



LSC TRANSPORTATION CONSULTANTS, INC.

1889 York Street
Denver, CO 80206
(303) 333-1105
FAX (303) 333-1107
E-mail: lsc@lscdenver.com

February 18, 2022

Ms. Alaina Kneebone-Marler
Dewberry J3
8100 E. Maplewood Street, Suite 150
Greenwood Village, CO 80111

Re: Horizon Uptown
Phase 6, Filing 6
Aurora, CO
LSC #210520

Dear Ms. Kneebone-Marler:

In response to your request, LSC Transportation Consultants, Inc. has prepared this site-specific traffic impact analysis for the proposed Horizon Uptown Phase 6, Filing 6 development. As shown on Figure 1, the site is located south of the I-70 Frontage Road, east of Picadilly Road, and north of Stephen D. Hogan Parkway in the City of Aurora, 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 existing daily traffic volumes in the area; the typical weekday site-generated traffic volume projections for the site; the assignment of the projected traffic volumes to the area roadways; the projected short-term and long-term background and resulting total traffic volumes on the area roadways; the site's projected traffic impacts; and any recommended roadway improvements needed to mitigate the growth in background traffic or from the site's traffic impacts.

COMPARISON TO ASSUMPTIONS IN THE MASTER TRAFFIC STUDY

Matrix Design Group completed a Master Traffic Study for Horizon Uptown dated November 2, 2018 (Master TIA). In that study the master plan area was divided into 20 planning areas as shown in Figure 2. The Phase 6, Filing 6 site is within a portion of Planning Area 14 as shown in Figure 2.

LAND USE AND ACCESS

The Phase 6, Filing 6 site is proposed to include 89 single-family homes and 74 duplex dwelling units. Access is proposed from several locations as shown in the conceptual site plan in Figure 3.

ROADWAY AND TRAFFIC CONDITIONS

Area Roadways

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

- **I-70 Frontage Road** is an east-west, two-lane frontage road north of the site. The intersections with Colfax Avenue and Picadilly Road are stop-sign controlled. The posted speed limit is 30 mph west of Picadilly Road and 45 mph east of Picadilly Road.
- **Picadilly Road** is a north-south, two-lane arterial roadway west of the site. The intersections with the I-70 Frontage Road and Stephen D. Hogan Parkway are stop-sign controlled. The posted speed limit is 45 mph in the vicinity of the site. It is planned to be a six-lane major arterial by 2040 per the *Aurora NEATS* study. The City of Aurora and CDOT plan to begin design of the proposed I-70/Picadilly interchange in the near future.
- **Stephen D. Hogan Parkway** is an east-west, two-lane major arterial roadway south of the site. The intersection with Picadilly Road is stop-sign controlled. No speed limit is posted in the vicinity of the site. It is planned to be a six-lane major arterial by 2040 per the *Aurora NEATS* study.
- **Colfax Avenue** is an east-west, four-lane state highway north of the site. The intersection with the Frontage Road is stop-sign controlled. The posted speed limit in the vicinity of the site is 55 mph.

The applicant is coordinating with the City and CDOT as well as with adjacent developers on the interim and ultimate conditions for the area north of the site where Picadilly Road, the Frontage Road, and E. Colfax Avenue all meet.

Existing Traffic Conditions

Figure 4 shows the existing traffic volumes, lane geometry, and traffic control at the intersection of Picadilly Road/E. 11th Avenue. The weekday peak-hour traffic volumes and daily traffic counts are based on the attached traffic counts conducted by Counter Measures in August, 2021.

2026 and 2040 Background Traffic

Figure 5a shows the estimated 2026 background traffic. The 2026 background volumes are based on the existing volumes shown in Figure 4 assuming a growth rate of through traffic on Picadilly Road of two percent per year plus estimates of traffic projected to be generated with buildout of Horizon Uptown Filing Nos. 1 through 3, traffic projected to be generated with buildout of Horizon Uptown Phase 5, Filing 5, traffic projected to be generated by the initial phase of the Stafford Logistics Center (Buildings 1 through 3) taken from the recently approved *Stafford Logistics Center TIS* by FHU, and about 60 percent of the traffic projected to be generated by Aurora One at buildout taken from the recently approved *Aurora One TIS* by Fox and Tuttle Transportation Group, LLC. Key pages from the *Stafford Logistics Center TIS* and

Aurora One TIS including the trip generation information are attached for reference. The 2026 background traffic volumes shown in Figure 5a calculate to an annual growth rate of 18 percent for through traffic on Picadilly Road adjacent to the site. This is more conservative than the 9.6 percent growth rate calculated for this same section using the projected 2030 and 2040 volumes shown in the NEATS. It was assumed that this area will see rapid growth in the next few years and then growth will slow down as Horizon Uptown, Aurora One, and Stafford Logistics Center are finished. Figure 5b shows the estimated 2026 background lane geometry and traffic control.

Figure 6a shows the estimated 2040 background traffic based on the buildout of the Horizon Uptown Master Plan, the Stafford Logistics Center, Aurora One, and the updated Aurora NEATS study. Figure 6b shows the estimated 2040 background lane geometry and traffic control.

Existing, 2026, and 2040 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 Figures 4 through 6b were analyzed to determine the existing, 2026, and 2040 background levels of service using Synchro. Table 1 shows the level of service analysis results. The level of service reports are attached.

- 1. Picadilly Road/E. 11th Avenue:** All movements at this stop-controlled intersection currently operate at LOS “B” or better during both morning and afternoon peak-hours and are expected to operate at LOS “C” or better through 2026. This intersection is expected to operate an overall LOS “C” or better in 2040 if traffic signal control is implemented.
- 2. Picadilly Road/E. 10th Avenue:** All movements at this future stop-controlled intersection are expected to operate at LOS “D” or better during both morning and afternoon peak-hours through 2040.
- 3. Picadilly Road/E. 8th Avenue:** All movements at this stop-controlled intersection are expected to operate at LOS “D” or better during both morning and afternoon peak-hours through 2026. This intersection is expected to operate an overall LOS “A” in 2040 if traffic signal control is implemented.
- 4. Picadilly Road/E. 7th Avenue:** All movements at this stop-controlled intersection are expected to operate at LOS “C” or better during both morning and afternoon peak-hours through 2026. This intersection is expected to operate an overall LOS “A” in 2040 if traffic signal control is implemented.
- 5. Picadilly Road/E. 6th Avenue:** All movements at this future right-in/right-out stop-controlled intersection are expected to operate at LOS “C” or better during both morning and afternoon peak-hours through 2040.

6. **Rome Street/E. 6th Avenue:** All movements at this future stop-sign controlled intersection are expected to operate at LOS “B” or better during both morning and afternoon peak-hours through 2040.
7. **E. 11th Avenue/Road B:** All movements at this future stop-sign controlled intersection are expected to operate at LOS “B” or better during both morning and afternoon peak-hours through 2040.
8. **E. 11th Avenue/Horizon Parkway:** All movements at this future stop-sign controlled intersection are expected to operate at LOS “B” or better during both morning and afternoon peak-hours through 2040.
9. **E. 10th Avenue/Quatar Street:** All movements at this stop-sign controlled intersection are expected to operate at LOS “A” during both morning and afternoon peak-hours through 2040.
10. **E. 10th Avenue/Road B:** This intersection was only analyzed for the 2026 and 2040 total scenarios.
11. **E. 10th Avenue/Riviera Street:** All movements at this stop-sign controlled intersection are expected to operate at LOS “A” during both morning and afternoon peak-hours through 2040.
12. **E. 10th Avenue/Horizon Parkway:** All movements at this future stop-sign controlled intersection are expected to operate at LOS “A” during both morning and afternoon peak-hours through 2040.

TRIP GENERATION

Table 2 shows the estimated average weekday, morning peak-hour, and afternoon peak-hour trip generation for the proposed land use based on the rates from Trip Generation, 10th Edition, 2017 by the Institute of Transportation Engineers (ITE).

The proposed site is projected to generate about 1,539 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 30 vehicles would enter and about 90 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 102 vehicles would enter and about 60 vehicles would exit.

DIRECTIONAL DISTRIBUTION

Figure 7 shows the estimated directional distribution of the residential 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. The directional distribution estimate for Horizon Uptown was modified from what was shown in the approved Master traffic study for Horizon Uptown as part of a site-specific traffic study for Horizon Uptown Filing No. 3. This change was necessary based on the expanded

study area of this study. The directional distribution estimate used in this Phase 6 report is consistent with the expanded distribution estimate assumed in the Filing No. 3 report.

TRIP ASSIGNMENT

Figure 8 shows the estimated 2026 assignment of site-generated traffic volumes based on the trip generation estimate (from Table 2) and the 2026 directional distribution shown in Figure 7.

Figure 9 shows the estimated 2040 assignment of site-generated traffic volumes based on the trip generation estimate (from Table 2) and the 2040 directional distribution shown in Figure 7.

2026 AND 2040 TOTAL TRAFFIC

Figure 10a shows the estimated 2026 total traffic which is the sum of the 2026 background traffic volumes (from Figure 5a) and the 2026 site-generated traffic volumes (from Figure 8). Figure 10b shows the recommended 2026 lane geometry and traffic control.

Figure 11a shows the estimated 2040 total traffic which is the sum of the 2040 background traffic volumes (from Figure 6a) and the 2040 site-generated traffic volumes (from Figure 9). Figure 11b shows the recommended 2040 lane geometry and traffic control.

PROJECTED LEVELS OF SERVICE

The intersections in Figures 10a through 11b were analyzed to determine the 2026 and 2040 total levels of service. Table 1 shows the level of service analysis results. The level of service reports are attached.

- 1. Picadilly Road/E. 11th Avenue:** All movements at this stop-controlled intersection are expected to operate at LOS “D” or better during both morning and afternoon peak-hours through 2026. This intersection is expected to operate an overall LOS “C” or better in 2040 if traffic signal control is implemented.
- 2. Picadilly Road/E. 10th Avenue:** All movements at this future stop-controlled intersection are expected to operate at LOS “D” or better during both morning and afternoon peak-hours through 2040.
- 3. Picadilly Road/E. 8th Avenue:** All movements at this stop-controlled intersection are expected to operate at LOS “D” or better during both morning and afternoon peak-hours through 2026. This intersection is expected to operate an overall LOS “A” in 2040 if traffic signal control is implemented.
- 4. Picadilly Road/E. 7th Avenue:** All movements at this stop-controlled intersection are expected to operate at LOS “C” or better during both morning and afternoon peak-hours through 2026. This intersection is expected to operate an overall LOS “A” in 2040 if traffic signal control is implemented.

5. **Picadilly Road/E. 6th Avenue:** All movements at this future right-in/right-out stop-controlled intersection are expected to operate at LOS “C” or better during both morning and afternoon peak-hours through 2040.
6. **Rome Street/E. 6th Avenue:** All movements at this future stop-controlled intersection are expected to operate at LOS “B” or better during both morning and afternoon peak-hours through 2040.
7. **E. 11th Avenue/Road B:** All movements at this future stop-sign controlled intersection are expected to operate at LOS “B” or better during both morning and afternoon peak-hours through 2040.
8. **E. 11th Avenue/Horizon Parkway:** All movements at this future stop-sign controlled intersection are expected to operate at LOS “B” or better during both morning and afternoon peak-hours through 2040.
9. **E. 10th Avenue/Quatar Street:** All movements at this stop-sign controlled intersection are expected to operate at LOS “A” during both morning and afternoon peak-hours through 2040.
10. **E. 10th Avenue/Road B:** All movements at this future stop-sign controlled intersection are expected to operate at LOS “A” during both morning and afternoon peak-hours through 2040.
11. **E. 10th Avenue/Riviera Street:** All movements at this stop-sign controlled intersection are expected to operate at LOS “A” during both morning and afternoon peak-hours through 2040.
12. **E. 10th Avenue/Horizon Parkway:** All movements at this future stop-sign controlled intersection are expected to operate at LOS “A” during both morning and afternoon peak-hours through 2040.

TURN LANE RECOMMENDATIONS

Table 3 shows the 95th percentile queue lengths at the Picadilly Road intersections based on the 2040 total peak-hour traffic volumes and provides recommended turn lane and taper lengths. The recommended turn lane lengths are based on the NR-B classification criteria in the CDOT *State Highway Access Code*, projected 95th percentile queue lengths, and the proposed intersection spacing.

TRAFFIC SIGNAL WARRANT ANALYSIS

Tables 4 through 6 include a traffic signal warrant analysis for Intersections #1 (Picadilly Road/E. 11th Avenue), #3 (Picadilly Road/E. 8th Avenue), and #4 (Picadilly Road/E. 7th Avenue). The analyses show that Eight-Hour Vehicular Volume and Four-Hour Vehicular Volume signal warrants will be met at all three of the intersections analyzed by 2040. The developer will be required to make traffic signal contributions per City requirements.

SUMMARY OF RECOMMENDED IMPROVEMENTS

Table 7 shows a summary of the various recommended improvements.

CONCLUSIONS AND RECOMMENDATIONS**Trip Generation**

1. The proposed site is projected to generate about 1,539 vehicle-trips on the average week-day, with about half entering and half exiting during a 24-hour period. During the morning peak-hour, about 30 vehicles would enter and about 90 vehicles would exit the site. During the afternoon peak-hour, about 102 vehicles would enter and about 60 vehicles would exit.

Projected Levels of Service

2. The intersections of Picadilly Road/E. 11th Avenue, Picadilly Road/E. 8th Avenue, and Picadilly Road/E. 7th Avenue expected to operate at acceptable levels of service through 2026 as stop-sign controlled intersections. By 2040 all three intersections are projected to meet traffic signal warrants and are projected to operate at acceptable levels of service based on the projected 2040 total traffic volumes with the recommended improvements which include the installation of traffic signals.
3. All of the other intersections analyzed are expected to operate at acceptable levels of service by 2040 as two-way, stop controlled intersections.

Conclusions

4. The impact of the site can be accommodated by the existing and planned roadway network with the following recommended improvements.

Recommendations

5. The recommended improvements for 2026 total traffic are shown in Figure 10b and Table 7.
6. The recommended improvements for 2040 total traffic are shown in Figures 11b and Tables 3 and 7.

* * * * *

We trust our findings will assist you in gaining approval of the proposed Horizon Uptown Phase 6, Filing 6 development. Please contact me if you have any questions or need further assistance.

Sincerely,

LSC TRANSPORTATION CONSULTANTS, INC.

By



Christopher S. McGranahan, PE, PTOE
Principal

CSM/wc

2-18-22

Enclosures: Tables 1 through 7
Figures 1 - 11b
Traffic Counts
Key pages from the *Stafford Logistics Center TIS* and *Aurora One TIS*
Level of Service Definitions
Level of Service Reports
Queuing Reports

Table 1 (Page 1 of 3)
Intersection Levels of Service Analysis
Horizon Uptown Phase 6, Filing 6
Aurora, CO
LSC #210520; February, 2022

Intersection No. & Location	Traffic Control	Existing Traffic		2026 Background		2026 Total Traffic		2040 Background		2040 Total Traffic	
		Level of Service AM	Level of Service PM	Level of Service AM	Level of Service PM	Level of Service AM	Level of Service PM	Level of Service AM	Level of Service PM	Level of Service AM	Level of Service PM
1) <u>Picadilly Road/E. 11th Avenue</u>	TWSC										
NB Left/Through or Left		A	A	A	A	A	A	--	--	--	--
EB Approach		B	B	C	C	C	C	--	--	--	--
WB Left/Through		--	--	--	--	C	D	--	--	--	--
WB Right		--	--	--	--	B	B				
SB Left		--	--	--	--	A	A	--	--	--	--
Critical Movement Delay		10.7	10.7	15.7	17.6	22.4	29.7	--	--	--	--
	Signalized										
EB Approach		--	--	--	--	--	--	D	C	D	C
WB Left/Through		--	--	--	--	--	--	D	D	D	D
WB Right		--	--	--	--	--	--	D	C	D	C
NB Left		--	--	--	--	--	--	A	B	A	B
NB Through		--	--	--	--	--	--	A	B	A	C
NB Right		--	--	--	--	--	--	A	B	A	B
SB Left		--	--	--	--	--	--	A	B	A	B
SB Through/Right		--	--	--	--	--	--	B	C	B	C
Entire Intersection Delay (sec /veh)		--	--	--	--	--	--	8.2	20.4	8.5	24.6
Entire Intersection LOS		--	--	--	--	--	--	A	C	A	C
2) <u>Picadilly Road/E. 10th Avenue</u>	TWSC										
WB Left		--	--	C	C	C	D	C	D	C	D
WB Right		--	--	A	A	B	A	B	B	B	B
SB Left		--	--	A	A	A	A	B	B	B	B
Critical Movement Delay		--	--	18.1	24.1	20.4	29.3	22.5	25.6	24.9	30.5
3) <u>Picadilly Road/E. 8th Avenue</u>	TWSC										
WB Left		--	--	C	D	C	D	--	--	--	--
WB Right		--	--	A	A	B	A	--	--	--	--
SB Left		--	--	A	A	A	A	--	--	--	--
Critical Movement Delay		--	--	17.9	29.3	19.6	34.1	--	--	--	--
	Signalized										
WB Left		--	--	--	--	--	--	D	D	D	D
WB Right		--	--	--	--	--	--	D	D	D	D
NB Through		--	--	--	--	--	--	A	A	A	A
NB Right		--	--	--	--	--	--	A	A	A	A
SB Left		--	--	--	--	--	--	C	A	C	A
SB Through		--	--	--	--	--	--	A	B	A	B
Entire Intersection Delay (sec /veh)		--	--	--	--	--	--	7.7	9.8	7.8	9.8
Entire Intersection LOS								A	A	A	A

Table 1 (Page 2 of 3)
Intersection Levels of Service Analysis
Horizon Uptown Phase 6, Filing 6
Aurora, CO
LSC #210520; February, 2022

Intersection No. & Location	Traffic Control	Existing Traffic		2026 Background		2026 Total Traffic		2040 Background		2040 Total Traffic	
		Level of Service AM	Level of Service PM	Level of Service AM	Level of Service PM	Level of Service AM	Level of Service PM	Level of Service AM	Level of Service PM	Level of Service AM	Level of Service PM
4) <u>Picadilly Road/E. 7th Avenue</u>	TWSC	--	--	C	C	C	C	--	--	--	--
WB Left		--	--	C	C	C	C	--	--	--	--
WB Right		--	--	B	B	B	B	--	--	--	--
SB Left		--	--	A	A	A	A	--	--	--	--
Critical Movement Delay		--	--	16.1	19.1	17.0	20.7	--	--	--	--
	Signalized	--	--	--	--	--	--	D	D	D	D
WB Left		--	--	--	--	--	--	D	D	D	D
WB Right		--	--	--	--	--	--	D	D	D	D
NB Through		--	--	--	--	--	--	A	B	A	B
NB Right		--	--	--	--	--	--	A	A	A	A
SB Left		--	--	--	--	--	--	A	A	A	A
SB Through		--	--	--	--	--	--	A	A	A	A
Entire Intersection Delay (sec /veh)		--	--	--	--	--	--	2.1	9.0	2.1	9.1
Entire Intersection LOS		--	--	--	--	--	--	A	A	A	A
5) <u>Picadilly Road/E. 6th Avenue</u>	TWSC	--	--	B	B	B	B	C	C	C	C
WB Right		--	--	B	B	B	B	C	C	C	C
Critical Movement Delay		--	--	10.1	10.3	10.2	10.6	20.8	18.4	20.9	19.0
6) <u>Rome Street/E. 6th Avenue</u>	TWSC	--	--	B	A	B	B	B	A	B	B
NB Left		--	--	B	A	B	B	B	A	B	B
NB Through/Right		--	--	A	B	A	B	B	B	B	B
EB Approach		--	--	A	A	A	A	A	A	A	A
WB Approach		--	--	A	A	A	A	A	A	A	A
SB Approach		--	--	B	B	B	B	B	B	B	B
Critical Movement Delay		--	--	11.1	10.3	11.2	10.4	12.0	10.3	12.2	10.4
7) <u>Road B/E. 11th Avenue</u>	TWSC	--	--	--	--	A	A	--	--	B	B
NB Approach		--	--	--	--	A	A	--	--	B	B
EB Approach		--	--	--	--	--	--	A	A	A	A
WB Approach		--	--	--	--	A	A	--	--	A	A
SB Approach		--	--	--	--	--	--	A	B	A	B
Critical Movement Delay		--	--	--	--	8.6	8.6	9.2	10.4	11.0	13.0
8) <u>E. 11th Avenue/Horizon Parkway</u>	TWSC	--	--	--	--	A	A	B	B	B	B
NB Approach		--	--	--	--	A	A	B	B	B	B
EB Approach		--	--	--	--	A	A	A	A	A	A
WB Approach		--	--	--	--	--	--	A	A	A	A
SB Approach		--	--	--	--	--	--	A	B	A	B
Critical Movement Delay		--	--	--	--	8.5	8.5	10.4	11.8	10.4	11.7

Table 1 (Page 3 of 3)
Intersection Levels of Service Analysis
Horizon Uptown Phase 6, Filing 6
Aurora, CO
LSC #210520; February, 2022

Intersection No. & Location	Traffic Control	Existing Traffic		2026 Background		2026 Total Traffic		2040 Background		2040 Total Traffic	
		Level of Service AM	Level of Service PM	Level of Service AM	Level of Service PM	Level of Service AM	Level of Service PM	Level of Service AM	Level of Service PM	Level of Service AM	Level of Service PM
9) <u>Quatar Street/E. 10th Avenue</u>	TWSC										
NB Approach		--	--	A	A	A	A	A	A	A	A
WB Left/Through		--	--	A	A	A	A	A	A	A	A
Critical Movement Delay		--	--	8.6	8.7	9.0	9.1	8.6	8.6	8.8	9.0
10) <u>E. 10th Avenue/Road B</u>	TWSC										
EB Left/Through		--	--	--	--	A	A	--	--	A	A
SB Approach		--	--	--	--	A	A	--	--	A	A
Critical Movement Delay		--	--	--	--	8.5	8.5	--	--	8.5	8.5
11) <u>Rivera Street/E. 10th Avenue</u>	TWSC										
NB Approach		--	--	A	A	A	A	A	A	A	A
WB Left/Through		--	--	A	A	A	A	A	A	A	A
Critical Movement Delay		--	--	8.5	8.5	8.6	8.6	8.5	8.5	8.6	8.6
12) <u>Horizon Parkway/E. 10th Avenue</u>	TWSC										
NB Left/Through		--	--	A	A	A	A	A	A	A	A
EB Approach		--	--	A	A	A	A	A	A	A	A
Critical Movement Delay		--	--	8.3	8.3	8.4	8.5	8.7	8.6	8.8	8.7

Table 2
Trip Generation Comparison
Horizon Uptown Phase 6, Filing 6
Aurora, CO
LSC #21520; February, 2022

Land Use Description	Trip Generation Units	Trip Generation Rates ⁽¹⁾					Total Trips Generated				
		Average Weekday Traffic	Morning Peak Hour		Afternoon Peak Hour		Average Weekday Traffic	Morning Peak Hour		Afternoon Peak Hour	
			In	Out	In	Out		In	Out		
Trip Generation Estimate for the Currently Proposed Horizon Uptown Phase 6, Filing 6											
Single Family Detached Housing ⁽²⁾	89 DU ⁽³⁾	9.44	0.185	0.555	0.624	0.366	840	16	49	56	33
Duplex ⁽²⁾	74 DU	9.44	0.185	0.555	0.624	0.366	699	14	41	46	27
Total for the Currently Proposed Phase	163 DU						1,539	30	90	102	60
Trip Generation Estimate for the Approved/Existing Horizon Uptown Filing 1											
Single Family Detached Housing	78 DU	9.44	0.185	0.555	0.624	0.366	736	14	43	49	29
Total PA 14	241 DU						2,275	44	133	151	89
Trip Generation Estimate for Planning Area 14 from the Horizon Uptown Master Traffic Study by Matrix 11-2-2018											
Single Family Detached Housing	110 DU	---	---	---	---	---	1,136	21	62	70	41
Multi-Family Housing (Low-Rise)	94 DU	---	---	---	---	---	670	10	35	35	21
Multi-Family Housing (High-Rise)	105 DU	---	---	---	---	---	570	9	27	28	18
Total PA 14	309 DU						2,376	40	124	133	80
Change in Trip Generation Estimate	-68 DU						-101	4	9	18	9

Notes:
(1) Source: *Trip Generation* , 10th Edition, 2017 by the Institute of Transportation Engineers (ITE)
(2) ITE Land Use No. 210 - Single Family Detached Housing
(3) DU = Dwelling Unit

Table 3
95th Percentile Queue Lengths and Auxiliary Turn Lanes ^{(1) (2) (3)}
Horizon Uptown Phase 6, Filing 6
Aurora, CO
LSC #210520; February, 2022

Intersection No. & Location	95th Percentile Queue Length 2040 Total		Recommended Turn Lane Length (feet)	Recommended Transition Taper Length (feet)
	AM Peak (feet)	PM Peak (feet)		
1) <u>Picadilly Road/E. 11th Avenue</u>				
EB Left/Through/Right	4	0	--	--
WB Left/Through	142	289	--	--
WB Right	13	2	125	100
NB Left	m7	m2	225	145
NB Through	448	466	--	--
NB Right	116	109	225	145
SB Left	9	33	225	145
SB Through/Right	206	373	--	--
2) <u>Picadilly Road/E. 10th Avenue</u>				
WB Left	13	13	--	--
WB Right	3	3	60	75
NB Through	--	--	--	--
NB Right	--	--	225	145
SB Left	0	3	225	145
SB Through	--	--	--	--
3) <u>Picadilly Road/E. 8th Avenue</u>				
WB Left	112	130	--	--
WB Right	59	171	170	100
NB Through	173	78	--	--
NB Right	32	1	225	145
SB Left	332	107	350	145
SB Through	252	440	--	--
4) <u>Picadilly Road/E. 7th Avenue</u>				
WB Left	73	223	--	--
WB Right	38	45	225	100
NB Through	149	229	--	--
NB Right	m4	m16	225	145
SB Left	8	71	225	145
SB Through	29	61	--	--
5) <u>Picadilly Road/E. 6th Avenue (Right-In/Right-Out Only)</u>				
WB Right	18	20	--	--
NB Through	--	--	--	--
NB Right	--	--	225	145

Notes:

- (1) Queue lengths for signalized intersections are from the queuing reports included in the appendix.
- (2) m = metered by adjacent signals
- (3) Auxiliary turn lane lengths on arterial roadways are based on 40 mph and the NR-B classification in the *CDOT State Highway Access Code* and the 95th percentile queue length.
A redirect taper of 30:1 is appropriate for 40 mph.

Table 4
Intersection #1 - Picadilly Road/E. 11th Avenue
Horizon Uptown Phase 6, Filing 6
Aurora, CO
LSC #210520; February, 2022

Warrant Analysis⁽¹⁾

Hour	Traffic Volumes (vehicles per hour) Minor 1 ⁽³⁾ Minor 2 ⁽³⁾			Warrant 1: Eight Hour Vehicular Volume Evaluation								Warrant 2: Four Hour Vehicular Volume Evaluation			Warrant 3: Peak Hour Vehicular Volume Evaluation		
				Warrant Thresholds				Warrant Threshold Met?				70% Warrant Threshold Minor Minimum	Warrant Threshold Met?		70% Warrant Threshold Minor Minimum	Warrant Threshold Met?	
				Condition A (70%)		Condition B (70%)		East Leg		West Leg			East Leg	West Leg		East Leg	West Leg
	Major ⁽²⁾	East Leg	West Leg	Major	Minor	Major	Minor	A	B	A	B						
12-1 AM	225	128	0	420	105	630	53	No	No	No	No	Low Vol	No	No	Low Vol	No	No
1-2 AM	204	3	0	420	105	630	53	No	No	No	No	Low Vol	No	No	Low Vol	No	No
2-3 AM	224	3	0	420	105	630	53	No	No	No	No	Low Vol	No	No	Low Vol	No	No
3-4 AM	271	0	0	420	105	630	53	No	No	No	No	Low Vol	No	No	Low Vol	No	No
4-5 AM	349	3	2	420	105	630	53	No	No	No	No	260	No	No	Low Vol	No	No
5-6 AM	1590	11	4	420	105	630	53	No	No	No	No	60	No	No	75	No	No
6-7 AM	2349	26	13	420	105	630	53	No	No	No	No	60	No	No	75	No	No
7-8 AM	2784	74	22	420	105	630	53	No	Yes	No	No	60	Yes	No	75	No	No
8-9 AM	2403	128	18	420	105	630	53	Yes	Yes	No	No	60	Yes	No	75	Yes	No
9-10 AM	1743	108	11	420	105	630	53	Yes	Yes	No	No	60	Yes	No	75	Yes	No
10-11 AM	1853	68	11	420	105	630	53	No	Yes	No	No	60	Yes	No	75	No	No
11-12 PM	1985	68	11	420	105	630	53	No	Yes	No	No	60	Yes	No	75	No	No
12-1 PM	1941	285	7	420	105	630	53	Yes	Yes	No	No	60	Yes	No	75	Yes	No
1-2 PM	1820	156	10	420	105	630	53	Yes	Yes	No	No	60	Yes	No	75	Yes	No
2-3 PM	2186	224	11	420	105	630	53	Yes	Yes	No	No	60	Yes	No	75	Yes	No
3-4 PM	2742	236	10	420	105	630	53	Yes	Yes	No	No	60	Yes	No	75	Yes	No
4-5 PM	3138	228	13	420	105	630	53	Yes	Yes	No	No	60	Yes	No	75	Yes	No
5-6 PM	2840	285	13	420	105	630	53	Yes	Yes	No	No	60	Yes	No	75	Yes	No
6-7 PM	2374	281	10	420	105	630	53	Yes	Yes	No	No	60	Yes	No	75	Yes	No
7-8 PM	1450	224	8	420	105	630	53	Yes	Yes	No	No	60	Yes	No	75	Yes	No
8-9 PM	1183	163	5	420	105	630	53	Yes	Yes	No	No	60	Yes	No	95	Yes	No
9-10 PM	760	117	5	420	105	630	53	Yes	Yes	No	No	100	Yes	No	200	No	No
10-11 PM	458	91	2	420	105	630	53	No	No	No	No	215	No	No	340	No	No
11-12 AM	331	42	2	420	105	630	53	No	No	No	No	260	No	No	Low Vol	No	No
Numbers of Hours the Warrant is Met								12	15	0	0	15		0	11		0
Warrant Met?								Yes				Yes				Yes	

Notes:

(1) Thresholds are based on 2 or more lanes on the major approach and 1 lane on the minor approach with the 70% factor applied for a posted speed limit above 40 mph

(2) The major street traffic includes all movements (left, through, and right)

(3) The minor street traffic includes left, through, and half of right-turn volumes from the minor street

Source: LSC Transportation Consultants, Inc.

Table 5
Intersection #3 - Picadilly Road/E. 8th Avenue
Horizon Uptown Phase 6, Filing 6
Aurora, CO
LSC #210520; February, 2022

Warrant Analysis⁽¹⁾

Traffic Volumes (vehicles per hour)			Warrant 1: Eight Hour Vehicular Volume Evaluation						Warrant 2: Four Hour Vehicular Volume		Warrant 3: Peak Hour Vehicular Volume	
			Warrant Thresholds				Warrant Threshold		70% Warrant Threshold Minor Minimum	Warrant	70% Warrant Threshold Minor Minimum	Warrant
			Condition A (70%)		Condition B (70%)		Met?	Threshold		Threshold		Met?
							Minor Leg	Minor Leg		Minor Leg		Minor Leg
Hour	Major ⁽²⁾	Minor ⁽³⁾	Major	Minor	Major	Minor	A	B				
12-1 AM	245	81	420	105	630	53	No	No	Low Vol	No	Low Vol	No
1-2 AM	214	2	420	105	630	53	No	No	Low Vol	No	Low Vol	No
2-3 AM	235	2	420	105	630	53	No	No	Low Vol	No	Low Vol	No
3-4 AM	285	0	420	105	630	53	No	No	Low Vol	No	Low Vol	No
4-5 AM	366	2	420	105	630	53	No	No	260	No	Low Vol	No
5-6 AM	1643	6	420	105	630	53	No	No	60	No	75	No
6-7 AM	2363	16	420	105	630	53	No	No	60	No	75	No
7-8 AM	2885	47	420	105	630	53	No	No	60	No	75	No
8-9 AM	2567	81	420	105	630	53	No	Yes	60	Yes	75	Yes
9-10 AM	1894	68	420	105	630	53	No	Yes	60	Yes	75	No
10-11 AM	2067	43	420	105	630	53	No	No	60	No	75	No
11-12 PM	2267	43	420	105	630	53	No	No	60	No	75	No
12-1 PM	1913	41	420	105	630	53	No	No	60	No	75	No
1-2 PM	1837	61	420	105	630	53	No	Yes	60	Yes	75	No
2-3 PM	2222	87	420	105	630	53	No	Yes	60	Yes	75	Yes
3-4 PM	2773	92	420	105	630	53	No	Yes	60	Yes	75	Yes
4-5 PM	3189	89	420	105	630	53	No	Yes	60	Yes	75	Yes
5-6 PM	2883	111	420	105	630	53	Yes	Yes	60	Yes	75	Yes
6-7 PM	2397	110	420	105	630	53	Yes	Yes	60	Yes	75	Yes
7-8 PM	1465	87	420	105	630	53	No	Yes	60	Yes	75	Yes
8-9 PM	1183	64	420	105	630	53	No	Yes	60	Yes	95	No
9-10 PM	765	46	420	105	630	53	No	No	100	No	200	No
10-11 PM	464	36	420	105	630	53	No	No	215	No	340	No
11-12 AM	339	16	420	105	630	53	No	No	260	No	Low Vol	No
Numbers of Hours the Warrant is Met							2	10	10		7	
Warrant Met							Yes		Yes		Yes	

Notes:

(1) Thresholds are based on 2 or more lanes on the major approach and 1 lane on the minor approach with the 70% factor applied for a posted speed limit above 40 mph

(2) The major street traffic includes all movements (left, through, and right) (Picadilly Road)

(3) The minor street traffic includes only the left volumes from the minor street (E. 8th Avenue)

Source: LSC Transportation Consultants, Inc.

Table 6
Intersection #4 - Picadilly Road/E. 7th Avenue
Horizon Uptown Phase 6, Filing 6
Aurora, CO
LSC #210520; February, 2022

Warrant Analysis⁽¹⁾

Traffic Volumes (vehicles per hour)			Warrant 1: Eight Hour Vehicular Volume Evaluation						Warrant 2: Four Hour Vehicular Volume		Warrant 3: Peak Hour Vehicular Volume	
			Warrant Thresholds				Warrant Threshold		70% Warrant Threshold	Warrant	70% Warrant Threshold	Warrant
			Condition A (70%)		Condition B (70%)		Met?	Threshold		Threshold		Threshold
			Major	Minor	Major	Minor	A	B	Minor Minimum	Minor Leg	Minor Minimum	Minor Leg
Hour	Major ⁽²⁾	Minor ⁽³⁾	Major	Minor	Major	Minor	A	B				
12-1 AM	196	48	420	105	630	53	No	No	Low Vol	No	Low Vol	No
1-2 AM	200	1	420	105	630	53	No	No	Low Vol	No	Low Vol	No
2-3 AM	223	1	420	105	630	53	No	No	Low Vol	No	Low Vol	No
3-4 AM	275	0	420	105	630	53	No	No	Low Vol	No	Low Vol	No
4-5 AM	348	1	420	105	630	53	No	No	260	No	Low Vol	No
5-6 AM	1666	4	420	105	630	53	No	No	60	No	75	No
6-7 AM	2278	9	420	105	630	53	No	No	60	No	75	No
7-8 AM	2627	28	420	105	630	53	No	No	60	No	75	No
8-9 AM	2236	48	420	105	630	53	No	No	60	No	75	No
9-10 AM	1590	40	420	105	630	53	No	No	60	No	75	No
10-11 AM	1648	25	420	105	630	53	No	No	60	No	75	No
11-12 PM	1711	25	420	105	630	53	No	No	60	No	75	No
12-1 PM	1818	24	420	105	630	53	No	No	60	No	75	No
1-2 PM	1786	103	420	105	630	53	No	Yes	60	Yes	75	Yes
2-3 PM	2165	148	420	105	630	53	Yes	Yes	60	Yes	75	Yes
3-4 PM	2698	155	420	105	630	53	Yes	Yes	60	Yes	75	Yes
4-5 PM	3104	150	420	105	630	53	Yes	Yes	60	Yes	75	Yes
5-6 PM	2803	188	420	105	630	53	Yes	Yes	60	Yes	75	Yes
6-7 PM	2329	185	420	105	630	53	Yes	Yes	60	Yes	75	Yes
7-8 PM	1420	148	420	105	630	53	Yes	Yes	60	Yes	75	Yes
8-9 PM	1142	108	420	105	630	53	Yes	Yes	60	Yes	95	Yes
9-10 PM	738	78	420	105	630	53	No	Yes	100	No	200	No
10-11 PM	449	60	420	105	630	53	No	No	215	No	340	No
11-12 AM	329	28	420	105	630	53	No	No	260	No	Low Vol	No
Numbers of Hours the Warrant is Met							7	9	8		8	
Warrant Met?							Yes		Yes		Yes	

Notes:

(1) Thresholds are based on 2 or more lanes on the major approach and 1 lane on the minor approach with the 70% factor applied for a posted speed limit above 40 mph

(2) The major street traffic includes all movements (left, through, and right) (Picadilly Road)

(3) The minor street traffic includes only the left volumes from the minor street (E. 7th Avenue)

Source: LSC Transportation Consultants, Inc.

Table 7
Recommended Improvements to Public Street Network
Horizon Uptown Phase 6, Filing 6
Aurora, CO
LSC #210520; February, 2022

Inter-section No.	Intersection Location	Recommended Improvements by 2026 ⁽¹⁾	Recommended Improvements by 2040 ⁽¹⁾
	Picadilly Road		Widen to 6 Lanes
#1	Picadilly Road/E. 11th Avenue	SB LT - construct lane - 1 @ 225 feet and 145-foot transition taper	NB RT - construct 1 lane @ 225 feet and 145-foot transition taper
		NB LT - construct lane - 1 @ 225 feet and 145-foot transition taper	Traffic signalization when warranted which is likely to occur between 2026 and 2040
		WB RT - construct lane - 1 @ 125 feet and 100-foot transition taper	
#2	Picadilly Road/E. 10th Avenue	SB LT - construct lane - 1 @ 225 feet and 145-foot transition taper	
		NB RT - construct 1 lane @ 225 feet and 145-foot transition taper	
		WB RT - construct lane - 1 @ 60 feet and 75-foot transition taper	
#3	Picadilly Road/E. 8th Avenue	The existing lane lengths will be utilized in the short term.	SB LT - lengthen existing lane - 1 @ 350 feet and 145-foot transition taper
			NB RT - construct 1 lane @ 225 feet and 145-foot transition taper
			WB RT - construct lane - 1 @ 170 feet and 100-foot transition taper
			Traffic signalization when warranted which is likely to occur between 2026 and 2040
#4	Picadilly Road/E. 7th Avenue	The existing lane lengths will be utilized in the short term.	SB LT - lengthen existing lane - 1 @ 225 feet and 145-foot transition taper
			NB RT - construct 1 lane @ 225 feet and 145-foot transition taper
			WB RT - construct lane - 1 @ 225 feet and 100-foot transition taper
			Traffic signalization when warranted which is likely to occur between 2026 and 2040
#5	Picadilly Road/E. 6th Avenue		NB RT - construct 1 lane @ 225 feet and 145-foot transition taper

(1) Auxiliary turn lane lengths on arterial roadways are based on 40 mph and the NR-B classification in the CDOT *State Highway Access Code*. A redirect taper of 30:1 is appropriate for 40 mph.

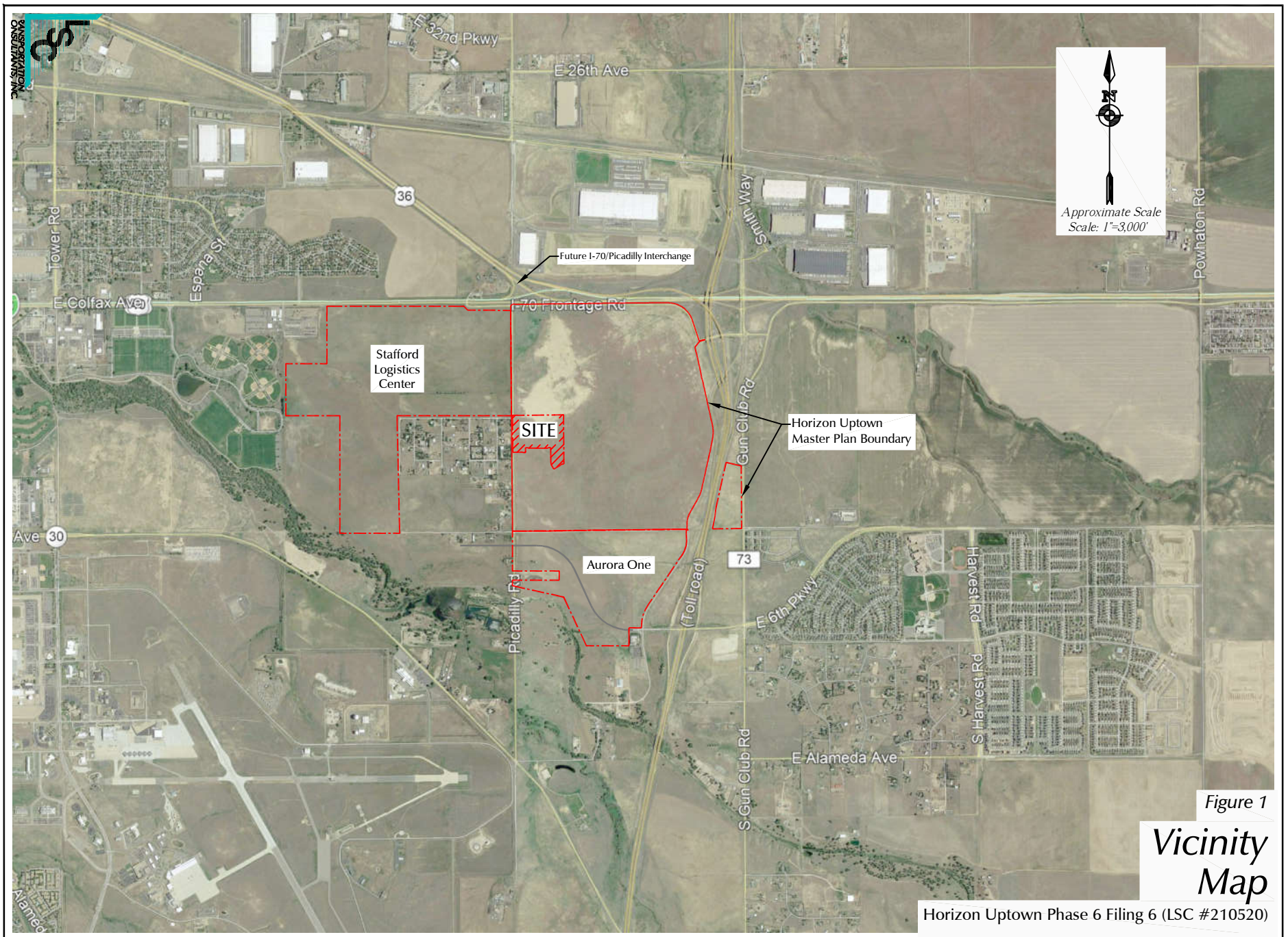


Figure 1

Vicinity Map

Horizon Uptown Phase 6 Filing 6 (LSC #210520)

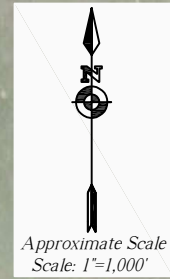
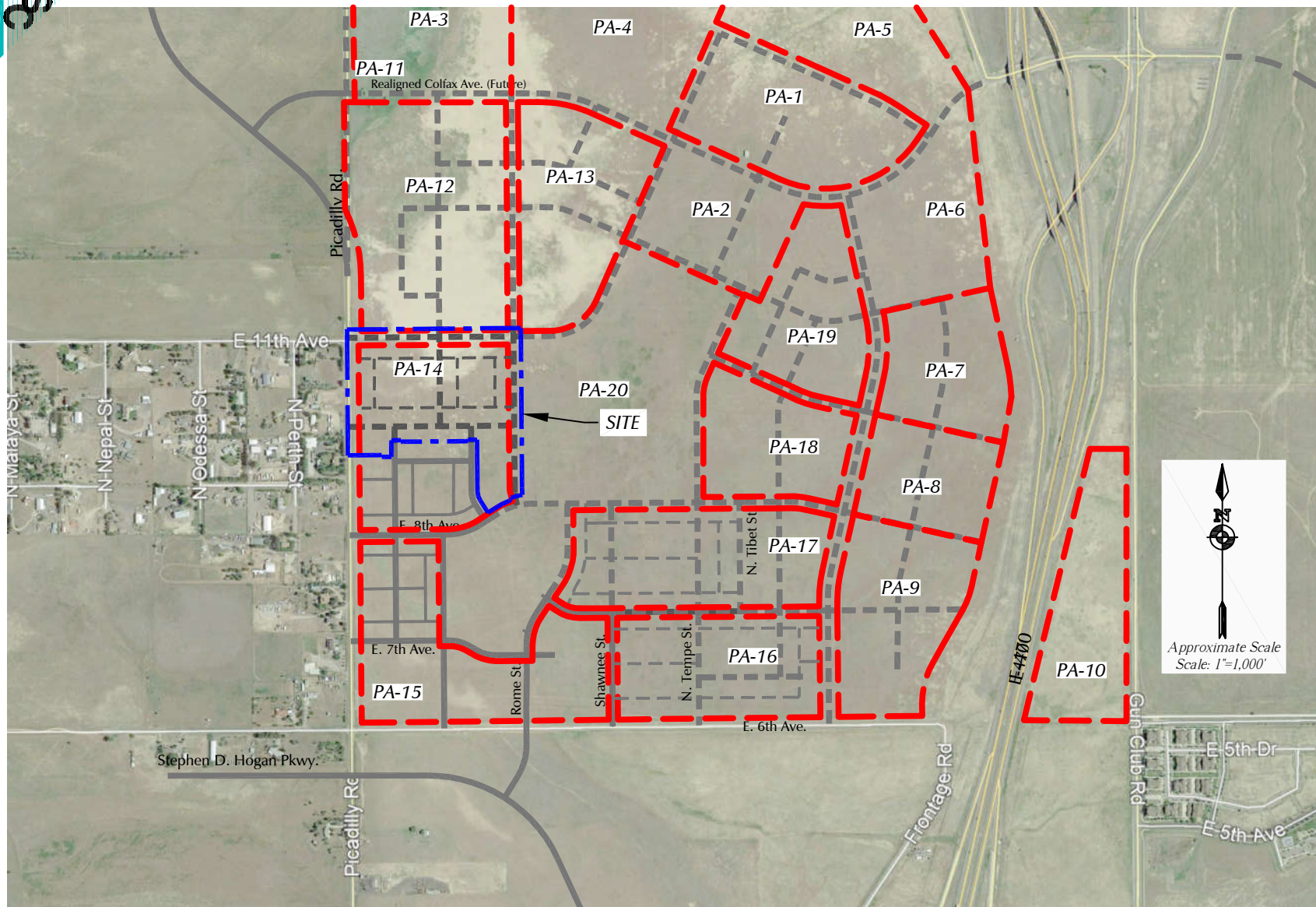
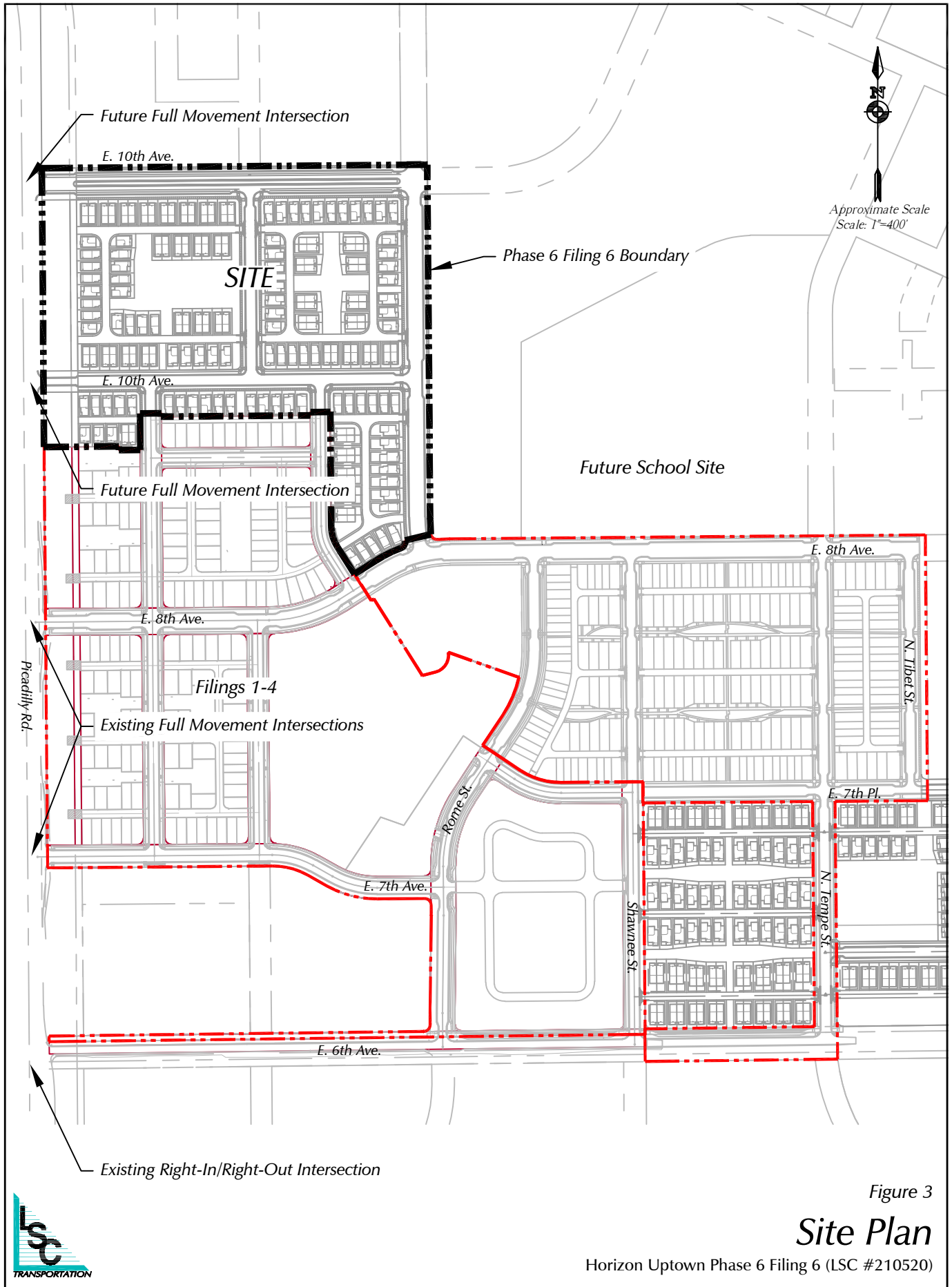
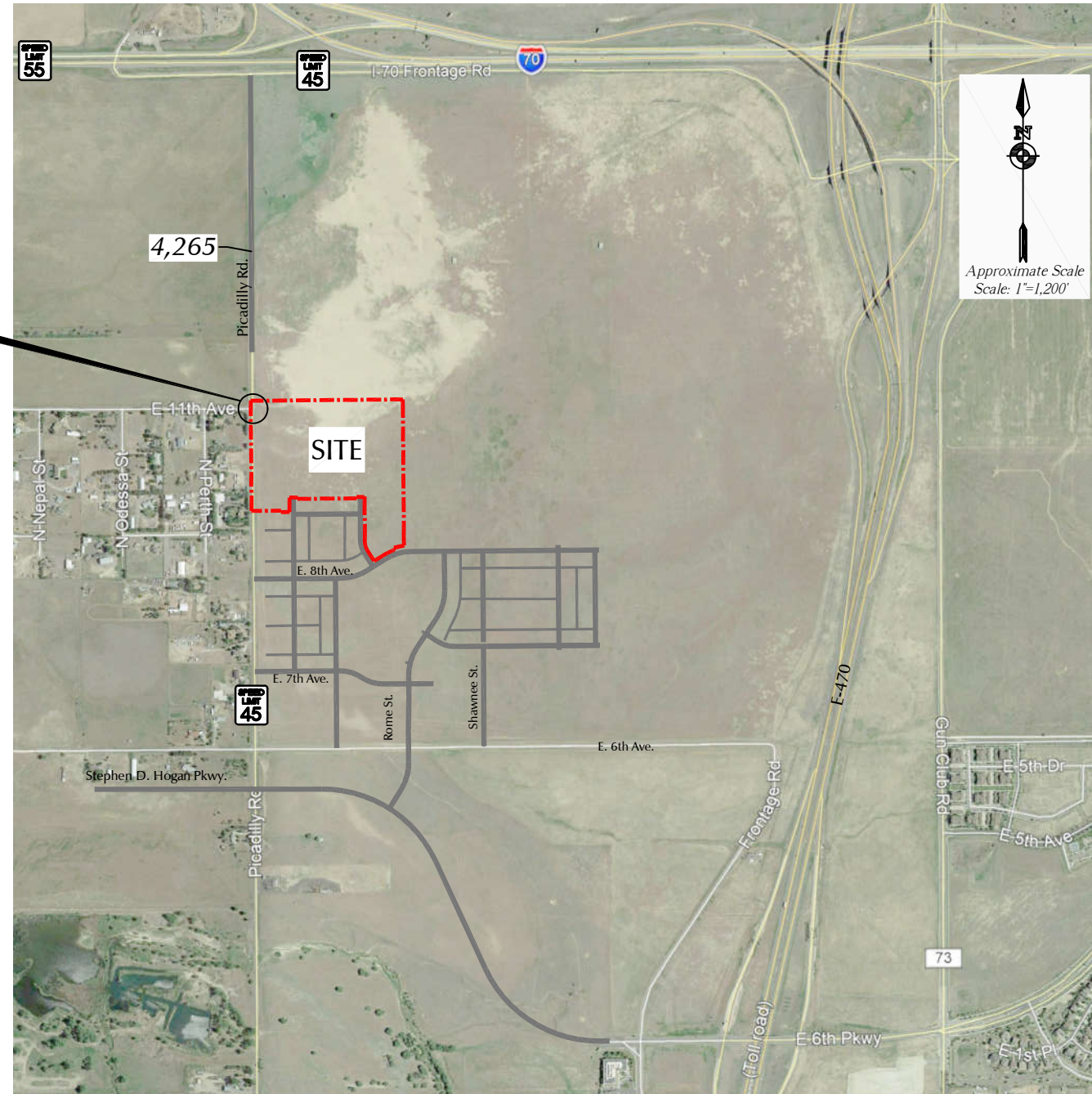
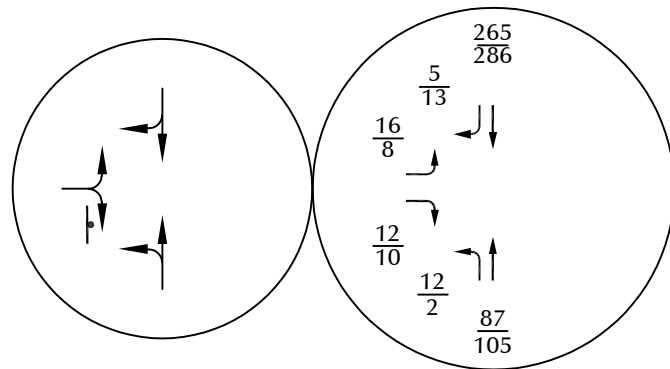


Figure 2

Planning Areas


Horizon Uptown Phase 6 Filing 6 (LSC #210520)





LEGEND:

⊥ = Stop Sign

 = Speed Limit

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

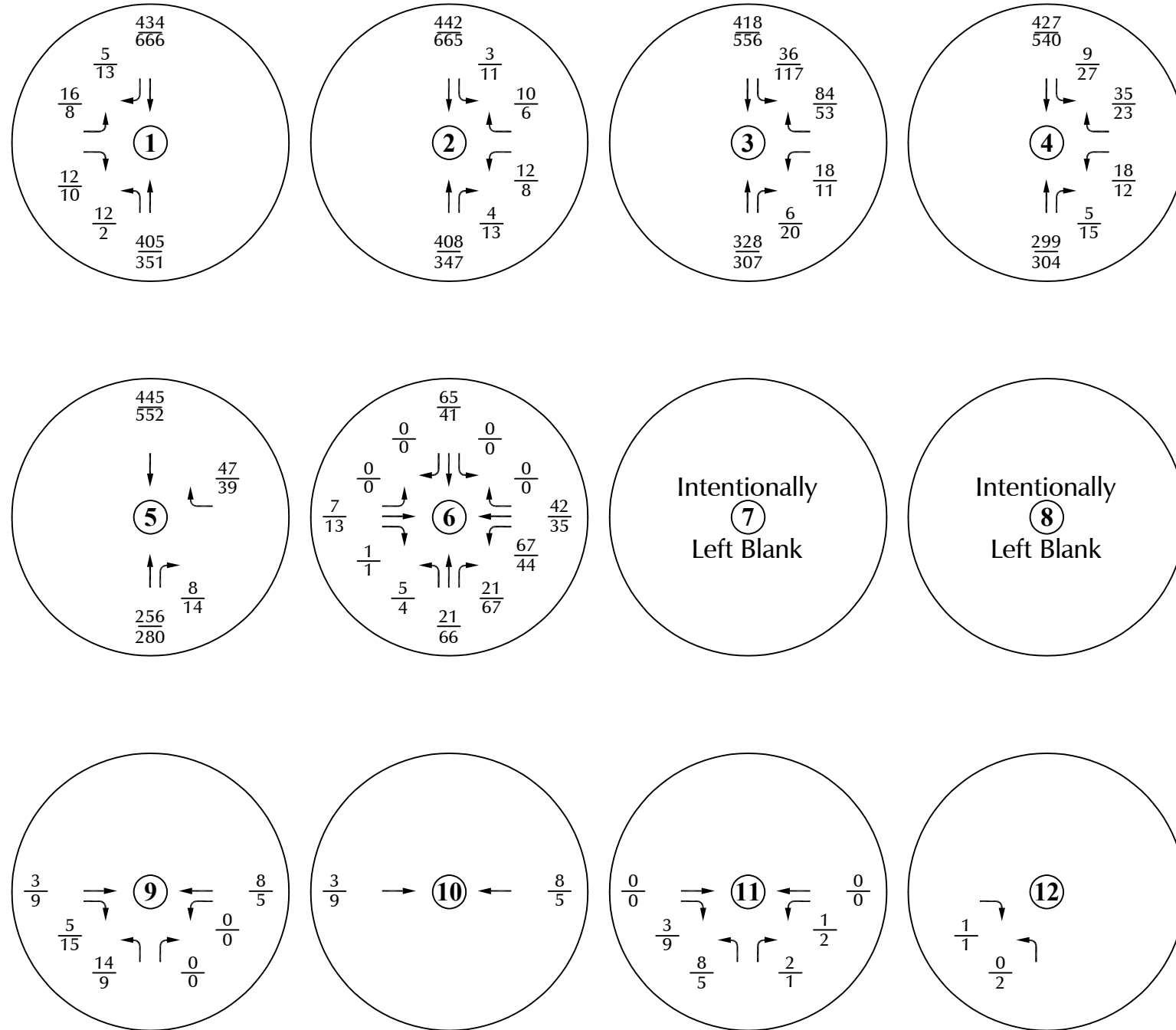
1,000 = Average Daily Traffic



Figure 4

Existing Traffic, Lane Geometry and Traffic Control

Horizon Uptown Phase 6 Filing 6 (LSC #210520)



LEGEND:

- # = Intersection Number
- 26 = AM Peak Hour Traffic
- 35 = PM Peak Hour Traffic
- 1,000 = Average Daily Traffic

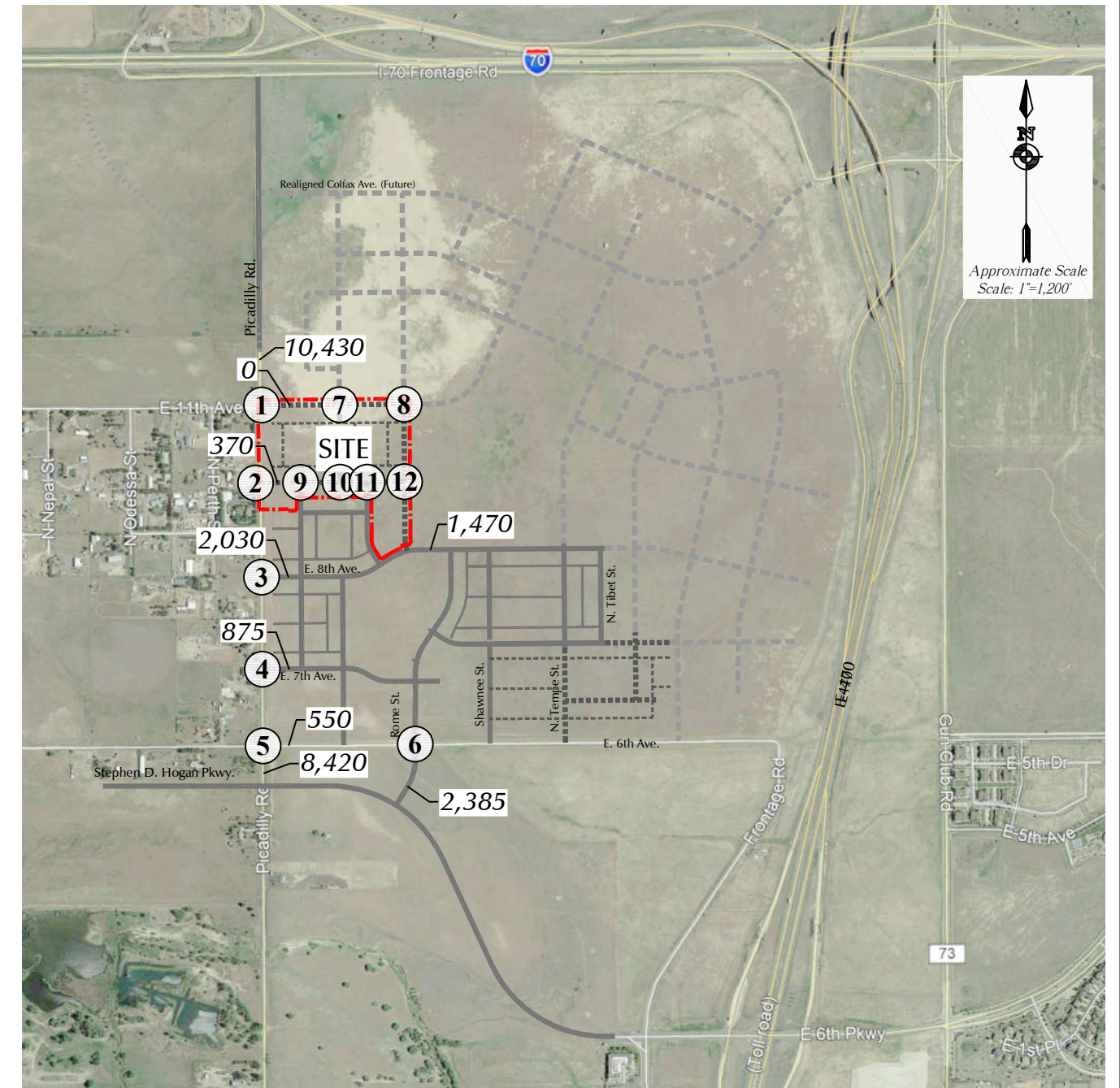
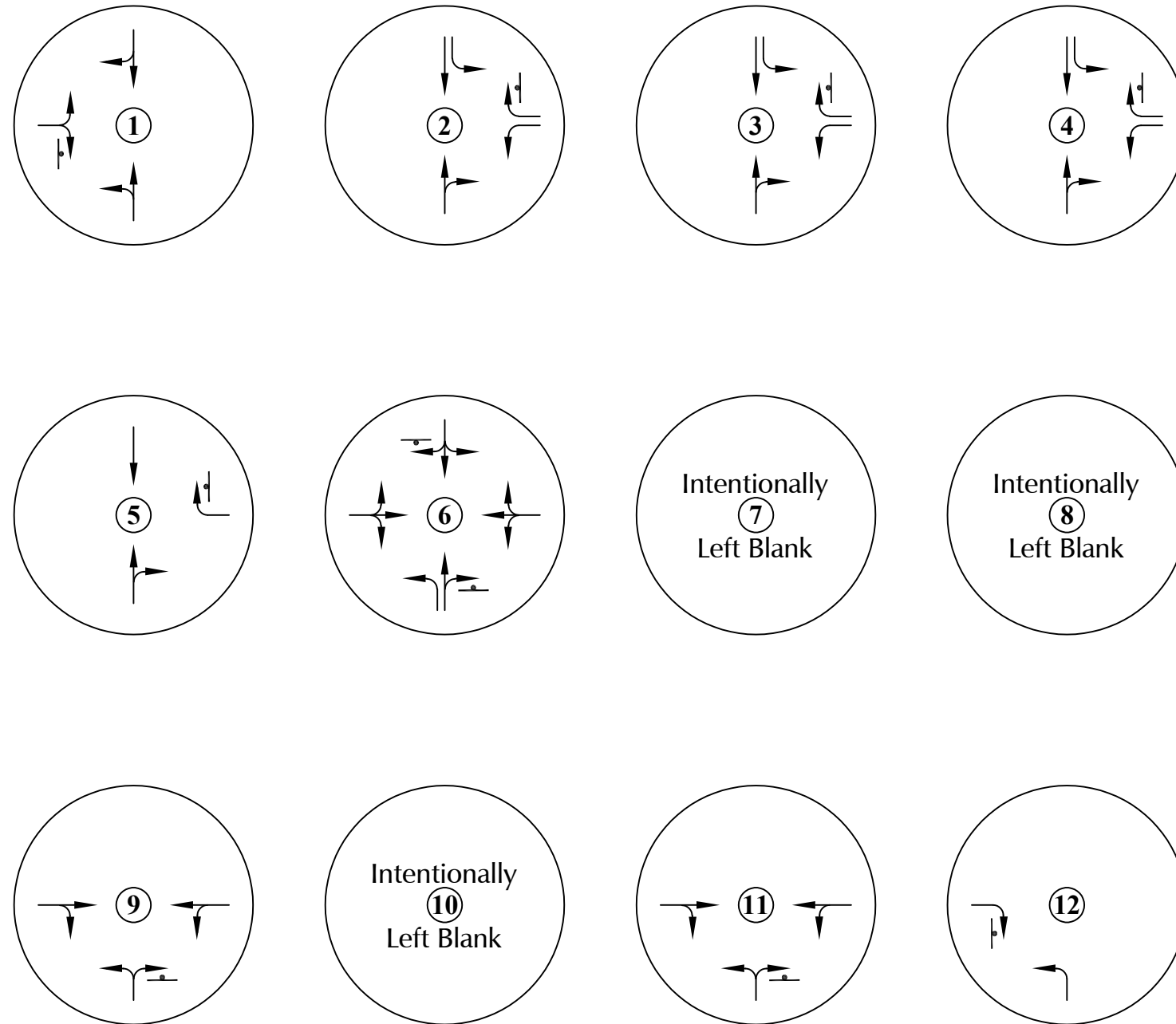


Figure 5a

Year 2026 Background Traffic

Horizon Uptown Phase 6 Filing 6 (LSC #210520)



LEGEND:

- # = Intersection Number
- ⌋ = Stop Sign
- ⬤ = Traffic Signal

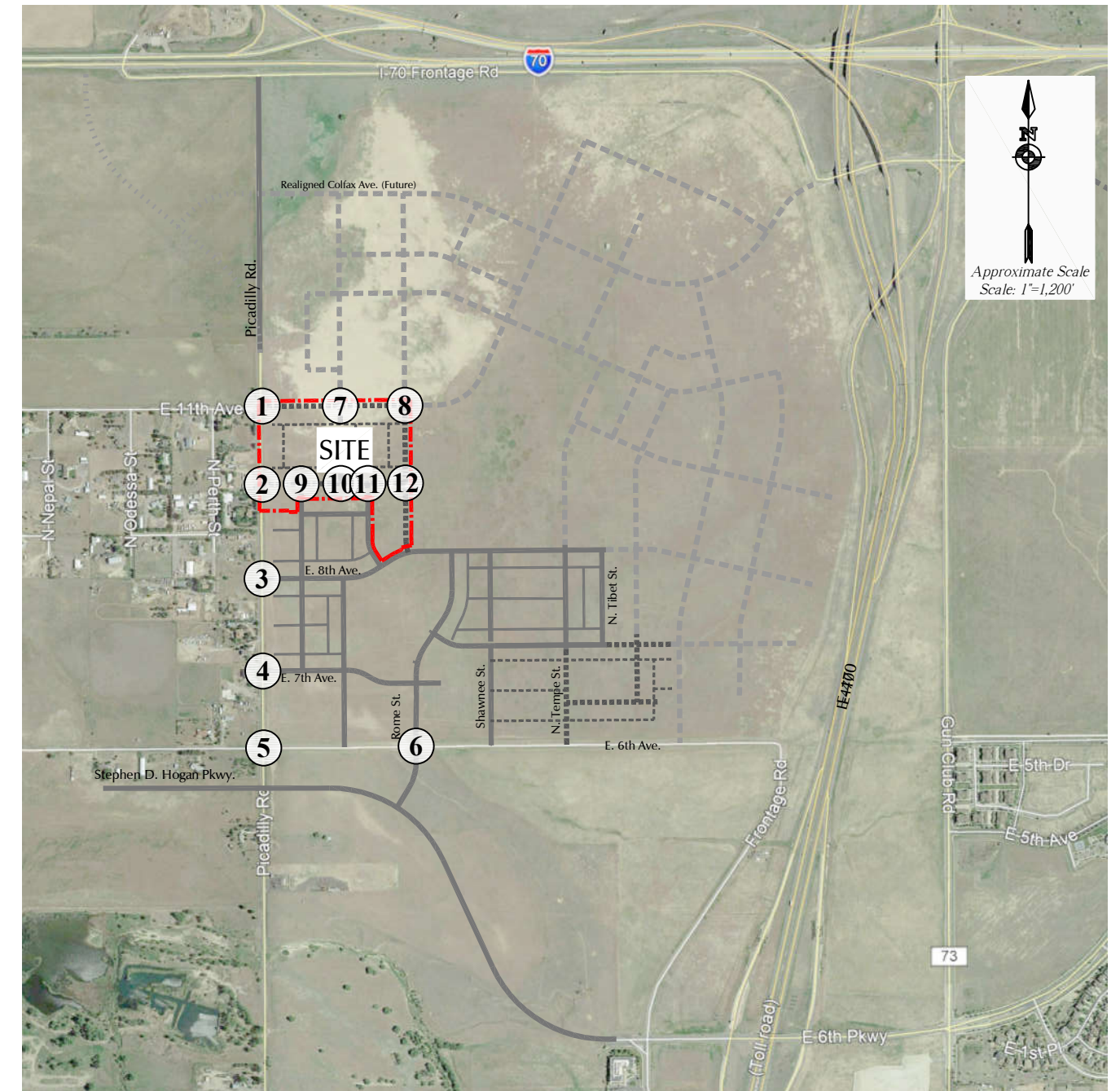
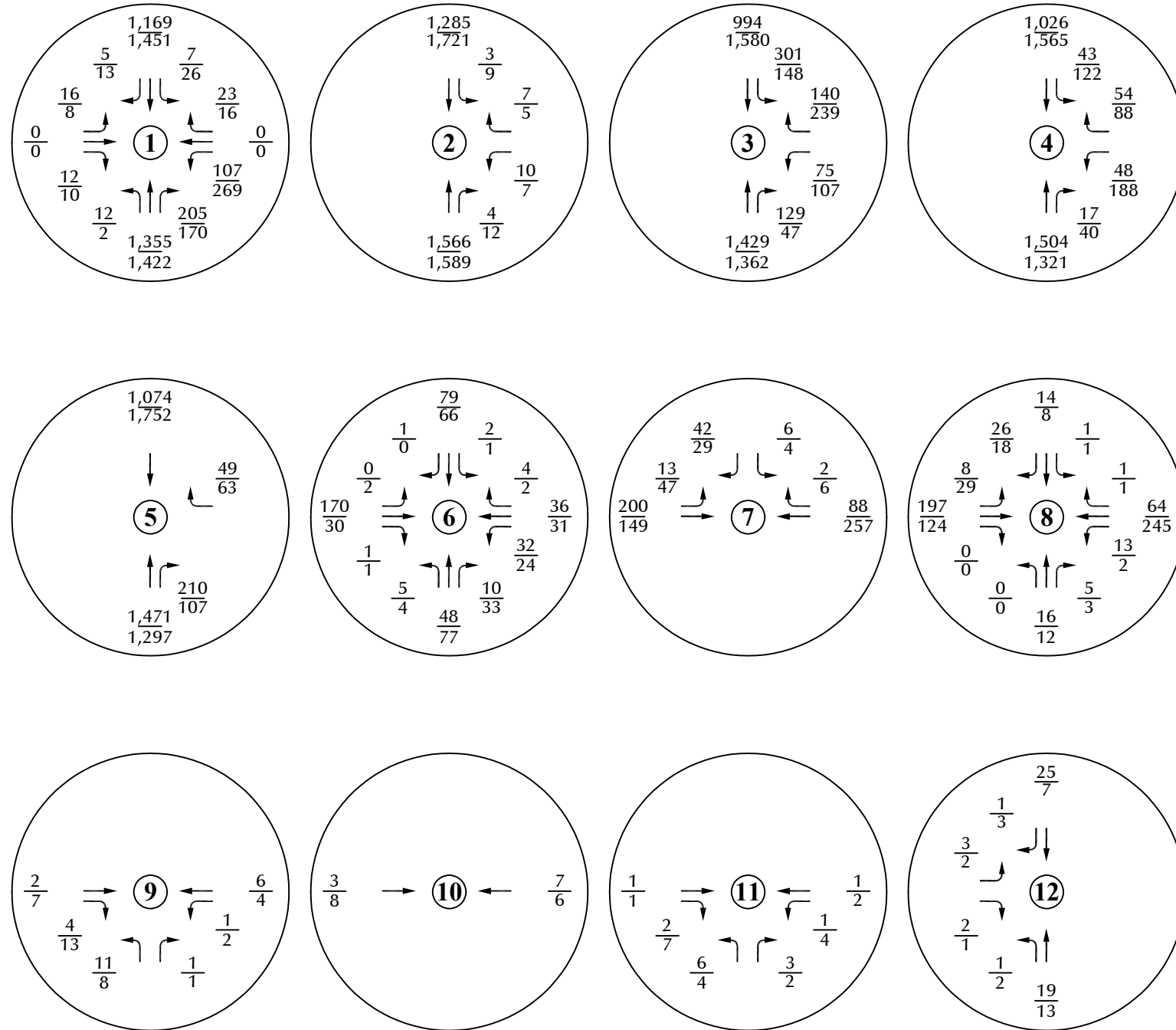


Figure 5b

Year 2026 Background Lane Geometry and Traffic Control

Horizon Uptown Phase 6 Filing 6 (LSC #210520)



LEGEND:

- # = Intersection Number
- $\frac{26}{35}$ = AM Peak Hour Traffic / PM Peak Hour Traffic
- 1,000 = Average Daily Traffic

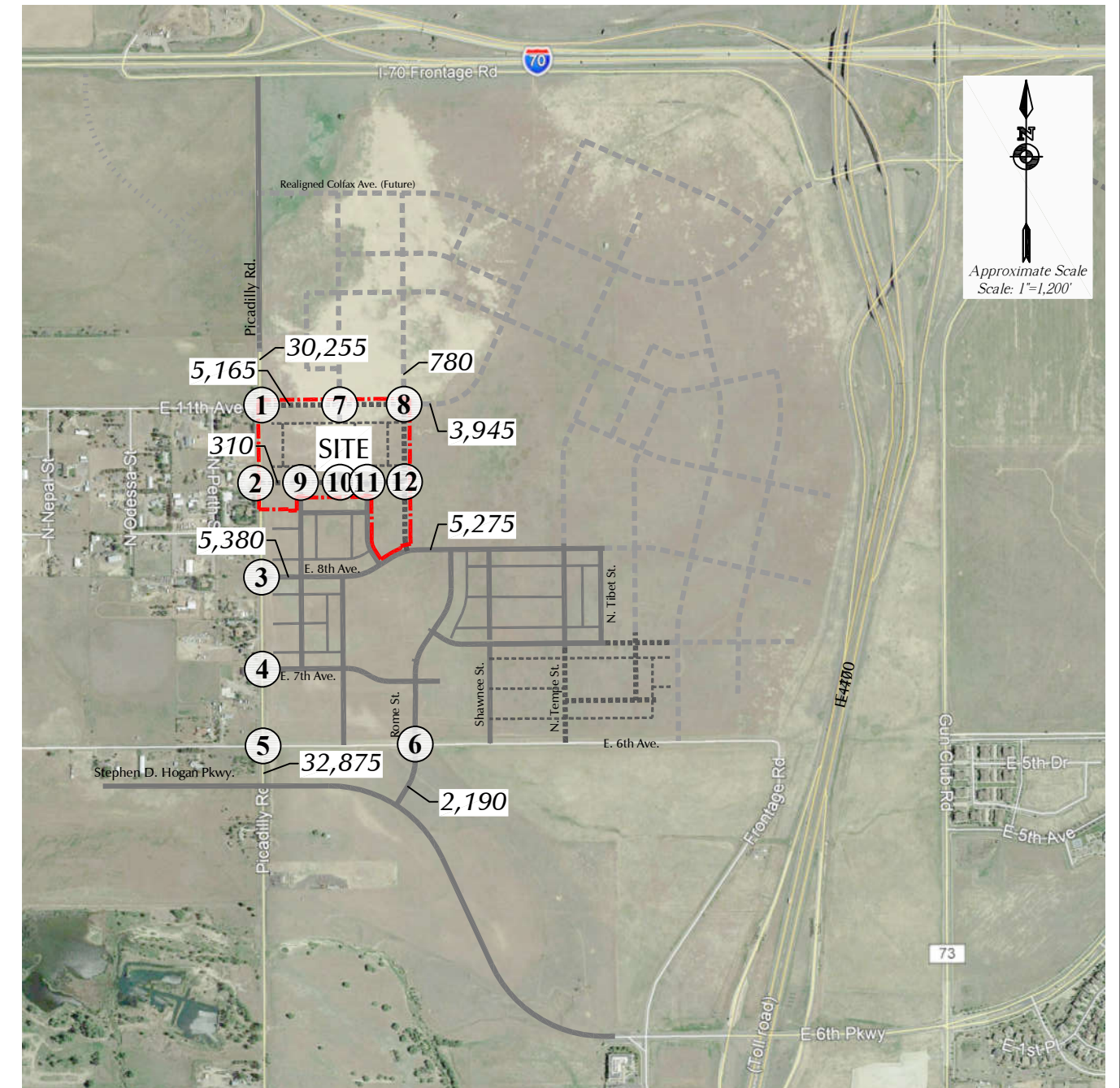
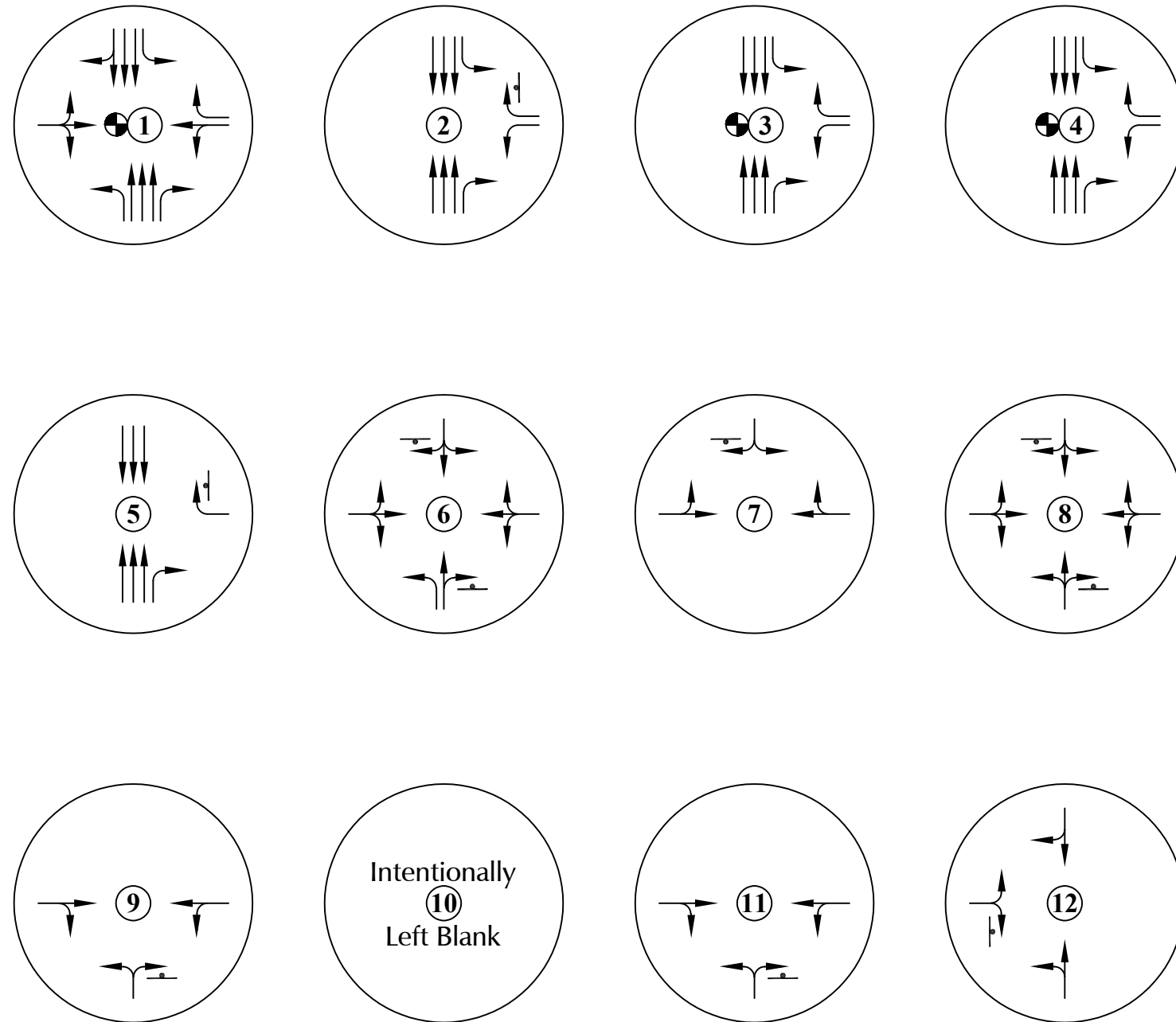


Figure 6a

Year 2040 Background Traffic

Horizon Uptown Phase 6 Filing 6 (LSC #210520)



LEGEND:

- # = Intersection Number
- ⌋ = Stop Sign
- ⦿ = Traffic Signal

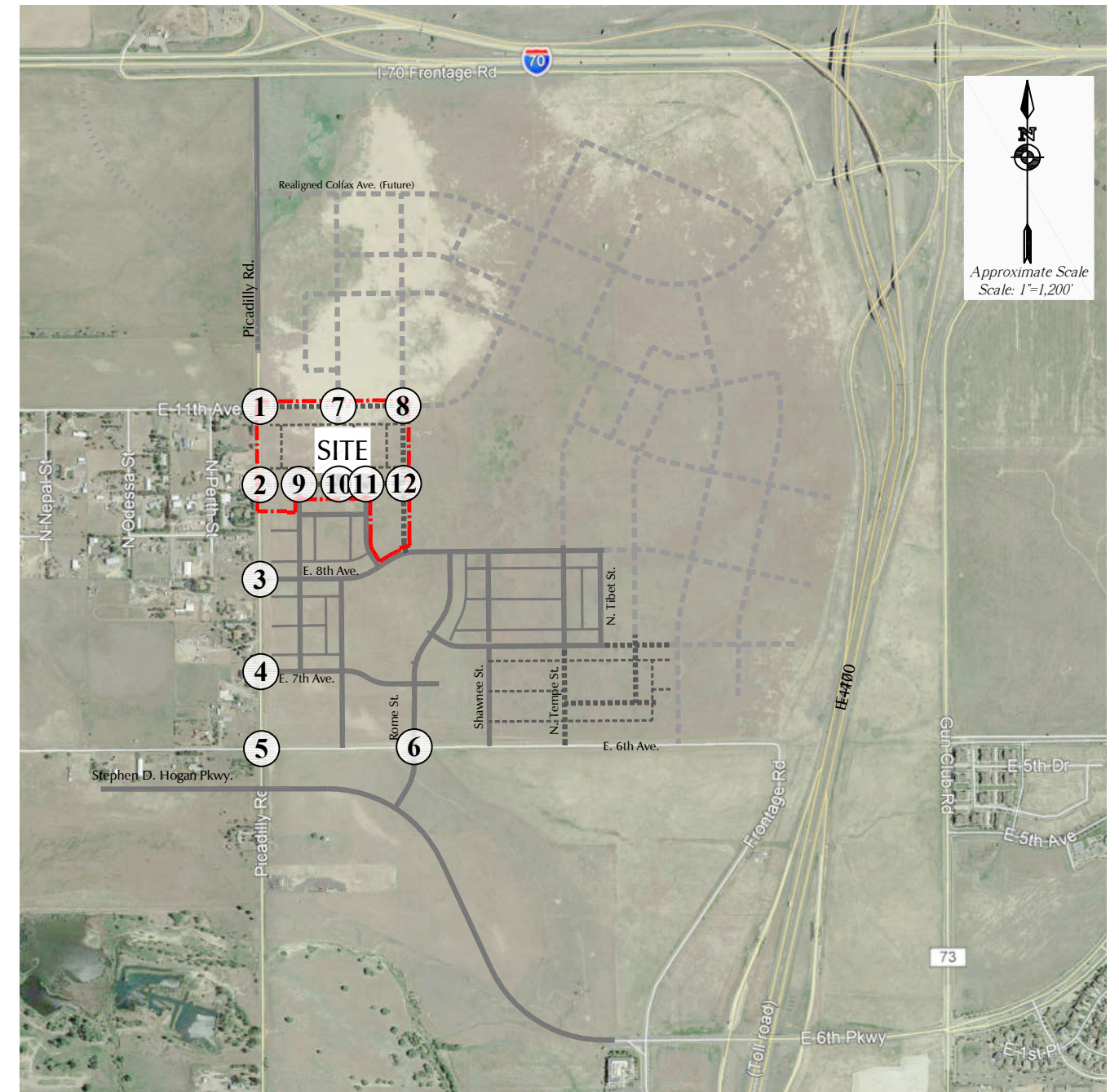

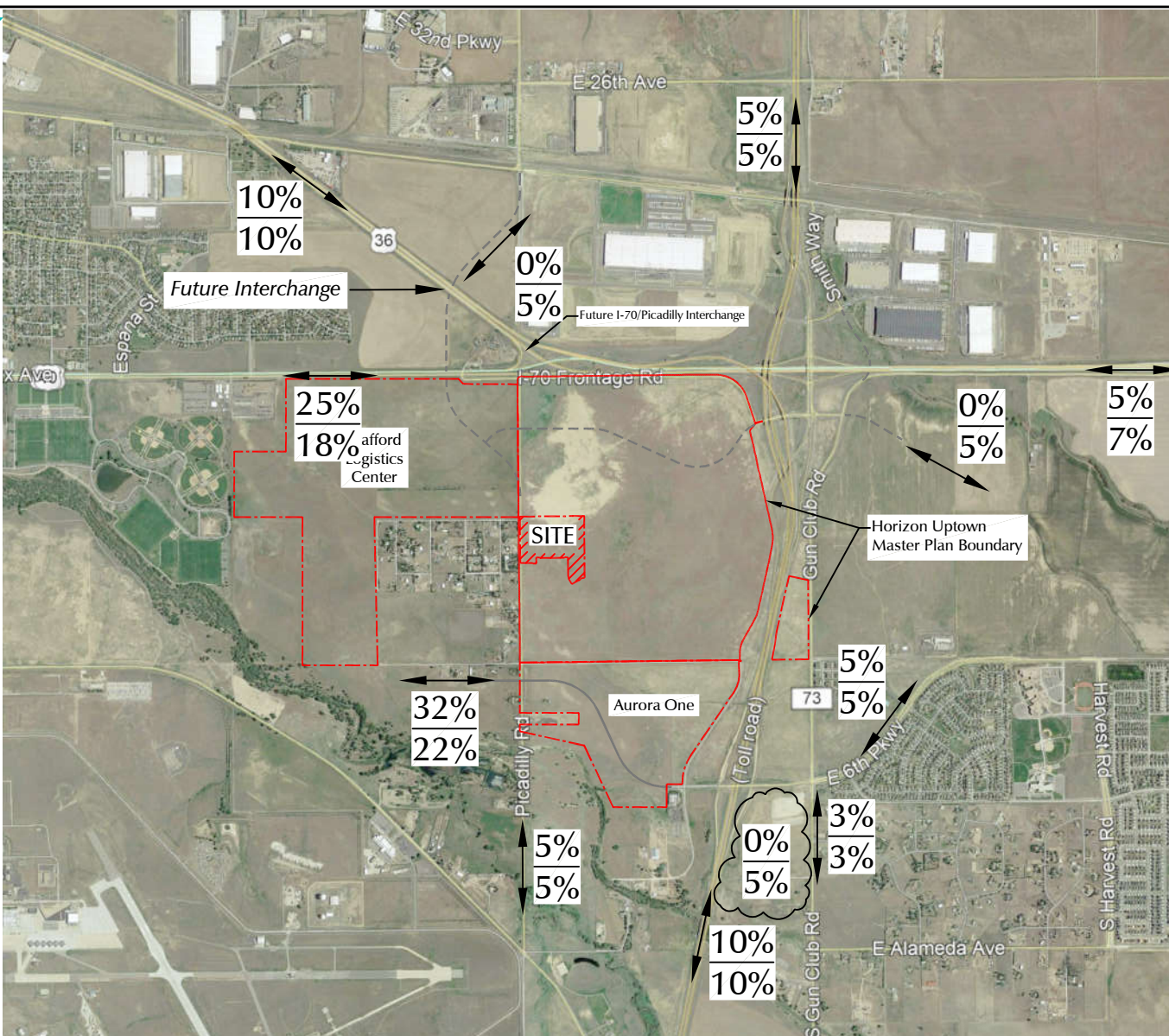


Figure 6b

Year 2040 Background Lane Geometry and Traffic Control

Horizon Uptown Phase 6 Filing 6 (LSC #210520)



Approximate Scale
Scale: 1"=3,000'

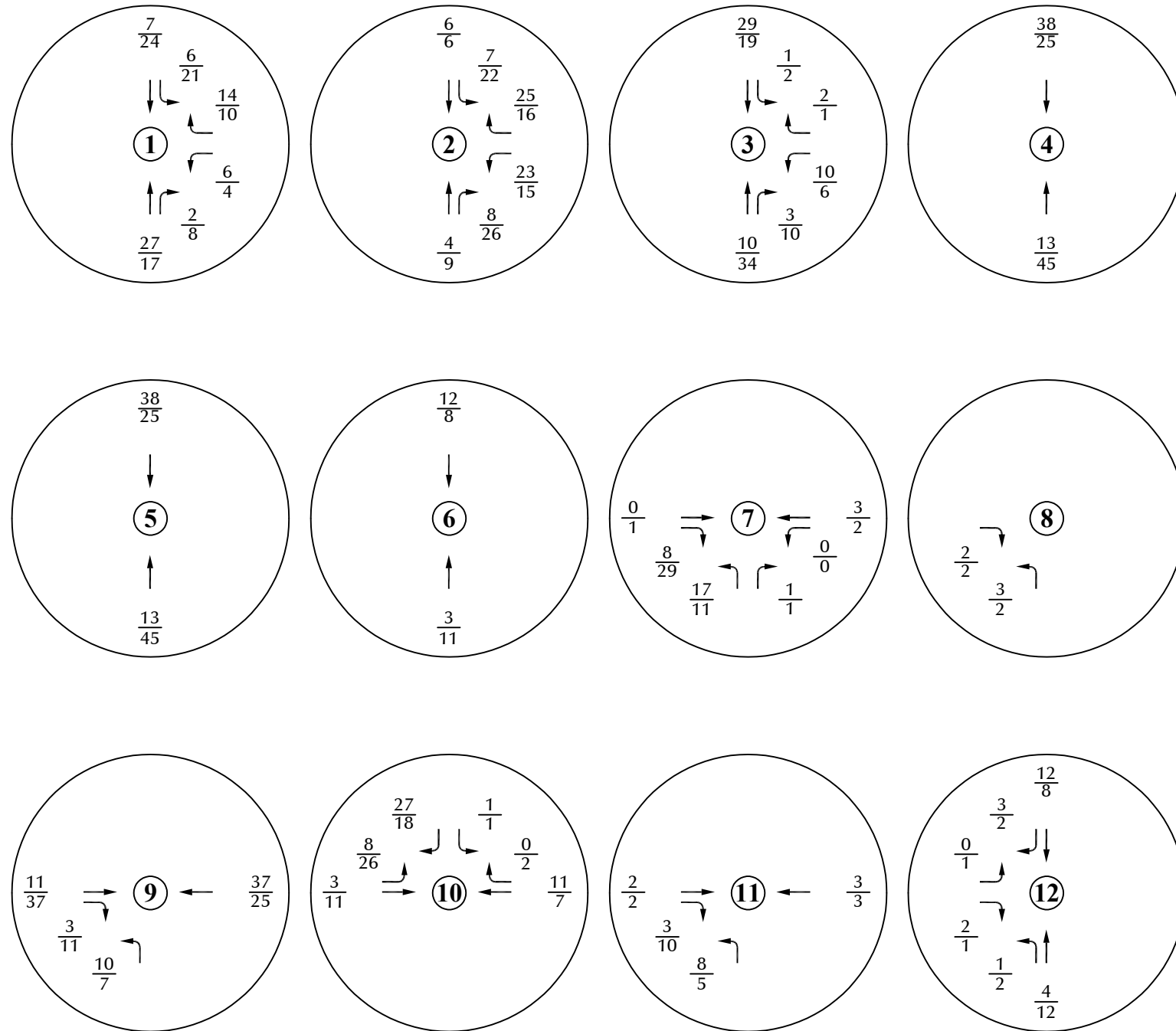
LEGEND:

$$\frac{\overleftrightarrow{5\%}}{5\%} = \frac{2026 \text{ Percent Directional Distribution}}{2040 \text{ Percent Directional Distribution}}$$

Figure 7

Directional Distribution of Site-Generated Traffic

Horizon Uptown Phase 6 Filing 6 (LSC #210520)



LEGEND:

- # = Intersection Number
- $\frac{26}{35}$ = AM Peak Hour Traffic / PM Peak Hour Traffic
- 1,000 = Average Daily Traffic

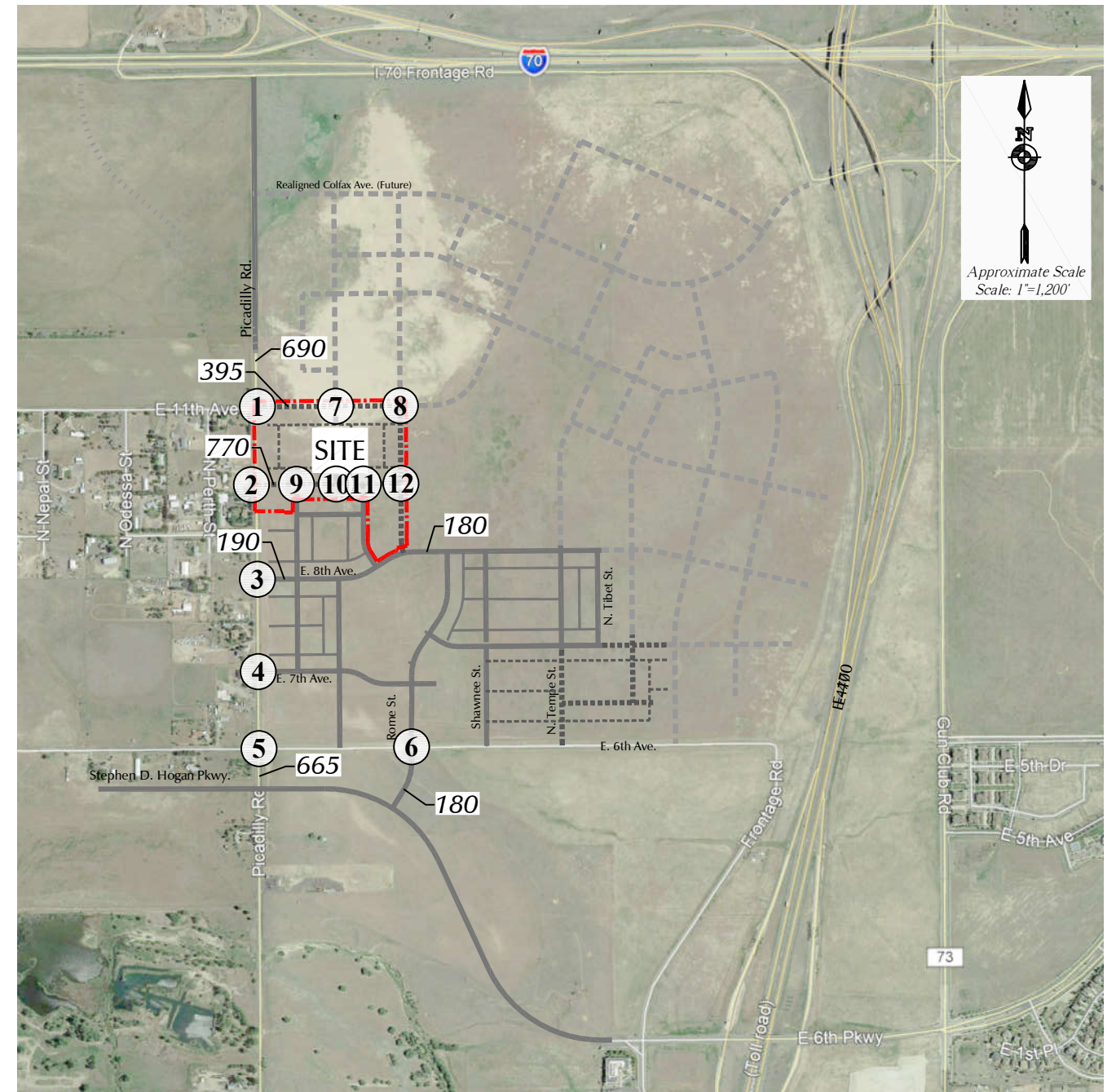
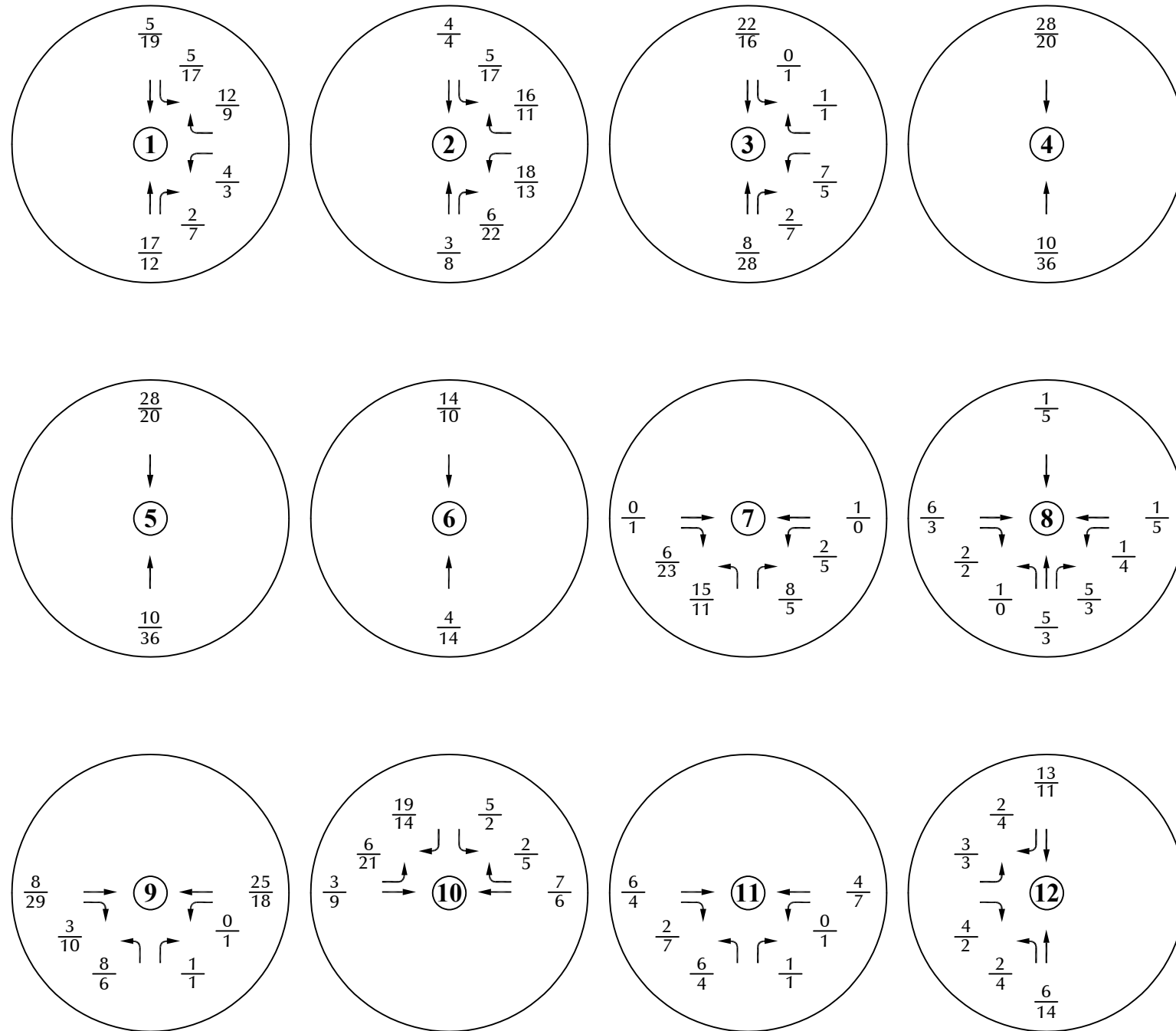


Figure 8

Year 2026 Assignment of Site-Generated Traffic

Horizon Uptown Phase 6 Filing 6 (LSC #210520)



LEGEND:

- # = Intersection Number
- $\frac{26}{35}$ = AM Peak Hour Traffic / PM Peak Hour Traffic
- 1,000 = Average Daily Traffic

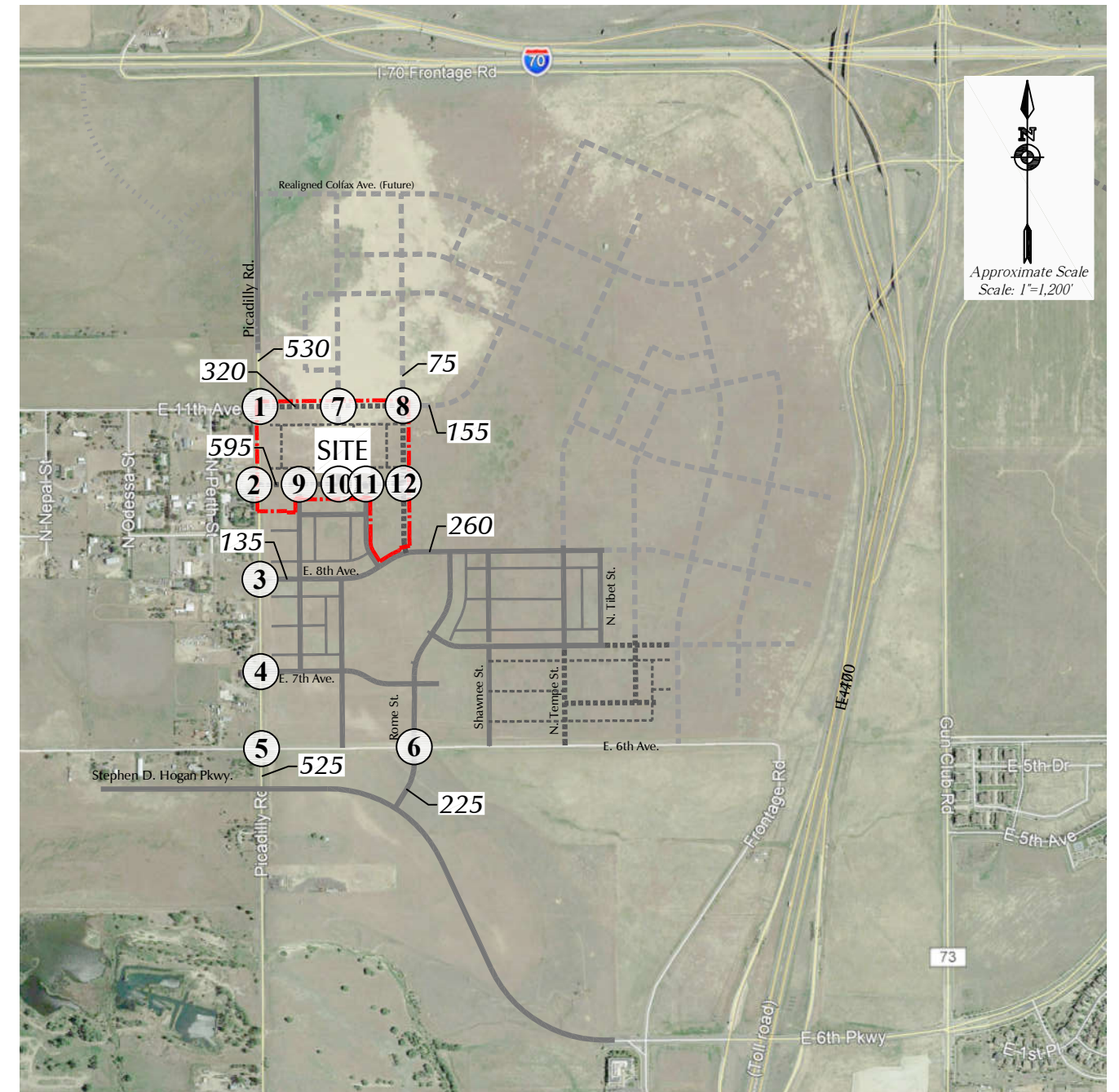
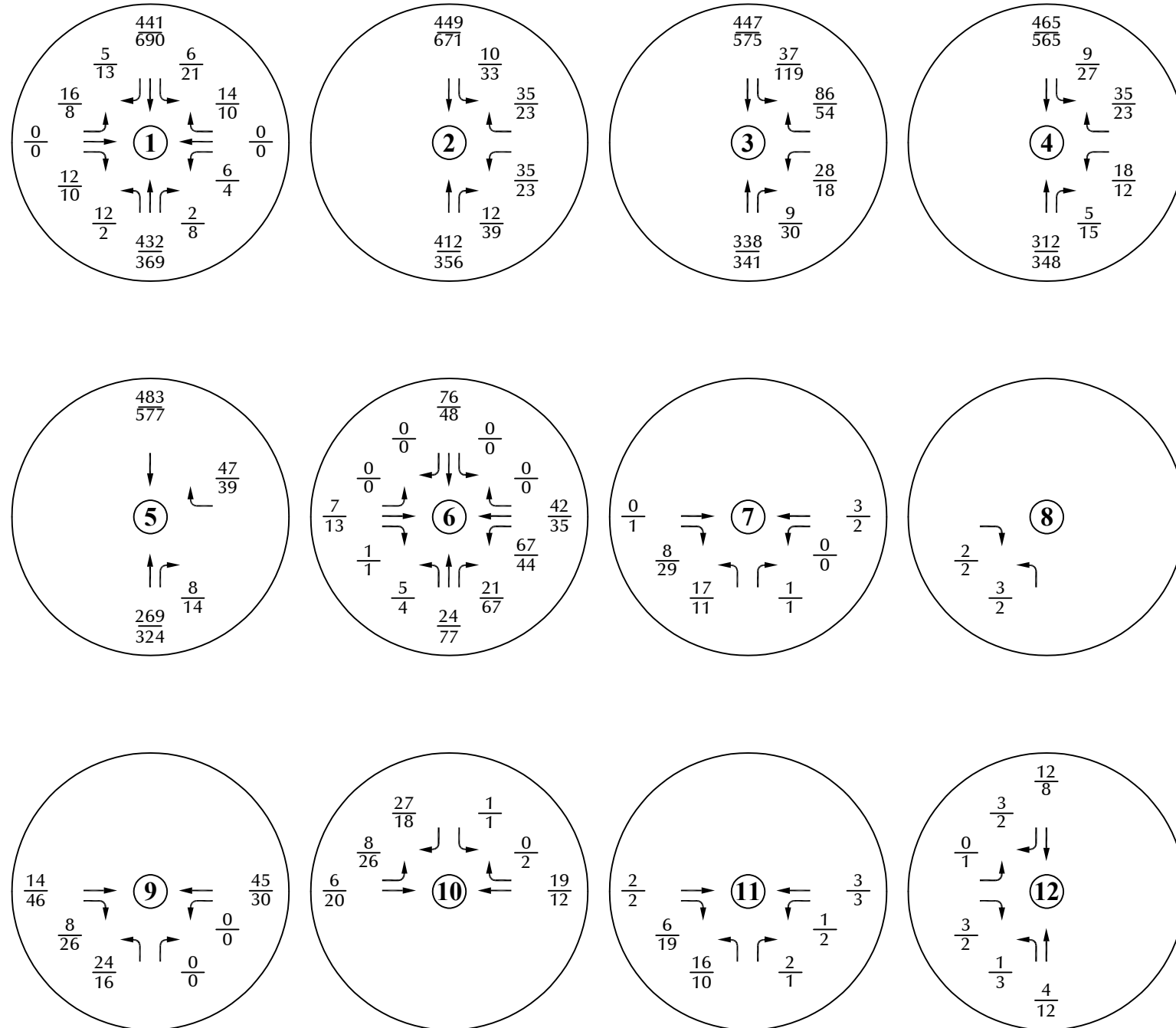


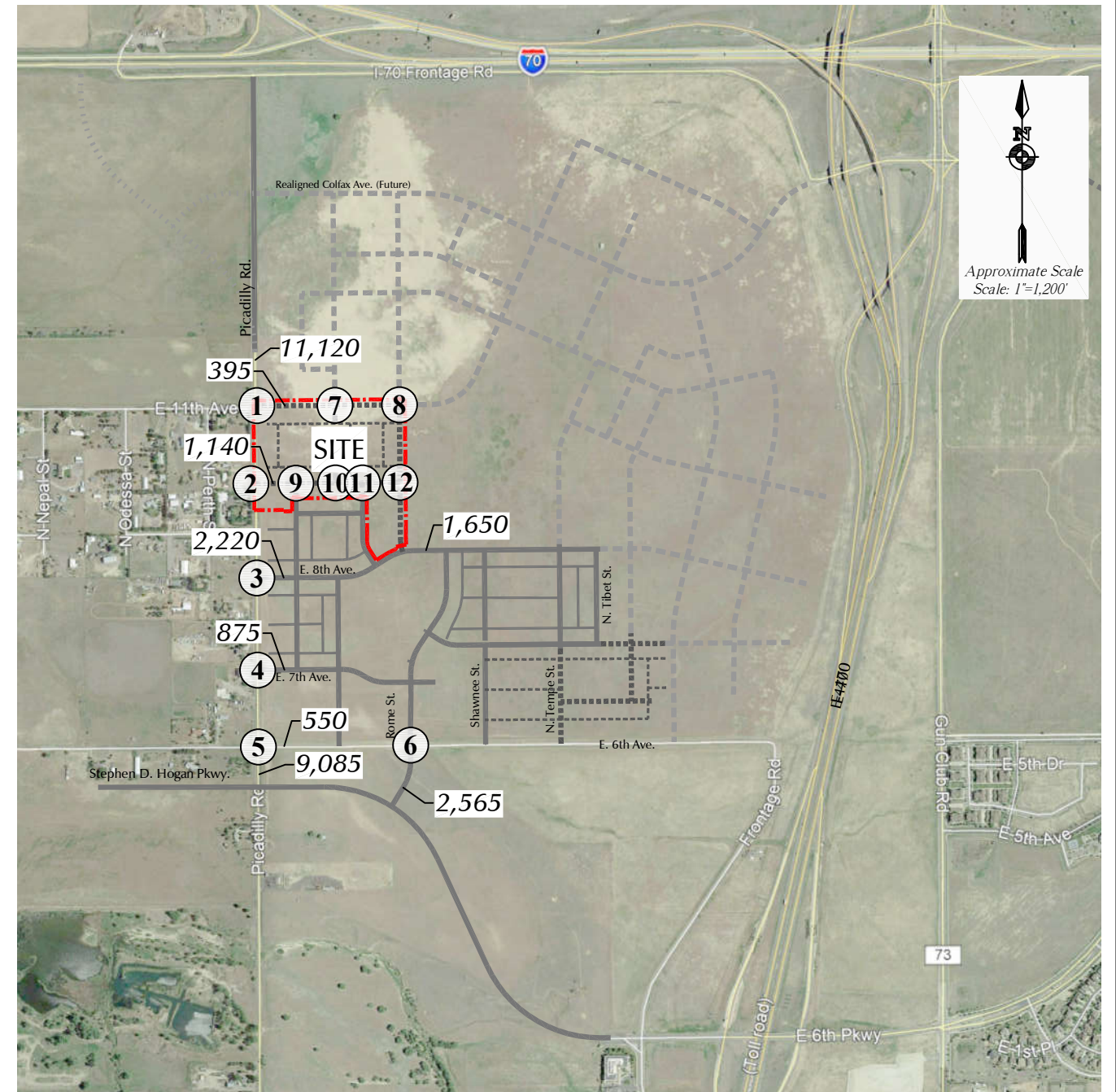
Figure 9

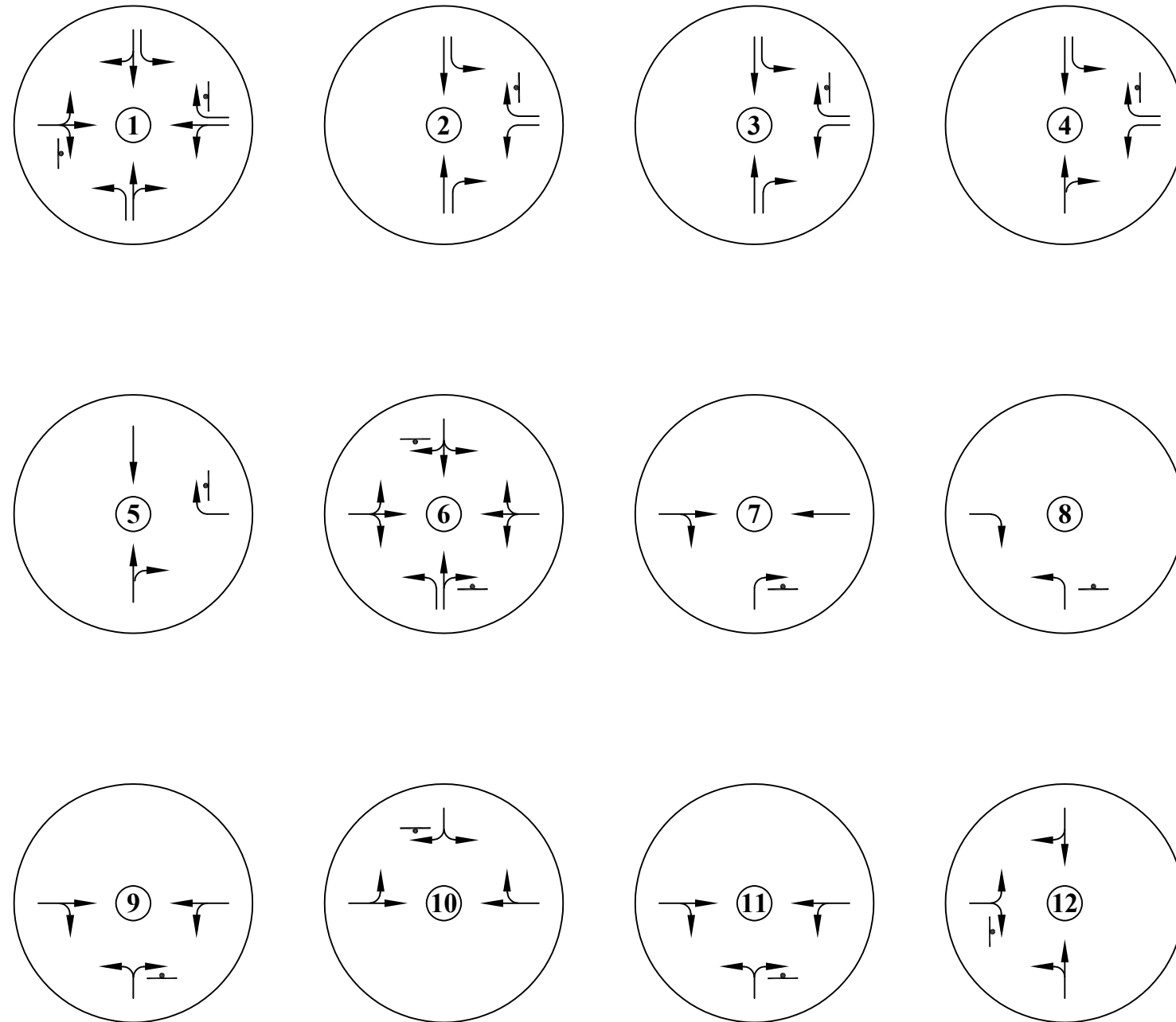
Year 2040 Assignment of Site-Generated Traffic

Horizon Uptown Phase 6 Filing 6 (LSC #210520)



LEGEND:
 (#) = Intersection Number
 $\frac{26}{35}$ = AM Peak Hour Traffic / PM Peak Hour Traffic
 1,000 = Average Daily Traffic





LEGEND:

- # = Intersection Number
- ⌄ = Stop Sign
- ⦿ = Traffic Signal

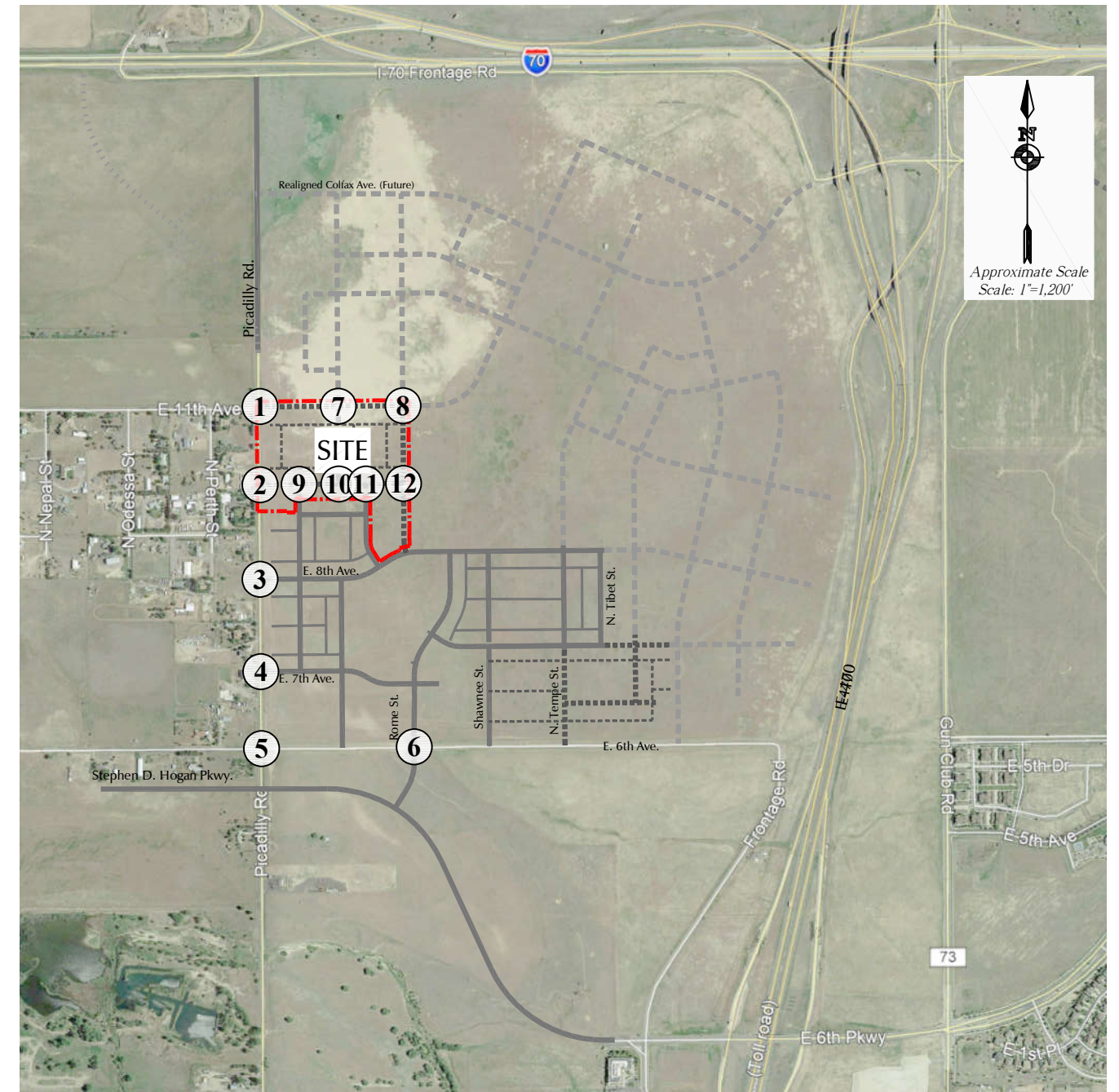
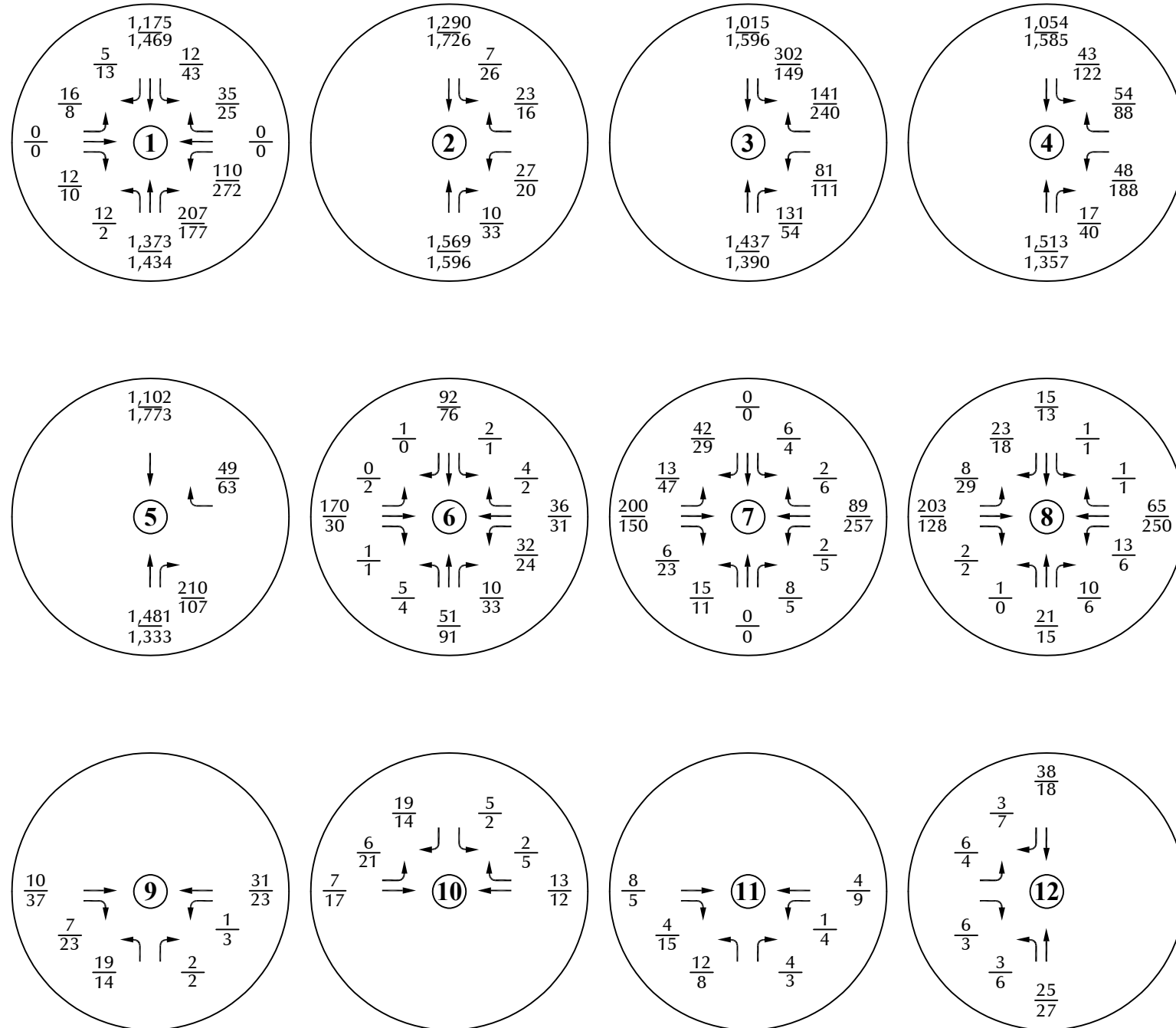


Figure 10b

Year 2026 Total Lane Geometry and Traffic Control

Horizon Uptown Phase 6 Filing 6 (LSC #210520)



LEGEND:

- # = Intersection Number
- $\frac{26}{35}$ = AM Peak Hour Traffic / PM Peak Hour Traffic
- 1,000 = Average Daily Traffic

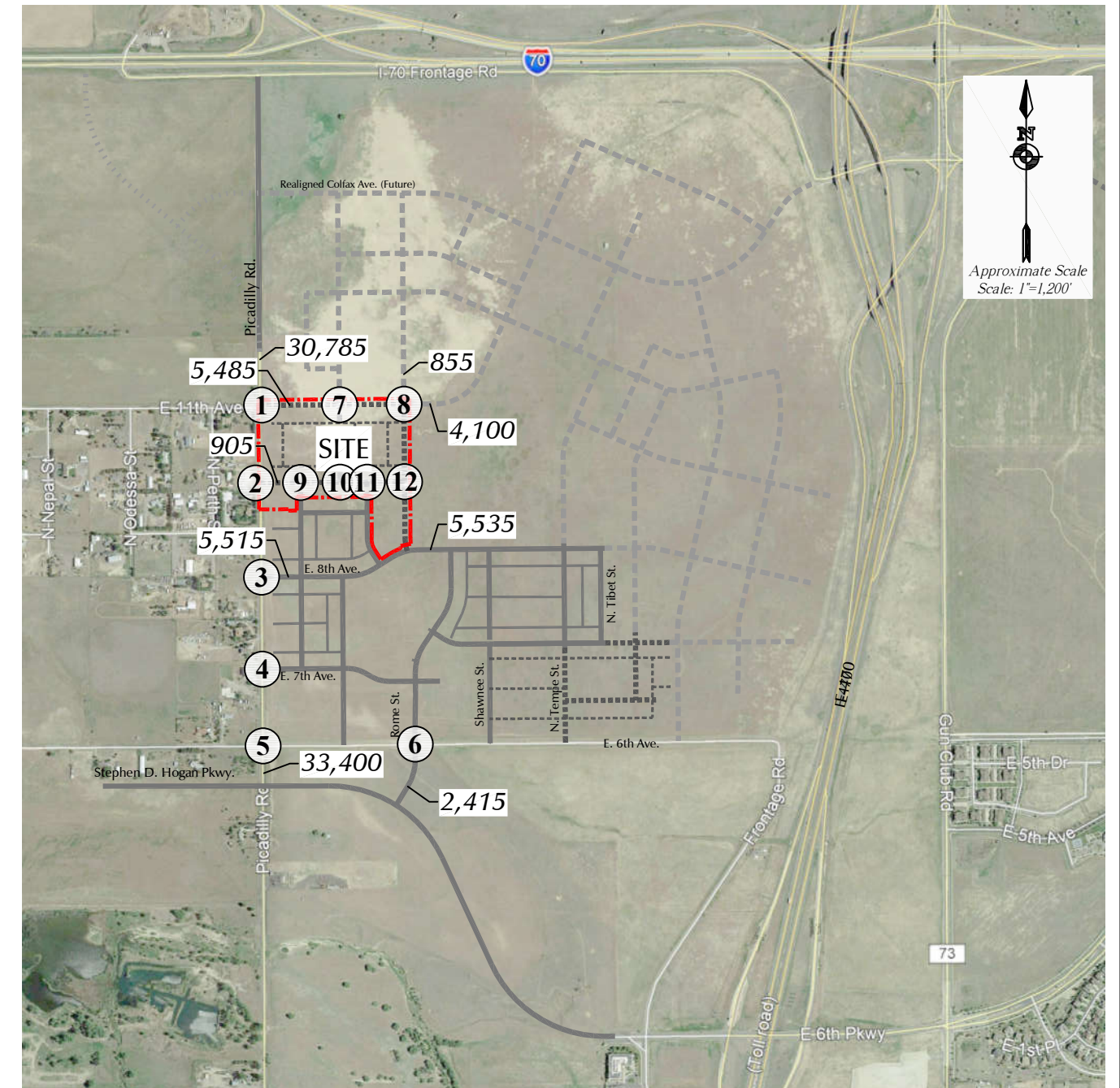
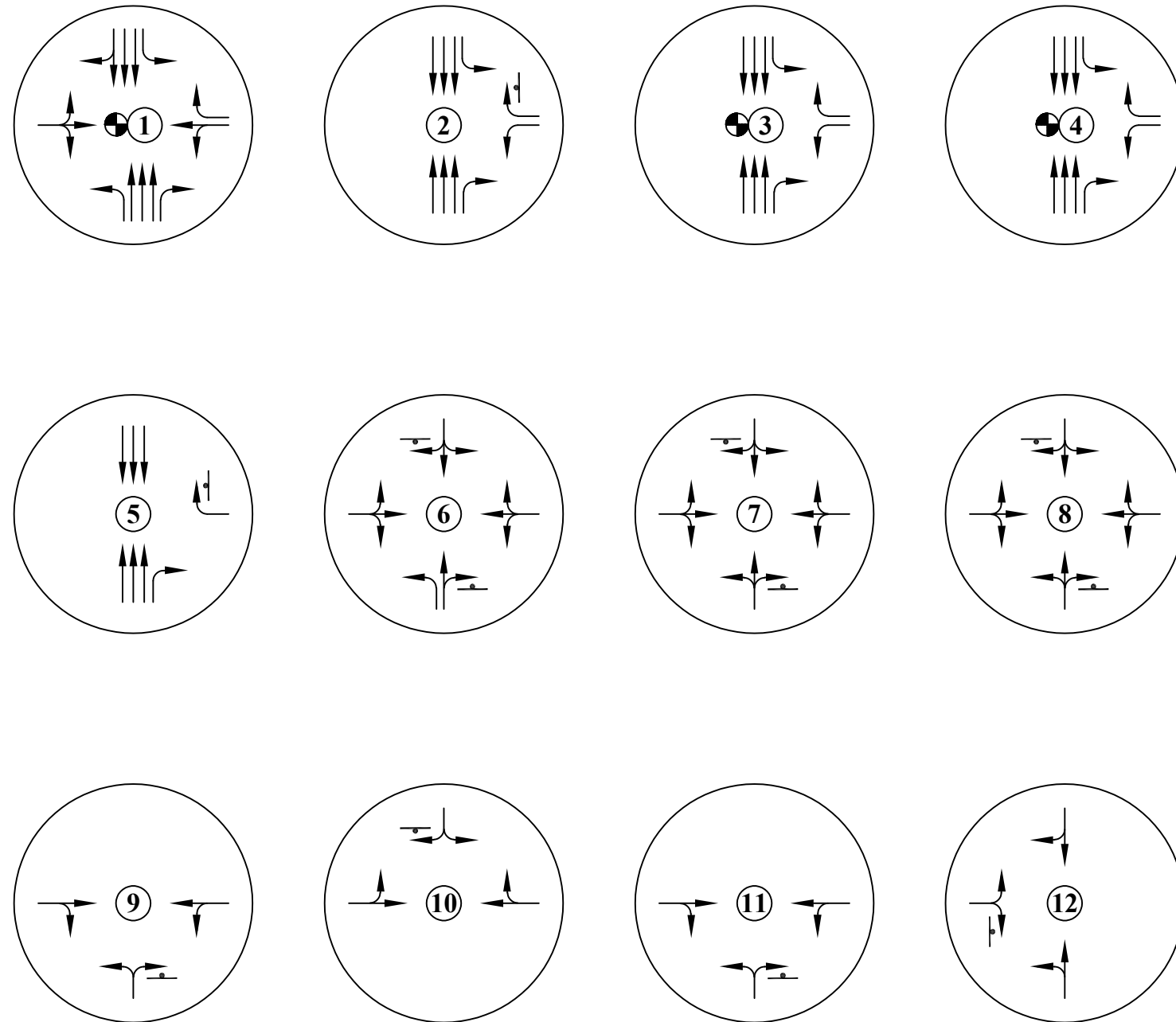


Figure 11a

Year 2040
Total Traffic

Horizon Uptown Phase 6 Filing 6 (LSC #210520)



LEGEND:

- # = Intersection Number
- ⌋ = Stop Sign
- ⦿ = Traffic Signal

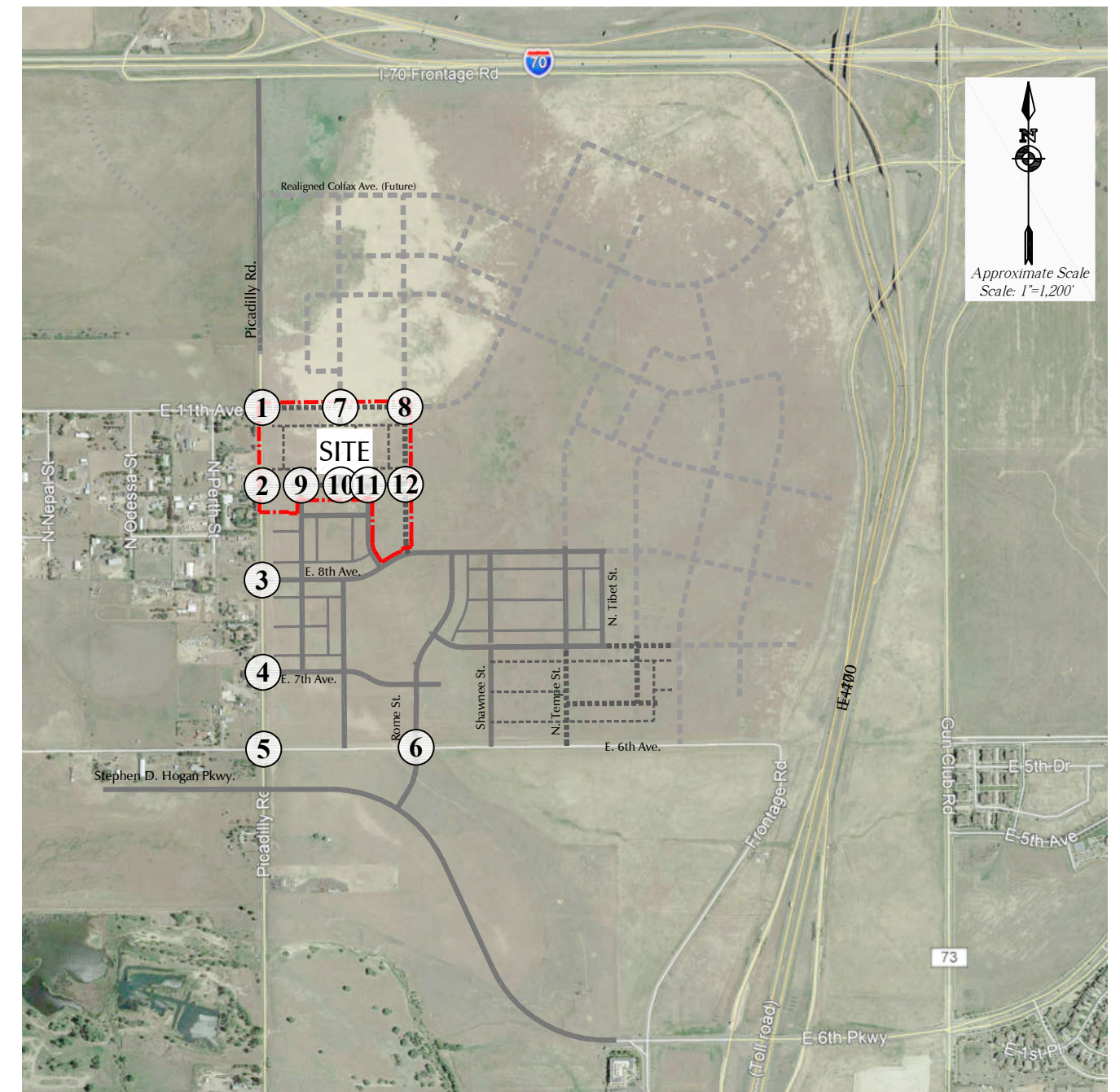


Figure 11b

Year 2040 Total Lane Geometry and Traffic Control

Horizon Uptown Phase 6 Filing 6 (LSC #210520)

COUNTER MEASURES INC.

1889 YORK STREET
DENVER.COLORADO
303-333-7409

N/S STREET: PICADILLY STREET
E/W STREET: 11TH AVENUE
CITY: AURORA
COUNTY: ARAPAHOE

File Name : PICAD11TH
Site Code : 00000013
Start Date : 8/12/2021
Page No : 1

Groups Printed- VEHICLES

	PICADILLY STREET Southbound				Westbound				PICADILLY STREET Northbound				11TH AVENUE Eastbound				Int. Total
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
06:30 AM	0	63	0	0	0	0	0	0	3	21	0	0	6	0	1	0	94
06:45 AM	0	74	3	0	0	0	0	0	3	18	0	0	1	1	4	0	104
Total	0	137	3	0	0	0	0	0	6	39	0	0	7	1	5	0	198
07:00 AM	0	63	1	0	0	0	0	0	1	26	0	0	6	0	4	0	101
07:15 AM	0	65	1	0	0	0	0	0	5	22	0	0	3	0	3	0	99
07:30 AM	0	53	1	0	0	0	0	0	0	26	0	0	2	0	2	0	84
07:45 AM	0	45	1	0	0	0	0	0	0	32	0	0	2	0	4	0	84
Total	0	226	4	0	0	0	0	0	6	106	0	0	13	0	13	0	368
08:00 AM	0	51	2	0	0	0	0	0	2	23	0	0	2	0	3	0	83
08:15 AM	0	28	3	0	0	0	0	0	3	16	0	0	5	0	3	0	58
Total	0	79	5	0	0	0	0	0	5	39	0	0	7	0	6	0	141
04:00 PM	0	50	5	0	0	0	0	0	1	28	0	0	1	0	4	0	89
04:15 PM	0	78	3	0	0	0	0	0	2	31	0	0	1	0	2	0	117
04:30 PM	0	78	3	0	0	0	0	0	0	30	0	0	1	0	3	0	115
04:45 PM	0	63	4	0	0	0	0	0	0	21	0	0	1	0	3	0	92
Total	0	269	15	0	0	0	0	0	3	110	0	0	4	0	12	0	413
05:00 PM	0	67	3	0	0	0	0	0	0	23	0	0	5	0	2	0	100
05:15 PM	0	71	4	0	0	0	0	0	1	29	0	0	1	0	0	0	106
05:30 PM	0	42	3	0	0	0	0	0	5	22	0	0	0	0	5	0	77
05:45 PM	0	55	4	0	0	0	0	0	3	16	0	0	2	0	4	0	84
Total	0	235	14	0	0	0	0	0	9	90	0	0	8	0	11	0	367
Grand Total	0	946	41	0	0	0	0	0	29	384	0	0	39	1	47	0	1487
Apprch %	0.0	95.8	4.2	0.0	0.0	0.0	0.0	0.0	7.0	93.0	0.0	0.0	44.8	1.1	54.0	0.0	
Total %	0.0	63.6	2.8	0.0	0.0	0.0	0.0	0.0	2.0	25.8	0.0	0.0	2.6	0.1	3.2	0.0	

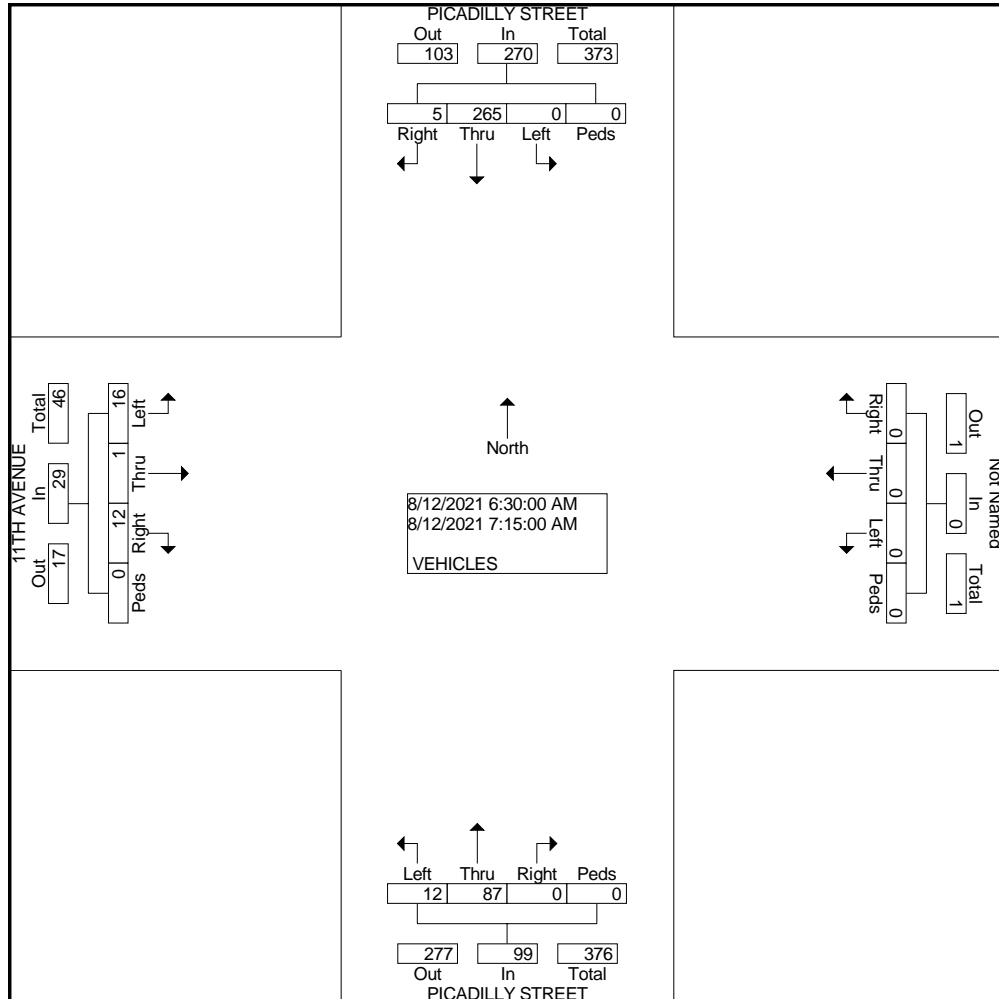
COUNTER MEASURES INC.

1889 YORK STREET
DENVER.COLORADO
303-333-7409

N/S STREET: PICADILLY STREET
E/W STREET: 11TH AVENUE
CITY: AURORA
COUNTY: ARAPAHOE

File Name : PICAD11TH
Site Code : 00000013
Start Date : 8/12/2021
Page No : 2

	PICADILLY STREET Southbound					Westbound					PICADILLY STREET Northbound					11TH AVENUE 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 From 06:30 AM to 08:15 AM - Peak 1 of 1																					
Intersection	06:30 AM																				
Volume	0	265	5	0	270	0	0	0	0	0	12	87	0	0	99	16	1	12	0	29	398
Percent	0.0	98.1	1.9	0.0		0.0	0.0	0.0	0.0		12.1	87.9	0.0	0.0		55.2	3.4	41.4	0.0		
06:45																					
Volume	0	74	3	0	77	0	0	0	0	0	3	18	0	0	21	1	1	4	0	6	104
Peak Factor																					0.957
High Int.	06:45 AM					6:15:00 AM					07:00 AM					07:00 AM					
Volume	0	74	3	0	77	0	0	0	0	0	1	26	0	0	27	6	0	4	0	10	
Peak Factor	0.877										0.917					0.725					



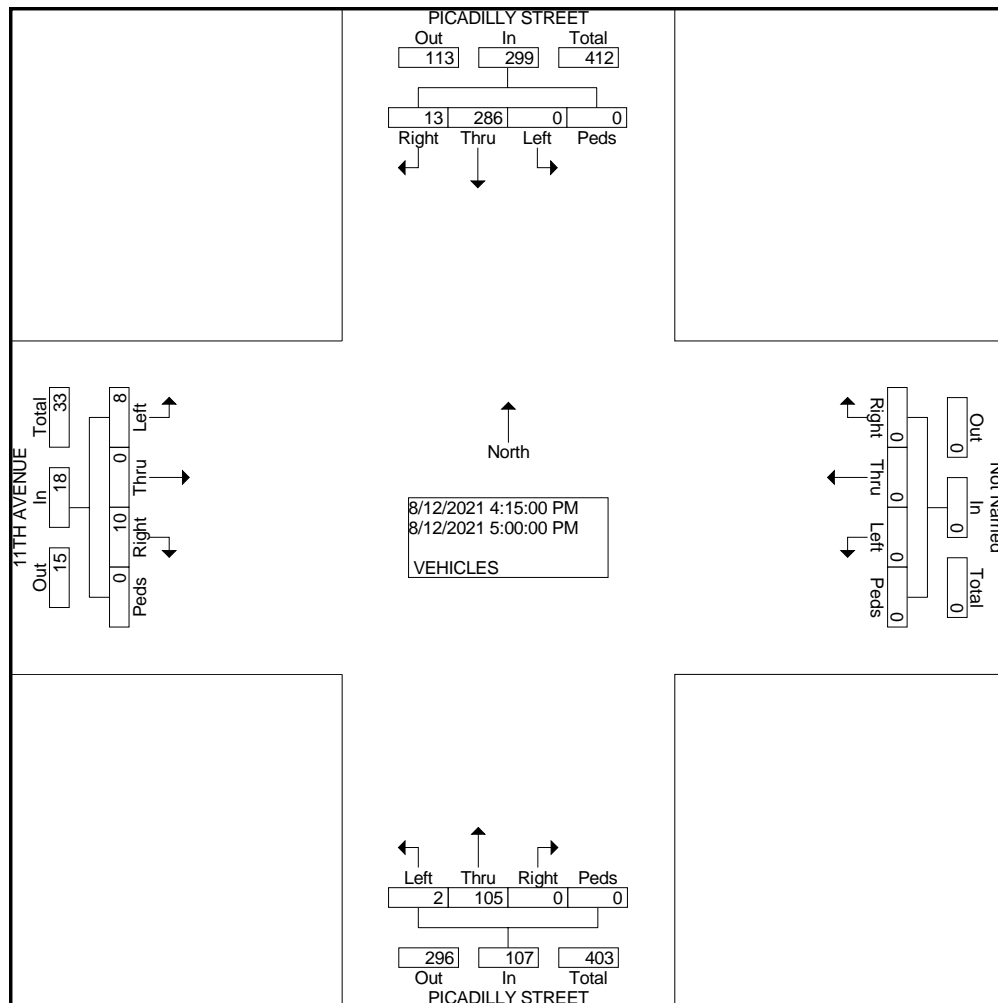
COUNTER MEASURES INC.

1889 YORK STREET
DENVER.COLORADO
303-333-7409

N/S STREET: PICADILLY STREET
E/W STREET: 11TH AVENUE
CITY: AURORA
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File Name : PICAD11TH
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Start Date : 8/12/2021
Page No : 2

	PICADILLY STREET Southbound					Westbound					PICADILLY STREET Northbound					11TH AVENUE 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 From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Intersection	04:15 PM																				
Volume	0	286	13	0	299	0	0	0	0	0	2	105	0	0	107	8	0	10	0	18	424
Percent	0.0	95.7	4.3	0.0		0.0	0.0	0.0	0.0		1.9	98.1	0.0	0.0		44.4	0.0	55.6	0.0		
04:15 Volume	0	78	3	0	81	0	0	0	0	0	2	31	0	0	33	1	0	2	0	3	117
Peak Factor																					0.906
High Int.	04:15 PM										04:15 PM					05:00 PM					
Volume	0	78	3	0	81	0	0	0	0	0	2	31	0	0	33	5	0	2	0	7	
Peak Factor	0.923										0.811					0.643					



Location: PICCADILLY RD S/O 11TH AVE
City: AURORA
County: ARAPAHOE
Direction: NORTHBOUND/SOUTHBOUND

COUNTER MEASURES INC.
1889 YORK STREET
DENVER, COLORADO 80206
303-333-7409

Site Code: 210916
Station ID: 210916

Start Time	10-Aug-21 Tue	NB	SB								Total
12:00 AM		7	19								26
01:00		8	10								18
02:00		9	10								19
03:00		15	10								25
04:00		14	16								30
05:00		96	48								144
06:00		86	181								267
07:00		92	196								288
08:00		85	145								230
09:00		100	68								168
10:00		169	10								179
11:00		176	0								176
12:00 PM		171	4								175
01:00		200	1								201
02:00		279	0								279
03:00		302	1								303
04:00		360	4								364
05:00		312	32								344
06:00		164	115								279
07:00		64	104								168
08:00		54	85								139
09:00		16	48								64
10:00		15	21								36
11:00		11	31								42
Total		2805	1159								3964
Percent		70.8%	29.2%								
AM Peak	-	11:00	07:00	-	-	-	-	-	-	07:00	
Vol.	-	176	196	-	-	-	-	-	-	288	
PM Peak	-	16:00	18:00	-	-	-	-	-	-	16:00	
Vol.	-	360	115	-	-	-	-	-	-	364	

Location: PICCADILLY RD S/O 11TH AVE
City: AURORA
County: ARAPAHOE
Direction: NORTHBOUND/SOUTHBOUND

COUNTER MEASURES INC.
1889 YORK STREET
DENVER, COLORADO 80206
303-333-7409

Site Code: 210916
Station ID: 210916

Start Time	11-Aug-21 Wed	NB	SB							Total
12:00 AM		4	13							17
01:00		3	12							15
02:00		13	13							26
03:00		13	4							17
04:00		13	11							24
05:00		91	55							146
06:00		84	176							260
07:00		80	217							297
08:00		99	154							253
09:00		110	82							192
10:00		159	8							167
11:00		200	0							200
12:00 PM		218	0							218
01:00		213	0							213
02:00		256	0							256
03:00		325	0							325
04:00		407	0							407
05:00		356	4							360
06:00		173	103							276
07:00		88	101							189
08:00		52	70							122
09:00		27	50							77
10:00		19	46							65
11:00		15	33							48
Total		3018	1152							4170
Percent		72.4%	27.6%							
AM Peak	-	11:00	07:00	-	-	-	-	-	-	07:00
Vol.	-	200	217	-	-	-	-	-	-	297
PM Peak	-	16:00	18:00	-	-	-	-	-	-	16:00
Vol.	-	407	103	-	-	-	-	-	-	407

Location: PICCADILLY RD S/O 11TH AVE
City: AURORA
County: ARAPAHOE
Direction: NORTHBOUND/SOUTHBOUND

COUNTER MEASURES INC.
1889 YORK STREET
DENVER, COLORADO 80206
303-333-7409

Site Code: 210916
Station ID: 210916

Start Time	12-Aug-21 Thu	NB	SB								Total
12:00 AM		8	20								28
01:00		6	7								13
02:00		9	8								17
03:00		13	13								26
04:00		12	22								34
05:00		88	45								133
06:00		82	214								296
07:00		116	245								361
08:00		100	142								242
09:00		110	64								174
10:00		187	6								193
11:00		174	1								175
12:00 PM		183	0								183
01:00		198	0								198
02:00		276	1								277
03:00		377	1								378
04:00		386	1								387
05:00		308	29								337
06:00		154	133								287
07:00		75	103								178
08:00		55	73								128
09:00		30	65								95
10:00		18	45								63
11:00		10	27								37
Total		2975	1265								4240
Percent		70.2%	29.8%								
AM Peak	-	10:00	07:00	-	-	-	-	-	-	07:00	
Vol.	-	187	245	-	-	-	-	-	-	361	
PM Peak	-	16:00	18:00	-	-	-	-	-	-	16:00	
Vol.	-	386	133	-	-	-	-	-	-	387	
Grand Total		8798	3576								12374
Percent		71.1%	28.9%								
ADT		ADT 4,125	AADT 4,125								

Location: PICCADILLY RD N/O 11TH AVE
City: AURORA
County: ARAPAHOE
Direction: NORTHBOUND-SOUTHBOUND

COUNTER MEASURES INC.
1889 YORK STREET
DENVER, COLORADO 80206
303-333-7409

Site Code: 210913
Station ID: 210913

Start Time	10-Aug-21 Tue	NB	SB							Total
12:00 AM		8	22							30
01:00		11	11							22
02:00		9	10							19
03:00		16	11							27
04:00		19	17							36
05:00		98	47							145
06:00		88	178							266
07:00		97	189							286
08:00		80	160							240
09:00		66	98							164
10:00		59	114							173
11:00		60	120							180
12:00 PM		73	106							179
01:00		81	149							230
02:00		92	201							293
03:00		108	206							314
04:00		109	277							386
05:00		103	250							353
06:00		106	186							292
07:00		47	123							170
08:00		54	96							150
09:00		21	57							78
10:00		16	30							46
11:00		8	37							45
Total		1429	2695							4124
Percent		34.7%	65.3%							
AM Peak	-	05:00	07:00	-	-	-	-	-	-	07:00
Vol.	-	98	189	-	-	-	-	-	-	286
PM Peak	-	16:00	16:00	-	-	-	-	-	-	16:00
Vol.	-	109	277	-	-	-	-	-	-	386

Location: PICCADILLY RD N/O 11TH AVE
City: AURORA
County: ARAPAHOE
Direction: NORTHBOUND-SOUTHBOUND

COUNTER MEASURES INC.
1889 YORK STREET
DENVER, COLORADO 80206
303-333-7409

Site Code: 210913
Station ID: 210913

Start Time	11-Aug-21 Wed	NB	SB							Total
12:00 AM		4	15							19
01:00		7	14							21
02:00		11	13							24
03:00		15	6							21
04:00		17	12							29
05:00		91	56							147
06:00		85	167							252
07:00		79	213							292
08:00		95	163							258
09:00		60	132							192
10:00		59	111							170
11:00		68	143							211
12:00 PM		76	150							226
01:00		86	138							224
02:00		81	191							272
03:00		120	211							331
04:00		138	290							428
05:00		127	260							387
06:00		96	193							289
07:00		63	123							186
08:00		49	77							126
09:00		24	64							88
10:00		15	50							65
11:00		13	37							50
Total		1479	2829							4308
Percent		34.3%	65.7%							
AM Peak	-	08:00	07:00	-	-	-	-	-	-	07:00
Vol.	-	95	213	-	-	-	-	-	-	292
PM Peak	-	16:00	16:00	-	-	-	-	-	-	16:00
Vol.	-	138	290	-	-	-	-	-	-	428

Location: PICCADILLY RD N/O 11TH AVE
City: AURORA
County: ARAPAHOE
Direction: NORTHBOUND-SOUTHBOUND

COUNTER MEASURES INC.
1889 YORK STREET
DENVER, COLORADO 80206
303-333-7409

Site Code: 210913
Station ID: 210913

Start Time	12-Aug-21 Thu	NB	SB							Total
12:00 AM		6	20							26
01:00		10	7							17
02:00		12	10							22
03:00		12	14							26
04:00		14	23							37
05:00		87	45							132
06:00		86	213							299
07:00		120	235							355
08:00		93	158							251
09:00		62	114							176
10:00		78	118							196
11:00		66	110							176
12:00 PM		82	108							190
01:00		74	140							214
02:00		80	206							286
03:00		128	249							377
04:00		118	282							400
05:00		100	249							349
06:00		100	196							296
07:00		62	121							183
08:00		49	84							133
09:00		36	76							112
10:00		17	47							64
11:00		10	30							40
Total		1502	2855							4357
Percent		34.5%	65.5%							
AM Peak	-	07:00	07:00	-	-	-	-	-	-	07:00
Vol.	-	120	235	-	-	-	-	-	-	355
PM Peak	-	15:00	16:00	-	-	-	-	-	-	16:00
Vol.	-	128	282	-	-	-	-	-	-	400
Grand Total		4410	8379							12789
Percent		34.5%	65.5%							
ADT		ADT 4,263	AADT 4,263							

TRANSPORTATION IMPACT STUDY

Stafford Logistics Center

Aurora, Colorado

Prepared for:

Ware Malcomb
990 S. Broadway, Suite 230
Denver, CO 80209

Prepared by:

Felsburg Holt & Ullevig
6400 S Fiddlers Green Circle, Suite 1500
Greenwood Village, CO 80111
303.721.1440

Project Manager: Christopher J. Fasching, PE, PTOE
Project Engineer: Philip Dunham, PE, PTOE



FHU Reference No. 120346-01

March 2021

III. PROPOSED CONDITIONS

III.A. Site Trip Generation

The current development proposal consists of approximately 4.2 million square feet of industrial park uses and related retail/commercial/hotel uses once built out with approximately 1.1 million square feet being dedicated to a single user fulfillment center. Phase I of the development will include the first three industrial park buildings, the first of which is currently under construction, and the third building is planned to be dedicated to a single user fulfillment center. NorthPoint Development does not intend to build the retail portions of the site until the Horizon Uptown development is well underway or construction of the Picadilly/I-70 interchange is nearly complete as the retail uses will not be supported under current surrounding land use and regional access conditions. A trip generation analysis for the proposed site plan was conducted using average weekday data contained in Trip Generation, 10th Edition, Institute of Transportation Engineers (ITE), 2017. **Table I** shows the trip generation estimates.

Table I. Stafford Trip Generation Estimates

Land Use	ITE Code	Quantity	Units	Daily	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
Industrial Park (Bldg. 1 & 2) ³	130	1,118.1	KSF	3,295	362	85	447	93	354	447
Single User Fulfillment Center ³	Custom	1,079.7	KSF	2,128	161	119	280	240	254	494
Industrial Park (Total)	130	3,124.8	KSF	5,622	1,012	238	1,250	262	988	1,250
Shopping Center	820	75.6	KSF	4,971	118	72	190	212	230	442
Supermarket	850	34	KSF	3,623	78	52	130	178	171	349
Drive-in Bank	912	6	KSF	614	33	24	57	61	62	123
Hotel	310	200	Rooms	1,672	56	39	95	63	61	124
Gas/Service Station	945	16	Pumps	2,752	82	82	164	112	112	224
Short-Term Total Trips				5,423	523	204	727	333	608	941
Long-Term Total Trips				21,382	1,540	626	2,166	1,128	1,878	3,006
Internal Capture Reduction¹				380	5	5	10	19	19	38
Pass by Reduction²				1,376	41	41	82	56	56	112
Total New External Trips				19,626	1,494	580	2,074	1,053	1,803	2,856

Notes:

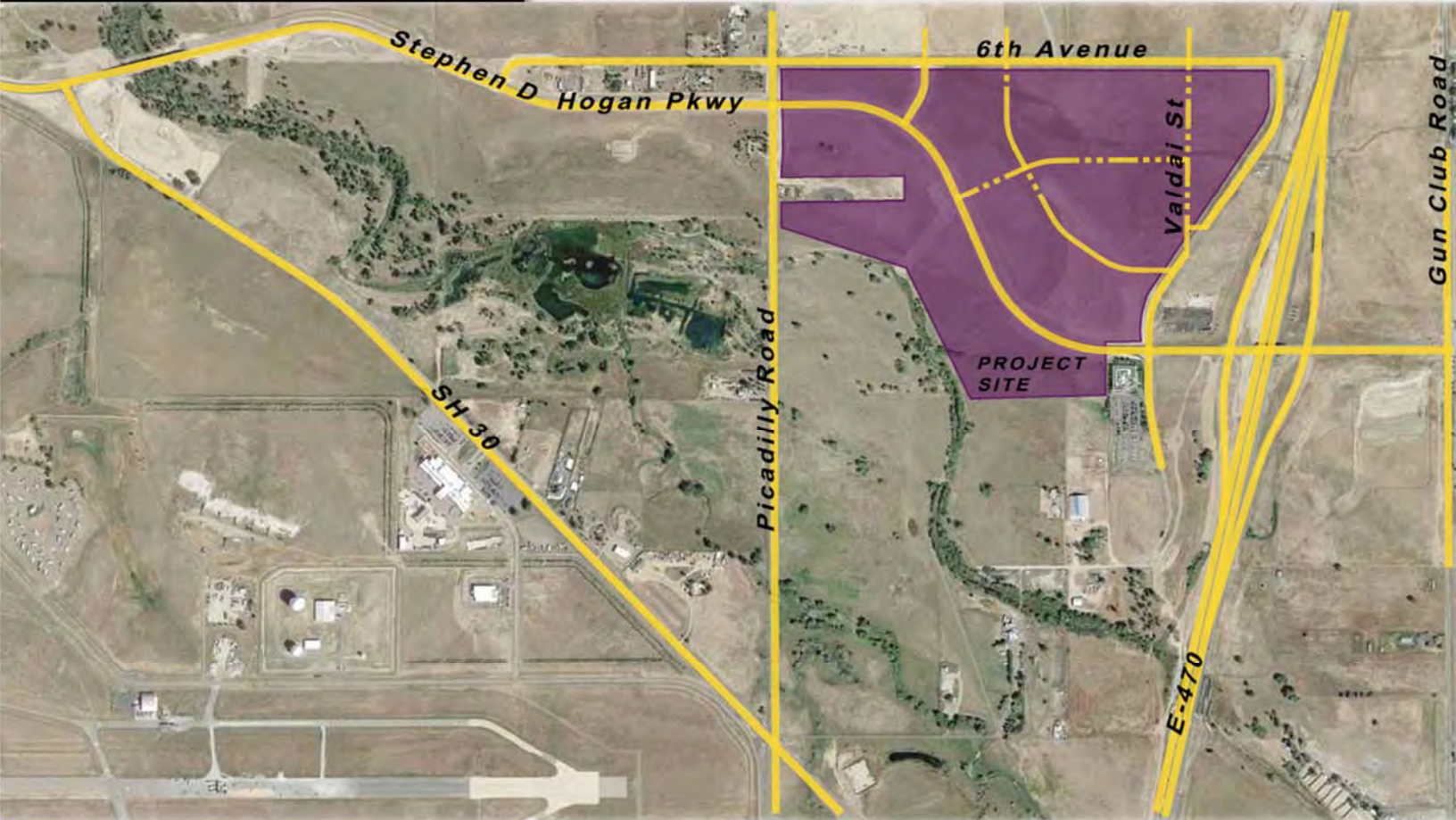
1. Daily internal capture is assumed to be 10 times the PM value as calculated using ITE methodology. See text relative to Peak Hour internal trip-making.
2. Pass by reduction of 50% for Gas/Service Station is assumed from traffic passing the site along Picadilly Road.
3. Use is part of the short-term timeframe development.

National Cooperative Highway Research Program (NCHRP) 684 provides the methodology for internal capture reductions based on the interactions of different land uses within mixed-use developments, including office, retail, restaurant, residential, cinema, and hotel. The methodology considers that mixed-use developments will keep a portion of the trips generated internal to the site, thus reducing impacts to the adjacent roadway network. Internal capture worksheets can be found in **Appendix C**.

As can be seen, the proposed development would generate approximately 19,600 external trips per day, with about 2,100 AM peak hour trips and about 2,900 PM peak hour external trips. The first phase of development includes the first two industrial park buildings, plus the single user fulfillment center, which

Aurora One

Traffic Impact Study



Previous Versions: June 26, 2020; September 21, 2020

Updated Date: January 25, 2021

Submitted To:

Ware Malcomb
990 S. Broadway Suite 230
Denver, CO 80209

Submitted By:

Fox Tuttle Transportation Group, LLC
1624 Market Street, Suite 202
Denver, CO 80202

Multi-Use (Internal) Trips. These internal trips occur from one land use or building to another within the site boundaries. Multi-use or multi-purpose trips typically do not affect the exterior site access points, nor add any additional traffic volumes to the adjacent street network. Based on ITE's *Trip Generation Handbook*, the internal capture for the project was calculated to be 15%. For conservative purposes, 10% internal capture was applied to all land use types as shown in the fourth column of **Table 5** titled "internal capture".

Non-Auto Trips. These trips are those that are completed by walking, biking, or transit. The future pedestrian and bicycle amenities will encourage residents, employees, customers, and visitors to make non-auto trips to/from the Aurora One community. The non-auto trips are assumed to be a 5% for land uses as shown in the fifth column of **Table 5** titled "non-auto factor".

Table 6 summarizes the land uses that were assumed for the development. This mix of land use types may adjust as interested parties come forward; however, the trip estimate is assumed to be conservative. Aurora One was estimated to generate approximately 18,065 daily trips with 1,101 trips in the AM peak hour and 1,480 trips in the PM peak hour, with roughly 30% considered pass-by trips.

Table 6: Land Use Assumptions

Planning Area	Land Use Type	Size (rounded)	Planning Area	Land Use Type	Size (rounded)
PA-1	Medical Office	12,000 sq. ft.	PA-9	Medical Office	11,200 sq. ft.
	Commercial Retail	3,100 sq. ft.		Commercial Retail	6,200 sq. ft.
	Drive-In Bank	2,800 sq. ft.		Fast Food Restaurant	4,800 sq. ft.
	Fast Food Restaurant	3,000 sq. ft.		Gas Station / Car Wash	16 fueling positions
PA-2	Commercial Retail	21,000 sq. ft.	PA-10	Multi-Family Homes	400 dwelling units
	Fast Food Restaurant	2,400 sq. ft.			
PA-4	Multi-Family Homes	272 dwelling units	PA-11	Commercial Retail	24,600 sq. ft.
PA-5	Multi-Family Homes	150 dwelling units	PA-13	Multi-Family Homes	322 dwelling units
	Commercial Retail	20,000 sq. ft.			
PA-8	Commercial Retail	36,000 sq. ft.	PA-14	Commercial Retail	12,200 sq. ft.
Total Aurora One Development					
Residential Homes				1,144 dwelling units	
Commercial (Shopping and Service)				142,000 sq. ft.	
Medical Office				23,200 sq. ft.	



Table 5 - Trip Generation Summary

Land Use	Size	Unit	Internal Capture	Non-Auto Factor	Average Daily Trips				AM Peak Hour Trips				PM Peak Hour Trips			
					Rate	Total	In	Out	Rate	Total	In	Out	Rate	Total	In	Out
PA-1																
ITE 720: Medical-Dental Office Building	12.0	ksf	0.90	0.95	34.80	357	179	178	2.78	29	23	6	3.46	35	10	25
ITE 820: Shopping Center	3.10	ksf	0.90	0.95	37.75	100	50	50	0.94	2	1	1	3.81	10	5	5
ITE 912: Drive-In Bank	2.8	ksf	0.90	0.95	100.03	239	120	119	9.50	23	13	10	20.45	49	25	24
ITE 934 - Fast-Food Restaurant w/ Drive-Through Window	3.00	ksf	0.90	0.95	470.95	1,208	604	604	40.19	103	53	50	32.67	84	44	40
Subtotal of Trips						1,904	953	951		157	90	67		178	84	94
Pass-by Trips: Shopping Center				34%		-34	-17	-17		0	0	0		-3	-2	-1
Pass-by Trips: Bank (AM)				29%		0	0	0		-7	-4	-3		0	0	0
Pass-by Trips: Bank (PM)				35%		-84	-42	-42		0	0	0		-17	-9	-8
Pass-by Trips: Fast-Food (AM)				49%		0	0	0		-50	-26	-24		0	0	0
Pass-by Trips: Fast-Food (PM)				50%		-604	-302	-302		0	0	0		-42	-22	-20
Subtotal of Pass-By Trips						-722	-361	-361		-57	-30	-27		-62	-33	-29
Subtotal of New Trips						1,182	592	590		100	60	40		116	51	65
PA-2																
ITE 820: Shopping Center	20.10	ksf	0.90	0.95	37.75	649	325	324	0.94	16	10	6	3.81	65	31	34
ITE 934 - Fast-Food Restaurant w/ Drive-Through Window	2.40	ksf	0.90	0.95	470.95	966	483	483	40.19	82	42	40	32.67	67	35	32
Subtotal of Trips						1,615	808	807		98	52	46		132	66	66
Pass-by Trips: Shopping Center				34%		-221	-111	-110		0	0	0		-22	-11	-11
Pass-by Trips: Fast-Food (AM)				49%		0	0	0		-40	-21	-19		0	0	0
Pass-by Trips: Fast-Food (PM)				50%		-483	-242	-241		0	0	0		-34	-18	-16
Subtotal of Pass-By Trips						-704	-353	-351		-40	-21	-19		-56	-29	-27
Subtotal of New Trips						911	455	456		58	31	27		76	37	39
PA-4																
ITE 220: Multi-Family Housing (Low-Rise)	272	DU	0.90	0.95	7.32	1,702	851	851	0.46	107	28	79	0.56	130	79	51
Subtotal of New Trips						1,702	851	851		107	28	79		130	79	51
PA-5																
ITE 221: Multi-Family Housing (Mid-Rise)	150	ksf	0.90	0.95	5.44	698	349	349	0.36	46	12	34	0.44	56	34	22
ITE 820: Shopping Center	20	ksf	0.90	0.95	37.75	646	323	323	0.94	16	10	6	3.81	65	31	34
Subtotal of Trips						1,344	672	672		62	22	40		121	65	56
Pass-by Trips: Shopping Center				34%		-220	-110	-110		0	0	0		-22	-11	-11
Subtotal of New Trips						1,124	562	562		62	22	40		99	54	45
PA-8																
ITE 820: Shopping Center	36	ksf	0.90	0.95	37.75	1,162	581	581	0.94	29	18	11	3.81	117	56	61
Pass-by Trips: Shopping Center				34%		-395	-198	-197		0	0	0		-40	-19	-21
Subtotal of New Trips						767	383	384		29	18	11		77	37	40
PA-9																
ITE 720: Medical-Dental Office Building	11.2	ksf	0.90	0.95	34.80	333	167	166	2.78	27	21	6	3.46	33	9	24
ITE 820: Shopping Center	6.20	ksf	0.90	0.95	37.75	200	100	100	0.94	5	3	2	3.81	20	10	10
ITE 934 - Fast-Food Restaurant w/ Drive-Through Window	4.80	ksf	0.90	0.95	470.95	1,933	967	966	40.19	165	84	81	32.67	134	70	64
ITE 945 - Gas/Service Station w/ Convenience Market	16	fueling stations	0.90	0.95	205.36	2,809	1,405	1,404	12.47	171	87	84	13.99	191	97	94
Subtotal of Trips						5,275	2,639	2,636		368	195	173		378	186	192
Pass-by Trips: Shopping Center				34%		-68	-34	-34		0	0	0		-7	-3	-4
Pass-by Trips: Fast-Food (AM)				49%		0	0	0		-81	-41	-40		0	0	0
Pass-by Trips: Fast-Food (PM)				50%		-967	-484	-483		0	0	0		-67	-35	-32
Pass-by Trips: Gas Station (AM)				62%		-1,742	-871	-871		-106	-54	-52		0	0	0
Pass-by Trips: Gas Station (PM)				56%		0	0	0		0	0	0		-107	-54	-53
Subtotal of Pass-By Trips						-2777	-1389	-1388		-187	-95	-92		-181	-92	-89
Subtotal of New Trips						2,498	1,250	1,248		181	100	81		197	94	103
PA-10																
ITE 221: Multi-Family Housing (Mid-Rise)	400	ksf	0.90	0.95	5.44	1,860	930	930	0.36	123	32	91	0.44	150	92	58

Land Use	Size	Unit	Internal Capture	Non-Auto Factor	Average Daily Trips				AM Peak Hour Trips				PM Peak Hour Trips			
					Rate	Total	In	Out	Rate	Total	In	Out	Rate	Total	In	Out
Subtotal of New Trips					1,860	930	930		123	32	91		150	92	58	
PA-11																
ITE 820: Shopping Center	24.6	ksf	0.90	0.95	37.75	794	397	397	0.94	20	12	8	3.81	80	38	42
Subtotal of Trips						794	397	397		20	12	8		80	38	42
Pass-by Trips: Shopping Center 34%						-270	-135	-135		0	0	0		-27	-13	-14
Subtotal of New Trips						524	262	262		20	12	8		53	25	28
PA-13																
ITE 220: Multi-Family Housing (Low-Rise)	322	DU	0.90	0.95	7.32	2,015	1,008	1,007	0.46	127	33	94	0.56	154	94	60
Subtotal of New Trips						2,015	1,008	1,007		127	33	94		154	94	60
PA-14																
ITE 820: Shopping Center	12.2	ksf	0.90	0.95	37.75	394	197	197	0.94	10	6	4	3.81	40	19	21
Subtotal of Trips						394	197	197		10	6	4		40	19	21
Pass-by Trips: Shopping Center 34%						-134	-67	-67		0	0	0		-14	-6	-8
Subtotal of New Trips						260	130	130		10	6	4		26	13	13
Total New Trips:						12,843	6,423	6,420	AM >	817	342	475	PM >	1,078	576	502
Total Pass-By Trips:						5,222	2,613	2,609	AM >	284	146	138	PM >	402	203	199
Total Trips:						18,065	9,036	9,029	AM >	1,101	488	613	PM >	1,480	779	701
Total of Internal Capture & Non-Auto Reductions:						3,067	1,535	1,532	AM >	186	83	103	PM >	255	135	120

Source: ITE Trip Generation 10th Edition, 2017.

LEVEL OF SERVICE DEFINITIONS

From *Highway Capacity Manual*, Transportation Research Board, 2016, 6th Edition

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, 2016, 6th Edition

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: Picadilly Rd & E 11th Ave

Existing Traffic
AM Peak Hour

Intersection

Int Delay, s/veh 1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	16	12	12	87	265	5
Future Vol, veh/h	16	12	12	87	265	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	17	13	13	91	276	5

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	396	279	281
Stage 1	279	-	-
Stage 2	117	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	609	760	1282
Stage 1	768	-	-
Stage 2	908	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	602	760	1282
Mov Cap-2 Maneuver	602	-	-
Stage 1	760	-	-
Stage 2	908	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.7	0.9	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1282	-	661	-	-
HCM Lane V/C Ratio	0.01	-	0.044	-	-
HCM Control Delay (s)	7.8	0	10.7	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

HCM 6th TWSC
1: Picadilly Rd & E 11th Ave

Existing Traffic
PM Peak Hour

Intersection

Int Delay, s/veh 0.5

Movement EBL EBR NBL NBT SBT SBR

Lane Configurations 

Traffic Vol, veh/h 8 10 2 105 286 13

Future Vol, veh/h 8 10 2 105 286 13

Conflicting Peds, #/hr 0 0 0 0 0 0

Sign Control Stop Stop Free Free Free Free

RT Channelized - None - None - None

Storage Length 0 - - - - -

Veh in Median Storage, # 0 - - 0 0 -

Grade, % 0 - - 0 0 -

Peak Hour Factor 91 91 91 91 91 91

Heavy Vehicles, % 2 2 2 2 2 2

Mvmt Flow 9 11 2 115 314 14

Major/Minor Minor2 Major1 Major2

Conflicting Flow All 440 321 328 0 - 0

Stage 1 321 - - - - -

Stage 2 119 - - - - -

Critical Hdwy 6.42 6.22 4.12 - - -

Critical Hdwy Stg 1 5.42 - - - - -

Critical Hdwy Stg 2 5.42 - - - - -

Follow-up Hdwy 3.518 3.318 2.218 - - -

Pot Cap-1 Maneuver 574 720 1232 - - -

Stage 1 735 - - - - -

Stage 2 906 - - - - -

Platoon blocked, % - - -

Mov Cap-1 Maneuver 573 720 1232 - - -

Mov Cap-2 Maneuver 573 - - - - -

Stage 1 734 - - - - -

Stage 2 906 - - - - -

Approach EB NB SB

HCM Control Delay, s 10.7 0.1 0

HCM LOS B

Minor Lane/Major Mvmt NBL NBT EBLn1 SBT SBR




Capacity (veh/h) 1232 - 646 - -

HCM Lane V/C Ratio 0.002 - 0.031 - -

HCM Control Delay (s) 7.9 0 10.7 - -






HCM Lane LOS A A B - -

HCM 95th %tile Q(veh) 0 - 0.1 - -

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	16	12	12	405	434	5
Future Vol, veh/h	16	12	12	405	434	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	17	13	13	440	472	5
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	941	475	477	0	-	0
Stage 1	475	-	-	-	-	-
Stage 2	466	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	292	590	1085	-	-	-
Stage 1	626	-	-	-	-	-
Stage 2	632	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	287	590	1085	-	-	-
Mov Cap-2 Maneuver	287	-	-	-	-	-
Stage 1	616	-	-	-	-	-
Stage 2	632	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	15.7	0.2		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1085	-	368	-	-	
HCM Lane V/C Ratio	0.012	-	0.083	-	-	
HCM Control Delay (s)	8.4	0	15.7	-	-	
HCM Lane LOS	A	A	C	-	-	
HCM 95th %tile Q(veh)	0	-	0.3	-	-	

HCM 6th TWSC
2: Picadilly Rd & E. 10th Avenue

2026 Background Traffic
AM Peak Hour






Intersection						
Int Delay, s/veh	0.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	12	10	408	4	3	442
Future Vol, veh/h	12	10	408	4	3	442
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	255	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	13	11	443	4	3	480






Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	931	445	0	0	447
Stage 1	445	-	-	-	-
Stage 2	486	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	*289	*747	-	-	*1117
Stage 1	*704	-	-	-	-
Stage 2	*618	-	-	-	-
Platoon blocked, %	1	1	-	-	1
Mov Cap-1 Maneuver	*288	*747	-	-	*1117
Mov Cap-2 Maneuver	*288	-	-	-	-
Stage 1	*704	-	-	-	-
Stage 2	*616	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.4	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT
Capacity (veh/h)	-	- 288 747 * 1117	-	-
HCM Lane V/C Ratio	-	- 0.045 0.015 0.003	-	-
HCM Control Delay (s)	-	- 18.1 9.9 8.2	-	-
HCM Lane LOS	-	- C A A	-	-
HCM 95th %tile Q(veh)	-	- 0.1 0 0	-	-




Notes			
~: Volume exceeds capacity	\$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection						
Int Delay, s/veh	1.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	18	84	328	6	36	418
Future Vol, veh/h	18	84	328	6	36	418
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	150	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	20	91	357	7	39	454
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	893	361	0	0	364	0
Stage 1	361	-	-	-	-	-
Stage 2	532	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	308	823	-	-	1228	-
Stage 1	777	-	-	-	-	-
Stage 2	589	-	-	-	-	-
Platoon blocked, %	1	1	-	-	1	-
Mov Cap-1 Maneuver	298	823	-	-	1228	-
Mov Cap-2 Maneuver	298	-	-	-	-	-
Stage 1	777	-	-	-	-	-
Stage 2	570	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	11.3	0	0.6			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT		
Capacity (veh/h)	-	- 298 823 1228		-		
HCM Lane V/C Ratio	-	- 0.066 0.111 0.032		-		
HCM Control Delay (s)	-	- 17.9 9.9 8		-		
HCM Lane LOS	-	- C A A		-		
HCM 95th %tile Q(veh)	-	- 0.2 0.4 0.1		-		

Intersection						
Int Delay, s/veh	0.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	18	35	299	5	9	427
Future Vol, veh/h	18	35	299	5	9	427
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	150	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	20	38	325	5	10	464
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	812	328	0	0	330	0
Stage 1	328	-	-	-	-	-
Stage 2	484	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	348	713	-	-	1229	-
Stage 1	730	-	-	-	-	-
Stage 2	620	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	345	713	-	-	1229	-
Mov Cap-2 Maneuver	345	-	-	-	-	-
Stage 1	730	-	-	-	-	-
Stage 2	615	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	12.3	0	0.2			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT		
Capacity (veh/h)	-	- 345 713 1229	-	-		
HCM Lane V/C Ratio	-	- 0.057 0.053 0.008	-	-		
HCM Control Delay (s)	-	- 16.1 10.3 8	-	-		
HCM Lane LOS	-	- C B A	-	-		
HCM 95th %tile Q(veh)	-	- 0.2 0.2 0	-	-		

Intersection

Int Delay, s/veh 0.6




Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	47	256	8	0	445
Future Vol, veh/h	0	47	256	8	0	445
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	51	278	9	0	484




Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	-	283	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.22	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.318	-
Pot Cap-1 Maneuver	0	756	-
Stage 1	0	-	-
Stage 2	0	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	-	756	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-




Approach	WB	NB	SB
HCM Control Delay, s	10.1	0	0
HCM LOS	B		




Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	- 756	-
HCM Lane V/C Ratio	-	- 0.068	-
HCM Control Delay (s)	-	- 10.1	-
HCM Lane LOS	-	- B	-
HCM 95th %tile Q(veh)	-	- 0.2	-

Intersection												
Int Delay, s/veh	7.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕			↕	
Traffic Vol, veh/h	0	7	1	67	42	0	5	21	21	0	65	0
Future Vol, veh/h	0	7	1	67	42	0	5	21	21	0	65	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	150	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	8	1	73	46	0	5	23	23	0	71	0
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	46	0	0	9	0	0	237	201	9	224	201	46
Stage 1	-	-	-	-	-	-	9	9	-	192	192	-
Stage 2	-	-	-	-	-	-	228	192	-	32	9	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1562	-	-	1611	-	-	717	695	1073	732	695	1023
Stage 1	-	-	-	-	-	-	1012	888	-	810	742	-
Stage 2	-	-	-	-	-	-	775	742	-	984	888	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1562	-	-	1611	-	-	636	663	1073	673	663	1023
Mov Cap-2 Maneuver	-	-	-	-	-	-	636	663	-	673	663	-
Stage 1	-	-	-	-	-	-	1012	888	-	810	708	-
Stage 2	-	-	-	-	-	-	666	708	-	938	888	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			4.5			9.7			11.1		
HCM LOS							A			B		
Minor Lane/Major Mvmt	NBLn1 NBLn2		EBL	EBT	EBR	WBL	WBT	WBR	SBLn1			
Capacity (veh/h)	636	820	1562	-	-	1611	-	-	663			
HCM Lane V/C Ratio	0.009	0.056	-	-	-	0.045	-	-	0.107			
HCM Control Delay (s)	10.7	9.6	0	-	-	7.3	0	-	11.1			
HCM Lane LOS	B	A	A	-	-	A	A	-	B			
HCM 95th %tile Q(veh)	0	0.2	0	-	-	0.1	-	-	0.4			

Intersection						
Int Delay, s/veh	4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	3	5	0	8	14	0
Future Vol, veh/h	3	5	0	8	14	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	5	0	9	15	0
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	8	0	15	6
Stage 1	-	-	-	-	6	-
Stage 2	-	-	-	-	9	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1612	-	1004	1077
Stage 1	-	-	-	-	1017	-
Stage 2	-	-	-	-	1014	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1612	-	1004	1077
Mov Cap-2 Maneuver	-	-	-	-	1004	-
Stage 1	-	-	-	-	1017	-
Stage 2	-	-	-	-	1014	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		8.6	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	1004	-	-	1612	-	
HCM Lane V/C Ratio	0.015	-	-	-	-	
HCM Control Delay (s)	8.6	-	-	0	-	
HCM Lane LOS	A	-	-	A	-	
HCM 95th %tile Q(veh)	0	-	-	0	-	

Intersection						
Int Delay, s/veh	5.9					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	0	3	0	0	8	1
Future Vol, veh/h	0	3	0	0	8	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	3	0	0	9	1
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	3	0	3	2
Stage 1	-	-	-	-	2	-
Stage 2	-	-	-	-	1	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1619	-	1019	1082
Stage 1	-	-	-	-	1021	-
Stage 2	-	-	-	-	1022	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1619	-	1019	1082
Mov Cap-2 Maneuver	-	-	-	-	1019	-
Stage 1	-	-	-	-	1021	-
Stage 2	-	-	-	-	1022	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		8.5	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	1026	-	-	1619	-	
HCM Lane V/C Ratio	0.01	-	-	-	-	
HCM Control Delay (s)	8.5	-	-	0	-	
HCM Lane LOS	A	-	-	A	-	
HCM 95th %tile Q(veh)	0	-	-	0	-	

Intersection						
Int Delay, s/veh	4.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1	0	0	0	0
Future Vol, veh/h	0	1	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1	0	0	0	0
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1	1	1	0	-	0
Stage 1	1	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	1022	1084	1622	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	1022	1084	1622	-	-	-
Mov Cap-2 Maneuver	1022	-	-	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	8.3	0		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1622	-	1084	-	-	
HCM Lane V/C Ratio	-	-	0.001	-	-	
HCM Control Delay (s)	0	-	8.3	-	-	
HCM Lane LOS	A	-	A	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	8	10	2	351	666	13
Future Vol, veh/h	8	10	2	351	666	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	11	2	382	724	14






Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1117	731	738	0	-	0
Stage 1	731	-	-	-	-	-
Stage 2	386	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	229	422	868	-	-	-
Stage 1	476	-	-	-	-	-
Stage 2	687	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	228	422	868	-	-	-
Mov Cap-2 Maneuver	228	-	-	-	-	-
Stage 1	475	-	-	-	-	-
Stage 2	687	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	17.6	0.1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	868	-	306	-	-
HCM Lane V/C Ratio	0.003	-	0.064	-	-
HCM Control Delay (s)	9.2	0	17.6	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

HCM 6th TWSC
2: Picadilly Rd & E. 10th Avenue

2026 Background Traffic
PM Peak Hour






Intersection						
Int Delay, s/veh	0.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	8	6	347	13	11	665
Future Vol, veh/h	8	6	347	13	11	665
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	255	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	7	377	14	12	723






Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1131	384	0	0	391	0
Stage 1	384	-	-	-	-	-
Stage 2	747	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	*199	*798	-	-	*1194	-
Stage 1	*752	-	-	-	-	-
Stage 2	*468	-	-	-	-	-
Platoon blocked, %	1	1	-	-	1	-
Mov Cap-1 Maneuver	*197	*798	-	-	*1194	-
Mov Cap-2 Maneuver	*197	-	-	-	-	-
Stage 1	*752	-	-	-	-	-
Stage 2	*463	-	-	-	-	-




Approach	WB	NB	SB
HCM Control Delay, s	17.8	0	0.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT
Capacity (veh/h)	-	- 197 798	* 1194	-
HCM Lane V/C Ratio	-	- 0.044 0.008	0.01	-
HCM Control Delay (s)	-	- 24.1 9.5	8	-
HCM Lane LOS	-	- C A	A	-
HCM 95th %tile Q(veh)	-	- 0.1 0	0	-




Notes			
~: Volume exceeds capacity	\$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon




Intersection						
Int Delay, s/veh	1.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	11	53	307	20	117	556
Future Vol, veh/h	11	53	307	20	117	556
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	150	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	58	334	22	127	604
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1203	345	0	0	356	0
Stage 1	345	-	-	-	-	-
Stage 2	858	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	179	823	-	-	1230	-
Stage 1	781	-	-	-	-	-
Stage 2	415	-	-	-	-	-
Platoon blocked, %	1	1	-	-	1	-
Mov Cap-1 Maneuver	160	823	-	-	1230	-
Mov Cap-2 Maneuver	160	-	-	-	-	-
Stage 1	781	-	-	-	-	-
Stage 2	372	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	13.1	0	1.4			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT		
Capacity (veh/h)	-	- 160	823	1230	-	
HCM Lane V/C Ratio	-	- 0.075	0.07	0.103	-	
HCM Control Delay (s)	-	- 29.3	9.7	8.3	-	
HCM Lane LOS	-	- D	A	A	-	
HCM 95th %tile Q(veh)	-	- 0.2	0.2	0.3	-	




Intersection						
Int Delay, s/veh	0.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	12	23	304	15	27	540
Future Vol, veh/h	12	23	304	15	27	540
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	150	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	13	25	330	16	29	587
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	983	338	0	0	346	0
Stage 1	338	-	-	-	-	-
Stage 2	645	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	276	704	-	-	1213	-
Stage 1	722	-	-	-	-	-
Stage 2	522	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	269	704	-	-	1213	-
Mov Cap-2 Maneuver	269	-	-	-	-	-
Stage 1	722	-	-	-	-	-
Stage 2	509	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	13.3	0	0.4			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT		
Capacity (veh/h)	-	- 269 704 1213	-	-		
HCM Lane V/C Ratio	-	- 0.048 0.036 0.024	-	-		
HCM Control Delay (s)	-	- 19.1 10.3 8	-	-		
HCM Lane LOS	-	- C B A	-	-		
HCM 95th %tile Q(veh)	-	- 0.2 0.1 0.1	-	-		

Intersection						
Int Delay, s/veh	0.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	39	280	14	0	552
Future Vol, veh/h	0	39	280	14	0	552
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	42	304	15	0	600
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	-	312	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	728	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	728	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	10.3	0		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBT		
Capacity (veh/h)	-	728		-		
HCM Lane V/C Ratio	-	0.058		-		
HCM Control Delay (s)	-	10.3		-		
HCM Lane LOS	-	B		-		
HCM 95th %tile Q(veh)	-	0.2		-		

Intersection												
Int Delay, s/veh	7.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕			↕	
Traffic Vol, veh/h	0	13	1	44	35	0	4	66	67	0	41	0
Future Vol, veh/h	0	13	1	44	35	0	4	66	67	0	41	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	150	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	14	1	48	38	0	4	72	73	0	45	0
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	38	0	0	15	0	0	172	149	15	221	149	38
Stage 1	-	-	-	-	-	-	15	15	-	134	134	-
Stage 2	-	-	-	-	-	-	157	134	-	87	15	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1572	-	-	1603	-	-	791	743	1065	735	743	1034
Stage 1	-	-	-	-	-	-	1005	883	-	869	785	-
Stage 2	-	-	-	-	-	-	845	785	-	921	883	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1572	-	-	1603	-	-	736	720	1065	618	720	1034
Mov Cap-2 Maneuver	-	-	-	-	-	-	736	720	-	618	720	-
Stage 1	-	-	-	-	-	-	1005	883	-	869	761	-
Stage 2	-	-	-	-	-	-	771	761	-	788	883	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			4.1			10			10.3		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1 NBLn2		EBL	EBT	EBR	WBL	WBT	WBR	SBLn1			
Capacity (veh/h)	736	860	1572	-	-	1603	-	-	720			
HCM Lane V/C Ratio	0.006	0.168	-	-	-	0.03	-	-	0.062			
HCM Control Delay (s)	9.9	10	0	-	-	7.3	0	-	10.3			
HCM Lane LOS	A	B	A	-	-	A	A	-	B			
HCM 95th %tile Q(veh)	0	0.6	0	-	-	0.1	-	-	0.2			

Intersection						
Int Delay, s/veh	2.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	9	15	0	5	9	0
Future Vol, veh/h	9	15	0	5	9	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	16	0	5	10	0
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	26	0	23	18
Stage 1	-	-	-	-	18	-
Stage 2	-	-	-	-	5	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1588	-	993	1061
Stage 1	-	-	-	-	1005	-
Stage 2	-	-	-	-	1018	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1588	-	993	1061
Mov Cap-2 Maneuver	-	-	-	-	993	-
Stage 1	-	-	-	-	1005	-
Stage 2	-	-	-	-	1018	-
Approach	EB	WB		NB		
HCM Control Delay, s	0	0		8.7		
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	993	-	-	1588	-	
HCM Lane V/C Ratio	0.01	-	-	-	-	
HCM Control Delay (s)	8.7	-	-	0	-	
HCM Lane LOS	A	-	-	A	-	
HCM 95th %tile Q(veh)	0	-	-	0	-	

Intersection						
Int Delay, s/veh	3.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	0	9	2	0	5	1
Future Vol, veh/h	0	9	2	0	5	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	10	2	0	5	1
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	10	0	9	5
Stage 1	-	-	-	-	5	-
Stage 2	-	-	-	-	4	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1610	-	1011	1078
Stage 1	-	-	-	-	1018	-
Stage 2	-	-	-	-	1019	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1610	-	1010	1078
Mov Cap-2 Maneuver	-	-	-	-	1010	-
Stage 1	-	-	-	-	1018	-
Stage 2	-	-	-	-	1018	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		7.2		8.5	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	1021	-	-	1610	-	
HCM Lane V/C Ratio	0.006	-	-	0.001	-	
HCM Control Delay (s)	8.5	-	-	7.2	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0	-	-	0	-	

Intersection						
Int Delay, s/veh	5.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1	2	0	0	0
Future Vol, veh/h	0	1	2	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1	2	0	0	0
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	5	1	1	0	-	0
Stage 1	1	-	-	-	-	-
Stage 2	4	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	1017	1084	1622	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	1019	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	1016	1084	1622	-	-	-
Mov Cap-2 Maneuver	1016	-	-	-	-	-
Stage 1	1021	-	-	-	-	-
Stage 2	1019	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	8.3	7.2		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1622	-	1084	-	-	
HCM Lane V/C Ratio	0.001	-	0.001	-	-	
HCM Control Delay (s)	7.2	0	8.3	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	

Intersection												
Int Delay, s/veh	1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕	↕	↕		↕	↕	
Traffic Vol, veh/h	16	0	12	6	0	14	12	432	2	6	441	5
Future Vol, veh/h	16	0	12	6	0	14	12	432	2	6	441	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	155	255	-	-	255	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	17	0	13	7	0	15	13	470	2	7	479	5







Major/Minor	Minor2		Minor1		Major1		Major2	
Conflicting Flow All	1001	994	482	999	995	471	484	0
Stage 1	496	496	-	497	497	-	-	-
Stage 2	505	498	-	502	498	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-
Pot Cap-1 Maneuver	222	245	584	222	245	593	1079	-
Stage 1	556	545	-	555	545	-	-	-
Stage 2	549	544	-	552	544	-	-	-
Platoon blocked, %								-
Mov Cap-1 Maneuver	213	241	584	214	241	593	1079	-
Mov Cap-2 Maneuver	213	241	-	214	241	-	-	-
Stage 1	549	542	-	548	538	-	-	-
Stage 2	528	537	-	536	541	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	18.7	14.6	0.2	0.1
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1079	-	-	293 214 593	1090	-	-
HCM Lane V/C Ratio	0.012	-	-	0.104 0.03 0.026	0.006	-	-
HCM Control Delay (s)	8.4	-	-	18.7 22.4 11.2	8.3	-	-
HCM Lane LOS	A	-	-	C C B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.3 0.1 0.1	0	-	-

HCM 6th TWSC
2: Picadilly Rd & E. 10th Avenue

2026 Total Traffic
AM Peak Hour







Intersection						
Int Delay, s/veh	1.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	35	35	412	12	10	449
Future Vol, veh/h	35	35	412	12	10	449
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	205	255	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	38	38	448	13	11	488

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	958	448	0	0	461	0
Stage 1	448	-	-	-	-	-
Stage 2	510	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	*274	*747	-	-	*1117	-
Stage 1	*704	-	-	-	-	-
Stage 2	*603	-	-	-	-	-
Platoon blocked, %	1	1	-	-	1	-
Mov Cap-1 Maneuver	*271	*747	-	-	*1117	-
Mov Cap-2 Maneuver	*271	-	-	-	-	-
Stage 1	*704	-	-	-	-	-
Stage 2	*597	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15.2	0	0.2
HCM LOS	C		






Minor Lane/Major Mvmt	NBT	NBRWBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	271 747	* 1117	-
HCM Lane V/C Ratio	-	-	0.14 0.051	0.01	-
HCM Control Delay (s)	-	-	20.4 10.1	8.3	-
HCM Lane LOS	-	-	C B	A	-
HCM 95th %tile Q(veh)	-	-	0.5 0.2	0	-




Notes			
~: Volume exceeds capacity	\$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection						
Int Delay, s/veh	1.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	28	86	338	9	37	447
Future Vol, veh/h	28	86	338	9	37	447
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	150	-	150	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	30	93	367	10	40	486
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	933	367	0	0	377	0
Stage 1	367	-	-	-	-	-
Stage 2	566	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	286	815	-	-	1211	-
Stage 1	771	-	-	-	-	-
Stage 2	568	-	-	-	-	-
Platoon blocked, %	1	1	-	-	1	-
Mov Cap-1 Maneuver	277	815	-	-	1211	-
Mov Cap-2 Maneuver	277	-	-	-	-	-
Stage 1	771	-	-	-	-	-
Stage 2	549	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	12.4	0	0.6			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT		
Capacity (veh/h)	-	- 277 815 1211	-	-		
HCM Lane V/C Ratio	-	- 0.11 0.115 0.033	-	-		
HCM Control Delay (s)	-	- 19.6 10 8.1	-	-		
HCM Lane LOS	-	- C B A	-	-		
HCM 95th %tile Q(veh)	-	- 0.4 0.4 0.1	-	-		

HCM 6th TWSC
4: Picadilly Rd & 7th Ave

2026 Total Traffic
AM Peak Hour




Intersection						
Int Delay, s/veh	0.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	18	35	312	5	9	465
Future Vol, veh/h	18	35	312	5	9	465
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	150	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	20	38	339	5	10	505
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	867	342	0	0	344	0
Stage 1	342	-	-	-	-	-
Stage 2	525	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	323	701	-	-	1215	-
Stage 1	719	-	-	-	-	-
Stage 2	593	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	320	701	-	-	1215	-
Mov Cap-2 Maneuver	320	-	-	-	-	-
Stage 1	719	-	-	-	-	-
Stage 2	588	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	12.6	0	0.2			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT		
Capacity (veh/h)	-	- 320 701 1215	-	-		
HCM Lane V/C Ratio	-	- 0.061 0.054 0.008	-	-		
HCM Control Delay (s)	-	- 17 10.4 8	-	-		
HCM Lane LOS	-	- C B A	-	-		
HCM 95th %tile Q(veh)	-	- 0.2 0.2 0	-	-		

Intersection						
Int Delay, s/veh	0.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	47	269	8	0	483
Future Vol, veh/h	0	47	269	8	0	483
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	51	292	9	0	525
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	-	297	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	742	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	742	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	10.2	0		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBT		
Capacity (veh/h)	-	742		-		
HCM Lane V/C Ratio	-	0.069		-		
HCM Control Delay (s)	-	10.2		-		
HCM Lane LOS	-	B		-		
HCM 95th %tile Q(veh)	-	0.2		-		

Intersection												
Int Delay, s/veh	7.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕			↕	
Traffic Vol, veh/h	0	7	1	67	42	0	5	24	21	0	76	0
Future Vol, veh/h	0	7	1	67	42	0	5	24	21	0	76	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	150	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	8	1	73	46	0	5	26	23	0	83	0
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	46	0	0	9	0	0	243	201	9	225	201	46
Stage 1	-	-	-	-	-	-	9	9	-	192	192	-
Stage 2	-	-	-	-	-	-	234	192	-	33	9	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1562	-	-	1611	-	-	711	695	1073	730	695	1023
Stage 1	-	-	-	-	-	-	1012	888	-	810	742	-
Stage 2	-	-	-	-	-	-	769	742	-	983	888	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1562	-	-	1611	-	-	621	663	1073	669	663	1023
Mov Cap-2 Maneuver	-	-	-	-	-	-	621	663	-	669	663	-
Stage 1	-	-	-	-	-	-	1012	888	-	810	708	-
Stage 2	-	-	-	-	-	-	648	708	-	934	888	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			4.5			9.8			11.2		
HCM LOS							A			B		
Minor Lane/Major Mvmt	NBLn1 NBLn2		EBL	EBT	EBR	WBL	WBT	WBR	SBLn1			
Capacity (veh/h)	621	807	1562	-	-	1611	-	-	663			
HCM Lane V/C Ratio	0.009	0.061	-	-	-	0.045	-	-	0.125			
HCM Control Delay (s)	10.8	9.7	0	-	-	7.3	0	-	11.2			
HCM Lane LOS	B	A	A	-	-	A	A	-	B			
HCM 95th %tile Q(veh)	0	0.2	0	-	-	0.1	-	-	0.4			

Intersection

Int Delay, s/veh 5.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	0	8	0	3	17	1
Future Vol, veh/h	0	8	0	3	17	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	9	0	3	18	1




Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	9
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1611
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1611
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1016	-	-	1611	-
HCM Lane V/C Ratio	0.019	-	-	-	-
HCM Control Delay (s)	8.6	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection

Int Delay, s/veh 4.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	0	2	0	0	3	0
Future Vol, veh/h	0	2	0	0	3	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	2	0	0	3	0




Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	2
Stage 1	-	-	1
Stage 2	-	-	1
Critical Hdwy	-	4.12	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	-	2.218	3.518
Pot Cap-1 Maneuver	-	1620	1021
Stage 1	-	-	1022
Stage 2	-	-	1022
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	1620	1021
Mov Cap-2 Maneuver	-	-	1021
Stage 1	-	-	1022
Stage 2	-	-	1022

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1021	-	-	1620	-
HCM Lane V/C Ratio	0.003	-	-	-	-
HCM Control Delay (s)	8.5	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection

Int Delay, s/veh 2.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	14	8	0	45	24	0
Future Vol, veh/h	14	8	0	45	24	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	15	9	0	49	26	0

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	24
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1591
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1591
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-




Approach	EB	WB	NB
HCM Control Delay, s	0	0	9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	936	-	-	1591	-
HCM Lane V/C Ratio	0.028	-	-	-	-
HCM Control Delay (s)	9	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection

Int Delay, s/veh 4.9

Movement EBL EBT WBT WBR SBL SBR

Lane Configurations						
Traffic Vol, veh/h	8	6	19	0	1	27
Future Vol, veh/h	8	6	19	0	1	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	7	21	0	1	29

Major/Minor Major1 Major2 Minor2

Conflicting Flow All	21	0	-	0	46	21
Stage 1	-	-	-	-	21	-
Stage 2	-	-	-	-	25	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1595	-	-	-	964	1056
Stage 1	-	-	-	-	1002	-
Stage 2	-	-	-	-	998	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1595	-	-	-	958	1056
Mov Cap-2 Maneuver	-	-	-	-	958	-
Stage 1	-	-	-	-	996	-
Stage 2	-	-	-	-	998	-

Approach EB WB SB




HCM Control Delay, s	4.2	0	8.5
HCM LOS			A

Minor Lane/Major Mvmt EBL EBT WBT WBR SBLn1

Capacity (veh/h)	1595	-	-	-	1052
HCM Lane V/C Ratio	0.005	-	-	-	0.029
HCM Control Delay (s)	7.3	0	-	-	8.5
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection

Int Delay, s/veh 5.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	2	6	1	3	16	2
Future Vol, veh/h	2	6	1	3	16	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	7	1	3	17	2




Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	9
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1611
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1611
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.8	8.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1015	-	-	1611	-
HCM Lane V/C Ratio	0.019	-	-	0.001	-
HCM Control Delay (s)	8.6	-	-	7.2	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

HCM 6th TWSC
12: Horizon Pkwy & E. 10th Avenue

2026 Total Traffic
AM Peak Hour

Intersection						
Int Delay, s/veh	1.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	3	1	4	12	3
Future Vol, veh/h	0	3	1	4	12	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	3	1	4	13	3
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	21	15	16	0	-	0
Stage 1	15	-	-	-	-	-
Stage 2	6	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	996	1065	1602	-	-	-
Stage 1	1008	-	-	-	-	-
Stage 2	1017	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	995	1065	1602	-	-	-
Mov Cap-2 Maneuver	995	-	-	-	-	-
Stage 1	1007	-	-	-	-	-
Stage 2	1017	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	8.4	1.4		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1602	-	1065	-	-	
HCM Lane V/C Ratio	0.001	-	0.003	-	-	
HCM Control Delay (s)	7.2	0	8.4	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	

Intersection												
Int Delay, s/veh	0.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕	↕	↕		↕	↕	
Traffic Vol, veh/h	8	0	10	4	0	10	2	369	8	21	690	13
Future Vol, veh/h	8	0	10	4	0	10	2	369	8	21	690	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	155	255	-	-	255	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	0	11	4	0	11	2	401	9	23	750	14







Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1218	1217	757	1219	1220	406	764	0	0	410	0	0
Stage 1	803	803	-	410	410	-	-	-	-	-	-	-
Stage 2	415	414	-	809	810	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	157	181	408	157	180	645	849	-	-	1149	-	-
Stage 1	377	396	-	619	595	-	-	-	-	-	-	-
Stage 2	615	593	-	374	393	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	152	177	408	150	176	645	849	-	-	1149	-	-
Mov Cap-2 Maneuver	152	177	-	150	176	-	-	-	-	-	-	-
Stage 1	376	388	-	618	594	-	-	-	-	-	-	-
Stage 2	603	592	-	357	385	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	21.9	16.1	0	0.2
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1WBLn2	SBL	SBT	SBR
Capacity (veh/h)	849	-	-	233 150 645	1149	-	-
HCM Lane V/C Ratio	0.003	-	-	0.084 0.029 0.017	0.02	-	-
HCM Control Delay (s)	9.3	-	-	21.9 29.7 10.7	8.2	-	-
HCM Lane LOS	A	-	-	C D B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.3 0.1 0.1	0.1	-	-







HCM 6th TWSC
2: Picadilly Rd & E. 10th Avenue

2026 Total Traffic
PM Peak Hour

Intersection						
Int Delay, s/veh	1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	23	23	356	39	33	671
Future Vol, veh/h	23	23	356	39	33	671
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	205	255	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	25	25	387	42	36	729
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	1188	387	0	0	429	0
Stage 1	387	-	-	-	-	-
Stage 2	801	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	*179	*798	-	-	1150	-
Stage 1	*752	-	-	-	-	-
Stage 2	*442	-	-	-	-	-
Platoon blocked, %	1	1	-	-	1	-
Mov Cap-1 Maneuver	*173	*798	-	-	1150	-
Mov Cap-2 Maneuver	*173	-	-	-	-	-
Stage 1	*752	-	-	-	-	-
Stage 2	*428	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	19.5	0		0.4		
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	173	798	1150	-
HCM Lane V/C Ratio	-	-	0.145	0.031	0.031	-
HCM Control Delay (s)	-	-	29.3	9.7	8.2	-
HCM Lane LOS	-	-	D	A	A	-
HCM 95th %tile Q(veh)	-	-	0.5	0.1	0.1	-
Notes						
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined		*: All major volume in platoon






HCM 6th TWSC
3: Picadilly Rd & E 8th Ave




2026 Total Traffic
PM Peak Hour

Intersection						
Int Delay, s/veh	1.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	18	54	341	30	119	575
Future Vol, veh/h	18	54	341	30	119	575
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	150	-	150	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	20	59	371	33	129	625
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1254	371	0	0	404	0
Stage 1	371	-	-	-	-	-
Stage 2	883	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	160	810	-	-	1175	-
Stage 1	766	-	-	-	-	-
Stage 2	404	-	-	-	-	-
Platoon blocked, %	1	1	-	-	1	-
Mov Cap-1 Maneuver	143	810	-	-	1175	-
Mov Cap-2 Maneuver	143	-	-	-	-	-
Stage 1	766	-	-	-	-	-
Stage 2	360	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	15.9	0	1.4			
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT		
Capacity (veh/h)	-	- 143 810	1175	-		
HCM Lane V/C Ratio	-	- 0.137 0.072	0.11	-		
HCM Control Delay (s)	-	- 34.1 9.8	8.4	-		
HCM Lane LOS	-	- D A	A	-		
HCM 95th %tile Q(veh)	-	- 0.5 0.2	0.4	-		




HCM 6th TWSC
4: Picadilly Rd & 7th Ave




2026 Total Traffic
PM Peak Hour

Intersection						
Int Delay, s/veh	0.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	12	23	348	15	27	565
Future Vol, veh/h	12	23	348	15	27	565
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	150	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	13	25	378	16	29	614
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1058	386	0	0	394	0
Stage 1	386	-	-	-	-	-
Stage 2	672	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	249	662	-	-	1165	-
Stage 1	687	-	-	-	-	-
Stage 2	508	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	243	662	-	-	1165	-
Mov Cap-2 Maneuver	243	-	-	-	-	-
Stage 1	687	-	-	-	-	-
Stage 2	495	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	14.1	0	0.4			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT		
Capacity (veh/h)	-	- 243 662	1165	-		
HCM Lane V/C Ratio	-	- 0.054 0.038	0.025	-		
HCM Control Delay (s)	-	- 20.7 10.7	8.2	-		
HCM Lane LOS	-	- C B	A	-		
HCM 95th %tile Q(veh)	-	- 0.2 0.1	0.1	-		

Intersection						
Int Delay, s/veh	0.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	39	324	14	0	577
Future Vol, veh/h	0	39	324	14	0	577
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	42	352	15	0	627
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	-	360	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	684	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	684	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	10.6	0		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBT		
Capacity (veh/h)	-	684		-		
HCM Lane V/C Ratio	-	0.062		-		
HCM Control Delay (s)	-	10.6		-		
HCM Lane LOS	-	B		-		
HCM 95th %tile Q(veh)	-	0.2		-		




Intersection												
Int Delay, s/veh	8.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕			↕	
Traffic Vol, veh/h	0	13	1	44	35	0	4	77	67	0	48	0
Future Vol, veh/h	0	13	1	44	35	0	4	77	67	0	48	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	150	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	14	1	48	38	0	4	84	73	0	52	0
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	38	0	0	15	0	0	175	149	15	227	149	38
Stage 1	-	-	-	-	-	-	15	15	-	134	134	-
Stage 2	-	-	-	-	-	-	160	134	-	93	15	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1572	-	-	1603	-	-	788	743	1065	728	743	1034
Stage 1	-	-	-	-	-	-	1005	883	-	869	785	-
Stage 2	-	-	-	-	-	-	842	785	-	914	883	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1572	-	-	1603	-	-	727	720	1065	604	720	1034
Mov Cap-2 Maneuver	-	-	-	-	-	-	727	720	-	604	720	-
Stage 1	-	-	-	-	-	-	1005	883	-	869	761	-
Stage 2	-	-	-	-	-	-	760	761	-	771	883	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			4.1			10.2			10.4		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1 NBLn2		EBL	EBT	EBR	WBL	WBT	WBR	SBLn1			
Capacity (veh/h)	727	848	1572	-	-	1603	-	-	720			
HCM Lane V/C Ratio	0.006	0.185	-	-	-	0.03	-	-	0.072			
HCM Control Delay (s)	10	10.2	0	-	-	7.3	0	-	10.4			
HCM Lane LOS	B	B	A	-	-	A	A	-	B			
HCM 95th %tile Q(veh)	0	0.7	0	-	-	0.1	-	-	0.2			

Intersection						
Int Delay, s/veh	2.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1	29	0	2	11	1
Future Vol, veh/h	1	29	0	2	11	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	32	0	2	12	1
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	33	0	19	17
Stage 1	-	-	-	-	17	-
Stage 2	-	-	-	-	2	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1579	-	998	1062
Stage 1	-	-	-	-	1006	-
Stage 2	-	-	-	-	1021	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1579	-	998	1062
Mov Cap-2 Maneuver	-	-	-	-	998	-
Stage 1	-	-	-	-	1006	-
Stage 2	-	-	-	-	1021	-
Approach	EB	WB		NB		
HCM Control Delay, s	0	0		8.6		
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	1003	-	-	1579	-	
HCM Lane V/C Ratio	0.013	-	-	-	-	
HCM Control Delay (s)	8.6	-	-	0	-	
HCM Lane LOS	A	-	-	A	-	
HCM 95th %tile Q(veh)	0	-	-	0	-	

Intersection						
Int Delay, s/veh	3.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	0	2	0	0	2	0
Future Vol, veh/h	0	2	0	0	2	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	2	0	0	2	0
Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	2	0	2	1
Stage 1	-	-	-	-	1	-
Stage 2	-	-	-	-	1	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1620	-	1021	1084
Stage 1	-	-	-	-	1022	-
Stage 2	-	-	-	-	1022	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1620	-	1021	1084
Mov Cap-2 Maneuver	-	-	-	-	1021	-
Stage 1	-	-	-	-	1022	-
Stage 2	-	-	-	-	1022	-
Approach	EB	WB		NB		
HCM Control Delay, s	0	0		8.5		
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	1021	-	-	1620	-	
HCM Lane V/C Ratio	0.002	-	-	-	-	
HCM Control Delay (s)	8.5	-	-	0	-	
HCM Lane LOS	A	-	-	A	-	
HCM 95th %tile Q(veh)	0	-	-	0	-	

Intersection

Int Delay, s/veh 1.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	46	26	0	30	16	0
Future Vol, veh/h	46	26	0	30	16	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	50	28	0	33	17	0

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	78
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1520
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1520
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-




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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	902	-	-	1520	-
HCM Lane V/C Ratio	0.019	-	-	-	-
HCM Control Delay (s)	9.1	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection

Int Delay, s/veh 4.4

Movement EBL EBT WBT WBR SBL SBR

Lane Configurations						
Traffic Vol, veh/h	26	20	12	2	1	18
Future Vol, veh/h	26	20	12	2	1	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	28	22	13	2	1	20

Major/Minor Major1 Major2 Minor2

Conflicting Flow All	15	0	-	0	92	14
Stage 1	-	-	-	-	14	-
Stage 2	-	-	-	-	78	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1603	-	-	-	908	1066
Stage 1	-	-	-	-	1009	-
Stage 2	-	-	-	-	945	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1603	-	-	-	892	1066
Mov Cap-2 Maneuver	-	-	-	-	892	-
Stage 1	-	-	-	-	991	-
Stage 2	-	-	-	-	945	-

Approach EB WB SB




HCM Control Delay, s	4.1	0	8.5
HCM LOS			A

Minor Lane/Major Mvmt EBL EBT WBT WBR SBLn1

Capacity (veh/h)	1603	-	-	-	1055
HCM Lane V/C Ratio	0.018	-	-	-	0.02
HCM Control Delay (s)	7.3	0	-	-	8.5
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1

Intersection

Int Delay, s/veh 2.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	2	19	2	3	10	1
Future Vol, veh/h	2	19	2	3	10	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	21	2	3	11	1




Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	23
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1592
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1592
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.9	8.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1002	-	-	1592	-
HCM Lane V/C Ratio	0.012	-	-	0.001	-
HCM Control Delay (s)	8.6	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

HCM 6th TWSC
12: Horizon Pkwy & E. 10th Avenue

2026 Total Traffic
PM Peak Hour

Intersection						
Int Delay, s/veh	1.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	2	3	12	8	2
Future Vol, veh/h	1	2	3	12	8	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	2	3	13	9	2



















Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	29	10	11	0	-	0
Stage 1	10	-	-	-	-	-
Stage 2	19	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	986	1071	1608	-	-	-
Stage 1	1013	-	-	-	-	-
Stage 2	1004	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	984	1071	1608	-	-	-
Mov Cap-2 Maneuver	984	-	-	-	-	-
Stage 1	1011	-	-	-	-	-
Stage 2	1004	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.5	1.4	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1608	-	1040	-	-
HCM Lane V/C Ratio	0.002	-	0.003	-	-
HCM Control Delay (s)	7.2	0	8.5	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Timings
1: Picadilly Rd & E 11th Ave

2040 Background Traffic
AM Peak Hour

										
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	16	0	107	0	23	12	1355	205	7	1169
Future Volume (vph)	16	0	107	0	23	12	1355	205	7	1169
Turn Type	Perm	NA	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA
Protected Phases		4		8		5	2		1	6
Permitted Phases	4		8		8	2		2	6	
Detector Phase	4	4	8	8	8	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	25.0	25.0	25.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.0	23.0	30.0	30.0	30.0	10.0	23.0	23.0	10.0	23.0
Total Split (s)	30.0	30.0	30.0	30.0	30.0	12.0	78.0	78.0	12.0	78.0
Total Split (%)	25.0%	25.0%	25.0%	25.0%	25.0%	10.0%	65.0%	65.0%	10.0%	65.0%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag						Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effect Green (s)		25.0		25.0	25.0	84.0	82.8	82.8	82.9	80.6
Actuated g/C Ratio		0.21		0.21	0.21	0.70	0.69	0.69	0.69	0.67
v/c Ratio		0.08		0.41	0.07	0.04	0.42	0.19	0.03	0.37
Control Delay		1.4		46.1	0.3	5.2	12.6	5.6	5.4	9.6
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		1.4		46.1	0.3	5.2	12.6	5.6	5.4	9.6
LOS		A		D	A	A	B	A	A	A
Approach Delay		1.4		38.0			11.6			9.5
Approach LOS		A		D			B			A

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.42

Intersection Signal Delay: 11.8

Intersection LOS: B

Intersection Capacity Utilization 63.7%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 1: Picadilly Rd & E 11th Ave










HCM 6th Signalized Intersection Summary

1: Picadilly Rd & E 11th Ave

2040 Background Traffic













AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↔	↔	↑↑↑	↔	↔	↑↑↑	
Traffic Volume (veh/h)	16	0	12	107	0	23	12	1355	205	7	1169	5
Future Volume (veh/h)	16	0	12	107	0	23	12	1355	205	7	1169	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	17	0	13	116	0	25	13	1473	223	8	1271	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	145	13	85	328	0	329	321	3358	1042	251	3427	13
Arrive On Green	0.21	0.00	0.21	0.21	0.00	0.21	0.02	0.87	0.87	0.01	0.65	0.65
Sat Flow, veh/h	474	60	409	1289	0	1585	1781	5106	1585	1781	5250	21
Grp Volume(v), veh/h	30	0	0	116	0	25	13	1473	223	8	824	452
Grp Sat Flow(s),veh/h/ln	944	0	0	1289	0	1585	1781	1702	1585	1781	1702	1867
Q Serve(g_s), s	0.4	0.0	0.0	0.0	0.0	1.5	0.3	7.0	2.6	0.2	13.3	13.3
Cycle Q Clear(g_c), s	11.0	0.0	0.0	10.7	0.0	1.5	0.3	7.0	2.6	0.2	13.3	13.3
Prop In Lane	0.57		0.43	1.00		1.00	1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	243	0	0	328	0	329	321	3358	1042	251	2222	1218
V/C Ratio(X)	0.12	0.00	0.00	0.35	0.00	0.08	0.04	0.44	0.21	0.03	0.37	0.37
Avail Cap(c_a), veh/h	244	0	0	329	0	330	399	3358	1042	337	2222	1218
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.3	0.0	0.0	41.9	0.0	38.3	7.4	3.0	2.7	7.0	9.5	9.5
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.6	0.0	0.1	0.1	0.4	0.5	0.1	0.5	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.0	3.1	0.0	0.6	0.1	1.7	0.8	0.1	4.5	5.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.6	0.0	0.0	42.6	0.0	38.4	7.5	3.4	3.2	7.1	10.0	10.4
LnGrp LOS	D	A	A	D	A	D	A	A	A	A	B	B
Approach Vol, veh/h		30			141			1709			1284	
Approach Delay, s/veh		39.6			41.8			3.4			10.1	
Approach LOS		D			D			A			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.2	83.9		29.9	6.8	83.3		29.9				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	7.0	73.0		25.0	7.0	73.0		25.0				
Max Q Clear Time (g_c+I1), s	2.2	9.0		13.0	2.3	15.3		12.7				
Green Ext Time (p_c), s	0.0	16.4		0.1	0.0	10.4		0.5				
Intersection Summary												
HCM 6th Ctrl Delay			8.2									
HCM 6th LOS			A									

Intersection						
Int Delay, s/veh	0.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	10	7	1566	4	3	1285
Future Vol, veh/h	10	7	1566	4	3	1285
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	205	255	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	8	1702	4	3	1397
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	2267	851	0	0	1706	0
Stage 1	1702	-	-	-	-	-
Stage 2	565	-	-	-	-	-
Critical Hdwy	5.74	7.14	-	-	5.34	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-	-
Follow-up Hdwy	3.82	3.92	-	-	3.12	-
Pot Cap-1 Maneuver	*218	*567	-	-	*713	-
Stage 1	*582	-	-	-	-	-
Stage 2	*486	-	-	-	-	-
Platoon blocked, %	1	1	-	-	1	-
Mov Cap-1 Maneuver	*217	*567	-	-	*713	-
Mov Cap-2 Maneuver	*217	-	-	-	-	-
Stage 1	*582	-	-	-	-	-
Stage 2	*484	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	17.9	0		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	217	567	* 713	-
HCM Lane V/C Ratio	-	-	0.05	0.013	0.005	-
HCM Control Delay (s)	-	-	22.5	11.4	10.1	-
HCM Lane LOS	-	-	C	B	B	-
HCM 95th %tile Q(veh)	-	-	0.2	0	0	-
Notes						
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined		*: All major volume in platoon

Timings
3: Picadilly Rd & E 8th Ave

2040 Background Traffic
AM Peak Hour

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	75	140	1429	129	301	994
Future Volume (vph)	75	140	1429	129	301	994
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA
Protected Phases	8		2		1	6
Permitted Phases		8		2	6	
Detector Phase	8	8	2	2	1	6
Switch Phase						
Minimum Initial (s)	20.0	20.0	5.0	5.0	5.0	5.0
Minimum Split (s)	25.0	25.0	11.0	11.0	10.0	11.0
Total Split (s)	30.0	30.0	74.0	74.0	16.0	90.0
Total Split (%)	25.0%	25.0%	61.7%	61.7%	13.3%	75.0%
Yellow Time (s)	3.0	3.0	4.0	4.0	3.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	6.0	6.0	5.0	6.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Act Effect Green (s)	20.0	20.0	68.0	68.0	90.0	89.0
Actuated g/C Ratio	0.17	0.17	0.57	0.57	0.75	0.74
v/c Ratio	0.28	0.39	0.54	0.15	0.92	0.29
Control Delay	46.6	10.0	14.7	5.2	50.9	10.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.6	10.0	14.7	5.2	50.9	10.9
LOS	D	A	B	A	D	B
Approach Delay	22.8		13.9			20.2
Approach LOS	C		B			C

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 63 (53%), Referenced to phase 2:NBT and 6:SBTL, Start of Yellow
 Natural Cycle: 70
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.92
 Intersection Signal Delay: 17.2
 Intersection Capacity Utilization 74.3%
 Analysis Period (min) 15

Intersection LOS: B

ICU Level of Service D

Splits and Phases: 3: Picadilly Rd & E 8th Ave



HCM 6th Signalized Intersection Summary
















3: Picadilly Rd & E 8th Ave

2040 Background Traffic
AM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	75	140	1429	129	301	994
Future Volume (veh/h)	75	140	1429	129	301	994
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	82	152	1553	140	327	1080
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	297	264	3158	980	385	3787
Arrive On Green	0.17	0.17	1.00	1.00	0.08	0.74
Sat Flow, veh/h	1781	1585	5274	1585	1781	5274
Grp Volume(v), veh/h	82	152	1553	140	327	1080
Grp Sat Flow(s),veh/h/ln	1781	1585	1702	1585	1781	1702
Q Serve(g_s), s	4.8	10.6	0.0	0.0	7.6	8.3
Cycle Q Clear(g_c), s	4.8	10.6	0.0	0.0	7.6	8.3
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	297	264	3158	980	385	3787
V/C Ratio(X)	0.28	0.58	0.49	0.14	0.85	0.29
Avail Cap(c_a), veh/h	371	330	3158	980	403	3787
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.90	0.90	1.00	1.00
Uniform Delay (d), s/veh	43.7	46.1	0.0	0.0	9.7	5.1
Incr Delay (d2), s/veh	0.5	2.0	0.5	0.3	15.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	4.4	0.1	0.1	4.0	2.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	44.2	48.1	0.5	0.3	24.9	5.3
LnGrp LOS	D	D	A	A	C	A
Approach Vol, veh/h	234		1693			1407
Approach Delay, s/veh	46.7		0.5			9.8
Approach LOS	D		A			A
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	14.8	80.2			95.0	25.0
Change Period (Y+Rc), s	5.0	6.0			6.0	5.0
Max Green Setting (Gmax), s	11.0	68.0			84.0	25.0
Max Q Clear Time (g_c+I1), s	9.6	2.0			10.3	12.6
Green Ext Time (p_c), s	0.1	17.3			9.0	0.6
Intersection Summary						
HCM 6th Ctrl Delay			7.7			
HCM 6th LOS			A			

Timings
4: Picadilly Rd & 7th Ave

2040 Background Traffic
AM Peak Hour

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations			  			  
Traffic Volume (vph)	48	54	1504	17	43	1026
Future Volume (vph)	48	54	1504	17	43	1026
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA
Protected Phases	8		2		1	6
Permitted Phases		8		2	6	
Detector Phase	8	8	2	2	1	6
Switch Phase						
Minimum Initial (s)	20.0	20.0	5.0	5.0	5.0	5.0
Minimum Split (s)	25.0	25.0	11.0	11.0	10.0	11.0
Total Split (s)	30.0	30.0	78.0	78.0	12.0	90.0
Total Split (%)	25.0%	25.0%	65.0%	65.0%	10.0%	75.0%
Yellow Time (s)	3.0	3.0	4.0	4.0	3.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	6.0	6.0	5.0	6.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Act Effect Green (s)	20.0	20.0	86.0	86.0	95.0	95.2
Actuated g/C Ratio	0.17	0.17	0.72	0.72	0.79	0.79
v/c Ratio	0.18	0.19	0.45	0.02	0.19	0.28
Control Delay	44.8	12.4	5.5	1.9	4.4	3.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.8	12.4	5.5	1.9	4.4	3.5
LOS	D	B	A	A	A	A
Approach Delay	27.6		5.4			3.5
Approach LOS	C		A			A

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 76 (63%), Referenced to phase 2:NBT and 6:SBTL, Start of Yellow
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.45
 Intersection Signal Delay: 5.5
 Intersection Capacity Utilization 61.6%
 Analysis Period (min) 15

Intersection LOS: A
 ICU Level of Service B

Splits and Phases: 4: Picadilly Rd & 7th Ave



HCM 6th Signalized Intersection Summary

4: Picadilly Rd & 7th Ave

2040 Background Traffic
AM Peak Hour




Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	48	54	1504	17	43	1026
Future Volume (veh/h)	48	54	1504	17	43	1026
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	52	59	1635	18	47	1115
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	290	258	3427	1064	321	3808
Arrive On Green	0.16	0.16	1.00	1.00	0.07	1.00
Sat Flow, veh/h	1781	1585	5274	1585	1781	5274
Grp Volume(v), veh/h	52	59	1635	18	47	1115
Grp Sat Flow(s),veh/h/ln	1781	1585	1702	1585	1781	1702
Q Serve(g_s), s	3.0	3.9	0.0	0.0	0.9	0.0
Cycle Q Clear(g_c), s	3.0	3.9	0.0	0.0	0.9	0.0
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	290	258	3427	1064	321	3808
V/C Ratio(X)	0.18	0.23	0.48	0.02	0.15	0.29
Avail Cap(c_a), veh/h	371	330	3427	1064	367	3808
HCM Platoon Ratio	1.00	1.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.97	0.97
Uniform Delay (d), s/veh	43.3	43.7	0.0	0.0	4.7	0.0
Incr Delay (d2), s/veh	0.3	0.4	0.5	0.0	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	1.6	0.2	0.0	0.3	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	43.6	44.2	0.5	0.0	4.9	0.2
LnGrp LOS	D	D	A	A	A	A
Approach Vol, veh/h	111		1653			1162
Approach Delay, s/veh	43.9		0.5			0.4
Approach LOS	D		A			A
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	9.0	86.5			95.5	24.5
Change Period (Y+Rc), s	5.0	6.0			6.0	5.0
Max Green Setting (Gmax), s	7.0	72.0			84.0	25.0
Max Q Clear Time (g_c+I1), s	2.9	2.0			2.0	5.9
Green Ext Time (p_c), s	0.0	18.0			9.4	0.3

Intersection Summary




HCM 6th Ctrl Delay	2.1
HCM 6th LOS	A




Intersection						
Int Delay, s/veh	0.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↑↑↑	↗		↑↑↑
Traffic Vol, veh/h	0	49	1471	210	0	1074
Future Vol, veh/h	0	49	1471	210	0	1074
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	150	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	53	1599	228	0	1167
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	-	800	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.14	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.92	-	-	-	-
Pot Cap-1 Maneuver	0	281	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	281	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	20.8	0		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBT		
Capacity (veh/h)	-	- 281		-		
HCM Lane V/C Ratio	-	- 0.19		-		
HCM Control Delay (s)	-	- 20.8		-		
HCM Lane LOS	-	- C		-		
HCM 95th %tile Q(veh)	-	- 0.7		-		

Intersection												
Int Delay, s/veh	5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↔	↔			↕	
Traffic Vol, veh/h	0	170	1	32	36	4	5	48	10	2	79	1
Future Vol, veh/h	0	170	1	32	36	4	5	48	10	2	79	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	150	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	185	1	35	39	4	5	52	11	2	86	1
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	43	0	0	186	0	0	341	299	186	328	297	41
Stage 1	-	-	-	-	-	-	186	186	-	111	111	-
Stage 2	-	-	-	-	-	-	155	113	-	217	186	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1566	-	-	1388	-	-	613	613	856	625	615	1030
Stage 1	-	-	-	-	-	-	816	746	-	894	804	-
Stage 2	-	-	-	-	-	-	847	802	-	785	746	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1566	-	-	1388	-	-	535	597	856	564	599	1030
Mov Cap-2 Maneuver	-	-	-	-	-	-	535	597	-	564	599	-
Stage 1	-	-	-	-	-	-	816	746	-	894	783	-
Stage 2	-	-	-	-	-	-	734	781	-	721	746	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			3.4			11.3			12		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1 NBLn2		EBL	EBT	EBR	WBL	WBT	WBR	SBLn1			
Capacity (veh/h)	535	630	1566	-	-	1388	-	-	601			
HCM Lane V/C Ratio	0.01	0.1	-	-	-	0.025	-	-	0.148			
HCM Control Delay (s)	11.8	11.3	0	-	-	7.7	0	-	12			
HCM Lane LOS	B	B	A	-	-	A	A	-	B			
HCM 95th %tile Q(veh)	0	0.3	0	-	-	0.1	-	-	0.5			

Intersection						
Int Delay, s/veh	1.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	13	200	88	2	6	42
Future Vol, veh/h	13	200	88	2	6	42
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	217	96	2	7	46
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	98	0	-	0	342	97
Stage 1	-	-	-	-	97	-
Stage 2	-	-	-	-	245	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1495	-	-	-	654	959
Stage 1	-	-	-	-	927	-
Stage 2	-	-	-	-	796	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1495	-	-	-	647	959
Mov Cap-2 Maneuver	-	-	-	-	647	-
Stage 1	-	-	-	-	917	-
Stage 2	-	-	-	-	796	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.5	0		9.2		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1495	-	-	-	904	
HCM Lane V/C Ratio	0.009	-	-	-	0.058	
HCM Control Delay (s)	7.4	0	-	-	9.2	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	0.2	

Intersection												
Int Delay, s/veh	2.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	8	197	0	12	64	1	0	16	5	1	14	26
Future Vol, veh/h	8	197	0	12	64	1	0	16	5	1	14	26
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	214	0	13	70	1	0	17	5	1	15	28
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	71	0	0	214	0	0	350	329	214	340	329	71
Stage 1	-	-	-	-	-	-	232	232	-	97	97	-
Stage 2	-	-	-	-	-	-	118	97	-	243	232	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1529	-	-	*1377	-	-	699	654	*920	712	654	991
Stage 1	-	-	-	-	-	-	862	756	-	910	815	-
Stage 2	-	-	-	-	-	-	887	815	-	849	756	-
Platoon blocked, %		-	-	1	-	-	1	1	1	1	1	
Mov Cap-1 Maneuver	1529	-	-	*1377	-	-	659	642	*920	684	642	991
Mov Cap-2 Maneuver	-	-	-	-	-	-	659	642	-	684	642	-
Stage 1	-	-	-	-	-	-	856	751	-	904	807	-
Stage 2	-	-	-	-	-	-	837	807	-	818	751	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.3			1.2			10.4			9.6		
HCM LOS							B			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	692	1529	-	-	* 1377	-	-	828				
HCM Lane V/C Ratio	0.033	0.006	-	-	0.009	-	-	0.054				
HCM Control Delay (s)	10.4	7.4	0	-	7.6	0	-	9.6				
HCM Lane LOS	B	A	A	-	A	A	-	A				
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.2				
Notes												
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined				*: All major volume in platoon				

Intersection						
Int Delay, s/veh	4.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	2	4	1	6	11	1
Future Vol, veh/h	2	4	1	6	11	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	4	1	7	12	1
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	6	0	13	4
Stage 1	-	-	-	-	4	-
Stage 2	-	-	-	-	9	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1615	-	1006	1080
Stage 1	-	-	-	-	1019	-
Stage 2	-	-	-	-	1014	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1615	-	1005	1080
Mov Cap-2 Maneuver	-	-	-	-	1005	-
Stage 1	-	-	-	-	1019	-
Stage 2	-	-	-	-	1013	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		1		8.6	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	1011	-	-	1615	-	
HCM Lane V/C Ratio	0.013	-	-	0.001	-	
HCM Control Delay (s)	8.6	-	-	7.2	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0	-	-	0	-	




Intersection						
Int Delay, s/veh	6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1	2	1	1	6	3
Future Vol, veh/h	1	2	1	1	6	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	2	1	1	7	3
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	3	0	5	2
Stage 1	-	-	-	-	2	-
Stage 2	-	-	-	-	3	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1619	-	1017	1082
Stage 1	-	-	-	-	1021	-
Stage 2	-	-	-	-	1020	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1619	-	1016	1082
Mov Cap-2 Maneuver	-	-	-	-	1016	-
Stage 1	-	-	-	-	1021	-
Stage 2	-	-	-	-	1019	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		3.6		8.5	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	1037	-	-	1619	-	
HCM Lane V/C Ratio	0.009	-	-	0.001	-	
HCM Control Delay (s)	8.5	-	-	7.2	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0	-	-	0	-	

HCM 6th TWSC
12: Horizon Pkwy & E. 10th Avenue

2040 Background Traffic
AM Peak Hour

Intersection

Int Delay, s/veh 1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	2	1	19	25	1
Future Vol, veh/h	3	2	1	19	25	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	2	1	21	27	1



















Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	51	28	28
Stage 1	28	-	-
Stage 2	23	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	958	1047	1585
Stage 1	995	-	-
Stage 2	1000	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	957	1047	1585
Mov Cap-2 Maneuver	957	-	-
Stage 1	994	-	-
Stage 2	1000	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.7	0.4	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1585	-	991	-	-
HCM Lane V/C Ratio	0.001	-	0.005	-	-
HCM Control Delay (s)	7.3	0	8.7	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Timings
1: Picadilly Rd & E 11th Ave

2040 Background Traffic
PM Peak Hour

										
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	8	0	269	0	16	2	1422	170	26	1451
Future Volume (vph)	8	0	269	0	16	2	1422	170	26	1451
Turn Type	Perm	NA	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA
Protected Phases		4		8		5	2		1	6
Permitted Phases	4		8		8	2		2	6	
Detector Phase	4	4	8	8	8	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	30.0	30.0	30.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.0	23.0	35.0	35.0	35.0	10.0	23.0	23.0	10.0	23.0
Total Split (s)	47.0	47.0	47.0	47.0	47.0	12.0	61.0	61.0	12.0	61.0
Total Split (%)	39.2%	39.2%	39.2%	39.2%	39.2%	10.0%	50.8%	50.8%	10.0%	50.8%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag						Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effect Green (s)		33.2		33.2	33.2	73.2	69.8	69.8	76.2	74.7
Actuated g/C Ratio		0.28		0.28	0.28	0.61	0.58	0.58	0.64	0.62
v/c Ratio		0.04		0.76	0.04	0.01	0.51	0.19	0.13	0.49
Control Delay		0.2		53.2	0.1	12.5	22.5	10.8	10.5	14.1
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		0.2		53.2	0.1	12.5	22.5	10.8	10.5	14.1
LOS		A		D	A	B	C	B	B	B
Approach Delay		0.2		50.3			21.2			14.0
Approach LOS		A		D			C			B

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
 Natural Cycle: 70
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.76
 Intersection Signal Delay: 20.5
 Intersection Capacity Utilization 69.1%
 Analysis Period (min) 15

Intersection LOS: C
 ICU Level of Service C

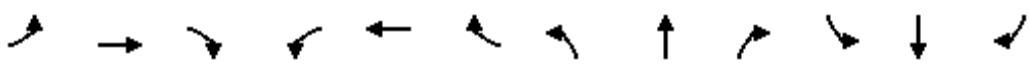
Splits and Phases: 1: Picadilly Rd & E 11th Ave



HCM 6th Signalized Intersection Summary

1: Picadilly Rd & E 11th Ave

2040 Background Traffic
PM Peak Hour







												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↔	↔	↔↔↔	↔	↔	↔↔↔	
Traffic Volume (veh/h)	8	0	10	269	0	16	2	1422	170	26	1451	13
Future Volume (veh/h)	8	0	10	269	0	16	2	1422	170	26	1451	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	9	0	11	292	0	17	2	1497	185	28	1527	14
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.95	0.92	0.92	0.95	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	47	16	23	355	0	555	174	2552	792	204	2725	25
Arrive On Green	0.35	0.00	0.35	0.35	0.00	0.35	0.00	0.66	0.66	0.03	0.52	0.52
Sat Flow, veh/h	10	45	67	844	0	1585	1781	5106	1585	1781	5218	48
Grp Volume(v), veh/h	20	0	0	292	0	17	2	1497	185	28	996	545
Grp Sat Flow(s),veh/h/ln	121	0	0	844	0	1585	1781	1702	1585	1781	1702	1862
Q Serve(g_s), s	0.5	0.0	0.0	0.0	0.0	0.8	0.1	19.3	5.6	0.9	23.7	23.7
Cycle Q Clear(g_c), s	41.9	0.0	0.0	41.4	0.0	0.8	0.1	19.3	5.6	0.9	23.7	23.7
Prop In Lane	0.45		0.55	1.00		1.00	1.00		1.00	1.00		0.03
Lane Grp Cap(c), veh/h	86	0	0	355	0	555	174	2552	792	204	1778	972
V/C Ratio(X)	0.23	0.00	0.00	0.82	0.00	0.03	0.01	0.59	0.23	0.14	0.56	0.56
Avail Cap(c_a), veh/h	86	0	0	355	0	555	273	2552	792	263	1778	972
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.1	0.0	0.0	38.8	0.0	25.6	16.7	13.3	11.0	15.5	19.4	19.4
Incr Delay (d2), s/veh	1.4	0.0	0.0	14.3	0.0	0.0	0.0	1.0	0.7	0.3	1.3	2.3
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	0.0	9.8	0.0	0.3	0.0	5.7	1.9	0.4	9.0	10.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.4	0.0	0.0	53.1	0.0	25.6	16.7	14.3	11.7	15.8	20.6	21.7
LnGrp LOS	C	A	A	D	A	C	B	B	B	B	C	C
Approach Vol, veh/h	20				309				1684		1569	
Approach Delay, s/veh	33.4				51.6				14.0		20.9	
Approach LOS	C				D				B		C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.0	65.0		47.0	5.3	67.7		47.0				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	7.0	56.0		42.0	7.0	56.0		42.0				
Max Q Clear Time (g_c+I1), s	2.9	21.3		43.9	2.1	25.7		43.4				
Green Ext Time (p_c), s	0.0	14.2		0.0	0.0	12.1		0.0				
Intersection Summary												
HCM 6th Ctrl Delay	20.4											
HCM 6th LOS	C											

HCM 6th TWSC
2: Picadilly Rd & E. 10th Avenue

2040 Background Traffic
PM Peak Hour

Intersection

Int Delay, s/veh 0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	7	5	1589	12	9	1721
Future Vol, veh/h	7	5	1589	12	9	1721
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	205	255	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	95	92	92	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	8	5	1673	13	10	1812

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	2418	837	0
Stage 1	1673	-	-
Stage 2	745	-	-
Critical Hdwy	5.74	7.14	-
Critical Hdwy Stg 1	6.64	-	-
Critical Hdwy Stg 2	6.04	-	-
Follow-up Hdwy	3.82	3.92	-
Pot Cap-1 Maneuver	*185	*545	-
Stage 1	*560	-	-
Stage 2	*391	-	-
Platoon blocked, %	1	1	-
Mov Cap-1 Maneuver	*182	*545	-
Mov Cap-2 Maneuver	*182	-	-
Stage 1	*560	-	-
Stage 2	*385	-	-

Approach	WB	NB	SB
HCM Control Delay, s	19.8	0	0.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT
Capacity (veh/h)	-	- 182	545	* 686
HCM Lane V/C Ratio	-	- 0.042	0.01	0.014
HCM Control Delay (s)	-	- 25.6	11.7	10.3
HCM Lane LOS	-	- D	B	B
HCM 95th %tile Q(veh)	-	- 0.1	0	0

Notes

~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Timings
3: Picadilly Rd & E 8th Ave

2040 Background Traffic
PM Peak Hour

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	107	239	1362	47	148	1580
Future Volume (vph)	107	239	1362	47	148	1580
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA
Protected Phases	8		2		1	6
Permitted Phases		8		2	6	
Detector Phase	8	8	2	2	1	6
Switch Phase						
Minimum Initial (s)	30.0	30.0	5.0	5.0	5.0	5.0
Minimum Split (s)	35.0	35.0	11.0	11.0	10.0	11.0
Total Split (s)	35.0	35.0	73.0	73.0	12.0	85.0
Total Split (%)	29.2%	29.2%	60.8%	60.8%	10.0%	70.8%
Yellow Time (s)	3.0	3.0	4.0	4.0	3.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	6.0	6.0	5.0	6.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Act Effect Green (s)	30.0	30.0	67.0	67.0	80.0	79.0
Actuated g/C Ratio	0.25	0.25	0.56	0.56	0.67	0.66
v/c Ratio	0.26	0.52	0.51	0.06	0.66	0.50
Control Delay	38.1	22.5	7.6	1.4	28.6	20.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.1	22.5	7.6	1.4	28.6	20.5
LOS	D	C	A	A	C	C
Approach Delay	27.3		7.4			21.2
Approach LOS	C		A			C

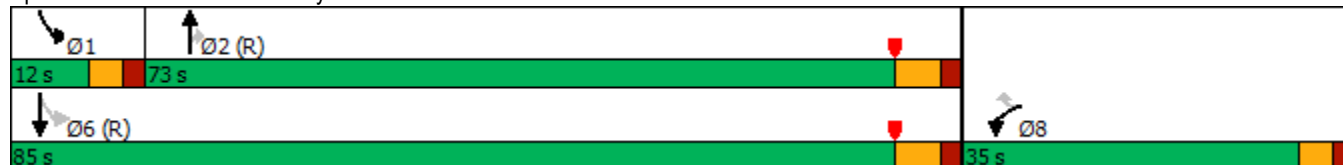
Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 63 (53%), Referenced to phase 2:NBT and 6:SBTL, Start of Yellow
 Natural Cycle: 70
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.66
 Intersection Signal Delay: 16.3
 Intersection Capacity Utilization 72.8%
 Analysis Period (min) 15

Intersection LOS: B

ICU Level of Service C













Splits and Phases: 3: Picadilly Rd & E 8th Ave



HCM 6th Signalized Intersection Summary

















3: Picadilly Rd & E 8th Ave

2040 Background Traffic
PM Peak Hour

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	107	239	1362	47	148	1580
Future Volume (veh/h)	107	239	1362	47	148	1580
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	116	260	1434	51	161	1663
Peak Hour Factor	0.92	0.92	0.95	0.92	0.92	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	445	396	2878	893	355	3362
Arrive On Green	0.25	0.25	1.00	1.00	0.05	0.66
Sat Flow, veh/h	1781	1585	5274	1585	1781	5274
Grp Volume(v), veh/h	116	260	1434	51	161	1663
Grp Sat Flow(s),veh/h/ln	1781	1585	1702	1585	1781	1702
Q Serve(g_s), s	6.3	17.7	0.0	0.0	4.4	19.8
Cycle Q Clear(g_c), s	6.3	17.7	0.0	0.0	4.4	19.8
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	445	396	2878	893	355	3362
V/C Ratio(X)	0.26	0.66	0.50	0.06	0.45	0.49
Avail Cap(c_a), veh/h	445	396	2878	893	364	3362
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.90	0.90	1.00	1.00
Uniform Delay (d), s/veh	36.1	40.4	0.0	0.0	8.9	10.4
Incr Delay (d2), s/veh	0.3	3.9	0.6	0.1	0.9	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	7.4	0.1	0.0	1.6	6.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	36.4	44.3	0.6	0.1	9.8	10.9
LnGrp LOS	D	D	A	A	A	B
Approach Vol, veh/h	376		1485			1824
Approach Delay, s/veh	41.8		0.5			10.8
Approach LOS	D		A			B
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	11.4	73.6			85.0	35.0
Change Period (Y+Rc), s	5.0	6.0			6.0	5.0
Max Green Setting (Gmax), s	7.0	67.0			79.0	30.0
Max Q Clear Time (g_c+I1), s	6.4	2.0			21.8	19.7
Green Ext Time (p_c), s	0.0	14.3			17.8	0.9
Intersection Summary						
HCM 6th Ctrl Delay			9.8			
HCM 6th LOS			A			

Timings
4: Picadilly Rd & 7th Ave

2040 Background Traffic
PM Peak Hour

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations			  			  
Traffic Volume (vph)	188	88	1321	40	122	1565
Future Volume (vph)	188	88	1321	40	122	1565
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA
Protected Phases	8		2		1	6
Permitted Phases		8		2	6	
Detector Phase	8	8	2	2	1	6
Switch Phase						
Minimum Initial (s)	23.0	23.0	5.0	5.0	5.0	5.0
Minimum Split (s)	30.0	30.0	11.0	11.0	10.0	11.0
Total Split (s)	30.0	30.0	78.0	78.0	12.0	90.0
Total Split (%)	25.0%	25.0%	65.0%	65.0%	10.0%	75.0%
Yellow Time (s)	3.0	3.0	4.0	4.0	3.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	6.0	6.0	5.0	6.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	23.4	23.4	73.0	73.0	86.6	85.6
Actuated g/C Ratio	0.20	0.20	0.61	0.61	0.72	0.71
v/c Ratio	0.59	0.25	0.45	0.04	0.47	0.45
Control Delay	51.7	9.5	11.3	3.4	18.7	2.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.7	9.5	11.3	3.4	18.7	2.7
LOS	D	A	B	A	B	A
Approach Delay	38.2		11.1			3.9
Approach LOS	D		B			A

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 59 (49%), Referenced to phase 2:NBT and 6:SBTL, Start of Yellow

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.59

Intersection Signal Delay: 9.7

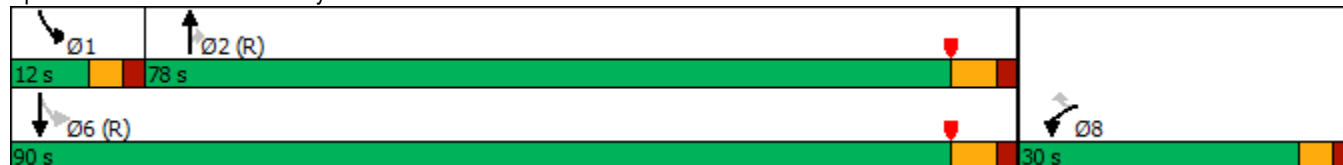
Intersection LOS: A

Intersection Capacity Utilization 64.8%

ICU Level of Service C

Analysis Period (min) 15








Splits and Phases: 4: Picadilly Rd & 7th Ave



HCM 6th Signalized Intersection Summary

4: Picadilly Rd & 7th Ave

2040 Background Traffic
PM Peak Hour

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	188	88	1321	40	122	1565
Future Volume (veh/h)	188	88	1321	40	122	1565
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	204	96	1391	43	133	1647
Peak Hour Factor	0.92	0.92	0.95	0.92	0.92	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	341	304	3230	1003	320	3659
Arrive On Green	0.19	0.19	0.63	0.63	0.08	1.00
Sat Flow, veh/h	1781	1585	5274	1585	1781	5274
Grp Volume(v), veh/h	204	96	1391	43	133	1647
Grp Sat Flow(s),veh/h/ln	1781	1585	1702	1585	1781	1702
Q Serve(g_s), s	12.5	6.3	16.5	1.2	3.1	0.0
Cycle Q Clear(g_c), s	12.5	6.3	16.5	1.2	3.1	0.0
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	341	304	3230	1003	320	3659
V/C Ratio(X)	0.60	0.32	0.43	0.04	0.42	0.45
Avail Cap(c_a), veh/h	371	330	3230	1003	348	3659
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.87	0.87
Uniform Delay (d), s/veh	44.3	41.7	11.1	8.3	8.0	0.0
Incr Delay (d2), s/veh	2.3	0.6	0.4	0.1	0.7	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.8	2.5	5.7	0.4	1.0	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	46.5	42.3	11.6	8.4	8.7	0.3
LnGrp LOS	D	D	B	A	A	A
Approach Vol, veh/h	300		1434			1780
Approach Delay, s/veh	45.2		11.5			1.0
Approach LOS	D		B			A
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	10.1	81.9			92.0	28.0
Change Period (Y+Rc), s	5.0	6.0			6.0	5.0
Max Green Setting (Gmax), s	7.0	72.0			84.0	25.0
Max Q Clear Time (g_c+I1), s	5.1	18.5			2.0	14.5
Green Ext Time (p_c), s	0.1	13.3			18.5	0.7
Intersection Summary						
HCM 6th Ctrl Delay			9.0			
HCM 6th LOS			A			




Intersection						
Int Delay, s/veh	0.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↑↑↑	↗		↑↑↑
Traffic Vol, veh/h	0	63	1297	107	0	1752
Future Vol, veh/h	0	63	1297	107	0	1752
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	150	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	95	92	92	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	68	1365	116	0	1844
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	-	683	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.14	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.92	-	-	-	-
Pot Cap-1 Maneuver	0	336	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	336	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	18.4	0		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBT		
Capacity (veh/h)	-	- 336		-		
HCM Lane V/C Ratio	-	- 0.204		-		
HCM Control Delay (s)	-	- 18.4		-		
HCM Lane LOS	-	- C		-		
HCM 95th %tile Q(veh)	-	- 0.8		-		





Intersection												
Int Delay, s/veh	7.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕			↕	
Traffic Vol, veh/h	2	30	1	24	31	2	4	77	33	1	66	0
Future Vol, veh/h	2	30	1	24	31	2	4	77	33	1	66	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	150	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	33	1	26	34	2	4	84	36	1	72	0




Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	36	0	0	34	0	0	161	126	34	185	125	35
Stage 1	-	-	-	-	-	-	38	38	-	87	87	-
Stage 2	-	-	-	-	-	-	123	88	-	98	38	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1575	-	-	1578	-	-	804	764	1039	776	765	1038
Stage 1	-	-	-	-	-	-	977	863	-	921	823	-
Stage 2	-	-	-	-	-	-	881	822	-	908	863	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1575	-	-	1578	-	-	735	750	1039	676	751	1038
Mov Cap-2 Maneuver	-	-	-	-	-	-	735	750	-	676	751	-
Stage 1	-	-	-	-	-	-	976	862	-	920	809	-
Stage 2	-	-	-	-	-	-	789	808	-	791	862	-




Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	3.1	10.2	10.3
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	735	818	1575	-	-	1578	-	-	750
HCM Lane V/C Ratio	0.006	0.146	0.001	-	-	0.017	-	-	0.097
HCM Control Delay (s)	9.9	10.2	7.3	0	-	7.3	0	-	10.3
HCM Lane LOS	A	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0.5	0	-	-	0.1	-	-	0.3

Intersection						
Int Delay, s/veh	1.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	47	149	257	6	4	29
Future Vol, veh/h	47	149	257	6	4	29
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	51	162	279	7	4	32
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	286	0	-	0	547	283
Stage 1	-	-	-	-	283	-
Stage 2	-	-	-	-	264	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1276	-	-	-	498	756
Stage 1	-	-	-	-	765	-
Stage 2	-	-	-	-	780	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1276	-	-	-	476	756
Mov Cap-2 Maneuver	-	-	-	-	476	-
Stage 1	-	-	-	-	731	-
Stage 2	-	-	-	-	780	-
Approach	EB	WB		SB		
HCM Control Delay, s	1.9	0		10.4		
HCM LOS				B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1276	-	-	-	706	
HCM Lane V/C Ratio	0.04	-	-	-	0.051	
HCM Control Delay (s)	7.9	0	-	-	10.4	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2	




Intersection												
Int Delay, s/veh	1.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	29	124	0	2	245	1	0	12	3	1	8	18
Future Vol, veh/h	29	124	0	2	245	1	0	12	3	1	8	18
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	32	135	0	2	266	1	0	13	3	1	9	20
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	267	0	0	135	0	0	484	470	135	478	470	267
Stage 1	-	-	-	-	-	-	199	199	-	271	271	-
Stage 2	-	-	-	-	-	-	285	271	-	207	199	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1297	-	-	1473	-	-	518	507	977	524	507	772
Stage 1	-	-	-	-	-	-	847	758	-	735	685	-
Stage 2	-	-	-	-	-	-	722	685	-	839	758	-
Platoon blocked, %		-	-	1	-	-	1	1	1	1	1	
Mov Cap-1 Maneuver	1297	-	-	1473	-	-	487	493	977	500	493	772
Mov Cap-2 Maneuver	-	-	-	-	-	-	487	493	-	500	493	-
Stage 1	-	-	-	-	-	-	824	737	-	715	684	-
Stage 2	-	-	-	-	-	-	693	684	-	799	737	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.5			0.1			11.8			10.8		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	547	1297	-	-	1473	-	-	650				
HCM Lane V/C Ratio	0.03	0.024	-	-	0.001	-	-	0.045				
HCM Control Delay (s)	11.8	7.8	0	-	7.4	0	-	10.8				
HCM Lane LOS	B	A	A	-	A	A	-	B				
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0	-	-	0.1				

Intersection						
Int Delay, s/veh	2.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	7	13	2	4	8	1
Future Vol, veh/h	7	13	2	4	8	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	8	14	2	4	9	1
Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	22	0	23	15
Stage 1	-	-	-	-	15	-
Stage 2	-	-	-	-	8	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1593	-	993	1065
Stage 1	-	-	-	-	1008	-
Stage 2	-	-	-	-	1015	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1593	-	992	1065
Mov Cap-2 Maneuver	-	-	-	-	992	-
Stage 1	-	-	-	-	1008	-
Stage 2	-	-	-	-	1014	-
Approach	EB	WB	NB			
HCM Control Delay, s	0	2.4	8.6			
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	1000	-	-	1593	-	
HCM Lane V/C Ratio	0.01	-	-	0.001	-	
HCM Control Delay (s)	8.6	-	-	7.3	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0	-	-	0	-	

Intersection						
Int Delay, s/veh	4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1	7	4	2	4	2
Future Vol, veh/h	1	7	4	2	4	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	8	4	2	4	2
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	9	0	15	5
Stage 1	-	-	-	-	5	-
Stage 2	-	-	-	-	10	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1611	-	1004	1078
Stage 1	-	-	-	-	1018	-
Stage 2	-	-	-	-	1013	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1611	-	1002	1078
Mov Cap-2 Maneuver	-	-	-	-	1002	-
Stage 1	-	-	-	-	1018	-
Stage 2	-	-	-	-	1011	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		4.8		8.5	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	1026	-	-	1611	-	
HCM Lane V/C Ratio	0.006	-	-	0.003	-	
HCM Control Delay (s)	8.5	-	-	7.2	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0	-	-	0	-	

HCM 6th TWSC
12: Horizon Pkwy & E. 10th Avenue

2040 Background Traffic
PM Peak Hour

Intersection						
Int Delay, s/veh	1.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	2	1	2	13	7	3
Future Vol, veh/h	2	1	2	13	7	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	1	2	14	8	3



















Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	28	10	11	0	-	0
Stage 1	10	-	-	-	-	-
Stage 2	18	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	987	1071	1608	-	-	-
Stage 1	1013	-	-	-	-	-
Stage 2	1005	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	986	1071	1608	-	-	-
Mov Cap-2 Maneuver	986	-	-	-	-	-
Stage 1	1012	-	-	-	-	-
Stage 2	1005	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.6	1	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1608	-	1013	-	-
HCM Lane V/C Ratio	0.001	-	0.003	-	-
HCM Control Delay (s)	7.2	0	8.6	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Timings
1: Picadilly Rd & E 11th Ave

2040 Total Traffic
AM Peak Hour

										
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	16	0	110	0	35	12	1373	207	12	1175
Future Volume (vph)	16	0	110	0	35	12	1373	207	12	1175
Turn Type	Perm	NA	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA
Protected Phases		4		8		5	2		1	6
Permitted Phases	4		8		8	2		2	6	
Detector Phase	4	4	8	8	8	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	25.0	25.0	25.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.0	23.0	30.0	30.0	30.0	10.0	23.0	23.0	10.0	23.0
Total Split (s)	30.0	30.0	30.0	30.0	30.0	12.0	78.0	78.0	12.0	78.0
Total Split (%)	25.0%	25.0%	25.0%	25.0%	25.0%	10.0%	65.0%	65.0%	10.0%	65.0%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag						Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effect Green (s)		25.0		25.0	25.0	83.0	80.6	80.6	83.0	80.6
Actuated g/C Ratio		0.21		0.21	0.21	0.69	0.67	0.67	0.69	0.67
v/c Ratio		0.08		0.42	0.10	0.04	0.44	0.20	0.05	0.38
Control Delay		1.4		46.5	3.8	5.2	14.7	6.6	5.7	9.6
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		1.4		46.5	3.8	5.2	14.7	6.6	5.7	9.6
LOS		A		D	A	A	B	A	A	A
Approach Delay		1.4		36.2			13.6			9.5
Approach LOS		A		D			B			A

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
 Natural Cycle: 65
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.44
 Intersection Signal Delay: 13.0
 Intersection Capacity Utilization 64.0%
 Analysis Period (min) 15

Intersection LOS: B
 ICU Level of Service C

Splits and Phases: 1: Picadilly Rd & E 11th Ave

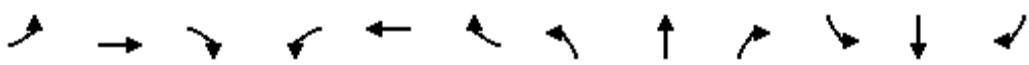


HCM 6th Signalized Intersection Summary

1: Picadilly Rd & E 11th Ave







2040 Total Traffic

AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↔	↔	↔↔↔	↔	↔	↔↔↔	
Traffic Volume (veh/h)	16	0	12	110	0	35	12	1373	207	12	1175	5
Future Volume (veh/h)	16	0	12	110	0	35	12	1373	207	12	1175	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	17	0	13	120	0	38	13	1492	225	13	1277	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	141	13	82	326	0	330	319	3331	1034	253	3425	13
Arrive On Green	0.21	0.00	0.21	0.21	0.00	0.21	0.02	0.87	0.87	0.01	0.65	0.65
Sat Flow, veh/h	454	60	393	1278	0	1585	1781	5106	1585	1781	5250	21
Grp Volume(v), veh/h	30	0	0	120	0	38	13	1492	225	13	828	454
Grp Sat Flow(s),veh/h/ln	908	0	0	1278	0	1585	1781	1702	1585	1781	1702	1867
Q Serve(g_s), s	0.4	0.0	0.0	0.0	0.0	2.3	0.3	7.6	2.8	0.3	13.4	13.4
Cycle Q Clear(g_c), s	11.6	0.0	0.0	11.2	0.0	2.3	0.3	7.6	2.8	0.3	13.4	13.4
Prop In Lane	0.57		0.43	1.00		1.00	1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	236	0	0	326	0	330	319	3331	1034	253	2221	1218
V/C Ratio(X)	0.13	0.00	0.00	0.37	0.00	0.12	0.04	0.45	0.22	0.05	0.37	0.37
Avail Cap(c_a), veh/h	236	0	0	326	0	330	397	3331	1034	331	2221	1218
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.4	0.0	0.0	42.1	0.0	38.6	7.4	3.3	2.9	7.0	9.6	9.6
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.7	0.0	0.2	0.1	0.4	0.5	0.1	0.5	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.0	3.2	0.0	0.9	0.1	1.8	0.9	0.1	4.5	5.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.6	0.0	0.0	42.8	0.0	38.7	7.5	3.7	3.4	7.0	10.1	10.5
LnGrp LOS	D	A	A	D	A	D	A	A	A	A	B	B
Approach Vol, veh/h	30			158			1730			1295		
Approach Delay, s/veh	39.6			41.8			3.7			10.2		
Approach LOS	D			D			A			B		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.8	83.3		30.0	6.8	83.3		30.0				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	7.0	73.0		25.0	7.0	73.0		25.0				
Max Q Clear Time (g_c+I1), s	2.3	9.6		13.6	2.3	15.4		13.2				
Green Ext Time (p_c), s	0.0	16.8		0.1	0.0	10.4		0.5				
Intersection Summary												
HCM 6th Ctrl Delay				8.5								
HCM 6th LOS				A								

HCM 6th TWSC
2: Picadilly Rd & E. 10th Avenue

2040 Total Traffic
AM Peak Hour

Intersection						
Int Delay, s/veh	0.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	27	23	1569	10	7	1290
Future Vol, veh/h	27	23	1569	10	7	1290
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	205	255	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	29	25	1705	11	8	1402

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	2282	853	0
Stage 1	1705	-	-
Stage 2	577	-	-
Critical Hdwy	5.74	7.14	-
Critical Hdwy Stg 1	6.64	-	-
Critical Hdwy Stg 2	6.04	-	-
Follow-up Hdwy	3.82	3.92	-
Pot Cap-1 Maneuver	*213	*567	-
Stage 1	*582	-	-
Stage 2	*479	-	-
Platoon blocked, %	1	1	-
Mov Cap-1 Maneuver	*210	*567	-
Mov Cap-2 Maneuver	*210	-	-
Stage 1	*582	-	-
Stage 2	*474	-	-












Approach	WB	NB	SB
HCM Control Delay, s	18.8	0	0.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT
Capacity (veh/h)	-	- 210 567	* 713	-
HCM Lane V/C Ratio	-	- 0.14 0.044	0.011	-
HCM Control Delay (s)	-	- 24.9 11.6	10.1	-
HCM Lane LOS	-	- C B	B	-
HCM 95th %tile Q(veh)	-	- 0.5 0.1	0	-

Notes			
~: Volume exceeds capacity	\$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Timings
3: Picadilly Rd & E 8th Ave

2040 Total Traffic
AM Peak Hour

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations			  			  
Traffic Volume (vph)	81	141	1437	131	302	1015
Future Volume (vph)	81	141	1437	131	302	1015
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA
Protected Phases	8		2		1	6
Permitted Phases		8		2	6	
Detector Phase	8	8	2	2	1	6
Switch Phase						
Minimum Initial (s)	20.0	20.0	5.0	5.0	5.0	5.0
Minimum Split (s)	25.0	25.0	11.0	11.0	10.0	11.0
Total Split (s)	30.0	30.0	74.0	74.0	16.0	90.0
Total Split (%)	25.0%	25.0%	61.7%	61.7%	13.3%	75.0%
Yellow Time (s)	3.0	3.0	4.0	4.0	3.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	6.0	6.0	5.0	6.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Act Effect Green (s)	20.0	20.0	68.0	68.0	90.0	89.0
Actuated g/C Ratio	0.17	0.17	0.57	0.57	0.75	0.74
v/c Ratio	0.30	0.39	0.54	0.15	0.93	0.29
Control Delay	47.0	10.0	14.8	5.2	52.3	10.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.0	10.0	14.8	5.2	52.3	10.9
LOS	D	A	B	A	D	B
Approach Delay	23.5		14.0			20.4
Approach LOS	C		B			C

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 63 (53%), Referenced to phase 2:NBT and 6:SBTL, Start of Yellow
 Natural Cycle: 70
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.93
 Intersection Signal Delay: 17.4
 Intersection Capacity Utilization 74.5%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service D

Splits and Phases: 3: Picadilly Rd & E 8th Ave



HCM 6th Signalized Intersection Summary













3: Picadilly Rd & E 8th Ave

2040 Total Traffic
AM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	81	141	1437	131	302	1015
Future Volume (veh/h)	81	141	1437	131	302	1015
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	88	153	1562	142	328	1103
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	297	264	3157	980	383	3787
Arrive On Green	0.17	0.17	1.00	1.00	0.08	0.74
Sat Flow, veh/h	1781	1585	5274	1585	1781	5274
Grp Volume(v), veh/h	88	153	1562	142	328	1103
Grp Sat Flow(s),veh/h/ln	1781	1585	1702	1585	1781	1702
Q Serve(g_s), s	5.2	10.7	0.0	0.0	7.7	8.5
Cycle Q Clear(g_c), s	5.2	10.7	0.0	0.0	7.7	8.5
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	297	264	3157	980	383	3787
V/C Ratio(X)	0.30	0.58	0.49	0.14	0.86	0.29
Avail Cap(c_a), veh/h	371	330	3157	980	401	3787
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.90	0.90	1.00	1.00
Uniform Delay (d), s/veh	43.8	46.1	0.0	0.0	10.0	5.1
Incr Delay (d2), s/veh	0.6	2.0	0.5	0.3	16.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	4.4	0.1	0.1	4.0	2.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	44.4	48.1	0.5	0.3	26.0	5.3
LnGrp LOS	D	D	A	A	C	A
Approach Vol, veh/h	241		1704			1431
Approach Delay, s/veh	46.8		0.5			10.0
Approach LOS	D		A			B
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	14.8	80.2			95.0	25.0
Change Period (Y+Rc), s	5.0	6.0			6.0	5.0
Max Green Setting (Gmax), s	11.0	68.0			84.0	25.0
Max Q Clear Time (g_c+I1), s	9.7	2.0			10.5	12.7
Green Ext Time (p_c), s	0.1	17.5			9.2	0.6
Intersection Summary						
HCM 6th Ctrl Delay			7.8			
HCM 6th LOS			A			

Timings
4: Picadilly Rd & 7th Ave

2040 Total Traffic
AM Peak Hour

												
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT						
Lane Configurations												
Traffic Volume (vph)	48	54	1513	17	43	1054						
Future Volume (vph)	48	54	1513	17	43	1054						
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA						
Protected Phases	8		2		1	6						
Permitted Phases		8		2	6							
Detector Phase	8	8	2	2	1	6						
Switch Phase												
Minimum Initial (s)	20.0	20.0	5.0	5.0	5.0	5.0						
Minimum Split (s)	25.0	25.0	11.0	11.0	10.0	11.0						
Total Split (s)	30.0	30.0	78.0	78.0	12.0	90.0						
Total Split (%)	25.0%	25.0%	65.0%	65.0%	10.0%	75.0%						
Yellow Time (s)	3.0	3.0	4.0	4.0	3.0	4.0						
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0						
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0						
Total Lost Time (s)	5.0	5.0	6.0	6.0	5.0	6.0						
Lead/Lag			Lag	Lag	Lead							
Lead-Lag Optimize?			Yes	Yes	Yes							
Recall Mode	None	None	C-Max	C-Max	None	C-Max						
Act Effect Green (s)	20.0	20.0	86.0	86.0	95.0	95.2						
Actuated g/C Ratio	0.17	0.17	0.72	0.72	0.79	0.79						
v/c Ratio	0.18	0.19	0.45	0.02	0.19	0.28						
Control Delay	44.8	12.4	5.6	2.1	4.5	3.6						
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0						
Total Delay	44.8	12.4	5.6	2.1	4.5	3.6						
LOS	D	B	A	A	A	A						
Approach Delay	27.6		5.5			3.6						
Approach LOS	C		A			A						

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 76 (63%), Referenced to phase 2:NBT and 6:SBTL, Start of Yellow
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.45
 Intersection Signal Delay: 5.6
 Intersection Capacity Utilization 61.6%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service B

Splits and Phases: 4: Picadilly Rd & 7th Ave



HCM 6th Signalized Intersection Summary

4: Picadilly Rd & 7th Ave

2040 Total Traffic
AM Peak Hour





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	48	54	1513	17	43	1054
Future Volume (veh/h)	48	54	1513	17	43	1054
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	52	59	1645	18	47	1146
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	290	258	3427	1064	319	3808
Arrive On Green	0.16	0.16	1.00	1.00	0.07	1.00
Sat Flow, veh/h	1781	1585	5274	1585	1781	5274
Grp Volume(v), veh/h	52	59	1645	18	47	1146
Grp Sat Flow(s),veh/h/ln	1781	1585	1702	1585	1781	1702
Q Serve(g_s), s	3.0	3.9	0.0	0.0	0.9	0.0
Cycle Q Clear(g_c), s	3.0	3.9	0.0	0.0	0.9	0.0
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	290	258	3427	1064	319	3808
V/C Ratio(X)	0.18	0.23	0.48	0.02	0.15	0.30
Avail Cap(c_a), veh/h	371	330	3427	1064	365	3808
HCM Platoon Ratio	1.00	1.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.97	0.97
Uniform Delay (d), s/veh	43.3	43.7	0.0	0.0	4.7	0.0
Incr Delay (d2), s/veh	0.3	0.4	0.5	0.0	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	1.6	0.2	0.0	0.3	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	43.6	44.2	0.5	0.0	4.9	0.2
LnGrp LOS	D	D	A	A	A	A
Approach Vol, veh/h	111		1663			1193
Approach Delay, s/veh	43.9		0.5			0.4
Approach LOS	D		A			A
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	9.0	86.5			95.5	24.5
Change Period (Y+Rc), s	5.0	6.0			6.0	5.0
Max Green Setting (Gmax), s	7.0	72.0			84.0	25.0
Max Q Clear Time (g_c+I1), s	2.9	2.0			2.0	5.9
Green Ext Time (p_c), s	0.0	18.3			9.8	0.3

Intersection Summary

HCM 6th Ctrl Delay	2.1
HCM 6th LOS	A

HCM 6th TWSC
5: Picadilly Rd & E 6th Ave

2040 Total Traffic
AM Peak Hour

Intersection						
Int Delay, s/veh	0.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	49	1481	210	0	1102
Future Vol, veh/h	0	49	1481	210	0	1102
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	150	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	53	1610	228	0	1198
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	-	805	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.14	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.92	-	-	-	-
Pot Cap-1 Maneuver	0	279	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	279	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	20.9	0		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBT		
Capacity (veh/h)	-	- 279		-		
HCM Lane V/C Ratio	-	- 0.191		-		
HCM Control Delay (s)	-	- 20.9		-		
HCM Lane LOS	-	- C		-		
HCM 95th %tile Q(veh)	-	- 0.7		-		

HCM 6th TWSC
6: Rome St & E 6th Ave





2040 Total Traffic
AM Peak Hour

Intersection												
Int Delay, s/veh	5.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕			↕	
Traffic Vol, veh/h	0	170	1	32	36	4	5	51	10	2	92	1
Future Vol, veh/h	0	170	1	32	36	4	5	51	10	2	92	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	150	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	185	1	35	39	4	5	55	11	2	100	1
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	43	0	0	186	0	0	348	299	186	330	297	41
Stage 1	-	-	-	-	-	-	186	186	-	111	111	-
Stage 2	-	-	-	-	-	-	162	113	-	219	186	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1566	-	-	1388	-	-	607	613	856	623	615	1030
Stage 1	-	-	-	-	-	-	816	746	-	894	804	-
Stage 2	-	-	-	-	-	-	840	802	-	783	746	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1566	-	-	1388	-	-	518	597	856	560	599	1030
Mov Cap-2 Maneuver	-	-	-	-	-	-	518	597	-	560	599	-
Stage 1	-	-	-	-	-	-	816	746	-	894	783	-
Stage 2	-	-	-	-	-	-	713	781	-	716	746	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			3.4			11.4			12.2		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1 NBLn2		EBL	EBT	EBR	WBL	WBT	WBR	SBLn1			
Capacity (veh/h)	518	628	1566	-	-	1388	-	-	601			
HCM Lane V/C Ratio	0.01	0.106	-	-	-	0.025	-	-	0.172			
HCM Control Delay (s)	12	11.4	0	-	-	7.7	0	-	12.2			
HCM Lane LOS	B	B	A	-	-	A	A	-	B			
HCM 95th %tile Q(veh)	0	0.4	0	-	-	0.1	-	-	0.6			

Intersection												
Int Delay, s/veh	2.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	13	200	6	2	89	2	15	0	8	6	0	42
Future Vol, veh/h	13	200	6	2	89	2	15	0	8	6	0	42
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	14	217	7	2	97	2	16	0	9	7	0	46
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	99	0	0	224	0	0	374	352	221	355	354	98
Stage 1	-	-	-	-	-	-	249	249	-	102	102	-
Stage 2	-	-	-	-	-	-	125	103	-	253	252	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1494	-	-	1345	-	-	583	573	819	600	571	958
Stage 1	-	-	-	-	-	-	755	701	-	904	811	-
Stage 2	-	-	-	-	-	-	879	810	-	751	698	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1494	-	-	1345	-	-	550	566	819	588	564	958
Mov Cap-2 Maneuver	-	-	-	-	-	-	550	566	-	588	564	-
Stage 1	-	-	-	-	-	-	747	693	-	894	809	-
Stage 2	-	-	-	-	-	-	835	808	-	735	690	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.4			0.2			11			9.3		
HCM LOS							B			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	621	1494	-	-	1345	-	-	888				
HCM Lane V/C Ratio	0.04	0.009	-	-	0.002	-	-	0.059				
HCM Control Delay (s)	11	7.4	0	-	7.7	0	-	9.3				
HCM Lane LOS	B	A	A	-	A	A	-	A				
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.2				

HCM 6th TWSC
8: Horizon Pkwy & E 11th Ave

2040 Total Traffic
AM Peak Hour

Intersection												
Int Delay, s/veh	2.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	203	2	13	65	1	1	21	10	1	15	26
Future Vol, veh/h	8	203	2	13	65	1	1	21	10	1	15	26
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	221	2	14	71	1	1	23	11	1	16	28

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	72	0	0	223	0	0	362	340	222	357	341	72
Stage 1	-	-	-	-	-	-	240	240	-	100	100	-
Stage 2	-	-	-	-	-	-	122	100	-	257	241	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1528	-	-	*1377	-	-	685	643	*920	691	642	990
Stage 1	-	-	-	-	-	-	852	749	-	906	812	-
Stage 2	-	-	-	-	-	-	882	812	-	832	749	-
Platoon blocked, %		-	-	1	-	-	1	1	1	1	1	
Mov Cap-1 Maneuver	1528	-	-	*1377	-	-	643	632	*920	655	630	990
Mov Cap-2 Maneuver	-	-	-	-	-	-	643	632	-	655	630	-
Stage 1	-	-	-	-	-	-	846	744	-	900	803	-
Stage 2	-	-	-	-	-	-	830	803	-	791	743	-




Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	1.3	10.4	9.7
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	701	1528	-	-	*1377	-	-	814
HCM Lane V/C Ratio	0.05	0.006	-	-	0.01	-	-	0.056
HCM Control Delay (s)	10.4	7.4	0	-	7.6	0	-	9.7
HCM Lane LOS	B	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.2

Notes			
~: Volume exceeds capacity	\$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection

Int Delay, s/veh 2.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	10	7	1	31	19	2
Future Vol, veh/h	10	7	1	31	19	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	8	1	34	21	2




Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	19
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1597
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1597
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	8.8
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	966	-	-	1597	-
HCM Lane V/C Ratio	0.024	-	-	0.001	-
HCM Control Delay (s)	8.8	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection

Int Delay, s/veh 4.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	6	7	13	2	5	19
Future Vol, veh/h	6	7	13	2	5	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	8	14	2	5	21




Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	16	0	0 37 15
Stage 1	-	-	- 15 -
Stage 2	-	-	- 22 -
Critical Hdwy	4.12	-	- 6.42 6.22
Critical Hdwy Stg 1	-	-	- 5.42 -
Critical Hdwy Stg 2	-	-	- 5.42 -
Follow-up Hdwy	2.218	-	- 3.518 3.318
Pot Cap-1 Maneuver	1602	-	- 975 1065
Stage 1	-	-	- 1008 -
Stage 2	-	-	- 1001 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1602	-	- 971 1065
Mov Cap-2 Maneuver	-	-	- 971 -
Stage 1	-	-	- 1004 -
Stage 2	-	-	- 1001 -

Approach	EB	WB	SB
HCM Control Delay, s	3.3	0	8.5
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1602	-	-	-	1044
HCM Lane V/C Ratio	0.004	-	-	-	0.025
HCM Control Delay (s)	7.3	0	-	-	8.5
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection

Int Delay, s/veh 4.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	8	4	1	4	12	4
Future Vol, veh/h	8	4	1	4	12	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	4	1	4	13	4




Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	13
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1606
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1606
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.4	8.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1017	-	-	1606	-
HCM Lane V/C Ratio	0.017	-	-	0.001	-
HCM Control Delay (s)	8.6	-	-	7.2	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-





















HCM 6th TWSC
12: Horizon Pkwy & E. 10th Avenue

2040 Total Traffic
AM Peak Hour

Intersection						
Int Delay, s/veh	1.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	6	6	3	25	38	3
Future Vol, veh/h	6	6	3	25	38	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	7	3	27	41	3
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	76	43	44	0	-	0
Stage 1	43	-	-	-	-	-
Stage 2	33	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	927	1027	1564	-	-	-
Stage 1	979	-	-	-	-	-
Stage 2	989	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	925	1027	1564	-	-	-
Mov Cap-2 Maneuver	925	-	-	-	-	-
Stage 1	977	-	-	-	-	-
Stage 2	989	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	8.8	0.8		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1564	-	973	-	-	
HCM Lane V/C Ratio	0.002	-	0.013	-	-	
HCM Control Delay (s)	7.3	0	8.8	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	

Timings
1: Picadilly Rd & E 11th Ave

2040 Total Traffic
PM Peak Hour

											
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	
Lane Configurations											
Traffic Volume (vph)	8	0	272	0	25	2	1434	177	43	1469	
Future Volume (vph)	8	0	272	0	25	2	1434	177	43	1469	
Turn Type	Perm	NA	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases		4		8		5	2		1	6	
Permitted Phases	4		8		8	2		2	6		
Detector Phase	4	4	8	8	8	5	2	2	1	6	
Switch Phase											
Minimum Initial (s)	5.0	5.0	30.0	30.0	30.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	23.0	23.0	35.0	35.0	35.0	10.0	23.0	23.0	10.0	23.0	
Total Split (s)	47.0	47.0	47.0	47.0	47.0	12.0	61.0	61.0	12.0	61.0	
Total Split (%)	39.2%	39.2%	39.2%	39.2%	39.2%	10.0%	50.8%	50.8%	10.0%	50.8%	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)		5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Lead/Lag						Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	
Act Effect Green (s)		33.5		33.5	33.5	71.5	67.0	67.0	75.8	74.3	
Actuated g/C Ratio		0.28		0.28	0.28	0.60	0.56	0.56	0.63	0.62	
v/c Ratio		0.04		0.77	0.06	0.01	0.53	0.20	0.22	0.50	
Control Delay		0.2		53.0	0.2	13.5	24.6	11.4	11.8	14.4	
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay		0.2		53.0	0.2	13.5	24.6	11.4	11.8	14.4	
LOS		A		D	A	B	C	B	B	B	
Approach Delay		0.2		48.6			23.1			14.4	
Approach LOS		A		D			C			B	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
 Natural Cycle: 70
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.77
 Intersection Signal Delay: 21.4
 Intersection Capacity Utilization 69.4%
 Analysis Period (min) 15

Intersection LOS: C
 ICU Level of Service C

Splits and Phases: 1: Picadilly Rd & E 11th Ave

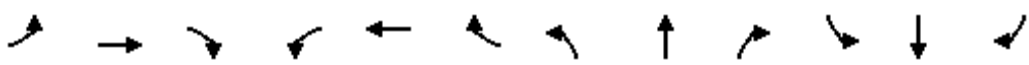


HCM 6th Signalized Intersection Summary

1: Picadilly Rd & E 11th Ave







2040 Total Traffic

PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↔	↔	↔↔↔	↔	↔	↔↔↔	
Traffic Volume (veh/h)	8	0	10	272	0	25	2	1434	177	43	1469	13
Future Volume (veh/h)	8	0	10	272	0	25	2	1434	177	43	1469	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	9	0	11	296	0	27	2	1509	192	47	1546	14
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.95	0.92	0.92	0.95	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	43	16	19	355	0	555	171	2512	780	199	2726	25
Arrive On Green	0.35	0.00	0.35	0.35	0.00	0.35	0.00	0.49	0.49	0.03	0.52	0.52
Sat Flow, veh/h	0	45	54	842	0	1585	1781	5106	1585	1781	5219	47
Grp Volume(v), veh/h	20	0	0	296	0	27	2	1509	192	47	1008	552
Grp Sat Flow(s),veh/h/ln	99	0	0	842	0	1585	1781	1702	1585	1781	1702	1862
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	1.4	0.1	25.6	8.4	1.5	24.1	24.1
Cycle Q Clear(g_c), s	42.0	0.0	0.0	42.0	0.0	1.4	0.1	25.6	8.4	1.5	24.1	24.1
Prop In Lane	0.45		0.55	1.00		1.00	1.00		1.00	1.00		0.03
Lane Grp Cap(c), veh/h	78	0	0	355	0	555	171	2512	780	199	1778	972
V/C Ratio(X)	0.26	0.00	0.00	0.83	0.00	0.05	0.01	0.60	0.25	0.24	0.57	0.57
Avail Cap(c_a), veh/h	78	0	0	355	0	555	270	2512	780	244	1778	972
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.2	0.0	0.0	39.1	0.0	25.8	17.1	22.0	17.6	17.0	19.5	19.5
Incr Delay (d2), s/veh	1.7	0.0	0.0	15.6	0.0	0.0	0.0	1.1	0.8	0.6	1.3	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.0	10.1	0.0	0.5	0.0	9.8	3.1	0.6	9.2	10.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.9	0.0	0.0	54.7	0.0	25.8	17.1	23.0	18.4	17.6	20.8	21.9
LnGrp LOS	C	A	A	D	A	C	B	C	B	B	C	C
Approach Vol, veh/h	20			323			1703			1607		
Approach Delay, s/veh	33.9			52.3			22.5			21.1		
Approach LOS	C			D			C			C		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.0	64.0		47.0	5.3	67.7		47.0				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	7.0	56.0		42.0	7.0	56.0		42.0				
Max Q Clear Time (g_c+I1), s	3.5	27.6		44.0	2.1	26.1		44.0				
Green Ext Time (p_c), s	0.0	13.2		0.0	0.0	12.2		0.0				
Intersection Summary												
HCM 6th Ctrl Delay				24.6								
HCM 6th LOS				C								

HCM 6th TWSC
2: Picadilly Rd & E. 10th Avenue

2040 Total Traffic
PM Peak Hour

Intersection						
Int Delay, s/veh	0.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	20	16	1596	33	26	1726
Future Vol, veh/h	20	16	1596	33	26	1726
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	205	255	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	95	92	92	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	17	1680	36	28	1817

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	2463	840	0	0	1716
Stage 1	1680	-	-	-	-
Stage 2	783	-	-	-	-
Critical Hdwy	5.74	7.14	-	-	5.34
Critical Hdwy Stg 1	6.64	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-
Follow-up Hdwy	3.82	3.92	-	-	3.12
Pot Cap-1 Maneuver	*169	*545	-	-	*686
Stage 1	*560	-	-	-	-
Stage 2	*373	-	-	-	-
Platoon blocked, %	1	1	-	-	1
Mov Cap-1 Maneuver	*163	*545	-	-	*686
Mov Cap-2 Maneuver	*163	-	-	-	-
Stage 1	*560	-	-	-	-
Stage 2	*358	-	-	-	-













Approach	WB	NB	SB
HCM Control Delay, s	22.2	0	0.2
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT
Capacity (veh/h)	-	- 163 545	* 686	-
HCM Lane V/C Ratio	-	- 0.133 0.032	0.041	-
HCM Control Delay (s)	-	- 30.5 11.8	10.5	-
HCM Lane LOS	-	- D B	B	-
HCM 95th %tile Q(veh)	-	- 0.5 0.1	0.1	-

Notes			
~: Volume exceeds capacity	\$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Timings
3: Picadilly Rd & E 8th Ave

2040 Total Traffic
PM Peak Hour

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	111	240	1390	54	149	1596
Future Volume (vph)	111	240	1390	54	149	1596
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA
Protected Phases	8		2		1	6
Permitted Phases		8		2	6	
Detector Phase	8	8	2	2	1	6
Switch Phase						
Minimum Initial (s)	30.0	30.0	5.0	5.0	5.0	5.0
Minimum Split (s)	35.0	35.0	11.0	11.0	10.0	11.0
Total Split (s)	35.0	35.0	73.0	73.0	12.0	85.0
Total Split (%)	29.2%	29.2%	60.8%	60.8%	10.0%	70.8%
Yellow Time (s)	3.0	3.0	4.0	4.0	3.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	6.0	6.0	5.0	6.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Act Effect Green (s)	30.0	30.0	67.0	67.0	80.0	79.0
Actuated g/C Ratio	0.25	0.25	0.56	0.56	0.67	0.66
v/c Ratio	0.27	0.53	0.52	0.07	0.68	0.50
Control Delay	38.3	23.0	7.9	1.4	30.1	20.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.3	23.0	7.9	1.4	30.1	20.5
LOS	D	C	A	A	C	C
Approach Delay	27.9		7.6			21.3
Approach LOS	C		A			C

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 63 (53%), Referenced to phase 2:NBT and 6:SBTL, Start of Yellow
 Natural Cycle: 70
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.68
 Intersection Signal Delay: 16.4
 Intersection Capacity Utilization 73.4%
 Analysis Period (min) 15

Intersection LOS: B

ICU Level of Service D

Splits and Phases: 3: Picadilly Rd & E 8th Ave



HCM 6th Signalized Intersection Summary 3: Picadilly Rd & E 8th Ave

2040 Total Traffic
PM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	111	240	1390	54	149	1596
Future Volume (veh/h)	111	240	1390	54	149	1596
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	121	261	1463	59	162	1680
Peak Hour Factor	0.92	0.92	0.95	0.92	0.92	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	445	396	2877	893	348	3362
Arrive On Green	0.25	0.25	1.00	1.00	0.05	0.66
Sat Flow, veh/h	1781	1585	5274	1585	1781	5274
Grp Volume(v), veh/h	121	261	1463	59	162	1680
Grp Sat Flow(s),veh/h/ln	1781	1585	1702	1585	1781	1702
Q Serve(g_s), s	6.6	17.7	0.0	0.0	4.4	20.1
Cycle Q Clear(g_c), s	6.6	17.7	0.0	0.0	4.4	20.1
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	445	396	2877	893	348	3362
V/C Ratio(X)	0.27	0.66	0.51	0.07	0.47	0.50
Avail Cap(c_a), veh/h	445	396	2877	893	357	3362
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.89	0.89	1.00	1.00
Uniform Delay (d), s/veh	36.2	40.4	0.0	0.0	8.9	10.4
Incr Delay (d2), s/veh	0.3	4.0	0.6	0.1	1.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	7.4	0.2	0.0	1.6	6.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	36.5	44.4	0.6	0.1	9.9	11.0
LnGrp LOS	D	D	A	A	A	B
Approach Vol, veh/h	382		1522			1842
Approach Delay, s/veh	41.9		0.6			10.9
Approach LOS	D		A			B
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	11.4	73.6			85.0	35.0
Change Period (Y+Rc), s	5.0	6.0			6.0	5.0
Max Green Setting (Gmax), s	7.0	67.0			79.0	30.0
Max Q Clear Time (g_c+I1), s	6.4	2.0			22.1	19.7
Green Ext Time (p_c), s	0.0	14.9			18.1	1.0

Intersection Summary

HCM 6th Ctrl Delay	9.8
HCM 6th LOS	A

Timings
4: Picadilly Rd & 7th Ave

2040 Total Traffic
PM Peak Hour

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	188	88	1357	40	122	1585
Future Volume (vph)	188	88	1357	40	122	1585
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA
Protected Phases	8		2		1	6
Permitted Phases		8		2	6	
Detector Phase	8	8	2	2	1	6
Switch Phase						
Minimum Initial (s)	23.0	23.0	5.0	5.0	5.0	5.0
Minimum Split (s)	30.0	30.0	11.0	11.0	10.0	11.0
Total Split (s)	30.0	30.0	78.0	78.0	12.0	90.0
Total Split (%)	25.0%	25.0%	65.0%	65.0%	10.0%	75.0%
Yellow Time (s)	3.0	3.0	4.0	4.0	3.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	6.0	6.0	5.0	6.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Act Effect Green (s)	23.4	23.4	73.0	73.0	86.6	85.6
Actuated g/C Ratio	0.20	0.20	0.61	0.61	0.72	0.71
v/c Ratio	0.59	0.25	0.46	0.04	0.48	0.46
Control Delay	51.7	9.5	11.6	3.8	20.7	2.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.7	9.5	11.6	3.8	20.7	2.6
LOS	D	A	B	A	C	A
Approach Delay	38.2		11.4			4.0
Approach LOS	D		B			A

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 59 (49%), Referenced to phase 2:NBT and 6:SBTL, Start of Yellow
 Natural Cycle: 65
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.59
 Intersection Signal Delay: 9.9
 Intersection Capacity Utilization 65.5%
 Analysis Period (min) 15

Intersection LOS: A

ICU Level of Service C








Splits and Phases: 4: Picadilly Rd & 7th Ave



HCM 6th Signalized Intersection Summary





4: Picadilly Rd & 7th Ave

2040 Total Traffic
PM Peak Hour

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	188	88	1357	40	122	1585
Future Volume (veh/h)	188	88	1357	40	122	1585
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	204	96	1428	43	133	1668
Peak Hour Factor	0.92	0.92	0.95	0.92	0.92	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	341	304	3230	1003	312	3659
Arrive On Green	0.19	0.19	0.63	0.63	0.08	1.00
Sat Flow, veh/h	1781	1585	5274	1585	1781	5274
Grp Volume(v), veh/h	204	96	1428	43	133	1668
Grp Sat Flow(s),veh/h/ln	1781	1585	1702	1585	1781	1702
Q Serve(g_s), s	12.5	6.3	17.1	1.2	3.1	0.0
Cycle Q Clear(g_c), s	12.5	6.3	17.1	1.2	3.1	0.0
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	341	304	3230	1003	312	3659
V/C Ratio(X)	0.60	0.32	0.44	0.04	0.43	0.46
Avail Cap(c_a), veh/h	371	330	3230	1003	340	3659
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.87	0.87
Uniform Delay (d), s/veh	44.3	41.7	11.2	8.3	8.2	0.0
Incr Delay (d2), s/veh	2.3	0.6	0.4	0.1	0.8	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.8	2.5	5.9	0.4	1.0	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	46.5	42.3	11.7	8.4	9.0	0.4
LnGrp LOS	D	D	B	A	A	A
Approach Vol, veh/h	300		1471			1801
Approach Delay, s/veh	45.2		11.6			1.0
Approach LOS	D		B			A
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	10.1	81.9			92.0	28.0
Change Period (Y+Rc), s	5.0	6.0			6.0	5.0
Max Green Setting (Gmax), s	7.0	72.0			84.0	25.0
Max Q Clear Time (g_c+I1), s	5.1	19.1			2.0	14.5
Green Ext Time (p_c), s	0.1	13.8			19.0	0.7
Intersection Summary						
HCM 6th Ctrl Delay			9.1			
HCM 6th LOS			A			

Intersection

Int Delay, s/veh 0.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	63	1333	107	0	1773
Future Vol, veh/h	0	63	1333	107	0	1773
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	150	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	95	92	92	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	68	1403	116	0	1866

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	-	702	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	7.14	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.92	-
Pot Cap-1 Maneuver	0	326	-
Stage 1	0	-	-
Stage 2	0	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	-	326	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	19	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	-	326
HCM Lane V/C Ratio	-	-	0.21
HCM Control Delay (s)	-	-	19
HCM Lane LOS	-	-	C
HCM 95th %tile Q(veh)	-	-	0.8

HCM 6th TWSC
6: Rome St & E 6th Ave





2040 Total Traffic
PM Peak Hour




Intersection												
Int Delay, s/veh	7.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕			↕	
Traffic Vol, veh/h	2	30	1	24	31	2	4	91	33	1	76	0
Future Vol, veh/h	2	30	1	24	31	2	4	91	33	1	76	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	150	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	33	1	26	34	2	4	99	36	1	83	0
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	36	0	0	34	0	0	167	126	34	192	125	35
Stage 1	-	-	-	-	-	-	38	38	-	87	87	-
Stage 2	-	-	-	-	-	-	129	88	-	105	38	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1575	-	-	1578	-	-	797	764	1039	768	765	1038
Stage 1	-	-	-	-	-	-	977	863	-	921	823	-
Stage 2	-	-	-	-	-	-	875	822	-	901	863	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1575	-	-	1578	-	-	720	750	1039	657	751	1038
Mov Cap-2 Maneuver	-	-	-	-	-	-	720	750	-	657	751	-
Stage 1	-	-	-	-	-	-	976	862	-	920	809	-
Stage 2	-	-	-	-	-	-	772	808	-	769	862	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.4			3.1			10.3			10.4		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1		NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1		
Capacity (veh/h)	720		810	1575	-	-	1578	-	-	750		
HCM Lane V/C Ratio	0.006		0.166	0.001	-	-	0.017	-	-	0.112		
HCM Control Delay (s)	10		10.3	7.3	0	-	7.3	0	-	10.4		
HCM Lane LOS	B		B	A	A	-	A	A	-	B		
HCM 95th %tile Q(veh)	0		0.6	0	-	-	0.1	-	-	0.4		




Intersection												
Int Delay, s/veh	1.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	47	150	23	5	257	6	11	0	5	4	0	29
Future Vol, veh/h	47	150	23	5	257	6	11	0	5	4	0	29
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	51	163	25	5	279	7	12	0	5	4	0	32
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	286	0	0	188	0	0	587	574	176	573	583	283
Stage 1	-	-	-	-	-	-	278	278	-	293	293	-
Stage 2	-	-	-	-	-	-	309	296	-	280	290	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1276	-	-	1386	-	-	421	429	867	430	424	756
Stage 1	-	-	-	-	-	-	728	680	-	715	670	-
Stage 2	-	-	-	-	-	-	701	668	-	727	672	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1276	-	-	1386	-	-	389	408	867	412	403	756
Mov Cap-2 Maneuver	-	-	-	-	-	-	389	408	-	412	403	-
Stage 1	-	-	-	-	-	-	695	649	-	683	667	-
Stage 2	-	-	-	-	-	-	669	665	-	690	642	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.7			0.1			13			10.5		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	470	1276	-	-	1386	-	-	687				
HCM Lane V/C Ratio	0.037	0.04	-	-	0.004	-	-	0.052				
HCM Control Delay (s)	13	7.9	0	-	7.6	0	-	10.5				
HCM Lane LOS	B	A	A	-	A	A	-	B				
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0	-	-	0.2				




HCM 6th TWSC
8: Horizon Pkwy & E 11th Ave

2040 Total Traffic
PM Peak Hour

Intersection												
Int Delay, s/veh	1.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	29	128	2	6	250	1	0	15	6	1	13	18
Future Vol, veh/h	29	128	2	6	250	1	0	15	6	1	13	18
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	32	139	2	7	272	1	0	16	7	1	14	20
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	273	0	0	141	0	0	508	491	140	503	492	273
Stage 1	-	-	-	-	-	-	204	204	-	287	287	-
Stage 2	-	-	-	-	-	-	304	287	-	216	205	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1290	-	-	1464	-	-	498	493	971	503	493	766
Stage 1	-	-	-	-	-	-	842	753	-	720	674	-
Stage 2	-	-	-	-	-	-	705	674	-	829	752	-
Platoon blocked, %		-	-	1	-	-	1	1	1	1	1	
Mov Cap-1 Maneuver	1290	-	-	1464	-	-	463	476	971	474	476	766
Mov Cap-2 Maneuver	-	-	-	-	-	-	463	476	-	474	476	-
Stage 1	-	-	-	-	-	-	819	733	-	701	670	-
Stage 2	-	-	-	-	-	-	668	670	-	783	732	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.4			0.2			11.7			11.3		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	557	1290	-	-	1464	-	-	605				
HCM Lane V/C Ratio	0.041	0.024	-	-	0.004	-	-	0.057				
HCM Control Delay (s)	11.7	7.9	0	-	7.5	0	-	11.3				
HCM Lane LOS	B	A	A	-	A	A	-	B				
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0	-	-	0.2				

Intersection						
Int Delay, s/veh	1.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	37	23	3	23	14	2
Future Vol, veh/h	37	23	3	23	14	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	40	25	3	25	15	2
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	65	0	84	53
Stage 1	-	-	-	-	53	-
Stage 2	-	-	-	-	31	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1537	-	918	1014
Stage 1	-	-	-	-	970	-
Stage 2	-	-	-	-	992	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1537	-	916	1014
Mov Cap-2 Maneuver	-	-	-	-	916	-
Stage 1	-	-	-	-	970	-
Stage 2	-	-	-	-	990	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.8		9	
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	927	-	-	1537	-	
HCM Lane V/C Ratio	0.019	-	-	0.002	-	
HCM Control Delay (s)	9	-	-	7.3	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0.1	-	-	0	-	

Intersection						
Int Delay, s/veh	4.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	21	17	12	5	2	14
Future Vol, veh/h	21	17	12	5	2	14
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	23	18	13	5	2	15
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	18	0	-	0	80	16
Stage 1	-	-	-	-	16	-
Stage 2	-	-	-	-	64	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1599	-	-	-	922	1063
Stage 1	-	-	-	-	1007	-
Stage 2	-	-	-	-	959	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1599	-	-	-	908	1063
Mov Cap-2 Maneuver	-	-	-	-	908	-
Stage 1	-	-	-	-	992	-
Stage 2	-	-	-	-	959	-
Approach	EB	WB		SB		
HCM Control Delay, s	4	0		8.5		
HCM LOS	A					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1599	-	-	-	-	1041
HCM Lane V/C Ratio	0.014	-	-	-	-	0.017
HCM Control Delay (s)	7.3	0	-	-	-	8.5
HCM Lane LOS	A	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-	0.1




Intersection						
Int Delay, s/veh	2.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	5	15	4	9	8	3
Future Vol, veh/h	5	15	4	9	8	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	16	4	10	9	3
Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	21	0	31	13
Stage 1	-	-	-	-	13	-
Stage 2	-	-	-	-	18	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1595	-	983	1067
Stage 1	-	-	-	-	1010	-
Stage 2	-	-	-	-	1005	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1595	-	980	1067
Mov Cap-2 Maneuver	-	-	-	-	980	-
Stage 1	-	-	-	-	1010	-
Stage 2	-	-	-	-	1002	-
Approach	EB	WB	NB			
HCM Control Delay, s	0	2.2	8.6			
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	1002	-	-	1595	-	
HCM Lane V/C Ratio	0.012	-	-	0.003	-	
HCM Control Delay (s)	8.6	-	-	7.3	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0	-	-	0	-	

HCM 6th TWSC
12: Horizon Pkwy & E. 10th Avenue

2040 Total Traffic
PM Peak Hour

Intersection

Int Delay, s/veh 1.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	4	3	6	27	18	7
Future Vol, veh/h	4	3	6	27	18	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	3	7	29	20	8

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	67	24	28
Stage 1	24	-	-
Stage 2	43	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	938	1052	1585
Stage 1	999	-	-
Stage 2	979	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	934	1052	1585
Mov Cap-2 Maneuver	934	-	-
Stage 1	995	-	-
Stage 2	979	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.7	1.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1585	-	981	-	-
HCM Lane V/C Ratio	0.004	-	0.008	-	-
HCM Control Delay (s)	7.3	0	8.7	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Queues

1: Picadilly Rd & E 11th Ave

2040 Total Traffic

AM Peak Hour



Lane Group	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	30	120	38	13	1492	225	13	1282
v/c Ratio	0.08	0.42	0.10	0.04	0.44	0.20	0.05	0.38
Control Delay	1.4	46.5	3.8	5.2	14.7	6.6	5.7	9.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.4	46.5	3.8	5.2	14.7	6.6	5.7	9.6
Queue Length 50th (ft)	0	81	0	4	272	29	3	126
Queue Length 95th (ft)	4	142	13	m7	448	116	9	206
Internal Link Dist (ft)	426	515			536			1519
Turn Bay Length (ft)			155	255		205	255	
Base Capacity (vph)	358	286	380	314	3414	1136	263	3411
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.42	0.10	0.04	0.44	0.20	0.05	0.38

Intersection Summary

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

Queues
3: Picadilly Rd & E 8th Ave

2040 Total Traffic
AM Peak Hour







Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	88	153	1562	142	328	1103
v/c Ratio	0.30	0.39	0.54	0.15	0.93	0.29
Control Delay	47.0	10.0	14.8	5.2	52.3	10.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.0	10.0	14.8	5.2	52.3	10.9
Queue Length 50th (ft)	61	0	161	14	155	118
Queue Length 95th (ft)	112	59	173	32	#332	252
Internal Link Dist (ft)	225		619			651
Turn Bay Length (ft)		150		150	150	
Base Capacity (vph)	368	450	2881	949	354	3771
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.24	0.34	0.54	0.15	0.93	0.29

Intersection Summary

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

Queues
4: Picadilly Rd & 7th Ave

2040 Total Traffic
AM Peak Hour

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	52	59	1645	18	47	1146
v/c Ratio	0.18	0.19	0.45	0.02	0.19	0.28
Control Delay	44.8	12.4	5.6	2.1	4.5	3.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.8	12.4	5.6	2.1	4.5	3.6
Queue Length 50th (ft)	35	0	105	0	3	26
Queue Length 95th (ft)	73	38	149	m4	8	29
Internal Link Dist (ft)	217		507			619
Turn Bay Length (ft)		150		150	150	
Base Capacity (vph)	368	376	3644	1138	255	4034
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.16	0.45	0.02	0.18	0.28

Intersection Summary









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

Queues

1: Picadilly Rd & E 11th Ave

2040 Total Traffic

PM Peak Hour







								
Lane Group	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	20	296	27	2	1509	192	47	1560
v/c Ratio	0.04	0.77	0.06	0.01	0.53	0.20	0.22	0.50
Control Delay	0.2	53.0	0.2	13.5	24.6	11.4	11.8	14.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.2	53.0	0.2	13.5	24.6	11.4	11.8	14.4
Queue Length 50th (ft)	0	218	0	1	342	42	12	198
Queue Length 95th (ft)	0	289	2	m2	466	109	33	373
Internal Link Dist (ft)	426	515			536			1519
Turn Bay Length (ft)			155	255		205	255	
Base Capacity (vph)	563	485	595	225	2840	963	220	3147
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.61	0.05	0.01	0.53	0.20	0.21	0.50

Intersection Summary

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

Queues
3: Picadilly Rd & E 8th Ave

2040 Total Traffic
PM Peak Hour







						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	121	261	1463	59	162	1680
v/c Ratio	0.27	0.53	0.52	0.07	0.68	0.50
Control Delay	38.3	23.0	7.9	1.4	30.1	20.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.3	23.0	7.9	1.4	30.1	20.5
Queue Length 50th (ft)	76	83	54	1	74	350
Queue Length 95th (ft)	130	171	78	1	#107	440
Internal Link Dist (ft)	225		619			651
Turn Bay Length (ft)		150		150	150	
Base Capacity (vph)	442	494	2839	906	237	3347
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.53	0.52	0.07	0.68	0.50

Intersection Summary

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

Queues
4: Picadilly Rd & 7th Ave

2040 Total Traffic
PM Peak Hour

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	204	96	1428	43	133	1668
v/c Ratio	0.59	0.25	0.46	0.04	0.48	0.46
Control Delay	51.7	9.5	11.6	3.8	20.7	2.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.7	9.5	11.6	3.8	20.7	2.6
Queue Length 50th (ft)	146	0	148	1	22	59
Queue Length 95th (ft)	223	45	229	m16	71	61
Internal Link Dist (ft)	217		507			619
Turn Bay Length (ft)		150		150	150	
Base Capacity (vph)	368	405	3095	980	277	3627
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.55	0.24	0.46	0.04	0.48	0.46

Intersection Summary

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