227
Pot Cap-1 Maneuver	149	603	1086
Stage 1	640	-	-
Stage 2	365	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	144	599	1082
Mov Cap-2 Maneuver	144	-	-
Stage 1	622	-	-
Stage 2	364	-	-

Approach	EB	NB	SB
HCM Control Delay, s	35.8	0.2	0
HCM LOS	E		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1082	-	144	599	-	-
HCM Lane V/C Ratio	0.025	-	0.469	0.068	-	-
HCM Control Delay (s)	8.4	-	50.4	11.4	-	-
HCM Lane LOS	A	-	F	B	-	-
HCM 95th %tile Q(veh)	0.1	-	2.2	0.2	-	-

HCM 6th TWSC
3: S. 88th Street & Shamrock Drive

2050 Background
AM Peak

Intersection						
Int Delay, s/veh	1.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	35	25	675	10	5	340
Future Vol, veh/h	35	25	675	10	5	340
Conflicting Peds, #/hr	33	33	0	33	33	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	50	0	-	-	60	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	47	33	900	13	7	453
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1440	973	0	0	946	0
Stage 1	940	-	-	-	-	-
Stage 2	500	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	145	305	-	-	721	-
Stage 1	378	-	-	-	-	-
Stage 2	607	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	136	288	-	-	701	-
Mov Cap-2 Maneuver	136	-	-	-	-	-
Stage 1	368	-	-	-	-	-
Stage 2	585	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	34	0	0.1			
HCM LOS	D					
Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT		
Capacity (veh/h)	-	- 136 288	701	-		
HCM Lane V/C Ratio	-	- 0.343 0.116	0.01	-		
HCM Control Delay (s)	-	- 44.7 19.1	10.2	-		
HCM Lane LOS	-	- E C	B	-		
HCM 95th %tile Q(veh)	-	- 1.4 0.4	0	-		

HCM 6th Roundabout
4: Rock Creek Parkway & S. 88th Street

2050 Background
AM Peak

Intersection					
Intersection Delay, s/veh	8.5				
Intersection LOS	A				
Approach	EB	WB		SW	
Entry Lanes	1	2		2	
Conflicting Circle Lanes	1	1		1	
Adj Approach Flow, veh/h	513	861		475	
Demand Flow Rate, veh/h	528	887		489	
Vehicles Circulating, veh/h	313	280		274	
Vehicles Exiting, veh/h	450	561		893	
Ped Vol Crossing Leg, #/h	10	3		10	
Ped Cap Adj	0.999	0.997		0.991	
Approach Delay, s/veh	10.4	8.9		5.7	
Approach LOS	B	A		A	
Lane	Left	Left	Right	Left	Right
Designated Moves	LT	LT	R	L	TR
Assumed Moves	LT	LT	R	L	TR
RT Channelized					
Lane Util	1.000	0.309	0.691	0.640	0.360
Follow-Up Headway, s	2.609	2.535	2.535	2.535	2.535
Critical Headway, s	4.976	4.544	4.544	4.544	4.544
Entry Flow, veh/h	528	274	613	313	176
Cap Entry Lane, veh/h	1003	1101	1101	1107	1107
Entry HV Adj Factor	0.971	0.971	0.971	0.971	0.972
Flow Entry, veh/h	513	266	595	304	171
Cap Entry, veh/h	973	1066	1065	1065	1066
V/C Ratio	0.527	0.250	0.558	0.285	0.160
Control Delay, s/veh	10.4	5.7	10.4	6.2	4.8
LOS	B	A	B	A	A
95th %tile Queue, veh	3	1	4	1	1

HCM 6th TWSC
1: S. 88th Street & Promenade Drive

2050 Background
PM Peak

Intersection						
Int Delay, s/veh	1.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	30	30	30	430	875	80
Future Vol, veh/h	30	30	30	430	875	80
Conflicting Peds, #/hr	4	8	8	0	0	4
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	40	0	95	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	35	35	35	506	1029	94
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1664	1092	1131	0	-	0
Stage 1	1084	-	-	-	-	-
Stage 2	580	-	-	-	-	-
Critical Hdwy	6.41	6.21	4.11	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	2.209	-	-	-
Pot Cap-1 Maneuver	107	262	621	-	-	-
Stage 1	326	-	-	-	-	-
Stage 2	562	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	100	259	617	-	-	-
Mov Cap-2 Maneuver	100	-	-	-	-	-
Stage 1	305	-	-	-	-	-
Stage 2	558	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	40.3	0.7		0		
HCM LOS	E					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	617	-	100	259	-	-
HCM Lane V/C Ratio	0.057	-	0.353	0.136	-	-
HCM Control Delay (s)	11.2	-	59.5	21.1	-	-
HCM Lane LOS	B	-	F	C	-	-
HCM 95th %tile Q(veh)	0.2	-	1.4	0.5	-	-

HCM 6th TWSC
3: S. 88th Street & Shamrock Drive

2050 Background
PM Peak

Intersection						
Int Delay, s/veh	1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	20	20	440	25	25	880
Future Vol, veh/h	20	20	440	25	25	880
Conflicting Peds, #/hr	18	18	0	18	18	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	50	0	-	-	60	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	24	24	518	29	29	1035
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1662	569	0	0	565	0
Stage 1	551	-	-	-	-	-
Stage 2	1111	-	-	-	-	-
Critical Hdwy	6.41	6.21	-	-	4.11	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	-	-	2.209	-
Pot Cap-1 Maneuver	107	524	-	-	1012	-
Stage 1	579	-	-	-	-	-
Stage 2	316	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	101	508	-	-	997	-
Mov Cap-2 Maneuver	101	-	-	-	-	-
Stage 1	570	-	-	-	-	-
Stage 2	302	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	31.8	0	0.2			
HCM LOS	D					
Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT		
Capacity (veh/h)	-	- 101 508	997	-		
HCM Lane V/C Ratio	-	- 0.233 0.046	0.03	-		
HCM Control Delay (s)	-	- 51.1 12.4	8.7	-		
HCM Lane LOS	-	- F B	A	-		
HCM 95th %tile Q(veh)	-	- 0.8 0.1	0.1	-		

HCM 6th Roundabout
4: Rock Creek Parkway & S. 88th Street

2050 Background
PM Peak

Intersection					
Intersection Delay, s/veh	10.2				
Intersection LOS	B				
Approach	EB	WB	SW		
Entry Lanes	1	2	2		
Conflicting Circle Lanes	1	1	1		
Adj Approach Flow, veh/h	421	573	1011		
Demand Flow Rate, veh/h	426	579	1021		
Vehicles Circulating, veh/h	726	159	210		
Vehicles Exiting, veh/h	505	993	528		
Ped Vol Crossing Leg, #/h	3	2	6		
Ped Cap Adj	1.000	0.998	0.994		
Approach Delay, s/veh	18.4	5.3	9.5		
Approach LOS	C	A	A		
Lane	Left	Left	Right	Left	Right
Designated Moves	LT	LT	R	L	TR
Assumed Moves	LT	LT	R	L	TR
RT Channelized					
Lane Util	1.000	0.363	0.637	0.711	0.289
Follow-Up Headway, s	2.609	2.535	2.535	2.535	2.535
Critical Headway, s	4.976	4.544	4.544	4.544	4.544
Entry Flow, veh/h	426	210	369	726	295
Cap Entry Lane, veh/h	658	1229	1229	1173	1173
Entry HV Adj Factor	0.989	0.990	0.989	0.990	0.990
Flow Entry, veh/h	421	208	365	719	292
Cap Entry, veh/h	651	1214	1213	1155	1154
V/C Ratio	0.648	0.171	0.301	0.622	0.253
Control Delay, s/veh	18.4	4.4	5.7	11.2	5.4
LOS	C	A	A	B	A
95th %tile Queue, veh	5	1	1	5	1

HCM 6th Signalized Intersection Summary 1: S. 88th Street & Promenade Drive/North Site Access

2050 Total
AM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	1	32	28	5	19	25	700	4	6	323	30
Future Volume (veh/h)	50	1	32	28	5	19	25	700	4	6	323	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.88		0.93	0.97		0.85	0.99		0.94	1.00		0.94
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	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	67	1	43	37	7	25	33	933	5	8	431	40
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	351	7	282	361	61	217	569	1130	6	266	1018	95
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.61	0.61	0.61	0.61	0.61	0.61
Sat Flow, veh/h	1207	34	1441	1306	310	1108	903	1843	10	592	1661	154
Grp Volume(v), veh/h	67	0	44	37	0	32	33	0	938	8	0	471
Grp Sat Flow(s),veh/h/ln	1207	0	1475	1306	0	1419	903	0	1853	592	0	1816
Q Serve(g_s), s	2.5	0.0	1.3	1.3	0.0	1.0	1.0	0.0	20.7	0.6	0.0	7.1
Cycle Q Clear(g_c), s	3.5	0.0	1.3	2.6	0.0	1.0	8.1	0.0	20.7	21.3	0.0	7.1
Prop In Lane	1.00		0.98	1.00		0.78	1.00		0.01	1.00		0.08
Lane Grp Cap(c), veh/h	351	0	288	361	0	277	569	0	1136	266	0	1113
V/C Ratio(X)	0.19	0.00	0.15	0.10	0.00	0.12	0.06	0.00	0.83	0.03	0.00	0.42
Avail Cap(c_a), veh/h	532	0	508	556	0	489	569	0	1136	266	0	1113
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	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.7	0.0	17.4	18.5	0.0	17.3	7.4	0.0	7.9	16.2	0.0	5.3
Incr Delay (d2), s/veh	0.3	0.0	0.2	0.1	0.0	0.2	0.2	0.0	6.9	0.2	0.0	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.4	0.4	0.0	0.3	0.2	0.0	6.9	0.1	0.0	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.0	0.0	17.7	18.6	0.0	17.5	7.6	0.0	14.8	16.5	0.0	6.5
LnGrp LOS	B	A	B	B	A	B	A	A	B	B	A	A
Approach Vol, veh/h	111			69			971			479		
Approach Delay, s/veh	18.5			18.1			14.6			6.6		
Approach LOS	B			B			B			A		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	37.0			15.2			37.0			15.2		
Change Period (Y+Rc), s	5.0			5.0			5.0			5.0		
Max Green Setting (Gmax), s	32.0			18.0			32.0			18.0		
Max Q Clear Time (g_c+I1), s	22.7			5.5			23.3			4.6		
Green Ext Time (p_c), s	4.7			0.3			1.9			0.2		
Intersection Summary												
HCM 6th Ctrl Delay	12.6											
HCM 6th LOS	B											

HCM 6th TWSC
2: S. 88th Street & South Site Access

2050 Total
AM Peak

Intersection						
Int Delay, s/veh	1.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	20	25	704	13	10	373
Future Vol, veh/h	20	25	704	13	10	373
Conflicting Peds, #/hr	35	35	0	35	35	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	50	0	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	27	33	939	17	13	497
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1541	1018	0	0	991	0
Stage 1	983	-	-	-	-	-
Stage 2	558	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	126	287	-	-	694	-
Stage 1	361	-	-	-	-	-
Stage 2	571	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	117	271	-	-	674	-
Mov Cap-2 Maneuver	117	-	-	-	-	-
Stage 1	351	-	-	-	-	-
Stage 2	544	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	31	0	0.3			
HCM LOS	D					
Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT		
Capacity (veh/h)	-	- 117 271	674	-		
HCM Lane V/C Ratio	-	- 0.228 0.123	0.02	-		
HCM Control Delay (s)	-	- 44.6 20.1	10.4	-		
HCM Lane LOS	-	- E C	B	-		
HCM 95th %tile Q(veh)	-	- 0.8 0.4	0.1	-		

HCM 6th TWSC
3: S. 88th Street & Shamrock Drive

2050 Total
AM Peak

Intersection						
Int Delay, s/veh	2.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	35	25	692	10	5	388
Future Vol, veh/h	35	25	692	10	5	388
Conflicting Peds, #/hr	75	75	0	75	75	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	50	0	-	-	60	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	47	33	923	13	7	517
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1611	1080	0	0	1011	0
Stage 1	1005	-	-	-	-	-
Stage 2	606	-	-	-	-	-
Critical Hdwy	6.41	6.21	-	-	4.11	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	-	-	2.209	-
Pot Cap-1 Maneuver	116	266	-	-	690	-
Stage 1	355	-	-	-	-	-
Stage 2	546	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	101	234	-	-	647	-
Mov Cap-2 Maneuver	101	-	-	-	-	-
Stage 1	333	-	-	-	-	-
Stage 2	506	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	49.3	0	0.1			
HCM LOS	E					
Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT		
Capacity (veh/h)	-	- 101 234	647	-		
HCM Lane V/C Ratio	-	- 0.462 0.142	0.01	-		
HCM Control Delay (s)	-	- 68.1 22.9	10.6	-		
HCM Lane LOS	-	- F C	B	-		
HCM 95th %tile Q(veh)	-	- 2 0.5	0	-		

HCM 6th Roundabout
4: Rock Creek Parkway & S. 88th Street

2050 Total
AM Peak

Intersection					
Intersection Delay, s/veh	9.7				
Intersection LOS	A				
Approach	EB	WB		SW	
Entry Lanes	1	2		2	
Conflicting Circle Lanes	1	1		1	
Adj Approach Flow, veh/h	519	876		536	
Demand Flow Rate, veh/h	534	902		552	
Vehicles Circulating, veh/h	357	286		274	
Vehicles Exiting, veh/h	469	605		914	
Ped Vol Crossing Leg, #/h	51	85		51	
Ped Cap Adj	0.993	0.925		0.955	
Approach Delay, s/veh	11.5	10.7		6.4	
Approach LOS	B	B		A	
Lane	Left	Left	Right	Left	Right
Designated Moves	LT	LT	R	L	TR
Assumed Moves	LT	LT	R	L	TR
RT Channelized					
Lane Util	1.000	0.304	0.696	0.647	0.353
Follow-Up Headway, s	2.609	2.535	2.535	2.535	2.535
Critical Headway, s	4.976	4.544	4.544	4.544	4.544
Entry Flow, veh/h	534	274	628	357	195
Cap Entry Lane, veh/h	959	1095	1095	1107	1107
Entry HV Adj Factor	0.971	0.971	0.971	0.972	0.969
Flow Entry, veh/h	519	266	610	347	189
Cap Entry, veh/h	925	983	984	1027	1024
V/C Ratio	0.561	0.270	0.620	0.338	0.185
Control Delay, s/veh	11.5	6.4	12.5	7.0	5.2
LOS	B	A	B	A	A
95th %tile Queue, veh	4	1	4	2	1

HCM 6th Signalized Intersection Summary

1: S. 88th Street & Promenade Drive/North Site Access

2050 Total
PM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	5	35	19	3	13	33	443	13	16	898	80
Future Volume (veh/h)	30	5	35	19	3	13	33	443	13	16	898	80
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.79		0.97	1.00		0.75	1.00		0.91	0.98		0.91
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	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	35	6	41	22	4	15	39	521	15	19	1056	94
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	330	38	259	359	51	192	150	1133	33	543	1086	97
Arrive On Green	0.19	0.19	0.19	0.19	0.19	0.19	0.62	0.62	0.62	0.62	0.64	0.62
Sat Flow, veh/h	1104	202	1383	1369	273	1025	493	1817	52	860	1690	150
Grp Volume(v), veh/h	35	0	47	22	0	19	39	0	536	19	0	1150
Grp Sat Flow(s),veh/h/ln	1104	0	1586	1369	0	1298	493	0	1870	860	0	1841
Q Serve(g_s), s	1.4	0.0	1.3	0.7	0.0	0.6	1.5	0.0	8.0	0.6	0.0	31.5
Cycle Q Clear(g_c), s	2.1	0.0	1.3	2.0	0.0	0.6	33.0	0.0	8.0	8.6	0.0	31.5
Prop In Lane	1.00		0.87	1.00		0.79	1.00		0.03	1.00		0.08
Lane Grp Cap(c), veh/h	330	0	297	359	0	243	150	0	1166	543	0	1183
V/C Ratio(X)	0.11	0.00	0.16	0.06	0.00	0.08	0.26	0.00	0.46	0.04	0.00	0.97
Avail Cap(c_a), veh/h	477	0	509	542	0	417	150	0	1166	543	0	1183
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	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.6	0.0	18.0	18.9	0.0	17.7	26.2	0.0	5.3	7.5	0.0	9.1
Incr Delay (d2), s/veh	0.1	0.0	0.2	0.1	0.0	0.1	4.2	0.0	1.3	0.1	0.0	20.3
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	0.5	0.2	0.0	0.2	0.6	0.0	2.3	0.1	0.0	13.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.7	0.0	18.3	18.9	0.0	17.9	30.4	0.0	6.6	7.7	0.0	29.4
LnGrp LOS	B	A	B	B	A	B	C	A	A	A	A	C
Approach Vol, veh/h	82			41			575			1169		
Approach Delay, s/veh	18.5			18.4			8.2			29.0		
Approach LOS	B			B			A			C		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	38.0			14.9			38.0			14.9		
Change Period (Y+Rc), s	5.0			5.0			5.0			5.0		
Max Green Setting (Gmax), s	33.0			17.0			33.0			17.0		
Max Q Clear Time (g_c+I1), s	35.0			4.1			33.5			4.0		
Green Ext Time (p_c), s	0.0			0.2			0.0			0.1		
Intersection Summary												
HCM 6th Ctrl Delay	21.9											
HCM 6th LOS	C											

HCM 6th TWSC
2: S. 88th Street & South Site Access

2050 Total
PM Peak

Intersection						
Int Delay, s/veh	1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	13	16	473	35	28	924
Future Vol, veh/h	13	16	473	35	28	924
Conflicting Peds, #/hr	65	65	0	65	65	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	50	0	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	15	19	556	41	33	1087
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1860	707	0	0	662	0
Stage 1	642	-	-	-	-	-
Stage 2	1218	-	-	-	-	-
Critical Hdwy	6.41	6.21	-	-	4.11	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	-	-	2.209	-
Pot Cap-1 Maneuver	81	437	-	-	931	-
Stage 1	526	-	-	-	-	-
Stage 2	281	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	70	391	-	-	881	-
Mov Cap-2 Maneuver	70	-	-	-	-	-
Stage 1	498	-	-	-	-	-
Stage 2	256	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	39.6	0	0.3			
HCM LOS	E					
Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT		
Capacity (veh/h)	-	- 70 391	881	-		
HCM Lane V/C Ratio	-	- 0.218 0.048	0.037	-		
HCM Control Delay (s)	-	- 70.3 14.7	9.2	-		
HCM Lane LOS	-	- F B	A	-		
HCM 95th %tile Q(veh)	-	- 0.8 0.2	0.1	-		

HCM 6th TWSC
3: S. 88th Street & Shamrock Drive

2050 Total
PM Peak

Intersection						
Int Delay, s/veh	1.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	20	20	488	25	25	912
Future Vol, veh/h	20	20	488	25	25	912
Conflicting Peds, #/hr	55	55	0	55	55	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	50	0	-	-	60	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	24	24	574	29	29	1073
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1830	699	0	0	658	0
Stage 1	644	-	-	-	-	-
Stage 2	1186	-	-	-	-	-
Critical Hdwy	6.41	6.21	-	-	4.11	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	-	-	2.209	-
Pot Cap-1 Maneuver	85	442	-	-	935	-
Stage 1	525	-	-	-	-	-
Stage 2	291	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	75	402	-	-	892	-
Mov Cap-2 Maneuver	75	-	-	-	-	-
Stage 1	501	-	-	-	-	-
Stage 2	269	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	44.1	0	0.2			
HCM LOS	E					
Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT		
Capacity (veh/h)	-	- 75 402	892	-		
HCM Lane V/C Ratio	-	- 0.314 0.059	0.033	-		
HCM Control Delay (s)	-	- 73.6 14.5	9.2	-		
HCM Lane LOS	-	- F B	A	-		
HCM 95th %tile Q(veh)	-	- 1.2 0.2	0.1	-		

HCM 6th Roundabout
4: Rock Creek Parkway & S. 88th Street

2050 Total
PM Peak

Intersection					
Intersection Delay, s/veh	11.6				
Intersection LOS	B				
Approach	EB	WB		SW	
Entry Lanes	1	2		2	
Conflicting Circle Lanes	1	1		1	
Adj Approach Flow, veh/h	437	611		1047	
Demand Flow Rate, veh/h	442	617		1057	
Vehicles Circulating, veh/h	751	175		210	
Vehicles Exiting, veh/h	516	1018		582	
Ped Vol Crossing Leg, #/h	45	60		45	
Ped Cap Adj	0.994	0.941		0.957	
Approach Delay, s/veh	21.1	6.1		10.8	
Approach LOS	C	A		B	
Lane	Left	Left	Right	Left	Right
Designated Moves	LT	LT	R	L	TR
Assumed Moves	LT	LT	R	L	TR
RT Channelized					
Lane Util	1.000	0.340	0.660	0.711	0.289
Follow-Up Headway, s	2.609	2.535	2.535	2.535	2.535
Critical Headway, s	4.976	4.544	4.544	4.544	4.544
Entry Flow, veh/h	442	210	407	751	306
Cap Entry Lane, veh/h	641	1211	1211	1173	1173
Entry HV Adj Factor	0.989	0.990	0.990	0.991	0.990
Flow Entry, veh/h	437	208	403	744	303
Cap Entry, veh/h	631	1128	1128	1112	1112
V/C Ratio	0.693	0.184	0.357	0.669	0.273
Control Delay, s/veh	21.1	4.8	6.7	12.9	5.8
LOS	C	A	A	B	A
95th %tile Queue, veh	6	1	2	5	1