

Green Valley Ranch East Filing 17

Traffic Impact Study

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I. INTRODUCTION

Filing 17 is part of the Active Adult residential development at Green Valley Ranch East (GVRE). The approximate 40-acre site is located in the southwest quadrant of the future intersection at 52nd Avenue with Tibet Road. In relation to existing roadways, the site will be located east of Picadilly Road and north of 48th Avenue. At build-out, Filing 17 would consist of approximately 253 active adult housing units. **Figure 1** illustrates the location of the site and the adjacent roadway network. Filing 17 would have vehicular access via one access on Tibet Road and one access on 52nd Avenue. **Figure 2** depicts the current site plan concept.

The traffic aspects of Green Valley Ranch East have been addressed in several previous reports. Relevant studies include:

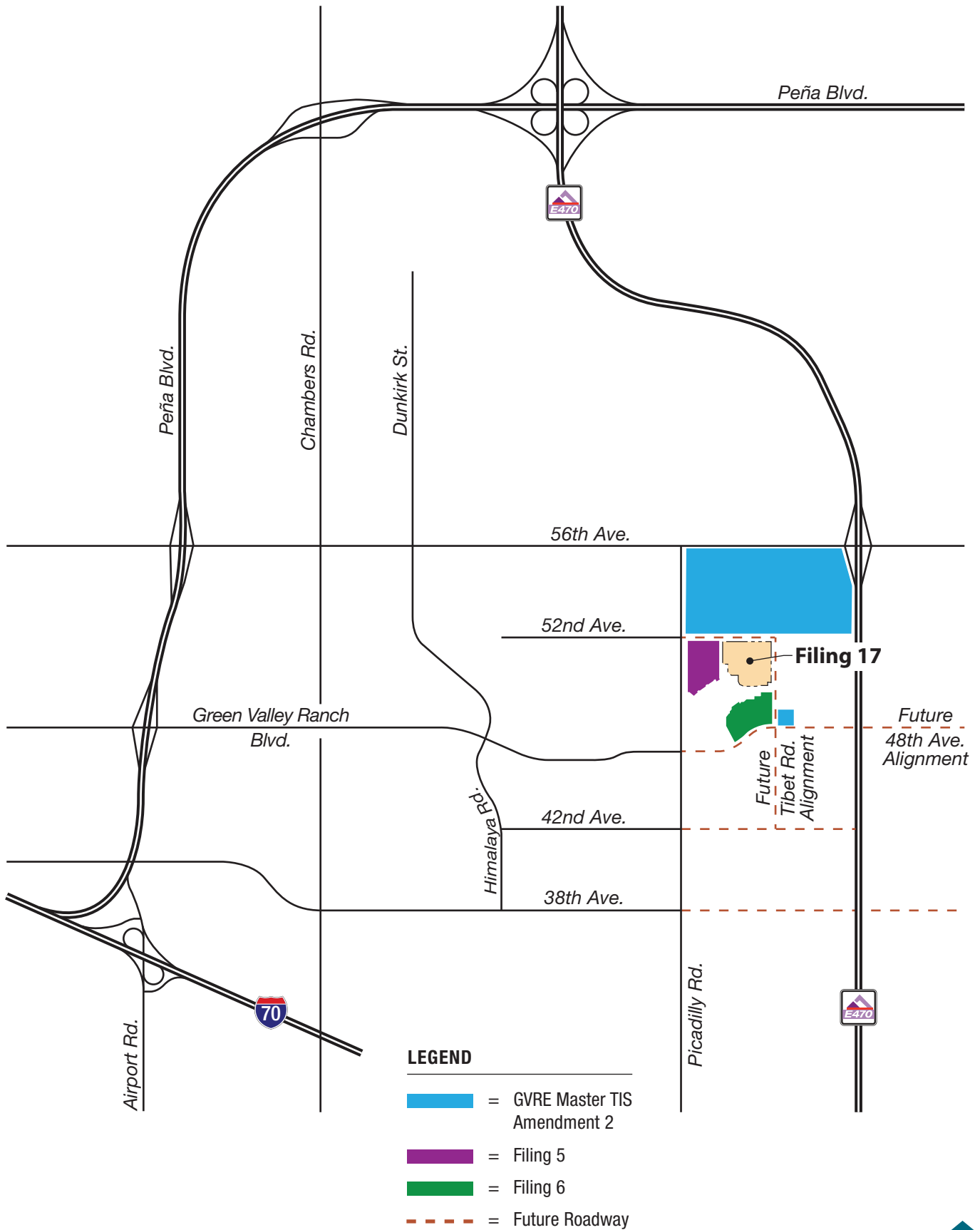
- ▶ *Transportation Analysis Green Valley Ranch East*, Felsburg Holt & Ullevig, July 2018.
- ▶ *Green Valley Ranch East CSP-1 Active Adult Residential Traffic Impact Study*, Felsburg Holt & Ullevig, May 2020.
- ▶ *Green Valley Ranch East Filing 5 Active Adult Residential Traffic Impact Study*, Felsburg Holt & Ullevig, May 2020.
- ▶ *Green Valley Ranch East Filing 6 Traffic Impact Study*, Felsburg Holt & Ullevig, October 2021.
- ▶ *Green Valley MP Amendment 2 Traffic Impact Study (310 West)*, Felsburg Holt & Ullevig, January 2025.

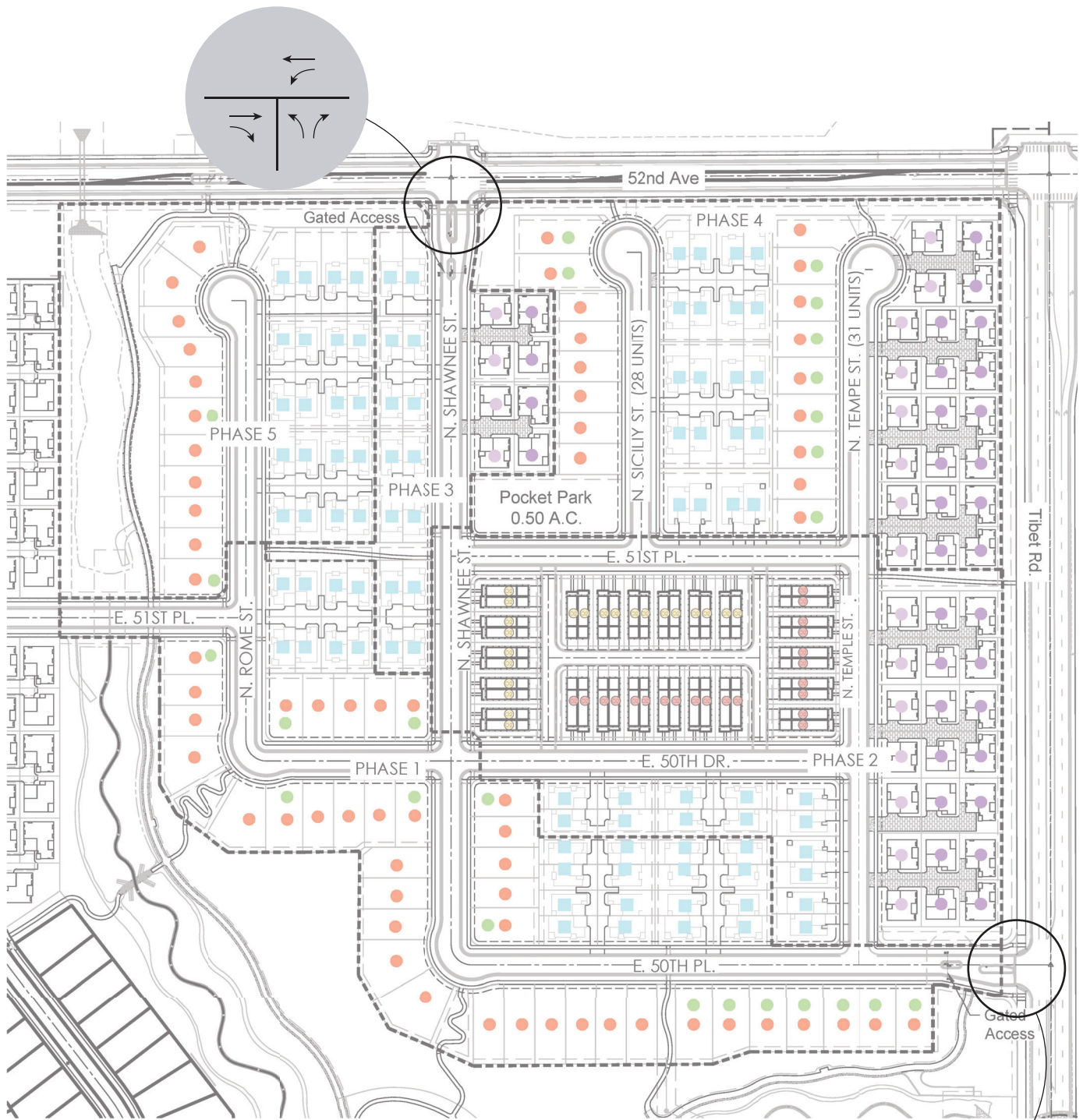
The purpose of this current traffic study is to estimate the potential impacts specific to Filing 17 and to identify any required roadway or traffic control improvements. The following intersections are included in this analysis:

- ▶ 52nd Avenue & Picadilly Road
- ▶ 52nd Avenue & Filing 5 West Access/310 West Access
- ▶ 52nd Avenue & Filing 17 Access/310 West Access
- ▶ 52nd Avenue & Tibet Road
- ▶ Tibet Road & Filing 17 Access
- ▶ Tibet Road & Filing 6 Access
- ▶ Two future planning horizons are evaluated:

Short Range Future. A Buildout year of 2030 was evaluated. This scenario assumes that adjacent developments including GVRE Filing 5, Filing 6, and 310 West would be built out, along with the full buildout of Tibet Road. Site-generated volumes from the Filing 17 project were added to the projected volumes of the aforementioned projects to calculate the potential impacts of an “opening day” scenario.

Long Range Future. A 2045 (year 2045) planning horizon is based on the previously listed studies and incorporates traffic to be generated by other nearby planned developments. This future scenario is consistent with the previously listed studies.





II. EXISTING CONDITIONS

II.A Roadways

Primary roadways near the site include:

- ▶ **48th Avenue.** This four-lane minor arterial currently extends from Chambers Road to the west to Tibet Road to the east. An extension of 48th Avenue east to E-470 has been built; however, it is not currently accessible except for construction traffic. 48th Avenue changes to Green Valley Ranch Boulevard west of Picadilly Road. This roadway is currently stop controlled at its intersections with Picadilly Road and has a posted speed limit of 35 miles per hour (MPH) near the proposed development.
- ▶ **52nd Avenue.** This two-lane local street extends west from Picadilly Road, serving existing residential uses and an elementary school. The intersection at Picadilly Road is currently unsignalized, with STOP sign control on the eastbound approach. School zone signing and school speed limit signs are posted. An extension (as a three-lane collector) of 52nd Avenue east from Picadilly Road to just east of Tibet Road is planned as part of the 310 West development.
- ▶ **Tibet Road.** This future four-lane minor arterial roadway is planned to be constructed as a part of Green Valley Ranch East. Tibet Road currently extends only from 38th Avenue to the south to 48th Avenue to the north as a two-lane collector. Tibet Road is planned to extend along the eastern side of the Active Adult site from 38th Avenue to the south and 64th Avenue to the north. South of 48th Avenue, this roadway would be a three-lane collector.

II.B Traffic Volumes and Operations

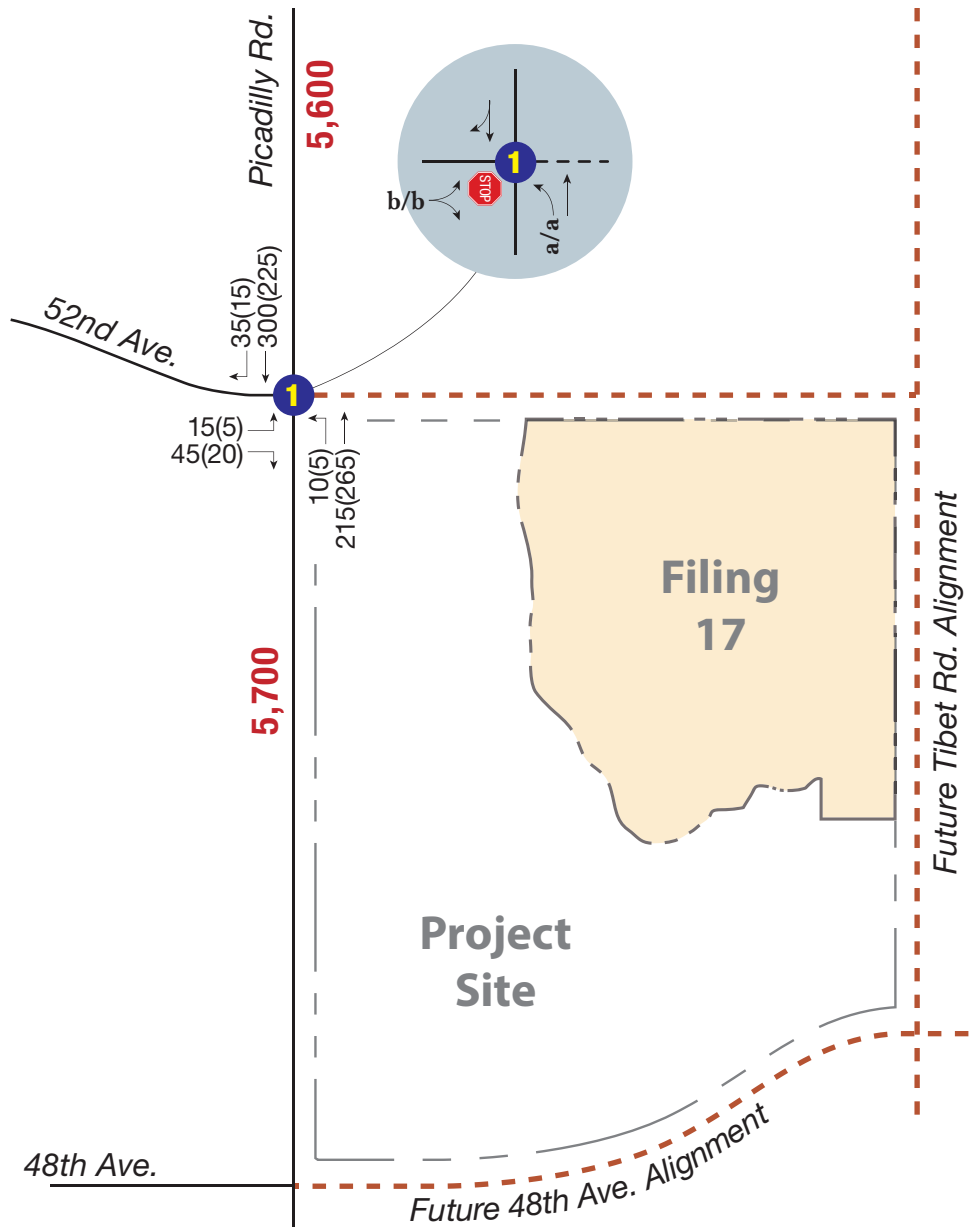
Peak hour turning movement traffic counts were conducted at the intersection of Picadilly Road and 52nd Avenue in October 2021. The counts included weekday AM and PM peak hour turning movements. These counts are generally considered to be post-COVID and do not require an adjustment to account for the effects of the pandemic on area travel demand. **Appendix A** contains the count data.

Figure 3 depicts the existing traffic volumes. As shown, Picadilly Road currently serves approximately 5,600 to 5,700 vehicles per day (VPD) within the study area.



Level of Service (LOS) is a qualitative measure of traffic operational conditions, based on roadway capacity and motorist delay. The *Highway Capacity Manual* (6th Edition) was used to define levels of service for each for the study movements and intersections. Although a 7th Edition of the *Highway Capacity Manual* has been released, the analysis software, Synchro 11, uses 6th Edition methodology, and limited changes have been made to intersection operational guidelines between the 6th and 7th editions. Levels of service range from A to F, with LOS A representing the best possible operating conditions and LOS F representing over-capacity, or congested conditions. In developed areas, LOS D is typically considered to be acceptable for peak hour traffic operations. **Appendix B** contains LOS thresholds.

Figure 3 depicts the existing intersection geometrics, traffic control, and intersection LOS results.

Appendix C contains Synchro LOS worksheets. As indicated, existing traffic operations at the study area intersection are acceptable, at LOS B or better, during the peak times analyzed. **Appendix D** summarizes the LOS results.



LEGEND

- XXX(XXX) = AM(PM) Peak Hour Traffic Volumes
- XXXX** = Daily Traffic Volumes
- x/x = AM/PM Peak Hour Unsignalized Intersection Level of Service
-  = Stop Sign
-  = Study Intersection
- - - - = Future Roadway

III. PROPOSED CONDITIONS

III.A Trip Generation

The standard resource for estimating travel demand is *Trip Generation, 11th Edition*, Institute of Transportation Engineers (ITE), 2021. The proposed development would consist of about 253 Active Adult homes. **Table 1** shows the trip generation rates and equations for each land use code based on the independent variables of dwelling units (DUs) for ITE land use code 251, Senior Adult Housing – Single Family. As **Table 2** indicates, the proposed development is expected to generate approximately 1,304 vehicle trips per day and about 79 and 91 trips during the AM and PM peak hours, respectively.

Table 1. ITE Trip Generation Rates and Equations

Land Use	ITE Code	Unit	Daily	Peak	Equations & Rates	Distribution	
						In	Out
Multifamily Housing (Low-Rise)	220	DUs	$\text{Ln}(T)=0.85*\text{Ln}(T)+2.47$	AM	$\text{Ln}(T)=0.76*\text{Ln}(T)+0.16$	33%	67%
				PM	$\text{Ln}(T)=0.78*\text{Ln}(T)+0.20$	61%	39%

DU = Dwelling Units

Table 2. Trip Generation Analysis

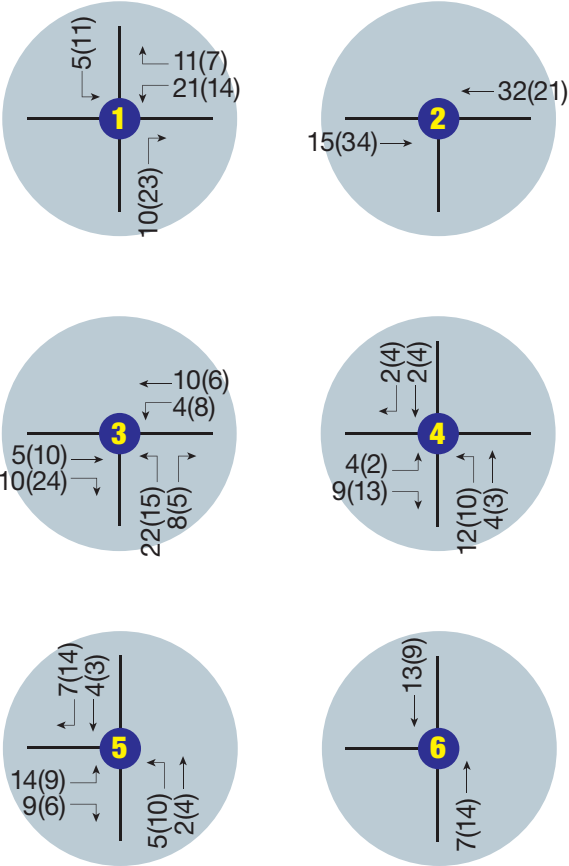
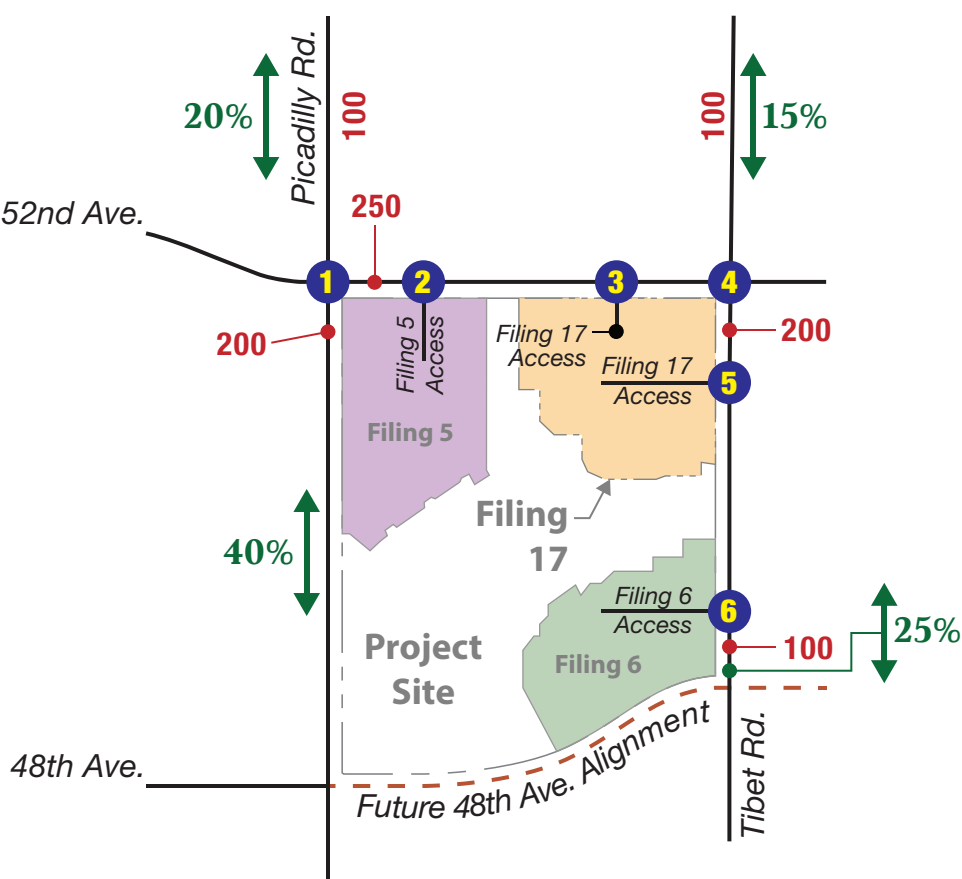
Land Use	ITE Code	Unit	Size	Daily Trips	AM Peak			PM Peak		
					In	Out	Total	In	Out	Total
Senior Adult Housing	251	DU	253	1,304	26	53	79	56	35	91

III.B Site Trip Distribution and Site-generated Traffic Assignment

By 2030, it is projected that the interchange at E-470 and 48th Avenue, currently under construction, would be open to traffic. The completion of Tibet Road from 38th Avenue to 56th Avenue is also expected to be completed by this timeframe. While 52nd Avenue west of Picadilly Road currently exists, this project, along with Green Valley Ranch East Filing 5 and the 310 West developments, is anticipated to extend 52nd Avenue east of Tibet Road.

The trip distribution is based on the location of the site relative to regional connections and is generally consistent with previous studies at Green Valley Ranch East as depicted on **Figure 4**. It is assumed that 40 percent would be oriented to/from the south on Picadilly Road, 20 percent would be oriented to/from the north on Picadilly Road, 25 percent would be oriented to/from the south of the site to use 48th Avenue once south of the study area, and 15 percent would be oriented to the north on Tibet Road. The resultant site-generated traffic assignment, also shown on **Figure 4**, indicates the proposed development at Filing 17 would contribute 500 VPD to Tibet Road. 52nd Avenue is anticipated to carry 550 VPD in site-generated volumes.

KEY MAP



LEGEND

- XXX(XXX) = AM(PM) Peak Hour Traffic Volumes
- XXXX = Daily Traffic Volumes
- XX% = Trip Distribution
- X = Study Intersection
- - - = Future Roadway

IV. FUTURE CONDITIONS

IV.A 2030 Background Traffic Conditions

Traffic generated by adjacent Green Valley Ranch East developments, including Filing 5, Filing 6, and 310 West, was extracted from previous traffic studies and added with existing volumes to produce the 2030 Future background traffic volumes illustrated on **Figure 5**.

For this analysis, it is assumed that 52nd Avenue would be completed to three-lane collector standards between Picadilly Road and Tibet Road. Tibet Road would be constructed from 38th Avenue to 56th Avenue. Further, Picadilly Road is anticipated to be widened to a six-lane arterial by the short-term horizon and has been analyzed as such. The widening of Picadilly Road is the responsibility of Aerotropolis Regional Transportation Authority (ARTA), and preliminary designs are underway with an expectation of construction beginning in 2025.

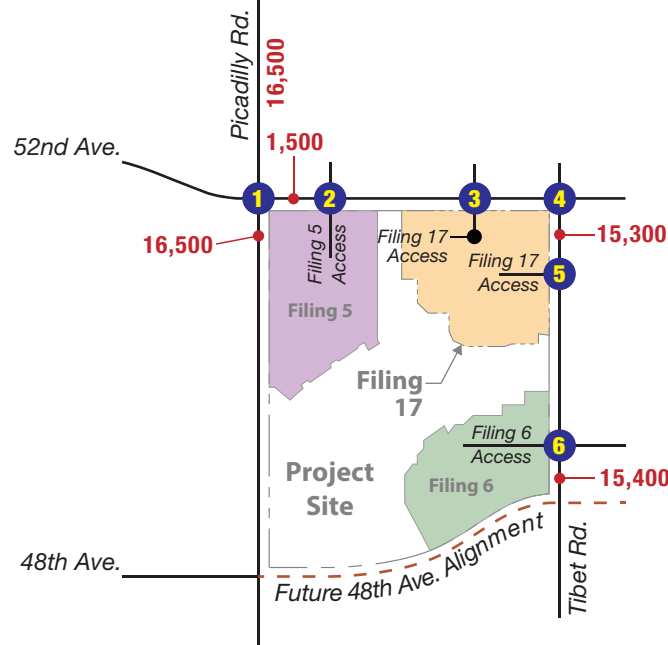
Level of Service computations show traffic operations would remain acceptable under background conditions, at LOS C or better. **Appendix E** contains LOS worksheets for the 2030 Background condition. **Appendix D** summarizes LOS results.

IV.B 2045 Background Traffic Conditions

For the 2045 Future scenario, year 2045 traffic volume projections were based on 310 West Total volumes. **Figure 6** illustrates the resultant 2045 Future background projections. The peak hour volumes were used as the basis for intersection LOS analyses; signal phasing was optimized at the intersection of 52nd Avenue with Tibet Road and 52nd Avenue with Picadilly Road. The analyses assumed the intersections of 52nd Avenue with Tibet Road and Picadilly Road would require signalization by 2045. Traffic conditions should be periodically monitored to determine the timing of traffic control improvements.

It can be seen that year 2045 background traffic operations are generally projected to remain within the acceptable range. However, the westbound movement at the intersection of Tibet Road with the Filing 6 Access is anticipated to operate at LOS E during the PM peak hour. It is common for side street stop-controlled intersections to experience higher than average delay during peak periods and this intersection is not anticipated to meet signal warrants. Further, the volume to capacity (V/C) ratio is anticipated to remain well under 1.0 at 0.43, and queueing would not exceed 50 feet. No further improvements are recommended. **Appendix D** summarizes LOS results.

KEY MAP



LEGEND

XXX(XXX) = AM(PM) Peak Hour Traffic Volumes

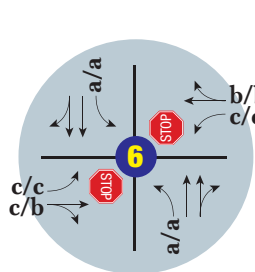
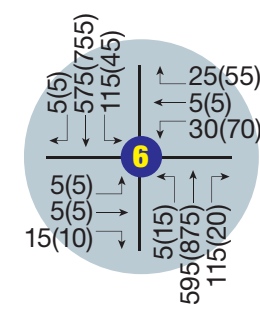
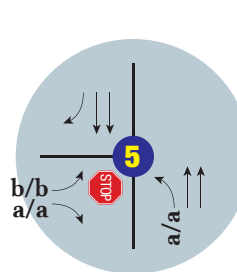
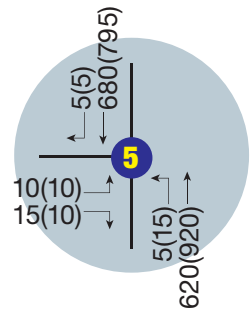
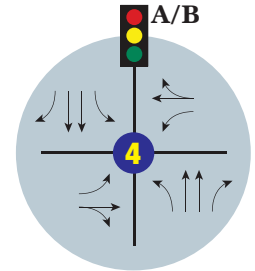
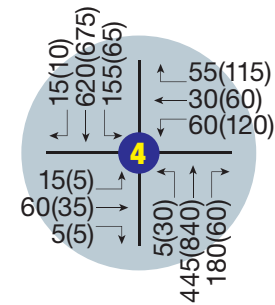
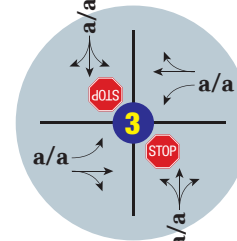
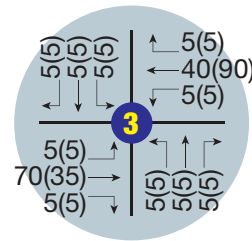
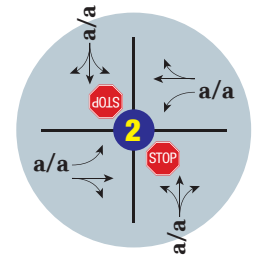
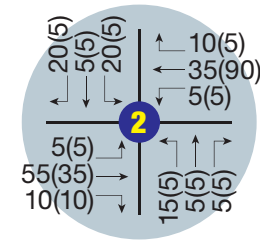
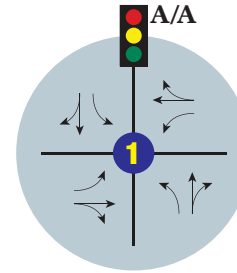
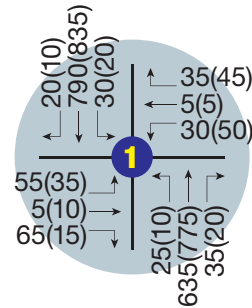
XXXX = Daily Traffic Volumes

x/x = AM/PM Peak Hour Unsignalized Intersection Level of Service

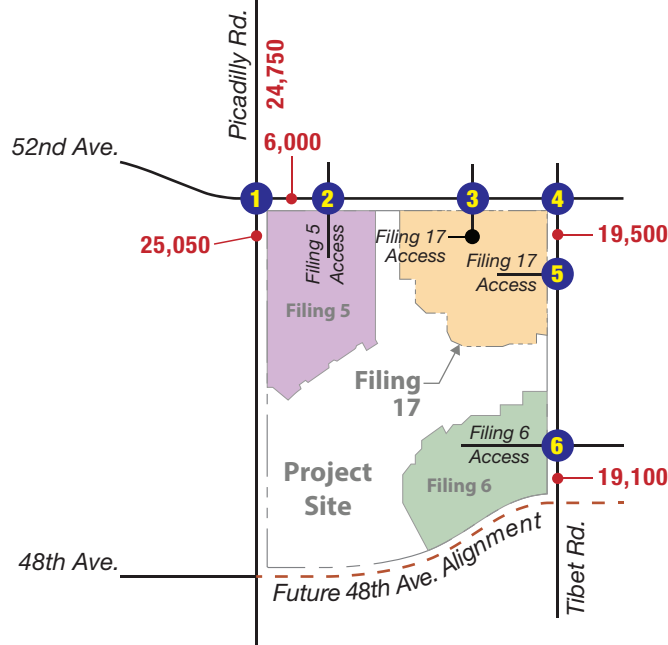
STOP = Stop Sign

X = Study Intersection

--- = Future Roadway



KEY MAP



LEGEND

XXX(XXX) = AM(PM) Peak Hour Traffic Volumes

XXXX = Daily Traffic Volumes

X/X = AM/PM Peak Hour Signalized Intersection Level of Service

x/x = AM/PM Peak Hour Unsignalized Intersection Level of Service



= Stop Sign

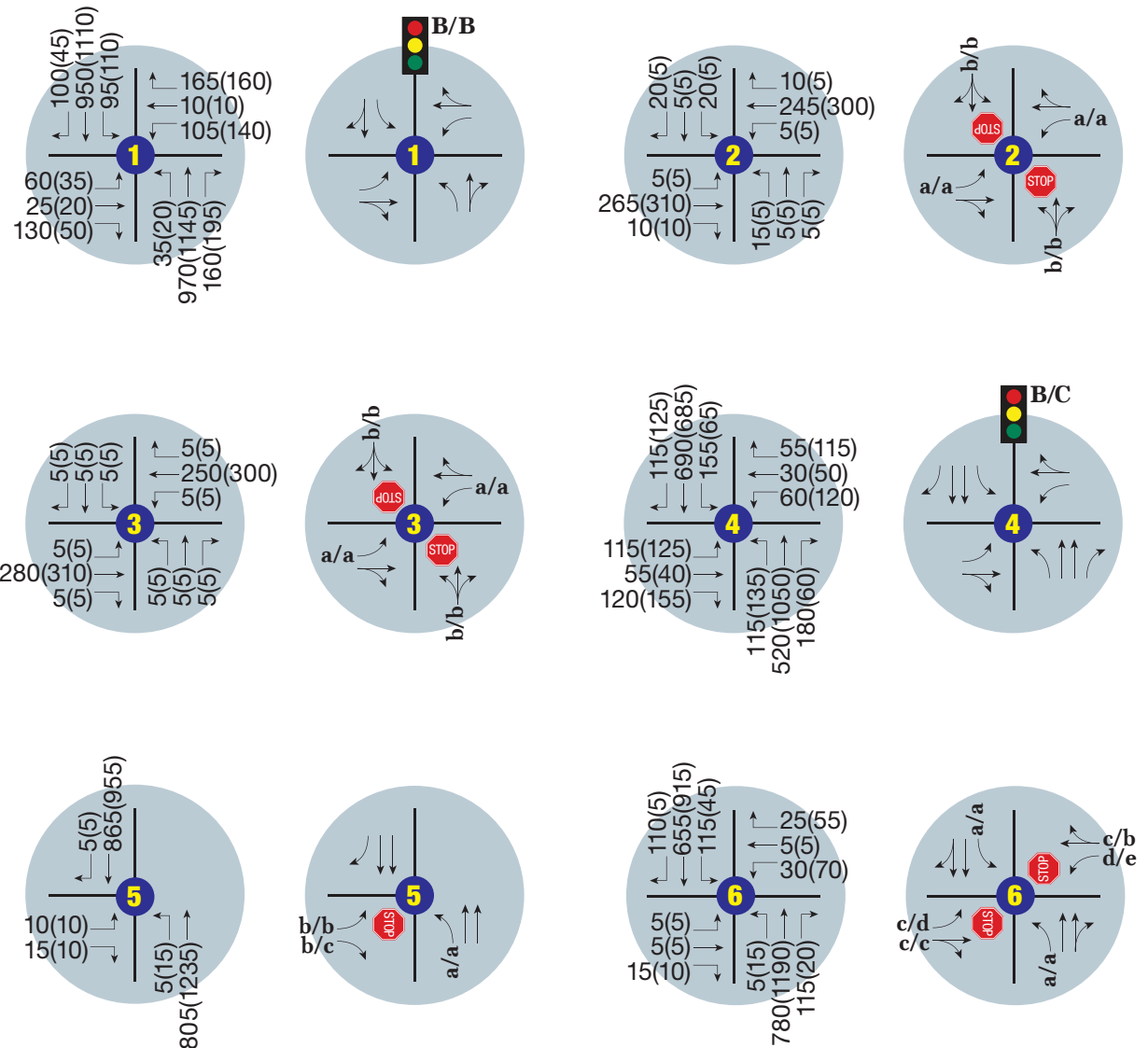


= Traffic Signal



= Study Intersection

--- = Future Roadway



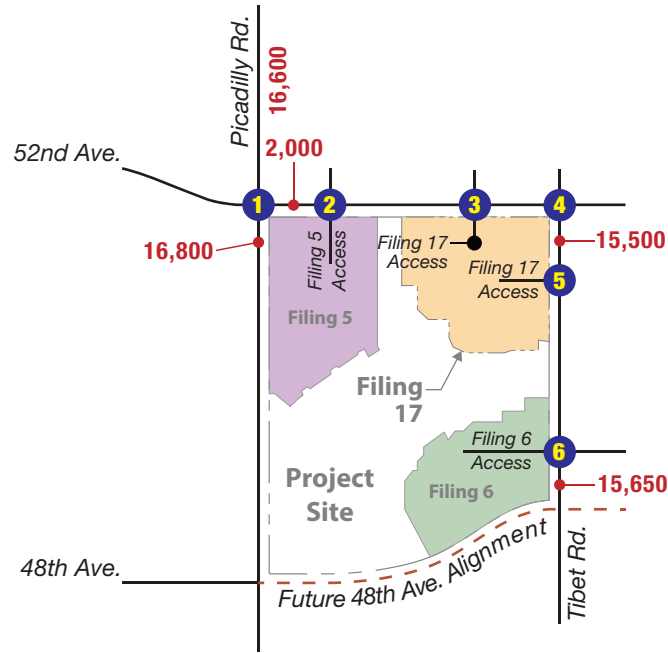
IV.C 2030 Future Total Traffic

The site-generated traffic volumes depicted on **Figure 4** were added to the year 2030 background traffic volumes (**Figure 5**) to produce the 2030 Total traffic volumes illustrated on **Figure 7**. Total daily traffic volumes along 52nd Avenue would be about 2,000 VPD just east of Picadilly Road. Tibet Road would carry 15,500 VPD south of 52nd Avenue, and Picadilly Road would carry up to 16,800 VPD.

IV.D 2045 Future Total Traffic

The site-generated traffic volumes shown on **Figure 4** were added to the 2045 background traffic volumes (**Figure 6**) to produce the 2045 Future Total traffic volumes illustrated on **Figure 8**. Total daily traffic volumes on 52nd Avenue are projected to be about 6,500 VPD just east of Picadilly Road. Tibet Road would carry up to 19,750 VPD near the site, and Picadilly Road would carry up to 25,400 VPD south of 52nd Avenue.

KEY MAP



LEGEND

XXX(XXX) = AM(PM) Peak Hour Traffic Volumes

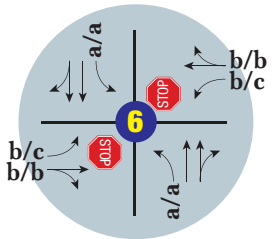
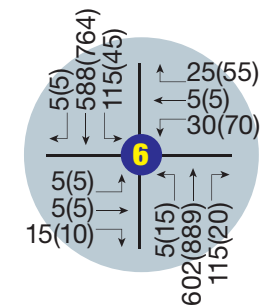
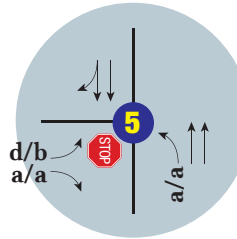
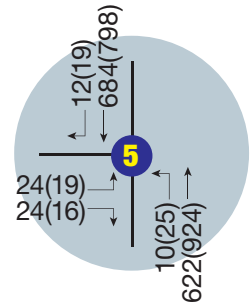
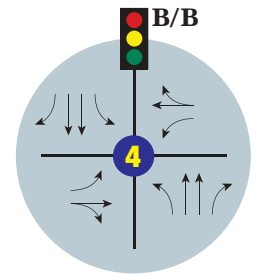
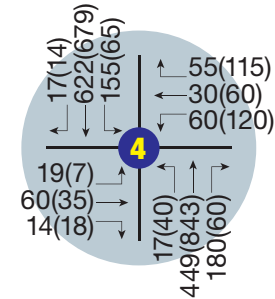
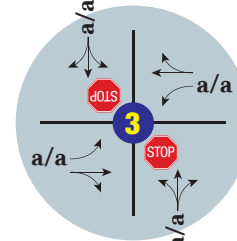
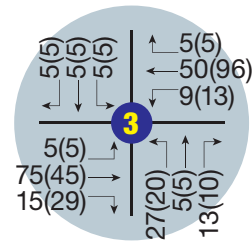
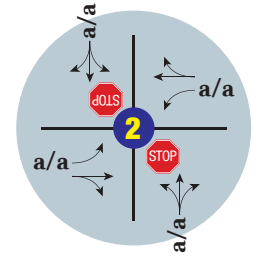
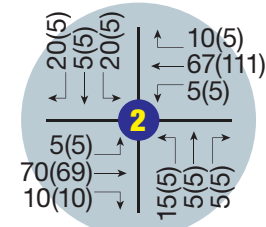
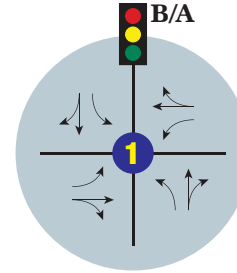
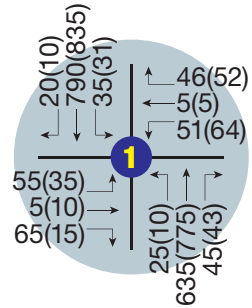
XXXX = Daily Traffic Volumes

x/x = AM/PM Peak Hour Unsignalized Intersection Level of Service

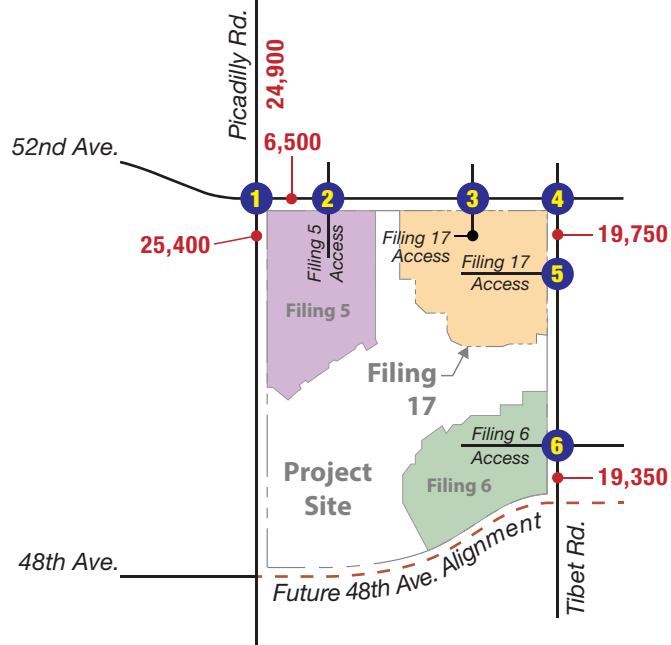
STOP = Stop Sign

X = Study Intersection

--- = Future Roadway



KEY MAP



LEGEND

XXX(XXX) = AM(PM) Peak Hour Traffic Volumes

XXXX = Daily Traffic Volumes

X/X = AM/PM Peak Hour Signalized Intersection Level of Service

x/x = AM/PM Peak Hour Unsignalized Intersection Level of Service



= Stop Sign

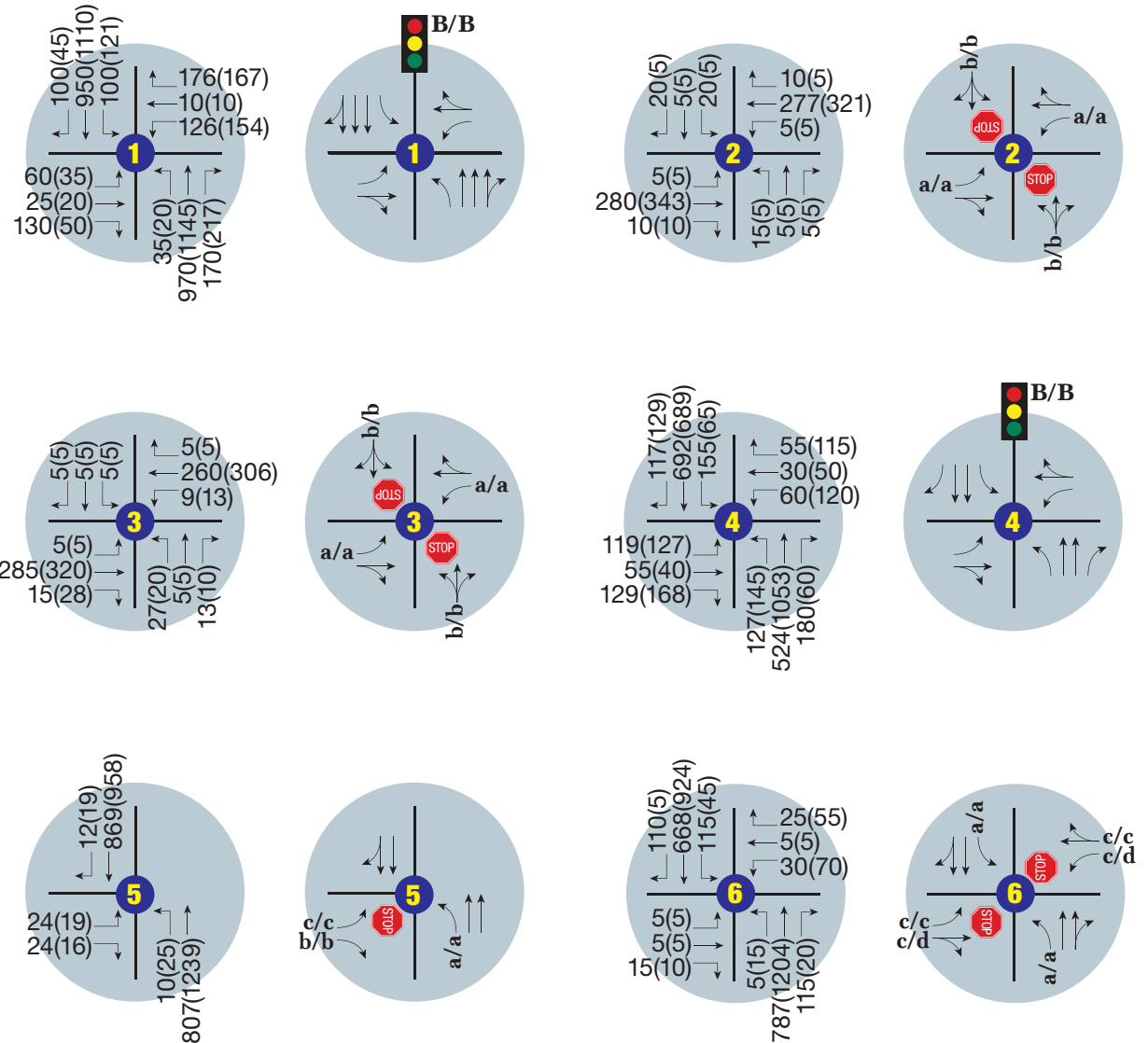


= Traffic Signal



= Study Intersection

--- = Future Roadway



V. EVALUATION

V.A Level of Service

2030 Future Total

The peak hour traffic volumes, intersection geometrics, and traffic control shown on **Figure 7** were used as the basis for LOS analyses. **Appendix G** contains LOS worksheets. As shown, traffic operations are projected to remain generally acceptable, at LOS D or better. **Appendix D** summarizes the LOS results.

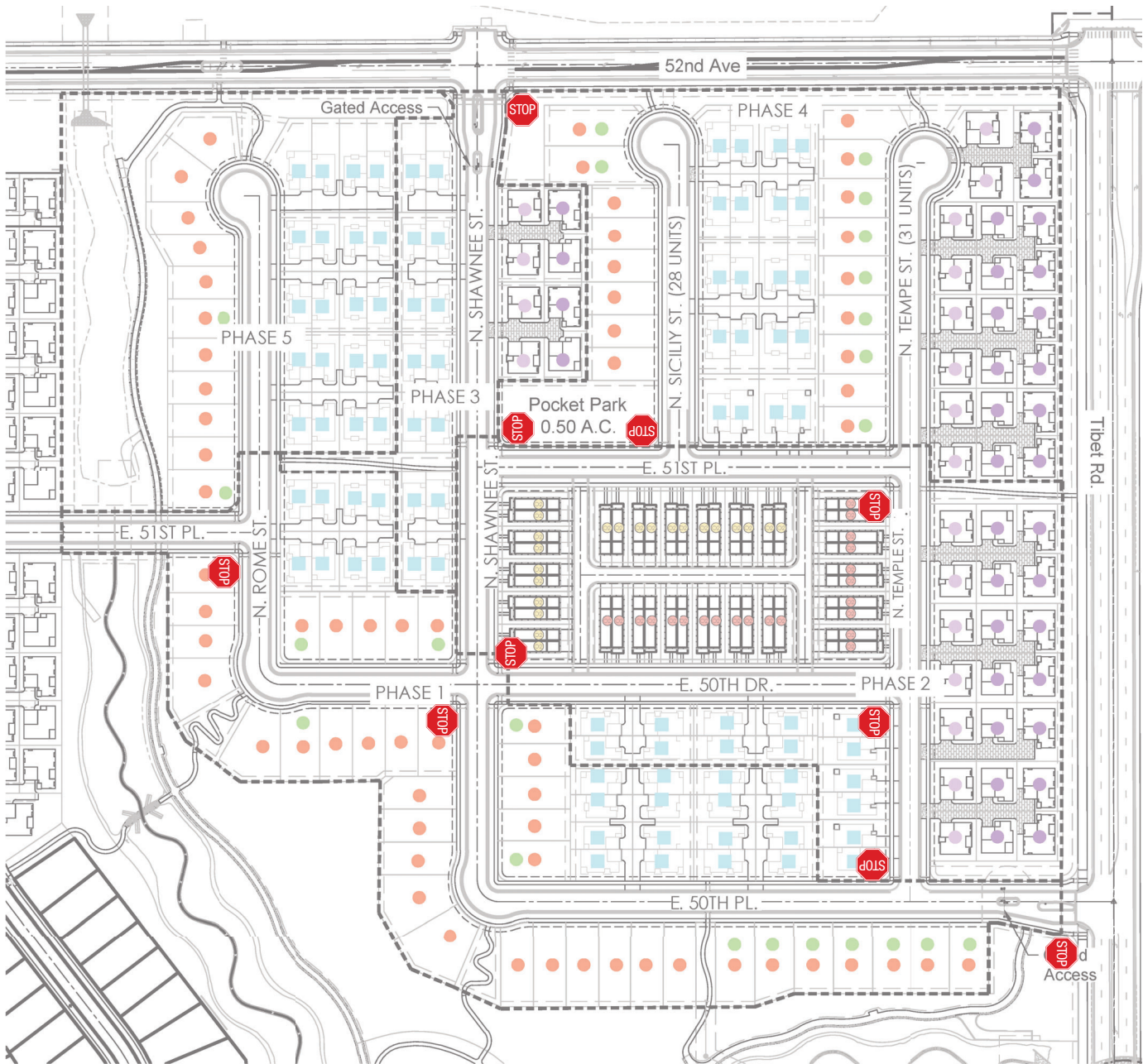
2045 Future Total

The year 2045 peak hour traffic volumes, intersection geometrics, and traffic control shown on **Figure 8** were used as the basis for LOS analyses. Signal phasing at the intersections of 52nd Avenue with Tibet Road and Picadilly Road were optimized. **Appendix H** contains LOS worksheets. As shown, traffic operations are projected to remain acceptable, with all traffic operations operating at LOS D or better. **Appendix D** summarizes LOS results.


V.B Traffic Control Devices

As identified in the LOS analyses, all site accesses along 52nd Avenue are projected to function at acceptable levels with unsignalized traffic control through the 2045 Future.

All internal intersections within the Filing 17 site would be unsignalized; however, the intersections of 52nd Avenue with Tibet Road and Picadilly Road would warrant signalization by the 2045 background scenario and would experience borderline conditions for meeting warrants in the 2030 total scenario. These intersections should be monitored for signalization as the area develops. **Figure 9** depicts STOP sign locations on the internal roadways within the Filing 17 site.



LEGEND

 = Stop Sign

V.C Queuing

City of Aurora *Traffic Impact Study Guidelines* indicate that the *CDOT State Highway Access Code (SHAC)* be used to determine storage and taper lengths of auxiliary lanes. These values sometimes yield conservative results and provide storage well in excess of 95th percentile queues (which already incorporate a heavy vehicle percentage). Rather, the recommendation is that the values in the table found in **Appendix I** corresponding to the 95th percentile lengths be used for storage lengths, plus a lead-in taper. It was assumed that Picadilly Road and Tibet Road are classified as NR-B Non-Rural Arterials and all other roadways in the study area would be treated as NR-C. Table 4-8 in the *SHAC* was used to determine the recommended storage lengths indicating that, for both classifications, left- and right-turns should be designed for storage plus taper for 40 MPH or less and for deceleration length for speeds above 40 MPH.

V.D Safety

Sight Distance

To enable motorists to make safe decisions, appropriate sight distance should be provided at the proposed site accesses along 52nd Avenue and Tibet Road. Trees or other plantings within adjacent tree-lawns could impact sight distance; therefore, placement of landscaping or plantings should remain outside the appropriate sight distance for outbound motorists. At the assumed 40 MPH speed limit, approximately 475 feet of unimpeded sight distance is required, per City of Aurora criteria.

V.E Pedestrian Connectivity

Multiuse trails are planned on the west side of the Filing 17 site and will connect throughout the Green Valley Ranch East sites south of 48th Avenue. A Rectangular Rapid Flashing Beacon (RRFB) is planned just south of the intersection of 44th Avenue with Tibet Road to facilitate safe connectivity of the multiuse trail across Tibet Road between GVRE filings. Further, the trail crossing at 38th Avenue near E-470 is planned to be grade separated under 38th Avenue. There will also be a multiuse trail along the west side of E-470 near the study area that may be accessed via 48th Avenue or 56th Avenue from this site.

V.F Traffic Calming

The discontinuity of 51st Place is anticipated to discourage speeding through the connection of the Filing 5 and Filing 17 sites. Further, although Shawnee Street does connect through the site from 52nd Avenue to Tibet Road on the south side of Filing 17, these accesses are gated and will restrict any cut through traffic. To further mitigate speed along this roadway, midblock curb extensions or “neck downs” at the intersection of Shawnee Street with 50th Drive or 51st Place would slow traffic along this extended roadway through the site.

VI. CONCLUSIONS AND RECOMMENDATIONS

Filing 17 is a proposed development within the Green Valley Ranch East Active Adult community. The approximate 40-acre site is located in the southwest quadrant of the future 52nd Avenue/Tibet Road intersection. The proposed development at Filing 17 would consist of approximately 253 senior housing units. Site vehicular access would be via one access on 52nd Avenue and one access on Tibet Road.

Filing 17 would generate approximately 1,304 vehicle trips on a daily basis, with about 79 trips during the AM peak hour and about 91 trips during the PM peak hour. The potential impacts of the site-generated traffic were evaluated under 2030 Future and 2045 Future scenarios. In general, the existing and planned roadway system would have sufficient reserve capacity to accommodate the projected increases. Relative to this, the following summarizes the findings and recommendations of this analysis.

The following initial improvements would be required with the development of Green Valley Ranch East Filing 17:

- ▶ Construct 52nd Avenue between Picadilly Road and Tibet Road to three-lane collector standards.
- ▶ Improve Tibet Road to a two-lane minor arterial with a left turn lane at the Filing 17 site access. A right turn lane is not anticipated at this access. It is anticipated that a four-lane section on Tibet Road will be constructed between 52nd and 48th avenues with other filings at Green Valley Ranch East. Preserve sufficient right-of-way to allow the ultimate minor arterial cross section on this roadway.
- ▶ Install STOP sign control on the site access approaches to 52nd Avenue and Tibet Road.
- ▶ Install STOP signs on the internal roadways as depicted on **Figure 9**.
- ▶ Maintain appropriate sight distance at the Filing 17 site accesses.

The following initial improvements would be required in spite of Green Valley Ranch East Filing 17:

- ▶ Monitor the intersection of 52nd Avenue with Tibet Road for signalization.
- ▶ Improve Tibet Road to final four-lane cross section.
- ▶ Improve Picadilly Road to final six-lane cross section.

Appendix A. Raw Count Data

All Traffic Data Services
12200 W 52nd Ave
Wheat Ridge, CO 80033
www.alltrafficdata.net

Page 1

Site Code: 9
Station ID: 9
E 56TH AVE E.O. PICADILLY RD

Start Time	23-Oct-24 Wed	EB	WB							Total
12:00 AM		20	48							68
01:00		19	27							46
02:00		63	23							86
03:00		144	94							238
04:00		222	33							255
05:00		325	78							403
06:00		378	166							544
07:00		391	284							675
08:00		317	257							574
09:00		193	266							459
10:00		194	227							421
11:00		212	266							478
12:00 PM		285	314							599
01:00		252	363							615
02:00		242	407							649
03:00		254	417							671
04:00		297	445							742
05:00		270	379							649
06:00		188	263							451
07:00		113	168							281
08:00		87	165							252
09:00		88	149							237
10:00		134	203							337
11:00		24	104							128
Total		4712	5146							9858
Percent		47.8%	52.2%							
AM Peak	-	07:00	07:00	-	-	-	-	-	-	07:00
Vol.	-	391	284	-	-	-	-	-	-	675
PM Peak	-	16:00	16:00	-	-	-	-	-	-	16:00
Vol.	-	297	445	-	-	-	-	-	-	742
Grand Total		4712	5146							9858
Percent		47.8%	52.2%							
ADT		ADT 9,858	AADT 9,858							

Site Code: 10
Station ID: 10
48TH AVE E.O. PICADILLY RD

Start Time	23-Oct-24 Wed	EB	WB	Total
12:00 AM		6	4	10
01:00		2	3	5
02:00		3	3	6
03:00		2	2	4
04:00		5	7	12
05:00		3	10	13
06:00		41	17	58
07:00		41	47	88
08:00		45	42	87
09:00		34	33	67
10:00		44	28	72
11:00		44	33	77
12:00 PM		63	56	119
01:00		62	32	94
02:00		44	39	83
03:00		56	31	87
04:00		72	44	116
05:00		81	42	123
06:00		58	38	96
07:00		38	19	57
08:00		21	7	28
09:00		17	9	26
10:00		16	6	22
11:00		12	2	14
Total		810	554	1364
Percent		59.4%	40.6%	
AM Peak	-	08:00	07:00	-
Vol.	-	45	47	-
PM Peak	-	17:00	12:00	-
Vol.	-	81	56	-
Grand Total		810	554	1364
Percent		59.4%	40.6%	
ADT		ADT 1,364	AADT 1,364	

Site Code: 11
Station ID: 11
PICADILLY DR S.O. 48TH AVE

Start Time	23-Oct-24 Wed	NB	SB							Total
12:00 AM		45	32							77
01:00		31	23							54
02:00		25	28							53
03:00		33	36							69
04:00		65	86							151
05:00		113	147							260
06:00		167	278							445
07:00		322	423							745
08:00		301	288							589
09:00		197	232							429
10:00		228	194							422
11:00		236	231							467
12:00 PM		225	244							469
01:00		228	264							492
02:00		327	313							640
03:00		413	340							753
04:00		444	379							823
05:00		448	360							808
06:00		297	312							609
07:00		174	176							350
08:00		123	147							270
09:00		110	112							222
10:00		84	85							169
11:00		33	49							82
Total		4669	4779							9448
Percent		49.4%	50.6%							
AM Peak	-	07:00	07:00	-	-	-	-	-	-	07:00
Vol.	-	322	423	-	-	-	-	-	-	745
PM Peak	-	17:00	16:00	-	-	-	-	-	-	16:00
Vol.	-	448	379	-	-	-	-	-	-	823
Grand Total		4669	4779							9448
Percent		49.4%	50.6%							
ADT		ADT 9,448	AADT 9,448							

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Site Code: 12
Station ID: 12
PICADILLY RD N.O. 48TH AVE

Start Time	23-Oct-24 Wed	NB	SB							Total
12:00 AM		35	32							67
01:00		24	22							46
02:00		31	28							59
03:00		55	40							95
04:00		83	59							142
05:00		149	133							282
06:00		196	242							438
07:00		341	391							732
08:00		305	304							609
09:00		196	208							404
10:00		191	193							384
11:00		213	213							426
12:00 PM		246	247							493
01:00		227	270							497
02:00		286	331							617
03:00		361	400							761
04:00		399	395							794
05:00		354	321							675
06:00		268	313							581
07:00		158	149							307
08:00		120	127							247
09:00		103	113							216
10:00		80	100							180
11:00		44	77							121
Total		4465	4708							9173
Percent		48.7%	51.3%							
AM Peak	-	07:00	07:00	-	-	-	-	-	-	07:00
Vol.	-	341	391	-	-	-	-	-	-	732
PM Peak	-	16:00	15:00	-	-	-	-	-	-	16:00
Vol.	-	399	400	-	-	-	-	-	-	794
Grand Total		4465	4708							9173
Percent		48.7%	51.3%							
ADT		ADT 9,173	AADT 9,173							



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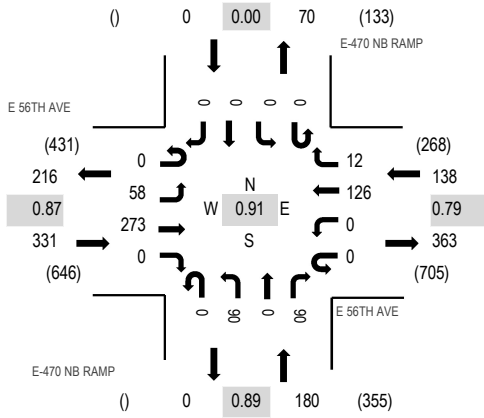
Location: 1 E-470 NB RAMP & E 56TH AVE AM

Date: Wednesday, October 23, 2024

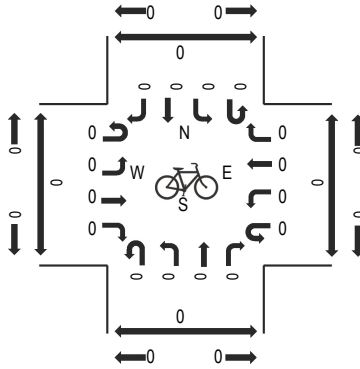
Peak Hour: 07:00 AM - 08:00 AM

Peak 15-Minutes: 07:45 AM - 08:00 AM

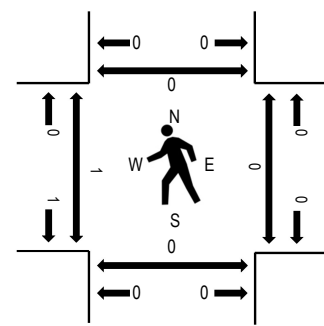
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	E 56TH AVE Eastbound				E 56TH AVE Westbound				E-470 NB RAMP Northbound				E-470 NB RAMP Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
6:30 AM	0	5	78	0	0	0	25	2	0	18	0	20	0	0	0	0	148	622	0	0	0	0
6:45 AM	0	13	83	0	0	0	36	3	0	13	0	21	0	0	0	0	169	639	0	0	0	0
7:00 AM	0	11	61	0	0	0	41	6	0	12	0	21	0	0	0	0	152	649	0	0	0	0
7:15 AM	0	19	64	0	0	0	25	2	0	19	0	24	0	0	0	0	153	639	0	0	0	0
7:30 AM	0	15	69	0	0	0	33	2	0	22	0	24	0	0	0	0	165	647	0	0	0	0
7:45 AM	0	13	79	0	0	0	27	2	0	37	0	21	0	0	0	0	179		1	0	0	0
8:00 AM	0	17	49	0	0	0	27	1	0	30	0	18	0	0	0	0	142		0	0	0	0
8:15 AM	0	20	50	0	0	0	34	2	0	32	0	23	0	0	0	0	161		0	0	0	0
Count Total	0	113	533	0	0	0	248	20	0	183	0	172	0	0	0	0	1,269		1	0	0	0
Peak Hour	0	58	273	0	0	0	126	12	0	90	0	90	0	0	0	0	649		1	0	0	0



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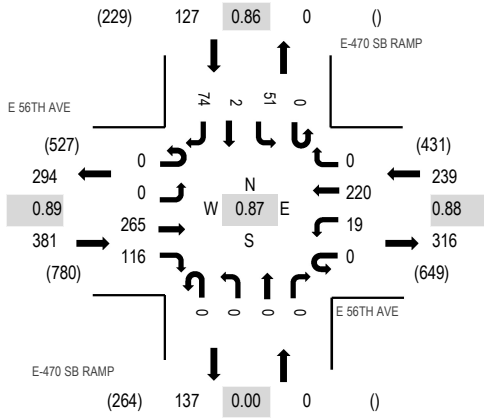
Location: 2 E-470 SB RAMP & E 56TH AVE AM

Date: Wednesday, October 23, 2024

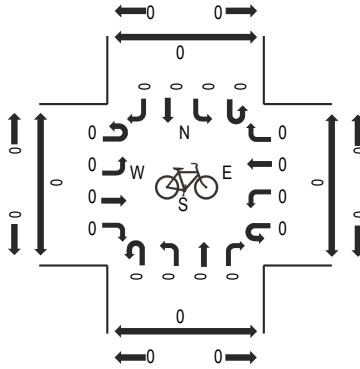
Peak Hour: 07:30 AM - 08:30 AM

Peak 15-Minutes: 07:45 AM - 08:00 AM

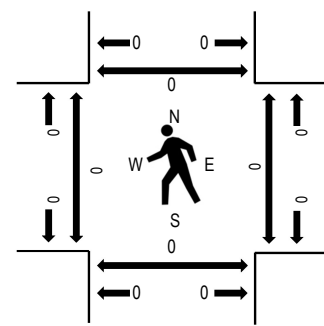
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	E 56TH AVE Eastbound				E 56TH AVE Westbound				E-470 SB RAMP Northbound				E-470 SB RAMP Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
6:30 AM	0	0	76	26	0	3	42	0	0	0	0	0	0	10	0	13	170	693	0	0	0	0
6:45 AM	0	0	90	22	0	4	41	0	0	0	0	0	0	14	0	12	183	702	0	0	0	0
7:00 AM	0	0	54	30	0	5	51	0	0	0	0	0	0	9	0	17	166	734	0	0	0	0
7:15 AM	0	0	70	31	0	6	40	0	0	0	0	0	0	10	0	17	174	741	0	0	0	0
7:30 AM	0	0	74	27	0	3	44	0	0	0	0	0	0	14	0	17	179	747	0	0	0	0
7:45 AM	0	0	79	31	0	2	66	0	0	0	0	0	0	13	1	23	215		0	0	0	0
8:00 AM	0	0	55	32	0	6	50	0	0	0	0	0	0	13	0	17	173		0	0	0	0
8:15 AM	0	0	57	26	0	8	60	0	0	0	0	0	0	11	1	17	180		0	0	0	0
Count Total	0	0	555	225	0	37	394	0	0	0	0	0	0	94	2	133	1,440		0	0	0	0
Peak Hour	0	0	265	116	0	19	220	0	0	0	0	0	0	51	2	74	747		0	0	0	0



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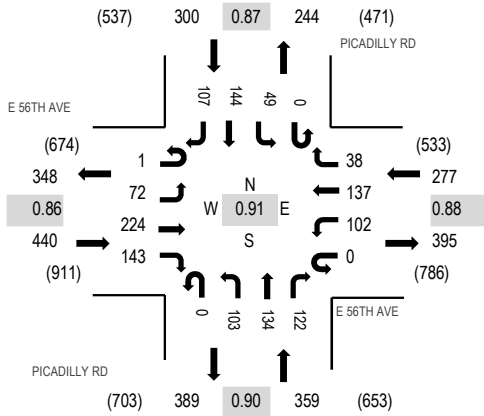
Location: 3 PICADILLY RD & E 56TH AVE AM

Date: Wednesday, October 23, 2024

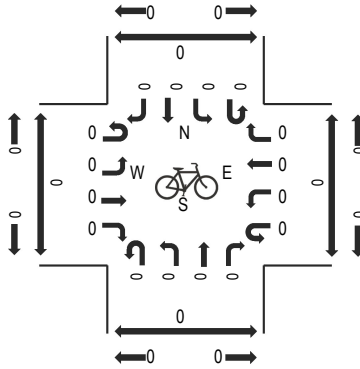
Peak Hour: 07:15 AM - 08:15 AM

Peak 15-Minutes: 07:45 AM - 08:00 AM

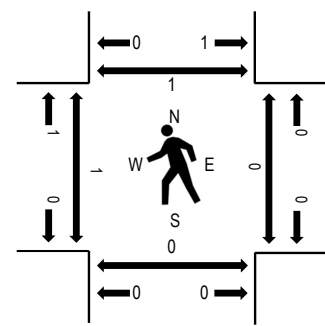
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	E 56TH AVE Eastbound				E 56TH AVE Westbound				PICADILLY RD Northbound				PICADILLY RD Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
6:30 AM	1	24	74	26	0	19	35	2	0	9	23	26	0	7	14	21	281	1,274	0	0	0	0
6:45 AM	0	30	82	26	0	19	22	5	0	10	32	28	0	4	31	38	327	1,313	1	0	0	0
7:00 AM	0	27	56	28	0	23	49	2	0	17	29	22	0	9	42	27	331	1,365	0	0	0	0
7:15 AM	0	24	54	25	0	19	33	6	0	22	25	34	0	16	38	39	335	1,376	0	0	0	0
7:30 AM	0	12	54	30	0	25	35	7	0	16	32	29	0	14	41	25	320	1,360	0	0	0	0
7:45 AM	0	18	67	36	0	35	35	15	0	33	42	30	0	9	34	25	379		0	0	0	0
8:00 AM	1	18	49	52	0	23	34	10	0	32	35	29	0	10	31	18	342		1	0	0	1
8:15 AM	2	15	48	32	0	35	38	7	0	38	30	30	1	5	19	19	319		0	0	0	0
Count Total	4	168	484	255	0	198	281	54	0	177	248	228	1	74	250	212	2,634		2	0	0	1
Peak Hour	1	72	224	143	0	102	137	38	0	103	134	122	0	49	144	107	1,376		1	0	0	1



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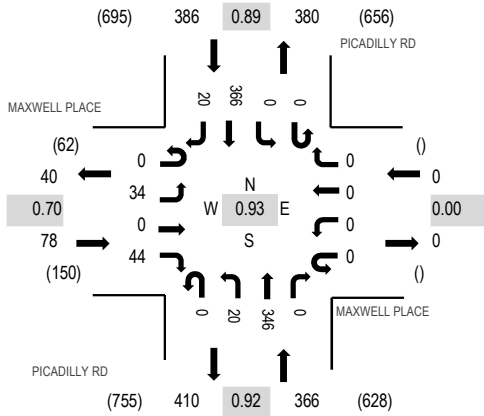
Location: 4 PICADILLY RD & MAXWELL PLACE AM

Date: Wednesday, October 23, 2024

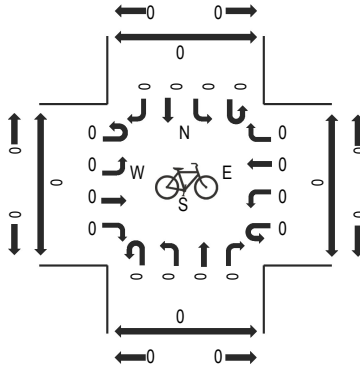
Peak Hour: 07:30 AM - 08:30 AM

Peak 15-Minutes: 08:00 AM - 08:15 AM

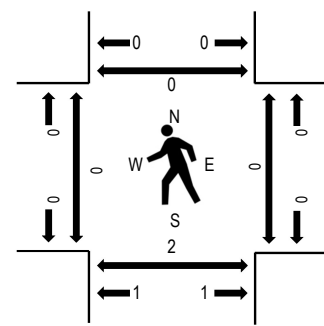
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	MAXWELL PLACE Eastbound				MAXWELL PLACE Westbound				PICADILLY RD Northbound				PICADILLY RD Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
6:30 AM	0	1	0	4	0	0	0	0	0	1	58	0	0	0	58	1	123	643	0	0	0	0
6:45 AM	0	7	0	12	0	0	0	0	0	1	66	0	0	0	71	3	160	711	0	0	0	0
7:00 AM	0	8	0	8	0	0	0	0	0	7	58	0	0	0	88	5	174	771	2	0	0	0
7:15 AM	0	9	0	23	0	0	0	0	0	2	69	0	0	0	81	2	186	819	0	0	0	0
7:30 AM	0	4	0	10	0	0	0	0	0	6	81	0	0	0	86	4	191	830	0	0	1	0
7:45 AM	0	7	0	13	0	0	0	0	0	3	96	0	0	0	97	4	220		0	0	0	0
8:00 AM	0	10	0	13	0	0	0	0	0	7	84	0	0	0	102	6	222		0	0	1	0
8:15 AM	0	13	0	8	0	0	0	0	0	4	85	0	0	0	81	6	197		0	0	0	0
Count Total	0	59	0	91	0	0	0	0	0	31	597	0	0	0	664	31	1,473		2	0	2	0
Peak Hour	0	34	0	44	0	0	0	0	0	20	346	0	0	0	366	20	830		0	0	2	0



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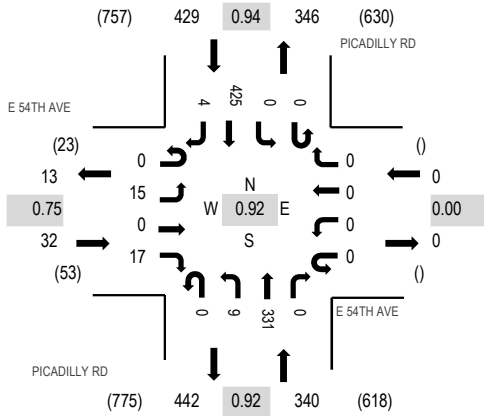
Location: 5 PICADILLY RD & E 54TH AVE AM

Date: Wednesday, October 23, 2024

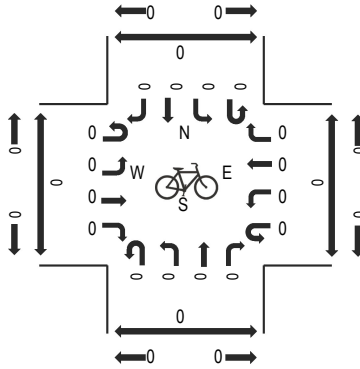
Peak Hour: 07:15 AM - 08:15 AM

Peak 15-Minutes: 07:45 AM - 08:00 AM

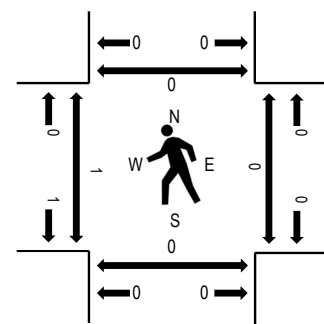
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	E 54TH AVE Eastbound				E 54TH AVE Westbound				PICADILLY RD Northbound				PICADILLY RD Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
6:30 AM	0	1	0	1	0	0	0	0	0	0	57	0	0	0	58	2	119	627	0	0	0	0
6:45 AM	0	4	0	5	0	0	0	0	0	0	66	0	0	0	85	1	161	699	0	0	0	0
7:00 AM	0	2	0	3	0	0	0	0	0	1	67	0	0	0	90	3	166	755	2	0	0	0
7:15 AM	0	4	0	4	0	0	0	0	0	2	63	0	0	0	108	0	181	801	0	0	0	0
7:30 AM	0	5	0	6	0	0	0	0	0	2	83	0	0	0	95	0	191	801	0	0	0	0
7:45 AM	0	4	0	3	0	0	0	0	0	4	94	0	0	0	111	1	217		1	0	0	0
8:00 AM	0	2	0	4	0	0	0	0	0	1	91	0	0	0	111	3	212		0	0	0	0
8:15 AM	0	3	0	2	0	0	0	0	0	3	84	0	0	0	89	0	181		0	0	0	0
Count Total	0	25	0	28	0	0	0	0	0	13	605	0	0	0	747	10	1,428		3	0	0	0
Peak Hour	0	15	0	17	0	0	0	0	0	9	331	0	0	0	425	4	801		1	0	0	0



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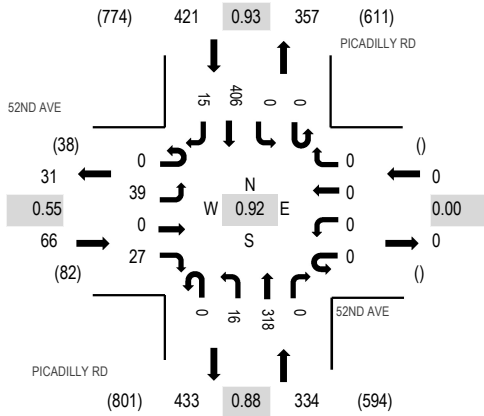
Location: 6 PICADILLY RD & 52ND AVE AM

Date: Wednesday, October 23, 2024

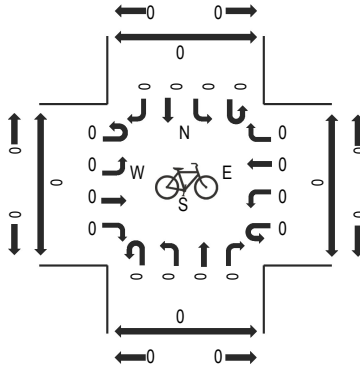
Peak Hour: 07:30 AM - 08:30 AM

Peak 15-Minutes: 07:45 AM - 08:00 AM

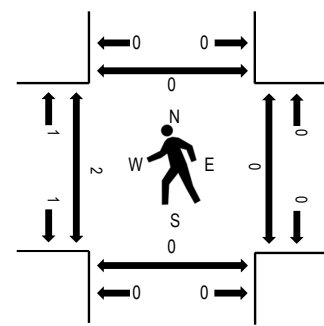
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	52ND AVE Eastbound				52ND AVE Westbound				PICADILLY RD Northbound				PICADILLY RD Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
6:30 AM	0	1	0	2	0	0	0	0	0	0	57	0	0	0	60	0	120	629	0	0	0	0
6:45 AM	0	0	0	4	0	0	0	0	2	3	66	0	0	0	91	0	166	696	0	0	0	0
7:00 AM	0	1	0	6	0	0	0	0	0	1	64	0	0	0	92	0	164	753	0	0	0	0
7:15 AM	0	1	0	1	0	0	0	0	0	3	64	0	0	0	110	0	179	807	0	0	0	0
7:30 AM	0	4	0	1	0	0	0	0	0	1	84	0	0	0	96	1	187	821	1	0	0	0
7:45 AM	0	7	0	3	0	0	0	0	0	8	87	0	0	0	114	4	223		0	0	0	0
8:00 AM	0	12	0	9	0	0	0	0	0	6	77	0	0	0	106	8	218		1	0	0	0
8:15 AM	0	16	0	14	0	0	0	0	0	1	70	0	0	0	90	2	193		0	0	0	0
Count Total	0	42	0	40	0	0	0	0	2	23	569	0	0	0	759	15	1,450		2	0	0	0
Peak Hour	0	39	0	27	0	0	0	0	0	16	318	0	0	0	406	15	821		2	0	0	0



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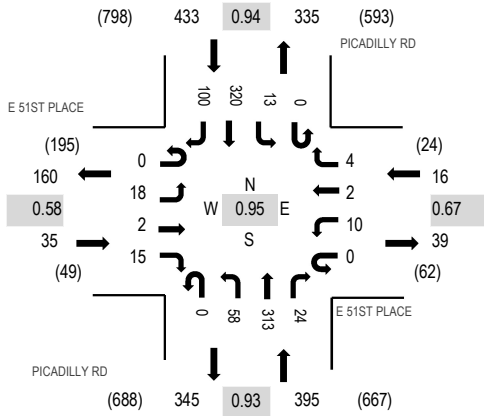
Location: 7 PICADILLY RD & E 51ST PLACE AM

Date: Wednesday, October 23, 2024

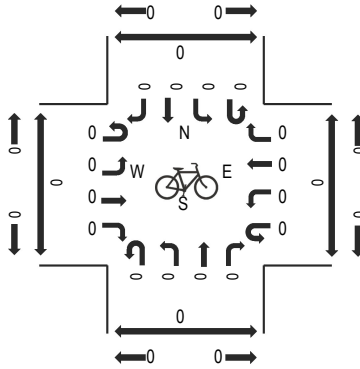
Peak Hour: 07:30 AM - 08:30 AM

Peak 15-Minutes: 07:45 AM - 08:00 AM

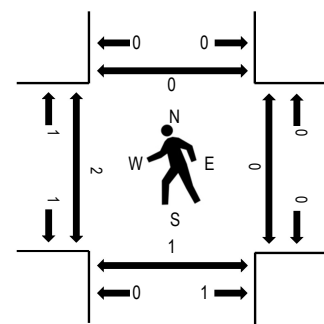
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	E 51ST PLACE Eastbound				E 51ST PLACE Westbound				PICADILLY RD Northbound				PICADILLY RD Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
6:30 AM	0	5	0	2	0	0	0	0	0	3	51	3	0	0	60	1	125	659	0	0	0	0
6:45 AM	0	1	2	0	0	2	0	2	0	0	69	0	0	1	90	7	174	733	0	0	0	0
7:00 AM	0	2	0	0	0	0	0	2	0	3	60	3	0	2	87	4	163	791	0	0	0	0
7:15 AM	0	2	0	0	0	1	1	0	0	7	64	9	0	3	101	9	197	858	0	0	0	0
7:30 AM	0	3	0	3	0	1	0	1	0	7	84	4	0	3	83	10	199	879	1	0	0	0
7:45 AM	0	4	1	0	0	2	1	1	0	10	90	6	0	5	93	19	232		0	0	0	0
8:00 AM	0	3	1	5	0	5	0	1	0	21	77	5	0	3	76	33	230		1	0	1	0
8:15 AM	0	8	0	7	0	2	1	1	0	20	62	9	0	2	68	38	218		0	0	0	0
Count Total	0	28	4	17	0	13	3	8	0	71	557	39	0	19	658	121	1,538		2	0	1	0
Peak Hour	0	18	2	15	0	10	2	4	0	58	313	24	0	13	320	100	879		2	0	1	0



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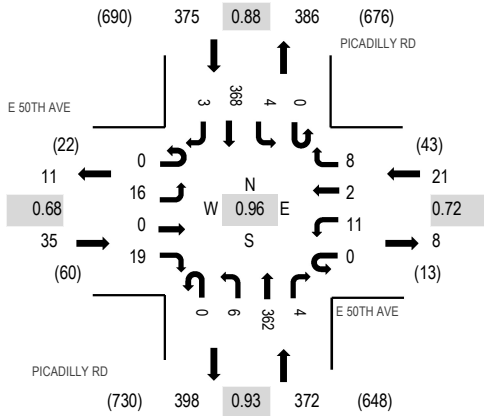
Location: 8 PICADILLY RD & E 50TH AVE AM

Date: Wednesday, October 23, 2024

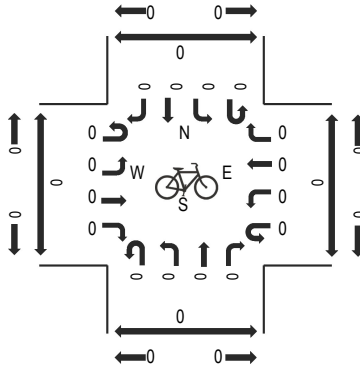
Peak Hour: 07:15 AM - 08:15 AM

Peak 15-Minutes: 08:00 AM - 08:15 AM

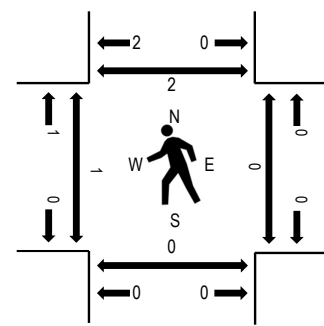
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	E 50TH AVE Eastbound				E 50TH AVE Westbound				PICADILLY RD Northbound				PICADILLY RD Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
6:30 AM	0	3	0	1	0	3	0	2	0	1	48	1	0	0	61	0	120	652	0	0	0	0
6:45 AM	0	1	0	0	0	1	0	1	0	0	70	2	0	0	94	0	169	730	0	0	0	0
7:00 AM	0	3	0	6	0	0	1	6	0	0	68	2	0	0	79	4	169	762	0	0	0	0
7:15 AM	0	5	0	3	0	4	0	2	0	2	71	1	0	1	104	1	194	803	0	0	0	0
7:30 AM	0	4	0	4	0	3	0	2	0	0	95	0	0	1	88	1	198	789	1	0	0	1
7:45 AM	0	3	0	2	0	0	1	3	0	2	100	1	0	2	87	0	201		0	0	0	0
8:00 AM	0	4	0	10	0	4	1	1	0	2	96	2	0	0	89	1	210		0	0	0	1
8:15 AM	0	2	0	9	0	3	0	5	0	3	81	0	0	0	75	2	180		0	0	0	0
Count Total	0	25	0	35	0	18	3	22	0	10	629	9	0	4	677	9	1,441		1	0	0	2
Peak Hour	0	16	0	19	0	11	2	8	0	6	362	4	0	4	368	3	803		1	0	0	2



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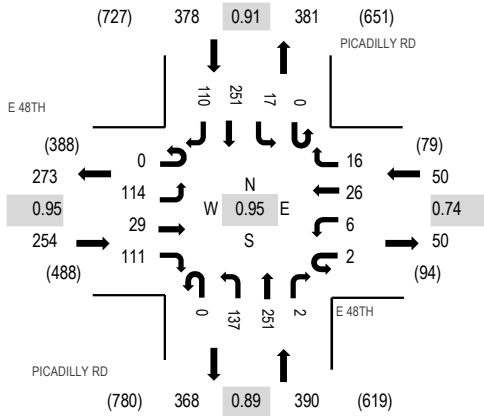
Location: 10 PICADILLY RD & E 48TH AM

Date: Wednesday, October 23, 2024

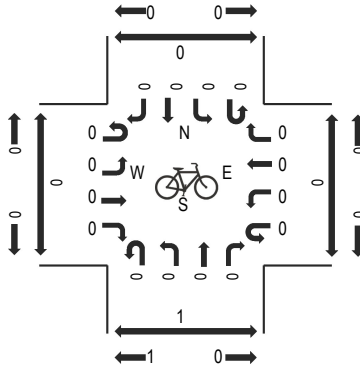
Peak Hour: 07:30 AM - 08:30 AM

Peak 15-Minutes: 08:00 AM - 08:15 AM

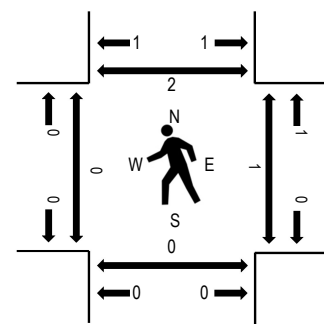
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	E 48TH Eastbound				E 48TH Westbound				PICADILLY RD Northbound				PICADILLY RD Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
6:30 AM	0	21	8	26	0	0	3	2	0	10	28	1	0	3	53	9	164	841	0	0	0	1
6:45 AM	0	20	7	33	0	0	5	0	0	14	52	1	0	5	70	11	218	944	0	0	0	0
7:00 AM	0	21	5	27	1	1	6	2	0	16	48	1	0	4	76	8	216	1,004	0	0	0	1
7:15 AM	0	31	4	31	0	1	3	5	0	17	40	1	0	3	94	13	243	1,069	0	0	1	0
7:30 AM	0	26	4	33	0	2	11	4	0	27	64	1	0	2	73	20	267	1,072	0	0	0	1
7:45 AM	0	30	10	22	0	0	8	3	0	40	67	0	0	5	63	30	278		0	0	0	0
8:00 AM	0	27	6	29	1	2	5	3	0	39	70	0	0	6	67	26	281		0	1	0	1
8:15 AM	0	31	9	27	1	2	2	6	0	31	50	1	0	4	48	34	246		0	0	0	0
Count Total	0	207	53	228	3	8	43	25	0	194	419	6	0	32	544	151	1,913		0	1	1	4
Peak Hour	0	114	29	111	2	6	26	16	0	137	251	2	0	17	251	110	1,072		0	1	0	2



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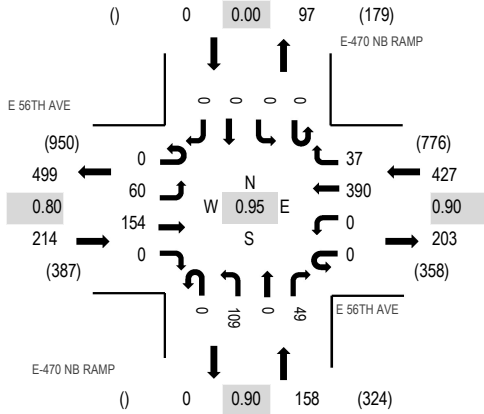
Location: 1 E-470 NB RAMP & E 56TH AVE PM

Date: Wednesday, October 23, 2024

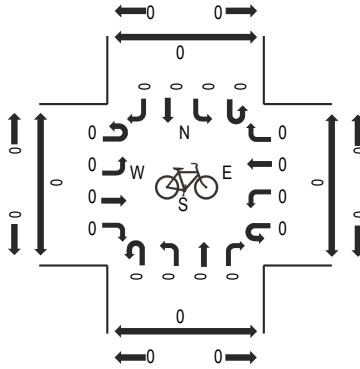
Peak Hour: 04:15 PM - 05:15 PM

Peak 15-Minutes: 04:30 PM - 04:45 PM

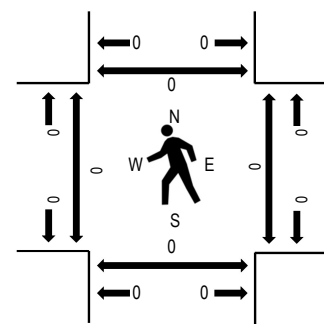
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	E 56TH AVE Eastbound				E 56TH AVE Westbound				E-470 NB RAMP Northbound				E-470 NB RAMP Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
3:30 PM	0	15	28	0	0	0	115	7	0	28	0	12	0	0	0	0	205	702	0	0	0	1
3:45 PM	0	16	19	0	0	0	86	2	0	27	0	11	0	0	0	0	161	707	0	0	0	0
4:00 PM	0	16	31	0	0	0	60	4	0	41	2	6	0	0	0	0	160	756	0	0	0	0
4:15 PM	0	20	31	0	0	0	76	7	0	27	0	15	0	0	0	0	176	799	0	0	0	0
4:30 PM	0	9	36	0	0	0	106	9	0	37	0	13	0	0	0	0	210	785	0	0	0	0
4:45 PM	0	20	47	0	0	0	100	11	0	19	0	13	0	0	0	0	210		0	0	0	0
5:00 PM	0	11	40	0	0	0	108	10	0	26	0	8	0	0	0	0	203		0	0	0	0
5:15 PM	0	13	35	0	0	0	68	7	0	26	0	13	0	0	0	0	162		0	0	0	0
Count Total	0	120	267	0	0	0	719	57	0	231	2	91	0	0	0	0	1,487		0	0	0	1
Peak Hour	0	60	154	0	0	0	390	37	0	109	0	49	0	0	0	0	799		0	0	0	0



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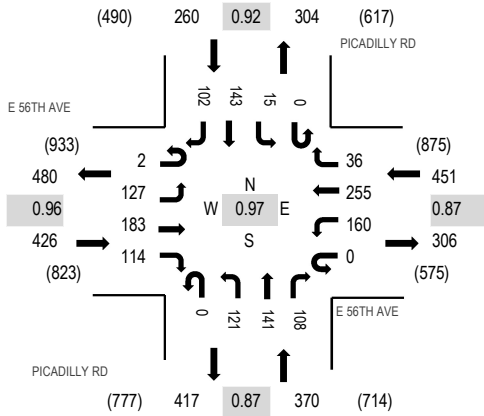
Location: 3 PICADILLY RD & E 56TH AVE PM

Date: Wednesday, October 23, 2024

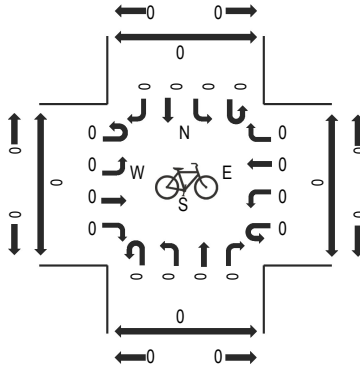
Peak Hour: 04:15 PM - 05:15 PM

Peak 15-Minutes: 04:45 PM - 05:00 PM

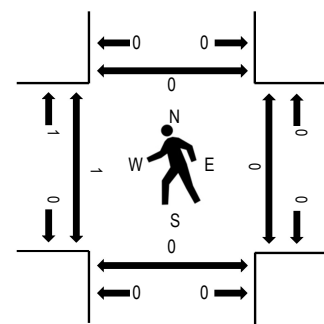
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	E 56TH AVE Eastbound				E 56TH AVE Westbound				PICADILLY RD Northbound				PICADILLY RD Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
3:30 PM	1	34	42	34	0	40	85	6	0	37	43	23	0	1	34	22	402	1,423	1	0	0	0
3:45 PM	0	28	37	27	0	24	64	10	0	18	44	21	0	3	31	28	335	1,407	0	0	0	0
4:00 PM	0	29	34	24	0	39	53	7	0	21	30	29	0	2	30	21	319	1,459	0	0	0	0
4:15 PM	0	39	41	31	0	35	59	6	0	23	38	25	0	4	44	22	367	1,507	0	0	0	0
4:30 PM	0	31	48	28	0	61	55	13	0	34	36	19	0	6	30	25	386	1,479	0	0	0	0
4:45 PM	1	35	43	32	0	34	70	8	0	36	34	36	0	3	39	16	387		1	0	0	0
5:00 PM	1	22	51	23	0	30	71	9	0	28	33	28	0	2	30	39	367		0	0	0	0
5:15 PM	0	39	43	25	0	28	56	12	0	22	31	25	0	9	24	25	339		0	0	0	0
Count Total	3	257	339	224	0	291	513	71	0	219	289	206	0	30	262	198	2,902		2	0	0	0
Peak Hour	2	127	183	114	0	160	255	36	0	121	141	108	0	15	143	102	1,507		1	0	0	0



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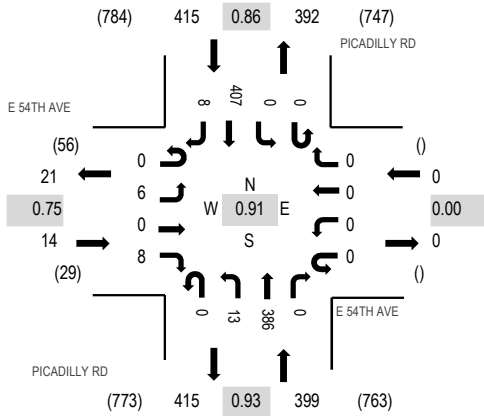
Location: 5 PICADILLY RD & E 54TH AVE PM

Date: Wednesday, October 23, 2024

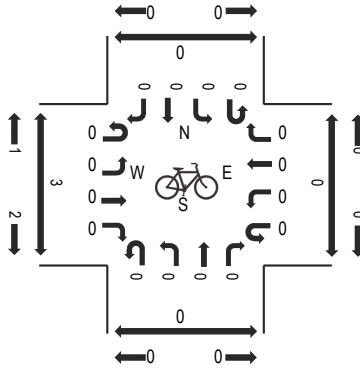
Peak Hour: 04:15 PM - 05:15 PM

Peak 15-Minutes: 04:30 PM - 04:45 PM

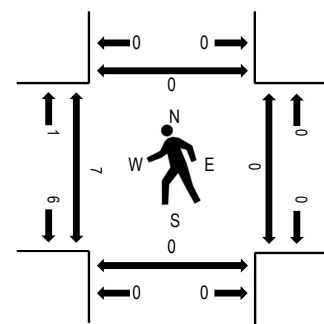
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



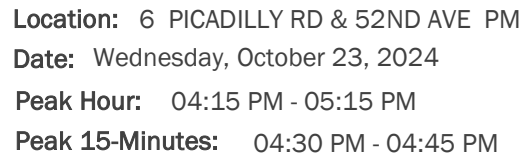
Peak Hour - Pedestrians



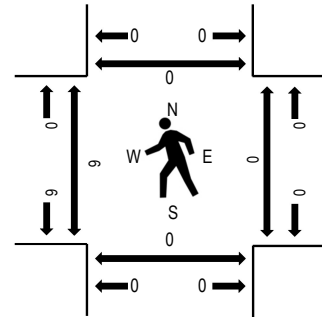
Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	E 54TH AVE Eastbound				E 54TH AVE Westbound				PICADILLY RD Northbound				PICADILLY RD Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
3:30 PM	0	3	0	0	0	0	0	0	0	3	102	0	0	0	109	6	223	774	0	0	0	0
3:45 PM	0	3	0	1	0	0	0	0	0	7	80	0	0	0	81	3	175	778	1	0	0	0
4:00 PM	0	2	0	1	0	0	0	0	0	4	81	0	0	0	90	4	182	821	0	0	0	0
4:15 PM	0	2	0	2	0	0	0	0	0	4	87	0	0	0	99	0	194	828	2	0	0	0
4:30 PM	0	1	0	2	0	0	0	0	0	2	99	0	0	0	122	1	227	802	4	0	0	0
4:45 PM	0	1	0	2	0	0	0	0	0	5	102	0	0	0	104	4	218		0	0	0	0
5:00 PM	0	2	0	2	0	0	0	0	0	2	98	0	0	0	82	3	189		1	0	0	0
5:15 PM	0	2	0	3	0	0	0	0	0	5	82	0	0	0	73	3	168		2	0	0	0
Count Total	0	16	0	13	0	0	0	0	0	32	731	0	0	0	760	24	1,576		10	0	0	0
Peak Hour	0	6	0	8	0	0	0	0	0	13	386	0	0	0	407	8	828		7	0	0	0



Peak Hour - Pedestrians



Traffic Counts - Motorized Vehicles

Interval Start Time	52ND AVE Eastbound				52ND AVE Westbound				PICADILLY RD Northbound				PICADILLY RD Southbound				Total	Rolling Hour	Pedestrian Crossings				
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North	
3:30 PM	0	11	0	13	0	0	0	0	0	2	92	0	0	0	104	2	224	776	1	0	0	0	
3:45 PM	0	0	0	6	0	0	0	0	0	3	85	0	0	0	80	1	175	787	0	0	0	0	
4:00 PM	0	1	0	1	0	0	0	0	1	1	85	0	0	0	92	1	182	831	2	0	0	0	
4:15 PM	0	1	0	2	0	0	0	0	0	2	89	0	0	0	99	2	195	832	2	0	0	0	
4:30 PM	1	8	0	4	0	0	0	0	0	3	93	0	0	0	125	1	235	808	4	0	0	0	
4:45 PM	0	6	0	1	0	0	0	0	0	5	102	0	0	0	103	2	219		0	0	0	0	
5:00 PM	0	2	0	3	0	0	0	0	0	1	95	0	0	0	81	1	183		0	0	0	0	
5:15 PM	0	1	0	5	0	0	0	0	0	2	88	0	0	0	73	2	171		1	0	0	0	
Count Total	1	30	0	35	0	0	0	0	1	19	729	0	0	0	757	12	1,584		10	0	0	0	
Peak Hour	1	17	0	10	0	0	0	0	0	11	379	0	0	0	408	6	832		6	0	0	0	



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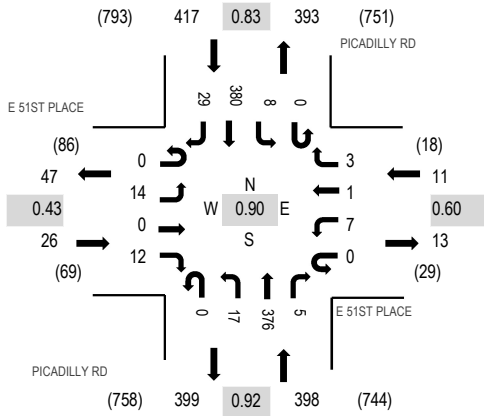
Location: 7 PICADILLY RD & E 51ST PLACE PM

Date: Wednesday, October 23, 2024

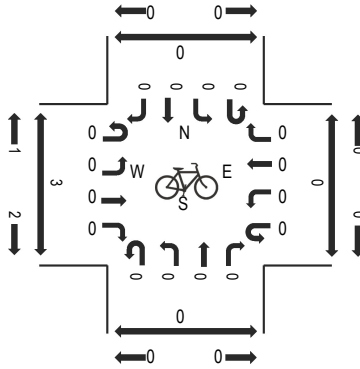
Peak Hour: 04:15 PM - 05:15 PM

Peak 15-Minutes: 04:30 PM - 04:45 PM

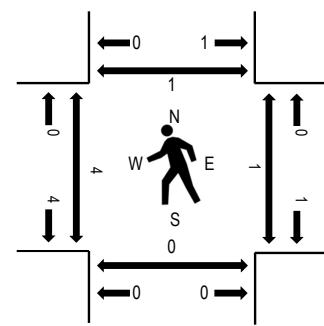
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	E 51ST PLACE Eastbound				E 51ST PLACE Westbound				PICADILLY RD Northbound				PICADILLY RD Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
3:30 PM	0	15	0	13	0	4	0	0	0	2	79	2	0	4	107	7	233	804	1	0	0	0
3:45 PM	0	6	0	1	0	1	0	0	0	1	83	3	0	1	78	6	180	807	0	0	0	0
4:00 PM	0	5	0	2	0	1	0	0	0	5	81	0	0	3	83	9	189	847	0	0	0	0
4:15 PM	0	3	0	3	0	0	0	0	0	5	89	1	0	1	93	7	202	852	2	1	0	1
4:30 PM	0	7	0	3	0	2	1	1	0	4	90	0	0	1	115	12	236	820	2	0	0	0
4:45 PM	0	3	0	4	0	2	0	0	0	4	103	1	0	4	93	6	220		0	0	0	0
5:00 PM	0	1	0	2	0	3	0	2	0	4	94	3	0	2	79	4	194		0	0	0	0
5:15 PM	0	1	0	0	0	1	0	0	0	1	88	1	0	2	68	8	170		2	0	0	0
Count Total	0	41	0	28	0	14	1	3	0	26	707	11	0	18	716	59	1,624		7	1	0	1
Peak Hour	0	14	0	12	0	7	1	3	0	17	376	5	0	8	380	29	852		4	1	0	1



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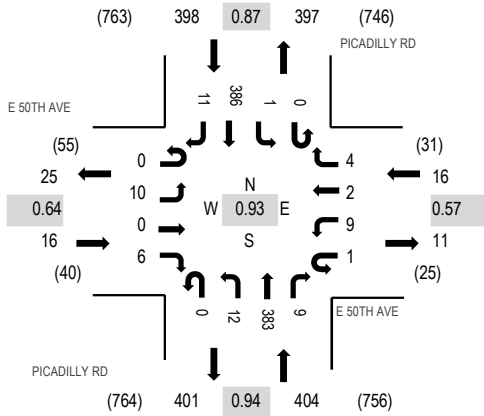
Location: 8 PICADILLY RD & E 50TH AVE PM

Date: Wednesday, October 23, 2024

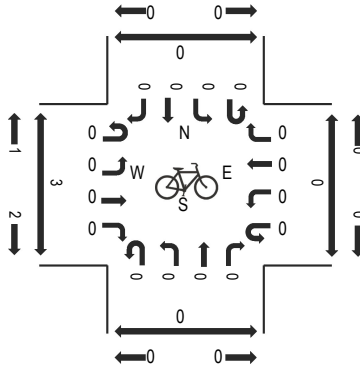
Peak Hour: 04:15 PM - 05:15 PM

Peak 15-Minutes: 04:45 PM - 05:00 PM

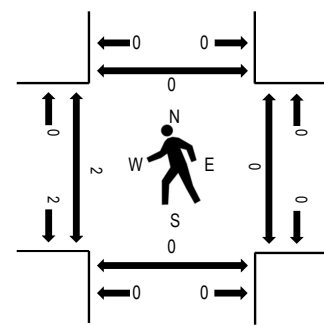
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	E 50TH AVE Eastbound				E 50TH AVE Westbound				PICADILLY RD Northbound				PICADILLY RD Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
3:30 PM	0	1	0	8	0	0	0	5	0	3	77	3	0	0	119	9	225	792	1	0	0	0
3:45 PM	0	3	0	2	0	5	0	1	0	2	84	1	0	0	79	1	178	782	0	0	0	0
4:00 PM	0	2	2	3	0	2	0	1	0	4	84	4	0	3	77	5	187	829	0	0	0	0
4:15 PM	0	1	0	1	0	1	0	0	0	2	94	6	0	0	96	1	202	834	2	0	0	0
4:30 PM	0	1	0	1	0	1	0	1	0	3	92	0	0	1	111	4	215	798	0	0	0	0
4:45 PM	0	3	0	3	1	3	0	2	0	4	102	2	0	0	100	5	225		0	0	0	0
5:00 PM	0	5	0	1	0	4	2	1	0	3	95	1	0	0	79	1	192		0	0	0	0
5:15 PM	0	2	0	1	0	1	0	0	0	1	89	0	0	1	66	5	166		1	0	0	0
Count Total	0	18	2	20	1	17	2	11	0	22	717	17	0	5	727	31	1,590		4	0	0	0
Peak Hour	0	10	0	6	1	9	2	4	0	12	383	9	0	1	386	11	834		2	0	0	0

Appendix B. Level of Service Criteria

Table B1

Level of Service Criteria for

Two-Way Stop Controlled (TWSC) Intersections And Roundabouts

Level of Service	Delay Range (sec/veh)
A	0.0 – 10.0
B	>10.0 – 15.0
C	>15.0 – 25.0
D	>25.0 – 35.0
E	>35.0 – 50.0
F	> 50.0

Adapted from *Highway Capacity Manual*, Transportation Research Board, 2010.

Table B2

Level of Service Criteria for Signalized Intersections








Level of Service	Control Delay (sec/veh)	Qualitative Description
A	≤ 10.0	Good progression, short cycles, very few vehicle-stops.
B	>10.0 – 20.0	Good progression, and/or short cycle lengths, more vehicle-stops.
C	>20.0 – 35.0	Fair progression and/or longer cycle lengths, some individual cycle failures, many vehicle-stops
D	>35.0 – 55.0	Noticeable congestion and cycle failures, unfavorable progression, high v/c ratios, several stops.
E	>55.0 – 80.0	Limit of acceptable delay, poor progression, long cycles, high v/c ratios, frequent cycle failures.
F	> 80.0	Delay is unacceptable to most drivers, volume exceeds capacity, breakdown of traffic flow.

Adapted from *Highway Capacity Manual*, Transportation Research Board, 2010.

Appendix C. Existing Level of Service Worksheets

HCM 6th TWSC
1: E-470 NB Ramps & 56th Avenue

Existing Conditions
AM PEAK

Intersection												
Int Delay, s/veh	4.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	65	247	0	0	121	7	121	0	86	0	0	0
Future Vol, veh/h	65	247	0	0	121	7	121	0	86	0	0	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	-	-	Yield	-	-	Free	-	-	None
Storage Length	250	-	-	-	-	450	200	-	200	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	79	79	79	89	89	89	25	25	25
Heavy Vehicles, %	5	5	5	7	7	7	2	2	2	0	0	0
Mvmt Flow	75	284	0	0	153	9	136	0	97	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	153	0	-	-	-	-	0	587	587
Stage 1	-	-	-	-	-	-	-	434	434
Stage 2	-	-	-	-	-	-	-	153	153
Critical Hdwy	4.15	-	-	-	-	-	-	6.42	6.52
Critical Hdwy Stg 1	-	-	-	-	-	-	-	5.42	5.52
Critical Hdwy Stg 2	-	-	-	-	-	-	-	5.42	5.52
Follow-up Hdwy	2.245	-	-	-	-	-	-	3.518	4.018
Pot Cap-1 Maneuver	1409	-	0	0	-	-	-	472	422
Stage 1	-	-	0	0	-	-	-	653	581
Stage 2	-	-	0	0	-	-	-	875	771
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1409	-	-	-	-	-	-	447	0
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	447	0
Stage 1	-	-	-	-	-	-	-	618	0
Stage 2	-	-	-	-	-	-	-	875	0

Approach	EB	WB	NB
HCM Control Delay, s	1.6	0	16.5
HCM LOS	C		

Minor Lane/Major Mvmt	NBLn1	NBLn2	NBLn3	EBL	EBT	WBT	WBR
Capacity (veh/h)	447	-	-	1409	-	-	-
HCM Lane V/C Ratio	0.304	-	-	0.053	-	-	-
HCM Control Delay (s)	16.5	0	0	7.7	-	-	-
HCM Lane LOS	C	A	A	A	-	-	-
HCM 95th %tile Q(veh)	1.3	-	-	0.2	-	-	-

HCM 6th TWSC
2: E-470 SB Ramps & 56th Avenue










Existing Conditions
AM PEAK

Intersection												
Int Delay, s/veh	1.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↗	↖	↑						↑	↗
Traffic Vol, veh/h	0	265	116	19	220	0	0	0	0	51	2	74
Future Vol, veh/h	0	265	116	19	220	0	0	0	0	51	2	74
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	-	-	Free	-	-	None	-	-	None	-	-	Free
Storage Length	-	-	550	250	-	-	-	-	-	-	-	175
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	88	88	88	25	25	25	86	86	86
Heavy Vehicles, %	3	3	3	7	7	7	0	0	0	10	10	10
Mvmt Flow	0	298	130	22	250	0	0	0	0	59	2	86
Major/Minor	Major1			Major2			Minor2					
Conflicting Flow All	-	0	-	298	0	0				592	592	-
Stage 1	-	-	-	-	-	-				294	294	-
Stage 2	-	-	-	-	-	-				298	298	-
Critical Hdwy	-	-	-	4.17	-	-				6.5	6.6	-
Critical Hdwy Stg 1	-	-	-	-	-	-				5.5	5.6	-
Critical Hdwy Stg 2	-	-	-	-	-	-				5.5	5.6	-
Follow-up Hdwy	-	-	-	2.263	-	-				3.59	4.09	-
Pot Cap-1 Maneuver	0	-	0	1235	-	0				456	408	0
Stage 1	0	-	0	-	-	0				738	655	0
Stage 2	0	-	0	-	-	0				735	653	0
Platoon blocked, %		-			-							
Mov Cap-1 Maneuver	-	-	-	1235	-	-				448	0	-
Mov Cap-2 Maneuver	-	-	-	-	-	-				448	0	-
Stage 1	-	-	-	-	-	-				738	0	-
Stage 2	-	-	-	-	-	-				722	0	-
Approach	EB			WB			SB					
HCM Control Delay, s	0			0.6			14.3					
HCM LOS							B					
Minor Lane/Major Mvmt	EBT		WBL	WBT	SBLn1	SBLn2						
Capacity (veh/h)	-		1235	-	448	-						
HCM Lane V/C Ratio	-		0.017	-	0.138	-						
HCM Control Delay (s)	-		8	-	14.3	0						
HCM Lane LOS	-		A	-	B	A						
HCM 95th %tile Q(veh)	-		0.1	-	0.5	-						

HCM 6th AWSC
3: Picadilly Rd & 56th Avenue

Existing Conditions
AM PEAK

Intersection	
Intersection Delay, s/veh	21.3
Intersection LOS	C





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	66	218	150	118	142	39	119	139	118	39	125	87
Future Vol, veh/h	66	218	150	118	142	39	119	139	118	39	125	87
Peak Hour Factor	0.86	0.86	0.86	0.88	0.88	0.88	0.90	0.90	0.90	0.87	0.87	0.87
Heavy Vehicles, %	2	2	2	4	4	4	3	3	3	3	3	3
Mvmt Flow	77	253	174	134	161	44	132	154	131	45	144	100
Number of Lanes	1	1	1	1	2	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	3	3
HCM Control Delay	20.7	16.5	24.5	23.2
HCM LOS	C	C	C	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	0%	100%	0%	0%	100%	0%
Vol Thru, %	0%	54%	0%	100%	0%	0%	100%	55%	0%	59%
Vol Right, %	0%	46%	0%	0%	100%	0%	0%	45%	0%	41%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	119	257	66	218	150	118	95	86	39	212
LT Vol	119	0	66	0	0	118	0	0	39	0
Through Vol	0	139	0	218	0	0	95	47	0	125
RT Vol	0	118	0	0	150	0	0	39	0	87
Lane Flow Rate	132	286	77	253	174	134	108	98	45	244
Geometry Grp	6	6	6	6	6	6	6	6	6	6
Degree of Util (X)	0.346	0.681	0.201	0.627	0.396	0.369	0.28	0.246	0.122	0.609
Departure Headway (Hd)	9.418	8.582	9.424	8.905	8.178	9.895	9.374	9.045	9.796	8.993
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	381	420	380	406	440	363	383	396	365	400
Service Time	7.188	6.352	7.196	6.676	5.949	7.673	7.152	6.822	7.571	6.768
HCM Lane V/C Ratio	0.346	0.681	0.203	0.623	0.395	0.369	0.282	0.247	0.123	0.61
HCM Control Delay	17.1	27.9	14.6	25.6	16.3	18.4	15.8	14.8	13.9	24.9
HCM Lane LOS	C	D	B	D	C	C	C	B	B	C
HCM 95th-tile Q	1.5	4.9	0.7	4.1	1.9	1.7	1.1	1	0.4	3.9





HCM 6th TWSC
4: Picadilly Rd & Maxwell Place

Existing Conditions
AM PEAK

Intersection						
Int Delay, s/veh	2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	34	44	20	346	366	20
Future Vol, veh/h	34	44	20	346	366	20
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	-	125	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	70	70	92	92	89	89
Heavy Vehicles, %	0	0	4	4	3	3
Mvmt Flow	49	63	22	376	411	22
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	842	422	433	0	-	0
Stage 1	422	-	-	-	-	-
Stage 2	420	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.14	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.236	-	-	-
Pot Cap-1 Maneuver	337	636	1116	-	-	-
Stage 1	666	-	-	-	-	-
Stage 2	667	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	330	636	1116	-	-	-
Mov Cap-2 Maneuver	330	-	-	-	-	-
Stage 1	653	-	-	-	-	-
Stage 2	667	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	15.5	0.5		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1116	-	453	-	-	
HCM Lane V/C Ratio	0.019	-	0.246	-	-	
HCM Control Delay (s)	8.3	-	15.5	-	-	
HCM Lane LOS	A	-	C	-	-	
HCM 95th %tile Q(veh)	0.1	-	1	-	-	






HCM 6th TWSC
5: Picadilly Rd & 54th Avenue

Existing Conditions
AM PEAK

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	14	15	10	352	406	4
Future Vol, veh/h	14	15	10	352	406	4
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	-	125	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	75	75	92	92	94	94
Heavy Vehicles, %	0	0	3	3	3	3
Mvmt Flow	19	20	11	383	432	4
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	839	434	436	0	-	0
Stage 1	434	-	-	-	-	-
Stage 2	405	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.13	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.227	-	-	-
Pot Cap-1 Maneuver	339	626	1118	-	-	-
Stage 1	658	-	-	-	-	-
Stage 2	678	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	336	626	1118	-	-	-
Mov Cap-2 Maneuver	336	-	-	-	-	-
Stage 1	651	-	-	-	-	-
Stage 2	678	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	13.9	0.2		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1118	-	442	-	-	
HCM Lane V/C Ratio	0.01	-	0.087	-	-	
HCM Control Delay (s)	8.3	-	13.9	-	-	
HCM Lane LOS	A	-	B	-	-	
HCM 95th %tile Q(veh)	0	-	0.3	-	-	

HCM 6th TWSC
6: Picadilly Rd & 52nd Ave

Existing Conditions
AM PEAK

Intersection						
Int Delay, s/veh	2.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	39	27	16	318	406	15
Future Vol, veh/h	39	27	16	318	406	15
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	-	125	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	55	55	88	88	93	93
Heavy Vehicles, %	0	0	4	4	3	3
Mvmt Flow	71	49	18	361	437	16
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	842	445	453	0	-	0
Stage 1	445	-	-	-	-	-
Stage 2	397	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.14	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.236	-	-	-
Pot Cap-1 Maneuver	337	617	1097	-	-	-
Stage 1	650	-	-	-	-	-
Stage 2	683	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	332	617	1097	-	-	-
Mov Cap-2 Maneuver	332	-	-	-	-	-
Stage 1	640	-	-	-	-	-
Stage 2	683	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	17.4	0.4		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1097	-	409	-	-	
HCM Lane V/C Ratio	0.017	-	0.293	-	-	
HCM Control Delay (s)	8.3	-	17.4	-	-	
HCM Lane LOS	A	-	C	-	-	
HCM 95th %tile Q(veh)	0.1	-	1.2	-	-	







HCM 6th TWSC
7: Picadilly Rd & 51st Pl

Existing Conditions
AM PEAK

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	18	2	15	10	2	4	58	313	24	13	320	100
Future Vol, veh/h	18	2	15	10	2	4	58	313	24	13	320	100
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	-	-	-	-	-	-	125	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	58	58	58	67	67	67	93	93	93	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0	3	3	3	3	3	3
Mvmt Flow	31	3	26	15	3	6	62	337	26	14	340	106
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	900	908	393	910	948	350	446	0	0	363	0	0
Stage 1	421	421	-	474	474	-	-	-	-	-	-	-
Stage 2	479	487	-	436	474	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	262	277	660	258	263	698	1109	-	-	1190	-	-
Stage 1	614	592	-	575	561	-	-	-	-	-	-	-
Stage 2	571	554	-	603	561	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	243	257	660	232	244	698	1109	-	-	1190	-	-
Mov Cap-2 Maneuver	243	257	-	232	244	-	-	-	-	-	-	-
Stage 1	580	583	-	543	530	-	-	-	-	-	-	-
Stage 2	531	523	-	567	552	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	18.1		19		1.2		0.2					
HCM LOS	C		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1109	-	-	335	281	1190	-	-				
HCM Lane V/C Ratio	0.056	-	-	0.18	0.085	0.012	-	-				
HCM Control Delay (s)	8.4	-	-	18.1	19	8.1	0	-				
HCM Lane LOS	A	-	-	C	C	A	A	-				
HCM 95th %tile Q(veh)	0.2	-	-	0.6	0.3	0	-	-				











HCM 6th TWSC
8: Picadilly Rd & 50th Ave

Existing Conditions
AM PEAK

Intersection												
Int Delay, s/veh	1.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	13	0	25	10	2	11	7	372	3	3	339	4
Future Vol, veh/h	13	0	25	10	2	11	7	372	3	3	339	4
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	-	-	-	-	-	150	100	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	68	68	68	72	72	72	93	93	93	88	88	88
Heavy Vehicles, %	0	0	0	0	0	0	3	3	3	4	4	4
Mvmt Flow	19	0	37	14	3	15	8	400	3	3	385	5
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	821	813	388	830	814	402	390	0	0	403	0	0
Stage 1	394	394	-	418	418	-	-	-	-	-	-	-
Stage 2	427	419	-	412	396	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.13	-	-	4.14	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.227	-	-	2.236	-	-
Pot Cap-1 Maneuver	296	315	665	292	315	653	1163	-	-	1145	-	-
Stage 1	635	609	-	616	594	-	-	-	-	-	-	-
Stage 2	610	593	-	621	607	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	285	312	665	274	312	653	1163	-	-	1145	-	-
Mov Cap-2 Maneuver	285	312	-	274	312	-	-	-	-	-	-	-
Stage 1	631	607	-	612	590	-	-	-	-	-	-	-
Stage 2	589	589	-	585	605	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	14		14.8		0.1		0.1					
HCM LOS	B		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1WBLn2	SBL	SBT	SBR					
Capacity (veh/h)	1163	-	-	457	280	653	1145	-	-			
HCM Lane V/C Ratio	0.006	-	-	0.122	0.06	0.023	0.003	-	-			
HCM Control Delay (s)	8.1	-	-	14	18.7	10.6	8.2	0	-			
HCM Lane LOS	A	-	-	B	C	B	A	A	-			
HCM 95th %tile Q(veh)	0	-	-	0.4	0.2	0.1	0	-	-			

HCM 6th TWSC
9: Picadilly Rd & Green Valley Ranch Blvd

Existing Conditions
AM PEAK

Intersection												
Int Delay, s/veh	10.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	114	29	111	8	26	16	137	251	2	17	251	110
Future Vol, veh/h	114	29	111	8	26	16	137	251	2	17	251	110
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	-	-	Free	-	-	None	-	-	None
Storage Length	175	-	350	280	-	0	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	74	74	74	89	89	89	91	91	91
Heavy Vehicles, %	1	1	1	2	2	2	3	3	3	3	3	3
Mvmt Flow	120	31	117	11	35	22	154	282	2	19	276	121
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	984	967	337	1040	1026	-	397	0	0	284	0	0
Stage 1	375	375	-	591	591	-	-	-	-	-	-	-
Stage 2	609	592	-	449	435	-	-	-	-	-	-	-
Critical Hdwy	7.11	6.51	6.21	7.12	6.52	-	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.11	5.51	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.11	5.51	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.509	4.009	3.309	3.518	4.018	-	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	228	255	707	208	235	0	1156	-	-	1273	-	-
Stage 1	648	619	-	493	494	0	-	-	-	-	-	-
Stage 2	484	496	-	589	580	0	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	176	218	707	138	201	-	1156	-	-	1273	-	-
Mov Cap-2 Maneuver	176	218	-	138	201	-	-	-	-	-	-	-
Stage 1	562	610	-	427	428	-	-	-	-	-	-	-
Stage 2	385	430	-	460	571	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	34.8		28.3		3		0.4					
HCM LOS	D		D									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBL	SBT	SBR
Capacity (veh/h)	1156	-	-	176	218	707	138	201	-	1273	-	-
HCM Lane V/C Ratio	0.133	-	-	0.682	0.14	0.165	0.078	0.175	-	0.015	-	-
HCM Control Delay (s)	8.6	-	-	60.6	24.2	11.1	33.3	26.7	0	7.9	-	-
HCM Lane LOS	A	-	-	F	C	B	D	D	A	A	-	-
HCM 95th %tile Q(veh)	0.5	-	-	4.1	0.5	0.6	0.3	0.6	-	0	-	-

HCM 6th TWSC
1: E-470 NB Ramps & 56th Avenue

Existing Conditions
PM Peak

Intersection												
Int Delay, s/veh	3.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑			↑	↰	↰	↑	↰			
Traffic Vol, veh/h	60	154	0	0	390	37	109	0	49	0	0	0
Future Vol, veh/h	60	154	0	0	390	37	109	0	49	0	0	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	-	-	Yield	-	-	Free	-	-	None
Storage Length	250	-	-	-	-	450	200	-	200	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	90	90	90	90	90	90	25	25	25
Heavy Vehicles, %	4	4	4	3	3	3	3	3	3	0	0	0
Mvmt Flow	75	193	0	0	433	41	121	0	54	0	0	0

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	433	0	-
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.14	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.236	-	-
Pot Cap-1 Maneuver	1116	-	0
Stage 1	-	0	0
Stage 2	-	0	0
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1116	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	2.4	0	21.3
HCM LOS	C		

Minor Lane/Major Mvmt	NBLn1	NBLn2	NBLn3	EBL	EBT	WBT	WBR
Capacity (veh/h)	340	-	-	1116	-	-	-
HCM Lane V/C Ratio	0.356	-	-	0.067	-	-	-
HCM Control Delay (s)	21.3	0	0	8.5	-	-	-
HCM Lane LOS	C	A	A	A	-	-	-
HCM 95th %tile Q(veh)	1.6	-	-	0.2	-	-	-

HCM 6th TWSC
2: E-470 SB Ramps & 56th Avenue










Existing Conditions
PM Peak

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	0	204	116	108	382	0	0	0	0	14	0	68
Future Vol, veh/h	0	204	116	108	382	0	0	0	0	14	0	68
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	-	-	Free	-	-	None	-	-	None	-	-	Free
Storage Length	-	-	550	250	-	-	-	-	-	-	-	175
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	89	89	89	25	25	25	75	75	75
Heavy Vehicles, %	2	2	2	2	2	2	0	0	0	6	6	6
Mvmt Flow	0	213	121	121	429	0	0	0	0	19	0	91
Major/Minor	Major1			Major2			Minor2					
Conflicting Flow All	-	0	-	213	0	0				884	884	-
Stage 1	-	-	-	-	-	-				671	671	-
Stage 2	-	-	-	-	-	-				213	213	-
Critical Hdwy	-	-	-	4.12	-	-				6.46	6.56	-
Critical Hdwy Stg 1	-	-	-	-	-	-				5.46	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-				5.46	5.56	-
Follow-up Hdwy	-	-	-	2.218	-	-				3.554	4.054	-
Pot Cap-1 Maneuver	0	-	0	1357	-	0				311	280	0
Stage 1	0	-	0	-	-	0				501	449	0
Stage 2	0	-	0	-	-	0				813	719	0
Platoon blocked, %		-			-							
Mov Cap-1 Maneuver	-	-	-	1357	-	-				283	0	-
Mov Cap-2 Maneuver	-	-	-	-	-	-				283	0	-
Stage 1	-	-	-	-	-	-				501	0	-
Stage 2	-	-	-	-	-	-				741	0	-
Approach	EB			WB			SB					
HCM Control Delay, s	0			1.7			18.6					
HCM LOS							C					
Minor Lane/Major Mvmt	EBT		WBL	WBT	SBLn1	SBLn2						
Capacity (veh/h)	-		1357	-	283	-						
HCM Lane V/C Ratio	-		0.089	-	0.066	-						
HCM Control Delay (s)	-		7.9	-	18.6	0						
HCM Lane LOS	-		A	-	C	A						
HCM 95th %tile Q(veh)	-		0.3	-	0.2	-						

HCM 6th AWSC
3: Picadilly Rd & 56th Avenue

Existing Conditions
PM Peak

Intersection	
Intersection Delay, s/veh	25.2
Intersection LOS	D






Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	129	183	114	160	255	36	121	141	108	15	143	102
Future Vol, veh/h	129	183	114	160	255	36	121	141	108	15	143	102
Peak Hour Factor	0.96	0.96	0.96	0.87	0.87	0.87	0.87	0.87	0.87	0.92	0.92	0.92
Heavy Vehicles, %	1	1	1	2	2	2	4	4	4	1	1	1
Mvmt Flow	134	191	119	184	293	41	139	162	124	16	155	111
Number of Lanes	1	1	1	1	2	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	3	3
HCM Control Delay	19.9	21.4	30.1	32.9
HCM LOS	C	C	D	D

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	0%	100%	0%	0%	100%	0%
Vol Thru, %	0%	57%	0%	100%	0%	0%	100%	70%	0%	58%
Vol Right, %	0%	43%	0%	0%	100%	0%	0%	30%	0%	42%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	121	249	129	183	114	160	170	121	15	245
LT Vol	121	0	129	0	0	160	0	0	15	0
Through Vol	0	141	0	183	0	0	170	85	0	143
RT Vol	0	108	0	0	114	0	0	36	0	102
Lane Flow Rate	139	286	134	191	119	184	195	139	16	266
Geometry Grp	6	6	6	6	6	6	6	6	6	6
Degree of Util (X)	0.395	0.748	0.386	0.52	0.3	0.518	0.522	0.363	0.048	0.721
Departure Headway (Hd)	10.226	9.404	10.348	9.825	9.092	10.136	9.614	9.396	10.559	9.748
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	355	386	348	366	395	355	375	382	339	370
Service Time	7.926	7.104	8.111	7.588	6.855	7.896	7.373	7.155	8.32	7.509
HCM Lane V/C Ratio	0.392	0.741	0.385	0.522	0.301	0.518	0.52	0.364	0.047	0.719
HCM Control Delay	19.4	35.3	19.5	22.8	15.7	23.3	22.5	17.4	13.9	34.1
HCM Lane LOS	C	E	C	C	C	C	C	C	B	D
HCM 95th-tile Q	1.8	6	1.8	2.9	1.2	2.8	2.9	1.6	0.2	5.4






HCM 6th TWSC
4: Picadilly Rd & Maxwell Place

Existing Conditions
PM Peak

Intersection						
Int Delay, s/veh	1.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	22	33	37	351	381	22
Future Vol, veh/h	22	33	37	351	381	22
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	-	125	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	83	83	93	93	93	93
Heavy Vehicles, %	0	0	4	4	2	2
Mvmt Flow	27	40	40	377	410	24
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	879	422	434	0	-	0
Stage 1	422	-	-	-	-	-
Stage 2	457	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.14	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.236	-	-	-
Pot Cap-1 Maneuver	321	636	1115	-	-	-
Stage 1	666	-	-	-	-	-
Stage 2	642	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	309	636	1115	-	-	-
Mov Cap-2 Maneuver	309	-	-	-	-	-
Stage 1	642	-	-	-	-	-
Stage 2	642	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	14.5	0.8		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1115	-	447	-	-	
HCM Lane V/C Ratio	0.036	-	0.148	-	-	
HCM Control Delay (s)	8.3	-	14.5	-	-	
HCM Lane LOS	A	-	B	-	-	
HCM 95th %tile Q(veh)	0.1	-	0.5	-	-	





HCM 6th TWSC
5: Picadilly Rd & 54th Avenue

Existing Conditions
PM Peak

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	6	8	13	386	407	8
Future Vol, veh/h	6	8	13	386	407	8
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	-	125	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	75	75	93	93	86	86
Heavy Vehicles, %	0	0	4	4	2	2
Mvmt Flow	8	11	14	415	473	9
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	921	478	482	0	-	0
Stage 1	478	-	-	-	-	-
Stage 2	443	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.14	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.236	-	-	-
Pot Cap-1 Maneuver	303	591	1070	-	-	-
Stage 1	628	-	-	-	-	-
Stage 2	651	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	299	591	1070	-	-	-
Mov Cap-2 Maneuver	299	-	-	-	-	-
Stage 1	620	-	-	-	-	-
Stage 2	651	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	14	0.3		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1070	-	417	-	-	
HCM Lane V/C Ratio	0.013	-	0.045	-	-	
HCM Control Delay (s)	8.4	-	14	-	-	
HCM Lane LOS	A	-	B	-	-	
HCM 95th %tile Q(veh)	0	-	0.1	-	-	

HCM 6th TWSC
6: Picadilly Rd & 52nd Ave

Existing Conditions
PM Peak

Intersection						
Int Delay, s/veh	1.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	18	10	11	379	408	6
Future Vol, veh/h	18	10	11	379	408	6
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	-	125	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	36	36	91	91	84	84
Heavy Vehicles, %	0	0	4	4	2	2
Mvmt Flow	50	28	12	416	486	7
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	930	490	493	0	-	0
Stage 1	490	-	-	-	-	-
Stage 2	440	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.14	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.236	-	-	-
Pot Cap-1 Maneuver	299	582	1060	-	-	-
Stage 1	620	-	-	-	-	-
Stage 2	653	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	296	582	1060	-	-	-
Mov Cap-2 Maneuver	296	-	-	-	-	-
Stage 1	613	-	-	-	-	-
Stage 2	653	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	17.8	0.2		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1060	-	359	-	-	
HCM Lane V/C Ratio	0.011	-	0.217	-	-	
HCM Control Delay (s)	8.4	-	17.8	-	-	
HCM Lane LOS	A	-	C	-	-	
HCM 95th %tile Q(veh)	0	-	0.8	-	-	

Intersection												
Int Delay, s/veh	1.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕			↕	
Traffic Vol, veh/h	14	0	12	7	1	3	17	376	5	8	380	29
Future Vol, veh/h	14	0	12	7	1	3	17	376	5	8	380	29
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	-	-	-	-	-	-	125	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	43	43	43	60	60	60	92	92	92	83	83	83
Heavy Vehicles, %	0	0	0	0	0	0	3	3	3	2	2	2
Mvmt Flow	33	0	28	12	2	5	18	409	5	10	458	35
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	947	946	476	958	961	412	493	0	0	414	0	0
Stage 1	496	496	-	448	448	-	-	-	-	-	-	-
Stage 2	451	450	-	510	513	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.13	-	-	4.12	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.227	-	-	2.218	-	-
Pot Cap-1 Maneuver	243	264	593	239	258	644	1065	-	-	1145	-	-
Stage 1	559	549	-	594	576	-	-	-	-	-	-	-
Stage 2	592	575	-	550	539	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	235	256	593	223	251	644	1065	-	-	1145	-	-
Mov Cap-2 Maneuver	235	256	-	223	251	-	-	-	-	-	-	-
Stage 1	549	542	-	584	566	-	-	-	-	-	-	-
Stage 2	576	565	-	518	533	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	18.5		19		0.4		0.2					
HCM LOS	C		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	1065	-	-	326	275	1145	-	-				
HCM Lane V/C Ratio	0.017	-	-	0.185	0.067	0.008	-	-				
HCM Control Delay (s)	8.4	-	-	18.5	19	8.2	0	-				
HCM Lane LOS	A	-	-	C	C	A	A	-				
HCM 95th %tile Q(veh)	0.1	-	-	0.7	0.2	0	-	-				











HCM 6th TWSC
8: Picadilly Rd & 50th Ave

Existing Conditions
PM Peak

Intersection												
Int Delay, s/veh	1.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕	↕	↕			↕	
Traffic Vol, veh/h	10	0	6	10	2	4	12	383	9	1	386	11
Future Vol, veh/h	10	0	6	10	2	4	12	383	9	1	386	11
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	-	-	-	-	-	150	100	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	64	64	64	57	57	57	94	94	94	87	87	87
Heavy Vehicles, %	0	0	0	0	0	0	3	3	3	2	2	2
Mvmt Flow	16	0	9	18	4	7	13	407	10	1	444	13
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	897	896	451	895	897	412	457	0	0	417	0	0
Stage 1	453	453	-	438	438	-	-	-	-	-	-	-
Stage 2	444	443	-	457	459	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.13	-	-	4.12	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.227	-	-	2.218	-	-
Pot Cap-1 Maneuver	263	282	613	264	281	644	1099	-	-	1142	-	-
Stage 1	590	573	-	601	582	-	-	-	-	-	-	-
Stage 2	597	579	-	587	570	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	255	278	613	257	277	644	1099	-	-	1142	-	-
Mov Cap-2 Maneuver	255	278	-	257	277	-	-	-	-	-	-	-
Stage 1	583	572	-	594	575	-	-	-	-	-	-	-
Stage 2	580	572	-	577	569	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	16.9		17.8		0.2		0					
HCM LOS	C		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1WBLn2	SBL	SBT	SBR					
Capacity (veh/h)	1099	-	-	327 260 644	1142	-	-					
HCM Lane V/C Ratio	0.012	-	-	0.076 0.081 0.011	0.001	-	-					
HCM Control Delay (s)	8.3	-	-	16.9 20.1 10.7	8.2	0	-					
HCM Lane LOS	A	-	-	C C B	A A	-	-					
HCM 95th %tile Q(veh)	0	-	-	0.2 0.3 0	0	-	-					

HCM 6th TWSC
9: Picadilly Rd & Green Valley Ranch Blvd

Existing Conditions
PM Peak

Intersection												
Int Delay, s/veh	10.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	95	47	135	10	22	20	168	278	9	21	224	125
Future Vol, veh/h	95	47	135	10	22	20	168	278	9	21	224	125
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	-	-	Free	-	-	None	-	-	None
Storage Length	175	-	350	280	-	0	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	87	87	87	92	92	92	91	91	91
Heavy Vehicles, %	1	1	1	1	1	1	3	3	3	1	1	1
Mvmt Flow	104	52	148	11	25	23	183	302	10	23	246	137
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1047	1039	315	1134	1102	-	383	0	0	312	0	0
Stage 1	361	361	-	673	673	-	-	-	-	-	-	-
Stage 2	686	678	-	461	429	-	-	-	-	-	-	-
Critical Hdwy	7.11	6.51	6.21	7.11	6.51	-	4.13	-	-	4.11	-	-
Critical Hdwy Stg 1	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Follow-up Hdwy	3.509	4.009	3.309	3.509	4.009	-	2.227	-	-	2.209	-	-
Pot Cap-1 Maneuver	207	232	728	181	213	0	1170	-	-	1254	-	-
Stage 1	659	628	-	446	456	0	-	-	-	-	-	-
Stage 2	439	453	-	582	586	0	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	161	192	728	100	177	-	1170	-	-	1254	-	-
Mov Cap-2 Maneuver	161	192	-	100	177	-	-	-	-	-	-	-
Stage 1	556	617	-	376	385	-	-	-	-	-	-	-
Stage 2	346	382	-	417	575	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	31.7		34		3.2		0.4					
HCM LOS	D		D									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBL	SBT	SBR
Capacity (veh/h)	1170	-	-	161	192	728	100	177	-	1254	-	-
HCM Lane V/C Ratio	0.156	-	-	0.648	0.269	0.204	0.115	0.143	-	0.018	-	-
HCM Control Delay (s)	8.6	-	-	61.3	30.5	11.2	45.6	28.7	0	7.9	-	-
HCM Lane LOS	A	-	-	F	D	B	E	D	A	A	-	-
HCM 95th %tile Q(veh)	0.6	-	-	3.6	1	0.8	0.4	0.5	-	0.1	-	-

Appendix D. Level of Service and Delay Summary Table

Intersection	Movement	Short Term Total		Long Term Total	
		AM	PM	AM	PM
		LOS(Delay)	LOS(Delay)	LOS(Delay)	LOS(Delay)
1. Picadilly Road and 52nd Avenue**	EB Left-turn	E(56.3)	E(57.8)	D(49.9)	E(57.4)
	EB Through/Right-turn	E(62.9)	E(58.3)	E(71.0)	E(63.1)
	WB Left-turn	D(49.4)	D(50.7)	D(45.3)	E(77.7)
	WB Through/Right-turn	D(46.2)	D(47.9)	D(41.0)	D(51.7)
	NB Left-turn	A(5.4)	A(4.7)	B(14.5)	A(8.9)
	NB Through/Right-turn	A(4.0)	A(4.0)	B(10.6)	A(7.6)
	SB Left-turn	A(5.0)	A(5.0)	C(22.0)	C(22.6)
	SB Through/Right-turn	A(4.3)	A(4.0)	A(9.9)	A(6.4)
2. Access #16 and 52nd Avenue	EB Left-turn	A(7.4)	A(7.4)	A(7.8)	A(8.0)
	WB Left-turn	A(7.4)	A(7.4)	A(7.8)	A(8.0)
	NB Left-turn/Through/Right-turn	A(9.6)	A(9.4)	B(11.8)	B(12.8)
	SB Left-turn/Through/Right-turn	A(9.3)	A(9.4)	B(11.1)	B(12.8)
3. Access #14 and 52nd Avenue	EB Left-turn	A(7.3)	A(7.4)	A(7.8)	A(7.9)
	WB Left-turn	A(7.4)	A(7.4)	A(7.9)	A(8.0)
	NB Left-turn/Through/Right-turn	A(9.4)	A(9.5)	B(11.3)	B(12.3)
	SB Left-turn/Through/Right-turn	A(9.3)	A(9.5)	B(11.1)	B(12.1)
4. Tibet Road & 52nd Avenue**	EB Left-turn	E(56.4)	D(54.7)	E(56.1)	D(49.5)
	EB Through/Right-turn	E(65.0)	E(63.6)	E(67.3)	E(64.5)
	WB Left-turn	D(49.5)	D(48.9)	D(42.3)	D(41.2)
	WB Through/Right-turn	D(47.4)	D(49.0)	D(38.6)	D(36.1)
	NB Left-turn	A(4.7)	A(0.6)	A(3.1)	B(10.6)

















	NB Through	A(3.5)	A(0.3)	A(0.2)	A(4.1)
	NB Right-turn	A(3.6)	A(0.1)	A(0.3)	A(1.8)
	SB Left-turn	A(6.1)	A(4.8)	A(8.5)	B(14.2)
	SB Through/Right-turn	A(4.0)	A(5.1)	A(7.9)	B(10.7)
5. Tibet Road & Filing 17 Access	EB Left-turn	D(25.2)	B(12.3)	C(15.4)	C(15.0)
	EB Right-turn	A(9.6)	A(9.8)	B(10.3)	B(10.4)
	NB Left-turn	A(8.0)	A(8.8)	A(8.4)	A(8.6)
6. Tibet Road & Filing 5 Access	EB Left-turn	B(12.4)	C(15.6)	C(19.1)	C(21.1)
	EB Through/Right-turn	B(13.1)	B(14.0)	C(21.3)	D(34.6)
	WB Left-turn	B(12.8)	C(17.2)	C(20.9)	D(25.6)
	WB Through/Right-Turn	B(11.2)	B(11.6)	C(16.6)	C(18.4)
	NB Left-turn	A(7.9)	A(8.2)	A(8.3)	A(8.4)
	SB Left-turn	A(8.6)	A(8.6)	A(9.0)	A(9.4)

****Signalized Intersection**

Appendix E. 2030 Future Background Traffic Level of Service

Timings 1: Picadilly Rd & 52nd Ave

Short Term BG AM
02-19-2025

								
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	55	5	30	5	25	635	30	790
Future Volume (vph)	55	5	30	5	25	635	30	790
Turn Type	Perm	NA	pm+pt	NA	Perm	NA	Perm	NA
Protected Phases		4	3	8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	32.0	32.0	14.0	46.0	74.0	74.0	74.0	74.0
Total Split (%)	26.7%	26.7%	11.7%	38.3%	61.7%	61.7%	61.7%	61.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead					
Lead-Lag Optimize?	Yes	Yes	Yes					
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effect Green (s)	10.7	10.7	18.3	18.3	95.6	95.6	95.6	95.6
Actuated g/C Ratio	0.09	0.09	0.15	0.15	0.80	0.80	0.80	0.80
v/c Ratio	0.50	0.37	0.18	0.15	0.06	0.26	0.06	0.31
Control Delay	65.1	17.8	42.6	16.1	5.7	5.0	5.6	5.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	65.1	17.8	42.6	16.1	5.7	5.0	5.6	5.3
LOS	E	B	D	B	A	A	A	A
Approach Delay		38.7		27.6		5.0		5.3
Approach LOS		D		C		A		A

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 55
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.50
 Intersection Signal Delay: 8.5
 Intersection Capacity Utilization 42.1%
 Analysis Period (min) 15

Intersection LOS: A
 ICU Level of Service A

Splits and Phases: 1: Picadilly Rd & 52nd Ave






























HCM 6th Signalized Intersection Summary

1: Picadilly Rd & 52nd Ave

Short Term BG AM

02-19-2025







												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	5	65	30	5	35	25	635	35	30	790	20
Future Volume (veh/h)	55	5	65	30	5	35	25	635	35	30	790	20
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	60	5	71	33	5	38	27	690	38	33	859	22
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	152	7	101	137	25	189	517	2714	149	598	2805	72
Arrive On Green	0.07	0.07	0.07	0.03	0.13	0.13	0.79	0.79	0.79	0.79	0.79	0.79
Sat Flow, veh/h	1364	105	1496	1781	188	1426	630	3425	188	727	3540	91
Grp Volume(v), veh/h	60	0	76	33	0	43	27	358	370	33	431	450
Grp Sat Flow(s),veh/h/ln	1364	0	1601	1781	0	1614	630	1777	1836	727	1777	1854
Q Serve(g_s), s	5.2	0.0	5.6	2.0	0.0	2.8	1.5	6.3	6.3	1.5	8.0	8.0
Cycle Q Clear(g_c), s	5.2	0.0	5.6	2.0	0.0	2.8	9.5	6.3	6.3	7.8	8.0	8.0
Prop In Lane	1.00		0.93	1.00		0.88	1.00		0.10	1.00		0.05
Lane Grp Cap(c), veh/h	152	0	108	137	0	214	517	1408	1455	598	1408	1469
V/C Ratio(X)	0.40	0.00	0.71	0.24	0.00	0.20	0.05	0.25	0.25	0.06	0.31	0.31
Avail Cap(c_a), veh/h	372	0	367	229	0	558	517	1408	1455	598	1408	1469
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.6	0.0	54.8	48.5	0.0	46.4	4.7	3.2	3.2	4.2	3.4	3.4
Incr Delay (d2), s/veh	1.7	0.0	8.1	0.9	0.0	0.5	0.2	0.4	0.4	0.2	0.6	0.5
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(95%),veh/ln	3.3	0.0	4.5	1.7	0.0	2.1	0.4	3.6	3.7	0.4	4.5	4.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.3	0.0	62.9	49.4	0.0	46.8	4.9	3.7	3.7	4.4	4.0	4.0
LnGrp LOS	E	A	E	D	A	D	A	A	A	A	A	A
Approach Vol, veh/h	136			76			755			914		
Approach Delay, s/veh	60.0			47.9			3.7			4.0		
Approach LOS	E			D			A			A		
Timer - Assigned Phs	2		3	4	6		8					
Phs Duration (G+Y+Rc), s	99.6		7.8	12.6	99.6		20.4					
Change Period (Y+Rc), s	4.5		4.5	4.5	4.5		4.5					
Max Green Setting (Gmax), s	69.5		9.5	27.5	69.5		41.5					
Max Q Clear Time (g_c+I1), s	11.5		4.0	7.6	10.0		4.8					
Green Ext Time (p_c), s	5.7		0.0	0.5	7.3		0.2					
Intersection Summary												
HCM 6th Ctrl Delay	9.7											
HCM 6th LOS	A											

Intersection												
Int Delay, s/veh	3.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	55	10	5	35	10	15	5	5	20	5	20
Future Vol, veh/h	5	55	10	5	35	10	15	5	5	20	5	20
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	0	-	-	100	-	-	-	-	-	-	-	-
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	5	60	11	5	38	11	16	5	5	22	5	22

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	49	0	0	71	0	0	143	135	66	135	135	44
Stage 1	-	-	-	-	-	-	76	76	-	54	54	-
Stage 2	-	-	-	-	-	-	67	59	-	81	81	-
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	1560	-	-	1540	-	-	861	778	1025	873	778	1032
Stage 1	-	-	-	-	-	-	955	843	-	963	852	-
Stage 2	-	-	-	-	-	-	948	848	-	950	838	-
Platoon blocked, %	1	-	-	1	-	-	1	1	1	1	1	1
Mov Cap-1 Maneuver	1560	-	-	1540	-	-	834	774	1025	859	774	1032
Mov Cap-2 Maneuver	-	-	-	-	-	-	834	774	-	859	774	-
Stage 1	-	-	-	-	-	-	953	841	-	960	849	-
Stage 2	-	-	-	-	-	-	919	846	-	935	836	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.5			0.7			9.4			9.2		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	853	1560	-	-	1540	-	-	916
HCM Lane V/C Ratio	0.032	0.003	-	-	0.004	-	-	0.053
HCM Control Delay (s)	9.4	7.3	-	-	7.3	-	-	9.2
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	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	5	70	5	5	40	5	5	5	5	5	5	5
Future Vol, veh/h	5	70	5	5	40	5	5	5	5	5	5	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	100	-	-	-	-	-	-	-	-
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	5	76	5	5	43	5	5	5	5	5	5	5



















Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	48	0	0	81	0	0	150	147	79	150	147	46
Stage 1	-	-	-	-	-	-	89	89	-	56	56	-
Stage 2	-	-	-	-	-	-	61	58	-	94	91	-
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	1561	-	-	1526	-	-	852	766	1008	852	766	1030
Stage 1	-	-	-	-	-	-	940	831	-	961	851	-
Stage 2	-	-	-	-	-	-	955	849	-	934	830	-
Platoon blocked, %	1	-	-	1	-	-	1	1	1	1	1	1
Mov Cap-1 Maneuver	1561	-	-	1526	-	-	839	761	1008	839	761	1030
Mov Cap-2 Maneuver	-	-	-	-	-	-	839	761	-	839	761	-
Stage 1	-	-	-	-	-	-	937	829	-	958	848	-
Stage 2	-	-	-	-	-	-	941	847	-	920	828	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.5			0.7			9.3			9.3		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	858	1561	-	-	1526	-	-	863
HCM Lane V/C Ratio	0.019	0.003	-	-	0.004	-	-	0.019
HCM Control Delay (s)	9.3	7.3	-	-	7.4	-	-	9.3
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1

Timings
4: Tibet St & 52nd Ave

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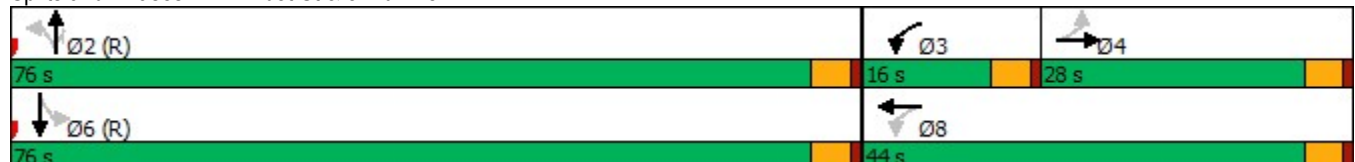
									
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	15	60	60	30	5	445	180	155	620
Future Volume (vph)	15	60	60	30	5	445	180	155	620
Turn Type	Perm	NA	pm+pt	NA	Perm	NA	Perm	Perm	NA
Protected Phases		4	3	8		2			6
Permitted Phases	4		8		2		2	6	
Detector Phase	4	4	3	8	2	2	2	6	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	28.0	28.0	16.0	44.0	76.0	76.0	76.0	76.0	76.0
Total Split (%)	23.3%	23.3%	13.3%	36.7%	63.3%	63.3%	63.3%	63.3%	63.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead						
Lead-Lag Optimize?	Yes	Yes	Yes						
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effect Green (s)	9.7	9.7	21.1	21.1	89.9	89.9	89.9	89.9	89.9
Actuated g/C Ratio	0.08	0.08	0.18	0.18	0.75	0.75	0.75	0.75	0.75
v/c Ratio	0.15	0.46	0.29	0.27	0.01	0.18	0.16	0.25	0.26
Control Delay	50.5	56.6	42.3	18.1	5.6	4.8	0.9	7.1	5.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.5	56.6	42.3	18.1	5.6	4.8	0.9	7.1	5.8
LOS	D	E	D	B	A	A	A	A	A
Approach Delay		55.5		28.0		3.7			6.0
Approach LOS		E		C		A			A

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.46
 Intersection Signal Delay: 9.5
 Intersection Capacity Utilization 43.0%
 Analysis Period (min) 15























Intersection LOS: A
 ICU Level of Service A







Splits and Phases: 4: Tibet St & 52nd Ave












HCM 6th Signalized Intersection Summary 4: Tibet St & 52nd Ave

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














												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	60	5	60	30	55	5	445	180	155	620	15
Future Volume (veh/h)	15	60	5	60	30	55	5	445	180	155	620	15
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	16	65	5	65	33	60	5	484	196	168	674	16
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	134	97	7	165	83	150	614	2794	1246	658	2789	66
Arrive On Green	0.02	0.02	0.02	0.04	0.14	0.14	1.00	1.00	1.00	0.79	0.79	0.79
Sat Flow, veh/h	1303	1715	132	1781	595	1081	753	3554	1585	760	3548	84
Grp Volume(v), veh/h	16	0	70	65	0	93	5	484	196	168	337	353
Grp Sat Flow(s),veh/h/ln	1303	0	1847	1781	0	1676	753	1777	1585	760	1777	1855
Q Serve(g_s), s	1.5	0.0	4.5	4.0	0.0	6.1	0.1	0.0	0.0	7.3	6.0	6.0
Cycle Q Clear(g_c), s	1.5	0.0	4.5	4.0	0.0	6.1	6.1	0.0	0.0	7.3	6.0	6.0
Prop In Lane	1.00		0.07	1.00		0.65	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	134	0	105	165	0	233	614	2794	1246	658	1397	1459
V/C Ratio(X)	0.12	0.00	0.67	0.39	0.00	0.40	0.01	0.17	0.16	0.26	0.24	0.24
Avail Cap(c_a), veh/h	315	0	362	256	0	552	614	2794	1246	658	1397	1459
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.3	0.0	57.8	48.6	0.0	47.1	0.2	0.0	0.0	3.5	3.4	3.4
Incr Delay (d2), s/veh	0.4	0.0	7.2	1.5	0.0	1.1	0.0	0.1	0.3	0.9	0.4	0.4
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(95%),veh/ln	0.9	0.0	4.3	3.3	0.0	4.7	0.0	0.1	0.2	2.0	3.5	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.7	0.0	65.0	50.2	0.0	48.2	0.2	0.1	0.3	4.5	3.8	3.8
LnGrp LOS	E	A	E	D	A	D	A	A	A	A	A	A
Approach Vol, veh/h	86			158			685			858		
Approach Delay, s/veh	63.4			49.0			0.2			3.9		
Approach LOS	E			D			A			A		
Timer - Assigned Phs	2		3	4		6		8				
Phs Duration (G+Y+Rc), s	98.8		9.9	11.3		98.8		21.2				
Change Period (Y+Rc), s	4.5		4.5	4.5		4.5		4.5				
Max Green Setting (Gmax), s	71.5		11.5	23.5		71.5		39.5				
Max Q Clear Time (g_c+I1), s	8.1		6.0	6.5		9.3		8.1				
Green Ext Time (p_c), s	4.5		0.0	0.3		6.7		0.5				
Intersection Summary												
HCM 6th Ctrl Delay	9.3											
HCM 6th LOS	A											

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	10	15	5	620	680	5
Future Vol, veh/h	10	15	5	620	680	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	0	100	-	-	100
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	16	5	674	739	5
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1086	370	744	0	-	0
Stage 1	739	-	-	-	-	-
Stage 2	347	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	*549	*815	1218	-	-	-
Stage 1	*769	-	-	-	-	-
Stage 2	*794	-	-	-	-	-
Platoon blocked, %	1	1	1	-	-	-
Mov Cap-1 Maneuver	*547	*815	1218	-	-	-
Mov Cap-2 Maneuver	*547	-	-	-	-	-
Stage 1	*766	-	-	-	-	-
Stage 2	*794	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	10.4	0.1		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1218	-	547	815	-	-
HCM Lane V/C Ratio	0.004	-	0.02	0.02	-	-
HCM Control Delay (s)	8	-	11.7	9.5	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	0.1	-	-
Notes						
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined		*: All major volume in platoon

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	5	5	15	30	5	25	5	595	115	115	575	5
Future Vol, veh/h	5	5	15	30	5	25	5	595	115	115	575	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	100	-	-	100	-	-	100	-	100	100	-	-
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	5	5	16	33	5	27	5	647	125	125	625	5
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1214	1660	315	1222	1537	324	630	0	0	772	0	0
Stage 1	878	878	-	657	657	-	-	-	-	-	-	-
Stage 2	336	782	-	565	880	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	*374	157	*841	*367	*200	*841	*1258	-	-	1128	-	-
Stage 1	*555	533	-	*793	*695	-	-	-	-	-	-	-
Stage 2	*793	603	-	*793	*532	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1	1	1	-	-	1	-	-
Mov Cap-1 Maneuver	*323	139	*841	*319	*177	*841	*1258	-	-	1128	-	-
Mov Cap-2 Maneuver	*323	139	-	*319	*177	-	-	-	-	-	-	-
Stage 1	*553	474	-	*790	*692	-	-	-	-	-	-	-
Stage 2	*758	601	-	*683	*473	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	15.5		15		0.1		1.4					
HCM LOS	C		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR		
Capacity (veh/h)	*1258	-	-	323	372	319	517	1128	-	-		
HCM Lane V/C Ratio	0.004	-	-	0.017	0.058	0.102	0.063	0.111	-	-		
HCM Control Delay (s)	7.9	-	-	16.3	15.3	17.6	12.4	8.6	-	-		
HCM Lane LOS	A	-	-	C	C	C	B	A	-	-		
HCM 95th %tile Q(veh)	0	-	-	0.1	0.2	0.3	0.2	0.4	-	-		
Notes												
~: Volume exceeds capacity		\$: Delay exceeds 300s			+: Computation Not Defined				*: All major volume in platoon			

Timings 1: Picadilly Rd & 52nd Ave

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Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	35	10	50	5	10	775	20	835
Future Volume (vph)	35	10	50	5	10	775	20	835
Turn Type	Perm	NA	pm+pt	NA	Perm	NA	Perm	NA
Protected Phases		4	3	8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	28.0	28.0	16.0	44.0	76.0	76.0	76.0	76.0
Total Split (%)	23.3%	23.3%	13.3%	36.7%	63.3%	63.3%	63.3%	63.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead					
Lead-Lag Optimize?	Yes	Yes	Yes					
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effect Green (s)	8.9	8.9	19.9	19.9	94.0	94.0	94.0	94.0
Actuated g/C Ratio	0.07	0.07	0.17	0.17	0.78	0.78	0.78	0.78
v/c Ratio	0.38	0.19	0.26	0.18	0.03	0.31	0.05	0.33
Control Delay	63.1	32.4	46.5	17.9	5.5	5.6	5.5	5.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.1	32.4	46.5	17.9	5.5	5.6	5.5	5.7
LOS	E	C	D	B	A	A	A	A
Approach Delay		50.3		32.2		5.6		5.7
Approach LOS		D		C		A		A

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

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

Natural Cycle: 55

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.38

Intersection Signal Delay: 8.5

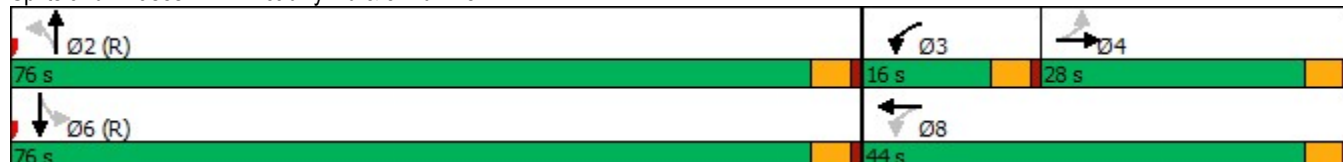
Intersection LOS: A

Intersection Capacity Utilization 40.3%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 1: Picadilly Rd & 52nd Ave






























HCM 6th Signalized Intersection Summary

1: Picadilly Rd & 52nd Ave

Short Term BG PM

02-19-2025







												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	10	15	50	5	45	10	775	20	20	835	10
Future Volume (veh/h)	35	10	15	50	5	45	10	775	20	20	835	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	38	11	16	54	5	49	11	842	22	22	908	11
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	121	31	45	168	18	175	509	2848	74	536	2895	35
Arrive On Green	0.04	0.04	0.04	0.04	0.12	0.12	0.80	0.80	0.80	0.80	0.80	0.80
Sat Flow, veh/h	1350	689	1002	1781	149	1459	608	3538	92	640	3596	44
Grp Volume(v), veh/h	38	0	27	54	0	54	11	423	441	22	449	470
Grp Sat Flow(s),veh/h/ln	1350	0	1690	1781	0	1608	608	1777	1854	640	1777	1863
Q Serve(g_s), s	3.3	0.0	1.9	3.4	0.0	3.7	0.6	7.3	7.3	1.1	7.9	7.9
Cycle Q Clear(g_c), s	3.3	0.0	1.9	3.4	0.0	3.7	8.5	7.3	7.3	8.4	7.9	7.9
Prop In Lane	1.00		0.59	1.00		0.91	1.00		0.05	1.00		0.02
Lane Grp Cap(c), veh/h	121	0	76	168	0	193	509	1430	1492	536	1430	1499
V/C Ratio(X)	0.32	0.00	0.36	0.32	0.00	0.28	0.02	0.30	0.30	0.04	0.31	0.31
Avail Cap(c_a), veh/h	324	0	331	271	0	529	509	1430	1492	536	1430	1499
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.3	0.0	55.6	50.3	0.0	48.1	4.2	3.0	3.0	4.1	3.1	3.1
Incr Delay (d2), s/veh	1.5	0.0	2.8	1.1	0.0	0.8	0.1	0.5	0.5	0.1	0.6	0.5
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(95%),veh/ln	2.1	0.0	1.5	2.8	0.0	2.7	0.1	4.0	4.1	0.3	4.3	4.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.8	0.0	58.4	51.4	0.0	48.9	4.2	3.5	3.5	4.2	3.6	3.6
LnGrp LOS	E	A	E	D	A	D	A	A	A	A	A	A
Approach Vol, veh/h	65			108			875			941		
Approach Delay, s/veh	58.1			50.1			3.5			3.6		
Approach LOS	E			D			A			A		
Timer - Assigned Phs	2		3	4	6		8					
Phs Duration (G+Y+Rc), s	101.1		9.0	9.9	101.1		18.9					
Change Period (Y+Rc), s	4.5		4.5	4.5	4.5		4.5					
Max Green Setting (Gmax), s	71.5		11.5	23.5	71.5		39.5					
Max Q Clear Time (g_c+I1), s	10.5		5.4	5.3	10.4		5.7					
Green Ext Time (p_c), s	6.9		0.0	0.2	7.7		0.3					
Intersection Summary												
HCM 6th Ctrl Delay	7.9											
HCM 6th LOS	A											

Intersection												
Int Delay, s/veh	2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	35	10	5	90	5	5	5	5	5	5	5
Future Vol, veh/h	5	35	10	5	90	5	5	5	5	5	5	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	100	-	-	-	-	-	-	-	-
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	5	38	11	5	98	5	5	5	5	5	5	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	103	0	0	49	0	0	170	167	44	170	170	101
Stage 1	-	-	-	-	-	-	54	54	-	111	111	-
Stage 2	-	-	-	-	-	-	116	113	-	59	59	-
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	1506	-	-	1560	-	-	849	761	1032	849	758	1001
Stage 1	-	-	-	-	-	-	963	852	-	933	822	-
Stage 2	-	-	-	-	-	-	926	820	-	957	848	-
Platoon blocked, %	1	-	-	1	-	-	1	1	1	1	1	1
Mov Cap-1 Maneuver	1506	-	-	1560	-	-	835	756	1032	835	753	1001
Mov Cap-2 Maneuver	-	-	-	-	-	-	835	756	-	835	753	-
Stage 1	-	-	-	-	-	-	960	849	-	930	820	-
Stage 2	-	-	-	-	-	-	912	818	-	943	846	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.7			0.4			9.3			9.3		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	860	1506	-	-	1560	-	-	851
HCM Lane V/C Ratio	0.019	0.004	-	-	0.003	-	-	0.019
HCM Control Delay (s)	9.3	7.4	-	-	7.3	-	-	9.3
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1

Intersection												
Int Delay, s/veh	2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	35	5	5	90	5	5	5	5	5	5	5
Future Vol, veh/h	5	35	5	5	90	5	5	5	5	5	5	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	100	-	-	-	-	-	-	-	-
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	5	38	5	5	98	5	5	5	5	5	5	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	103	0	0	43	0	0	167	164	41	167	164	101
Stage 1	-	-	-	-	-	-	51	51	-	111	111	-
Stage 2	-	-	-	-	-	-	116	113	-	56	53	-
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	1506	-	-	1568	-	-	854	764	1036	854	764	1001
Stage 1	-	-	-	-	-	-	967	855	-	933	822	-
Stage 2	-	-	-	-	-	-	926	820	-	961	853	-
Platoon blocked, %	1	-	-	1	-	-	1	1	1	1	1	1
Mov Cap-1 Maneuver	1506	-	-	1568	-	-	840	760	1036	840	760	1001
Mov Cap-2 Maneuver	-	-	-	-	-	-	840	760	-	840	760	-
Stage 1	-	-	-	-	-	-	964	852	-	930	820	-
Stage 2	-	-	-	-	-	-	912	818	-	947	850	-



















Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.8			0.4			9.2			9.3		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	864	1506	-	-	1568	-	-	856
HCM Lane V/C Ratio	0.019	0.004	-	-	0.003	-	-	0.019
HCM Control Delay (s)	9.2	7.4	-	-	7.3	-	-	9.3
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1

Timings
4: Tibet St & 52nd Ave

Short Term BG PM

02-19-2025

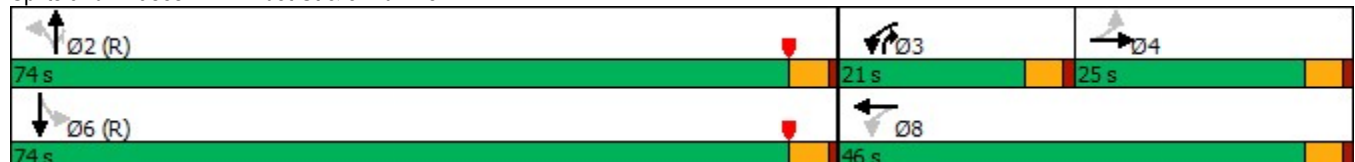
									
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	5	35	120	60	30	840	60	65	675
Future Volume (vph)	5	35	120	60	30	840	60	65	675
Turn Type	Perm	NA	pm+pt	NA	Perm	NA	pm+ov	Perm	NA
Protected Phases		4	3	8		2	3		6
Permitted Phases	4		8		2		2	6	
Detector Phase	4	4	3	8	2	2	3	6	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	9.5	22.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	25.0	25.0	21.0	46.0	74.0	74.0	21.0	74.0	74.0
Total Split (%)	20.8%	20.8%	17.5%	38.3%	61.7%	61.7%	17.5%	61.7%	61.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead				Lead		
Lead-Lag Optimize?	Yes	Yes	Yes				Yes		
Recall Mode	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effect Green (s)	8.0	8.0	23.5	23.5	87.5	87.5	105.9	87.5	87.5
Actuated g/C Ratio	0.07	0.07	0.20	0.20	0.73	0.73	0.88	0.73	0.73
v/c Ratio	0.06	0.34	0.49	0.48	0.07	0.35	0.05	0.18	0.29
Control Delay	51.8	53.1	46.3	24.7	7.7	7.9	0.3	8.1	6.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.8	53.1	46.3	24.7	7.7	7.9	0.3	8.1	6.8
LOS	D	D	D	C	A	A	A	A	A
Approach Delay		53.0		33.5		7.4			6.9
Approach LOS		D		C		A			A

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 68.5 (57%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.49
 Intersection Signal Delay: 12.0
 Intersection Capacity Utilization 52.0%
 Analysis Period (min) 15

Intersection LOS: B
 ICU Level of Service A

Splits and Phases: 4: Tibet St & 52nd Ave































HCM 6th Signalized Intersection Summary

4: Tibet St & 52nd Ave

Short Term BG PM

02-19-2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	35	5	120	60	115	30	840	60	65	675	10
Future Volume (veh/h)	5	35	5	120	60	115	30	840	60	65	675	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	5	38	5	130	65	125	33	913	65	71	734	11
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	110	67	9	236	94	180	561	2706	1341	377	2729	41
Arrive On Green	0.04	0.04	0.04	0.08	0.16	0.16	0.25	0.25	0.25	0.76	0.76	0.76
Sat Flow, veh/h	1193	1619	213	1781	572	1100	715	3554	1585	575	3584	54
Grp Volume(v), veh/h	5	0	43	130	0	190	33	913	65	71	364	381
Grp Sat Flow(s),veh/h/ln	1193	0	1832	1781	0	1672	715	1777	1585	575	1777	1861
Q Serve(g_s), s	0.5	0.0	2.8	8.1	0.0	12.9	4.3	25.2	2.4	7.6	7.4	7.4
Cycle Q Clear(g_c), s	0.5	0.0	2.8	8.1	0.0	12.9	11.7	25.2	2.4	32.8	7.4	7.4
Prop In Lane	1.00		0.12	1.00		0.66	1.00		1.00	1.00		0.03
Lane Grp Cap(c), veh/h	110	0	76	236	0	273	561	2706	1341	377	1353	1417
V/C Ratio(X)	0.05	0.00	0.56	0.55	0.00	0.70	0.06	0.34	0.05	0.19	0.27	0.27
Avail Cap(c_a), veh/h	264	0	313	330	0	578	561	2706	1341	377	1353	1417
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.3	0.0	56.4	47.7	0.0	47.4	18.0	20.2	5.1	13.8	4.3	4.3
Incr Delay (d2), s/veh	0.2	0.0	6.4	2.0	0.0	3.2	0.2	0.3	0.1	1.1	0.5	0.5
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(95%),veh/ln	0.3	0.0	2.5	6.7	0.0	9.5	1.5	17.8	1.0	2.0	4.5	4.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.5	0.0	62.8	49.7	0.0	50.5	18.2	20.5	5.1	14.9	4.8	4.8
LnGrp LOS	E	A	E	D	A	D	B	C	A	B	A	A
Approach Vol, veh/h	48			320			1011			816		
Approach Delay, s/veh	62.0			50.2			19.4			5.6		
Approach LOS	E			D			B			A		
Timer - Assigned Phs	2		3	4	6		8					
Phs Duration (G+Y+Rc), s	95.9		14.6	9.5	95.9		24.1					
Change Period (Y+Rc), s	4.5		4.5	4.5	4.5		4.5					
Max Green Setting (Gmax), s	69.5		16.5	20.5	69.5		41.5					
Max Q Clear Time (g_c+I1), s	27.2		10.1	4.8	34.8		14.9					
Green Ext Time (p_c), s	8.8		0.2	0.1	6.3		1.2					
Intersection Summary												
HCM 6th Ctrl Delay	19.7											
HCM 6th LOS	B											










Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	10	10	15	920	795	5
Future Vol, veh/h	10	10	15	920	795	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	0	100	-	-	100
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	11	16	1000	864	5

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1396	432	869	0	-	0
Stage 1	864	-	-	-	-	-
Stage 2	532	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	*383	*763	*1141	-	-	-
Stage 1	*720	-	-	-	-	-
Stage 2	*671	-	-	-	-	-
Platoon blocked, %	1	1	1	-	-	-
Mov Cap-1 Maneuver	*378	*763	*1141	-	-	-
Mov Cap-2 Maneuver	*378	-	-	-	-	-
Stage 1	*710	-	-	-	-	-
Stage 2	*671	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.3	0.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	* 1141	-	378	763	-	-
HCM Lane V/C Ratio	0.014	-	0.029	0.014	-	-
HCM Control Delay (s)	8.2	-	14.8	9.8	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	0	-	-

















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

Intersection												
Int Delay, s/veh	1.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	5	10	70	5	55	15	875	20	45	755	5
Future Vol, veh/h	5	5	10	70	5	55	15	875	20	45	755	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	100	-	-	100	-	-	100	-	100	100	-	-
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	5	5	11	76	5	60	16	951	22	49	821	5
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1432	1927	413	1494	1907	476	826	0	0	973	0	0
Stage 1	922	922	-	983	983	-	-	-	-	-	-	-
Stage 2	510	1005	-	511	924	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	*368	*313	*763	*368	*322	*711	*1141	-	-	*1063	-	-
Stage 1	*674	*601	-	*670	*587	-	-	-	-	-	-	-
Stage 2	*670	*587	-	*719	*599	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1	1	1	-	-	1	-	-
Mov Cap-1 Maneuver	*317	*295	*763	*342	*303	*711	*1141	-	-	*1063	-	-
Mov Cap-2 Maneuver	*317	*295	-	*342	*303	-	-	-	-	-	-	-
Stage 1	*665	*573	-	*661	*579	-	-	-	-	-	-	-
Stage 2	*599	*579	-	*670	*571	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	13.5		15.2		0.1		0.5					
HCM LOS	B		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR		
Capacity (veh/h)	* 1141	-	-	317	499	342	639	* 1063	-	-		
HCM Lane V/C Ratio	0.014	-	-	0.017	0.033	0.222	0.102	0.046	-	-		
HCM Control Delay (s)	8.2	-	-	16.6	12.5	18.5	11.3	8.6	-	-		
HCM Lane LOS	A	-	-	C	B	C	B	A	-	-		
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0.8	0.3	0.1	-	-		
Notes												
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined		*: All major volume in platoon						

Appendix F. 2045 Future Background Traffic Level of Service

Timings
1: Picadilly Rd & 52nd Ave

Long Term BG AM
02-19-2025

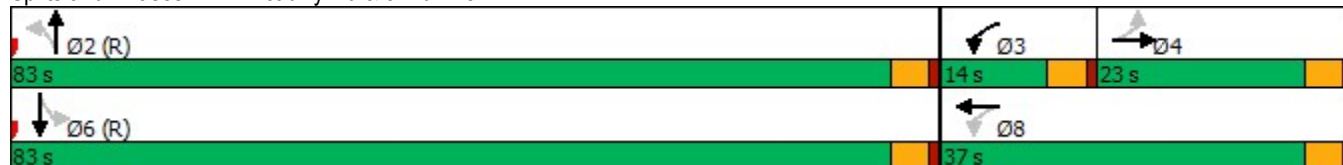
								
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	60	25	105	10	35	970	95	950
Future Volume (vph)	60	25	105	10	35	970	95	950
Turn Type	Perm	NA	pm+pt	NA	Perm	NA	Perm	NA
Protected Phases		4	3	8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	23.0	23.0	14.0	37.0	83.0	83.0	83.0	83.0
Total Split (%)	19.2%	19.2%	11.7%	30.8%	69.2%	69.2%	69.2%	69.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead					
Lead-Lag Optimize?	Yes	Yes	Yes					
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effect Green (s)	11.9	11.9	25.5	25.5	85.5	85.5	85.5	85.5
Actuated g/C Ratio	0.10	0.10	0.21	0.21	0.71	0.71	0.71	0.71
v/c Ratio	0.56	0.59	0.58	0.43	0.14	0.50	0.41	0.46
Control Delay	68.1	20.4	46.7	13.7	8.1	8.8	14.3	8.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.1	20.4	46.7	13.7	8.1	8.8	14.3	8.4
LOS	E	C	D	B	A	A	B	A
Approach Delay		33.7		26.1		8.7		8.9
Approach LOS		C		C		A		A

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 75
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.59
 Intersection Signal Delay: 12.4
 Intersection Capacity Utilization 67.3%
 Analysis Period (min) 15

Intersection LOS: B
 ICU Level of Service C

Splits and Phases: 1: Picadilly Rd & 52nd Ave






























HCM 6th Signalized Intersection Summary

1: Picadilly Rd & 52nd Ave

Long Term BG AM

02-19-2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	25	130	105	10	165	35	970	160	95	950	100
Future Volume (veh/h)	60	25	130	105	10	165	35	970	160	95	950	100
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	65	27	141	114	11	179	38	1054	174	103	1033	109
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	205	32	166	209	21	344	333	2126	350	303	2259	238
Arrive On Green	0.12	0.12	0.12	0.07	0.23	0.23	0.70	0.70	0.70	0.70	0.70	0.70
Sat Flow, veh/h	1193	261	1364	1781	93	1507	493	3054	503	454	3244	342
Grp Volume(v), veh/h	65	0	168	114	0	190	38	612	616	103	566	576
Grp Sat Flow(s),veh/h/ln	1193	0	1625	1781	0	1599	493	1777	1780	454	1777	1809
Q Serve(g_s), s	6.1	0.0	12.2	6.5	0.0	12.5	4.5	19.2	19.3	16.3	17.0	17.0
Cycle Q Clear(g_c), s	6.1	0.0	12.2	6.5	0.0	12.5	21.5	19.2	19.3	35.6	17.0	17.0
Prop In Lane	1.00		0.84	1.00		0.94	1.00		0.28	1.00		0.19
Lane Grp Cap(c), veh/h	205	0	198	209	0	366	333	1237	1239	303	1237	1260
V/C Ratio(X)	0.32	0.00	0.85	0.55	0.00	0.52	0.11	0.49	0.50	0.34	0.46	0.46
Avail Cap(c_a), veh/h	244	0	251	226	0	433	333	1237	1239	303	1237	1260
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.0	0.0	51.6	41.2	0.0	40.5	12.9	8.4	8.5	16.7	8.1	8.1
Incr Delay (d2), s/veh	0.9	0.0	19.4	2.3	0.0	1.1	0.7	1.4	1.4	3.0	1.2	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.4	0.0	10.0	5.4	0.0	8.7	1.0	11.7	11.7	3.5	10.6	10.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.8	0.0	71.0	43.5	0.0	41.7	13.6	9.9	9.9	19.7	9.3	9.3
LnGrp LOS	D	A	E	D	A	D	B	A	A	B	A	A
Approach Vol, veh/h	233				304				1266			
Approach Delay, s/veh	65.1				42.3				10.0			
Approach LOS	E				D				A			
Timer - Assigned Phs	2			3		4		6		8		
Phs Duration (G+Y+Rc), s	88.1			12.8		19.1		88.1		31.9		
Change Period (Y+Rc), s	4.5			4.5		4.5		4.5		4.5		
Max Green Setting (Gmax), s	78.5			9.5		18.5		78.5		32.5		
Max Q Clear Time (g_c+I1), s	23.5			8.5		14.2		37.6		14.5		
Green Ext Time (p_c), s	12.8			0.0		0.4		12.5		1.0		
Intersection Summary												
HCM 6th Ctrl Delay	17.5											
HCM 6th LOS	B											







Intersection												
Int Delay, s/veh	1.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	265	10	5	245	10	15	5	5	20	5	20
Future Vol, veh/h	5	265	10	5	245	10	15	5	5	20	5	20
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	0	-	-	100	-	-	-	-	-	-	-	-
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	5	288	11	5	266	11	16	5	5	22	5	22

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	277	0	0	299	0	0	599	591	294	591	591	272
Stage 1	-	-	-	-	-	-	304	304	-	282	282	-
Stage 2	-	-	-	-	-	-	295	287	-	309	309	-
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	1319	-	-	*1299	-	-	586	528	*868	597	528	882
Stage 1	-	-	-	-	-	-	813	713	-	821	722	-
Stage 2	-	-	-	-	-	-	805	718	-	807	709	-
Platoon blocked, %	1	-	-	1	-	-	1	1	1	1	1	1
Mov Cap-1 Maneuver	1319	-	-	*1299	-	-	564	524	*868	585	524	882
Mov Cap-2 Maneuver	-	-	-	-	-	-	564	524	-	585	524	-
Stage 1	-	-	-	-	-	-	810	710	-	817	720	-
Stage 2	-	-	-	-	-	-	776	715	-	793	706	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			0.1			11.3			10.7		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	597	1319	-	-	*1299	-	-	678
HCM Lane V/C Ratio	0.046	0.004	-	-	0.004	-	-	0.072
HCM Control Delay (s)	11.3	7.7	-	-	7.8	-	-	10.7
HCM Lane LOS	B	A	-	-	A	-	-	B
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	0.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	280	5	5	250	5	5	5	5	5	5	5
Future Vol, veh/h	5	280	5	5	250	5	5	5	5	5	5	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	100	-	-	-	-	-	-	-	-
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	5	304	5	5	272	5	5	5	5	5	5	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	277	0	0	309	0	0	607	604	307	607	604	275
Stage 1	-	-	-	-	-	-	317	317	-	285	285	-
Stage 2	-	-	-	-	-	-	290	287	-	322	319	-
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	1319	-	-	1286	-	-	575	515	857	575	515	878
Stage 1	-	-	-	-	-	-	797	702	-	817	720	-
Stage 2	-	-	-	-	-	-	811	718	-	791	700	-
Platoon blocked, %	1	-	-	1	-	-	1	1	1	1	1	1
Mov Cap-1 Maneuver	1319	-	-	1286	-	-	563	511	857	563	511	878
Mov Cap-2 Maneuver	-	-	-	-	-	-	563	511	-	563	511	-
Stage 1	-	-	-	-	-	-	794	699	-	814	717	-
Stage 2	-	-	-	-	-	-	796	715	-	777	697	-



















Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			0.2			11			11		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	612	1319	-	-	1286	-	-	616
HCM Lane V/C Ratio	0.027	0.004	-	-	0.004	-	-	0.026
HCM Control Delay (s)	11	7.7	-	-	7.8	-	-	11
HCM Lane LOS	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1

Timings
4: Tibet St & 52nd Ave

Long Term BG AM

02-19-2025

									
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	115	55	60	30	115	520	180	155	690
Future Volume (vph)	115	55	60	30	115	520	180	155	690
Turn Type	Perm	NA	pm+pt	NA	Perm	NA	Perm	Perm	NA
Protected Phases		4	3	8		2			6
Permitted Phases	4		8		2		2	6	
Detector Phase	4	4	3	8	2	2	2	6	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	31.0	31.0	12.0	43.0	77.0	77.0	77.0	77.0	77.0
Total Split (%)	25.8%	25.8%	10.0%	35.8%	64.2%	64.2%	64.2%	64.2%	64.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead						
Lead-Lag Optimize?	Yes	Yes	Yes						
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effect Green (s)	16.9	16.9	26.5	26.5	84.5	84.5	84.5	84.5	84.5
Actuated g/C Ratio	0.14	0.14	0.22	0.22	0.70	0.70	0.70	0.70	0.70
v/c Ratio	0.68	0.62	0.35	0.22	0.33	0.23	0.17	0.30	0.36
Control Delay	58.6	28.0	39.2	15.3	8.8	5.7	0.7	10.2	8.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.6	28.0	39.2	15.3	8.8	5.7	0.7	10.2	8.4
LOS	E	C	D	B	A	A	A	B	A
Approach Delay		40.1		25.1		5.0			8.7
Approach LOS		D		C		A			A

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

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

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.68

Intersection Signal Delay: 12.5

Intersection LOS: B

Intersection Capacity Utilization 58.5%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 4: Tibet St & 52nd Ave































HCM 6th Signalized Intersection Summary










4: Tibet St & 52nd Ave

Long Term BG AM

02-19-2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	115	55	120	60	30	55	115	520	180	155	690	115
Future Volume (veh/h)	115	55	120	60	30	55	115	520	180	155	690	115
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	125	60	130	65	33	60	125	565	196	168	750	125
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	241	73	159	166	130	236	447	2511	1120	558	2153	359
Arrive On Green	0.05	0.05	0.05	0.04	0.22	0.22	1.00	1.00	1.00	0.71	0.71	0.71
Sat Flow, veh/h	1303	526	1139	1781	595	1081	634	3554	1585	705	3048	508
Grp Volume(v), veh/h	125	0	190	65	0	93	125	565	196	168	437	438
Grp Sat Flow(s),veh/h/ln	1303	0	1665	1781	0	1676	634	1777	1585	705	1777	1779
Q Serve(g_s), s	11.3	0.0	13.6	3.6	0.0	5.5	4.5	0.0	0.0	11.0	11.5	11.5
Cycle Q Clear(g_c), s	11.3	0.0	13.6	3.6	0.0	5.5	16.0	0.0	0.0	11.0	11.5	11.5
Prop In Lane	1.00		0.68	1.00		0.65	1.00		1.00	1.00		0.29
Lane Grp Cap(c), veh/h	241	0	232	166	0	366	447	2511	1120	558	1255	1257
V/C Ratio(X)	0.52	0.00	0.82	0.39	0.00	0.25	0.28	0.23	0.18	0.30	0.35	0.35
Avail Cap(c_a), veh/h	348	0	368	202	0	538	447	2511	1120	558	1255	1257
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.7	0.0	55.7	41.2	0.0	38.8	1.1	0.0	0.0	6.8	6.9	6.9
Incr Delay (d2), s/veh	1.7	0.0	7.8	1.5	0.0	0.4	1.6	0.2	0.3	1.4	0.8	0.8
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(95%),veh/ln	7.4	0.0	10.8	3.0	0.0	4.2	0.5	0.1	0.2	3.1	7.7	7.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.4	0.0	63.5	42.7	0.0	39.2	2.6	0.2	0.3	8.2	7.6	7.6
LnGrp LOS	E	A	E	D	A	D	A	A	A	A	A	A
Approach Vol, veh/h		315			158			886			1043	
Approach Delay, s/veh		60.7			40.6			0.6			7.7	
Approach LOS		E			D			A			A	
Timer - Assigned Phs		2	3	4		6		8				
Phs Duration (G+Y+Rc), s		89.3	9.5	21.2		89.3		30.7				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5		4.5				
Max Green Setting (Gmax), s		72.5	7.5	26.5		72.5		38.5				
Max Q Clear Time (g_c+I1), s		18.0	5.6	15.6		13.5		7.5				
Green Ext Time (p_c), s		6.9	0.0	1.1		9.2		0.5				
Intersection Summary												
HCM 6th Ctrl Delay			14.2									
HCM 6th LOS			B									

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	10	15	5	805	865	5
Future Vol, veh/h	10	15	5	805	865	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	0	100	-	-	100
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	16	5	875	940	5
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1388	470	945	0	-	0
Stage 1	940	-	-	-	-	-
Stage 2	448	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	*450	*737	*1102	-	-	-
Stage 1	*695	-	-	-	-	-
Stage 2	*720	-	-	-	-	-
Platoon blocked, %	1	1	1	-	-	-
Mov Cap-1 Maneuver	*448	*737	*1102	-	-	-
Mov Cap-2 Maneuver	*448	-	-	-	-	-
Stage 1	*692	-	-	-	-	-
Stage 2	*720	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	11.3	0.1		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	* 1102	-	448	737	-	-
HCM Lane V/C Ratio	0.005	-	0.024	0.022	-	-
HCM Control Delay (s)	8.3	-	13.2	10	-	-
HCM Lane LOS	A	-	B	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	0.1	-	-
Notes						
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined		*: All major volume in platoon

Intersection												
Int Delay, s/veh	1.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	5	15	30	5	25	5	780	115	115	655	110
Future Vol, veh/h	5	5	15	30	5	25	5	780	115	115	655	110
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	100	-	-	100	-	-	100	-	100	100	-	-
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	5	5	16	33	5	27	5	848	125	125	712	120

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	1459	2005	416	1467	1940	424	832	0	0	973	0	0
Stage 1	1022	1022	-	858	858	-	-	-	-	-	-	-
Stage 2	437	983	-	609	1082	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	*257	84	*815	*252	*98	*763	1104	-	-	1031	-	-
Stage 1	*467	465	-	*719	*630	-	-	-	-	-	-	-
Stage 2	*719	552	-	*768	*428	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1	1	1	-	-	1	-	-
Mov Cap-1 Maneuver	*213	74	*815	*211	*85	*763	1104	-	-	1031	-	-
Mov Cap-2 Maneuver	*213	74	-	*211	*85	-	-	-	-	-	-	-
Stage 1	*465	409	-	*716	*627	-	-	-	-	-	-	-
Stage 2	*684	549	-	*653	*376	-	-	-	-	-	-	-

















Approach	EB		WB		NB		SB	
HCM Control Delay, s	22.1		21.2		0		1.2	
HCM LOS	C		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1104	-	-	213	233	211	328	1031	-	-
HCM Lane V/C Ratio	0.005	-	-	0.026	0.093	0.155	0.099	0.121	-	-
HCM Control Delay (s)	8.3	-	-	22.3	22	25.2	17.2	9	-	-
HCM Lane LOS	A	-	-	C	C	D	C	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.3	0.5	0.3	0.4	-	-

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

Timings 1: Picadilly Rd & 52nd Ave

Long Term BG PM
02-19-2025

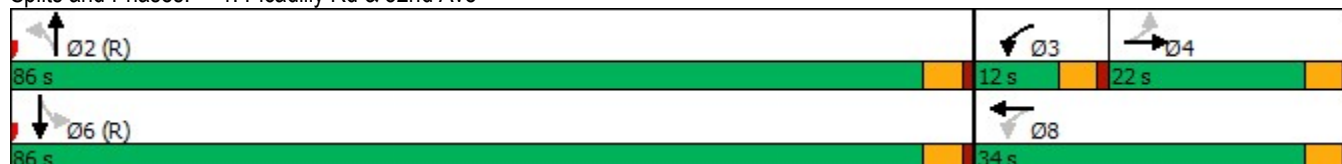
								
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	35	20	140	10	20	1145	110	1110
Future Volume (vph)	35	20	140	10	20	1145	110	1110
Turn Type	Perm	NA	pm+pt	NA	Perm	NA	Perm	NA
Protected Phases		4	3	8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	22.0	22.0	12.0	34.0	86.0	86.0	86.0	86.0
Total Split (%)	18.3%	18.3%	10.0%	28.3%	71.7%	71.7%	71.7%	71.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead					
Lead-Lag Optimize?	Yes	Yes	Yes					
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effect Green (s)	9.3	9.3	19.3	19.3	91.7	91.7	91.7	91.7
Actuated g/C Ratio	0.08	0.08	0.16	0.16	0.76	0.76	0.76	0.76
v/c Ratio	0.41	0.43	0.80	0.55	0.08	0.55	0.57	0.47
Control Delay	64.9	27.5	67.6	21.7	5.6	7.2	21.3	6.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	64.9	27.5	67.6	21.7	5.6	7.2	21.3	6.5
LOS	E	C	E	C	A	A	C	A
Approach Delay		40.0		42.4		7.2		7.8
Approach LOS		D		D		A		A

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.80
Intersection Signal Delay: 12.1
Intersection Capacity Utilization 73.5%
Analysis Period (min) 15

Intersection LOS: B
ICU Level of Service D






















Splits and Phases: 1: Picadilly Rd & 52nd Ave









HCM 6th Signalized Intersection Summary

1: Picadilly Rd & 52nd Ave

Long Term BG PM
02-19-2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	20	50	140	10	160	20	1145	195	110	1110	45
Future Volume (veh/h)	35	20	50	140	10	160	20	1145	195	110	1110	45
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	38	22	54	152	11	174	22	1245	212	120	1207	49
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	126	31	76	197	16	247	340	2313	391	276	2648	107
Arrive On Green	0.06	0.06	0.06	0.06	0.16	0.16	0.76	0.76	0.76	0.76	0.76	0.76
Sat Flow, veh/h	1199	480	1178	1781	95	1504	442	3041	514	365	3481	141
Grp Volume(v), veh/h	38	0	76	152	0	185	22	724	733	120	616	640
Grp Sat Flow(s),veh/h/ln	1199	0	1658	1781	0	1600	442	1777	1778	365	1777	1845
Q Serve(g_s), s	3.7	0.0	5.4	7.5	0.0	13.1	2.3	19.7	20.1	24.0	15.2	15.2
Cycle Q Clear(g_c), s	4.8	0.0	5.4	7.5	0.0	13.1	17.6	19.7	20.1	44.1	15.2	15.2
Prop In Lane	1.00		0.71	1.00		0.94	1.00		0.29	1.00		0.08
Lane Grp Cap(c), veh/h	126	0	106	197	0	263	340	1352	1353	276	1352	1404
V/C Ratio(X)	0.30	0.00	0.71	0.77	0.00	0.70	0.06	0.54	0.54	0.43	0.46	0.46
Avail Cap(c_a), veh/h	224	0	242	197	0	393	340	1352	1353	276	1352	1404
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.4	0.0	55.1	50.0	0.0	47.4	8.5	5.8	5.8	14.8	5.3	5.3
Incr Delay (d2), s/veh	1.3	0.0	8.6	17.1	0.0	3.4	0.4	1.5	1.6	4.9	1.1	1.1
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(95%),veh/ln	2.1	0.0	4.5	3.3	0.0	9.3	0.5	11.0	11.2	4.1	8.9	9.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.7	0.0	63.6	67.1	0.0	50.8	8.8	7.3	7.4	19.7	6.4	6.3
LnGrp LOS	E	A	E	E	A	D	A	A	A	B	A	A
Approach Vol, veh/h	114			337			1479			1376		
Approach Delay, s/veh	61.3			58.2			7.4			7.5		
Approach LOS	E			E			A			A		
Timer - Assigned Phs	2			3			4			6		
Phs Duration (G+Y+Rc), s	95.8			12.0			12.2			95.8		
Change Period (Y+Rc), s	4.5			4.5			4.5			4.5		
Max Green Setting (Gmax), s	81.5			7.5			17.5			81.5		
Max Q Clear Time (g_c+I1), s	22.1			9.5			7.4			46.1		
Green Ext Time (p_c), s	17.3			0.0			0.3			14.7		
Intersection Summary												
HCM 6th Ctrl Delay	14.5											
HCM 6th LOS	B											







Intersection												
Int Delay, s/veh	0.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	310	10	5	300	5	5	5	5	5	5	5
Future Vol, veh/h	5	310	10	5	300	5	5	5	5	5	5	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	100	-	-	-	-	-	-	-	-
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	5	337	11	5	326	5	5	5	5	5	5	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	331	0	0	348	0	0	697	694	343	697	697	329
Stage 1	-	-	-	-	-	-	353	353	-	339	339	-
Stage 2	-	-	-	-	-	-	344	341	-	358	358	-
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	*1260	-	-	1243	-	-	463	429	832	463	427	*842
Stage 1	-	-	-	-	-	-	773	680	-	790	693	-
Stage 2	-	-	-	-	-	-	784	690	-	766	676	-
Platoon blocked, %	1	-	-	1	-	-	1	1	1	1	1	1
Mov Cap-1 Maneuver	*1260	-	-	1243	-	-	453	426	832	453	423	*842
Mov Cap-2 Maneuver	-	-	-	-	-	-	453	426	-	453	423	-
Stage 1	-	-	-	-	-	-	770	678	-	787	690	-
Stage 2	-	-	-	-	-	-	769	688	-	752	674	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			0.1			12.1			12.1		
HCM LOS							B			B		



















Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	521 * 1260	-	-	1243	-	-	521	
HCM Lane V/C Ratio	0.031 0.004	-	-	0.004	-	-	0.031	
HCM Control Delay (s)	12.1 7.9	-	-	7.9	-	-	12.1	
HCM Lane LOS	B A	-	-	A	-	-	B	
HCM 95th %tile Q(veh)	0.1 0	-	-	0	-	-	0.1	

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

Intersection												
Int Delay, s/veh	0.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	310	5	5	300	5	5	5	5	5	5	5
Future Vol, veh/h	5	310	5	5	300	5	5	5	5	5	5	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	100	-	-	-	-	-	-	-	-
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	5	337	5	5	326	5	5	5	5	5	5	5
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	331	0	0	342	0	0	694	691	340	694	691	329
Stage 1	-	-	-	-	-	-	350	350	-	339	339	-
Stage 2	-	-	-	-	-	-	344	341	-	355	352	-
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	*1260	-	-	1251	-	-	531	473	836	531	473	*842
Stage 1	-	-	-	-	-	-	777	683	-	790	693	-
Stage 2	-	-	-	-	-	-	784	690	-	770	681	-
Platoon blocked, %	1	-	-	1	-	-	1	1	1	1	1	1
Mov Cap-1 Maneuver	*1260	-	-	1251	-	-	520	469	836	520	469	*842
Mov Cap-2 Maneuver	-	-	-	-	-	-	520	469	-	520	469	-
Stage 1	-	-	-	-	-	-	773	680	-	787	690	-
Stage 2	-	-	-	-	-	-	769	688	-	756	678	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			0.1			11.5			11.5		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	571	* 1260	-	-	1251	-	-	572				
HCM Lane V/C Ratio	0.029	0.004	-	-	0.004	-	-	0.029				
HCM Control Delay (s)	11.5	7.9	-	-	7.9	-	-	11.5				
HCM Lane LOS	B	A	-	-	A	-	-	B				
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1				
Notes												
~: Volume exceeds capacity		\$: Delay exceeds 300s				+: Computation Not Defined				*: All major volume in platoon		

Timings
4: Tibet St & 52nd Ave

Long Term BG PM
02-19-2025

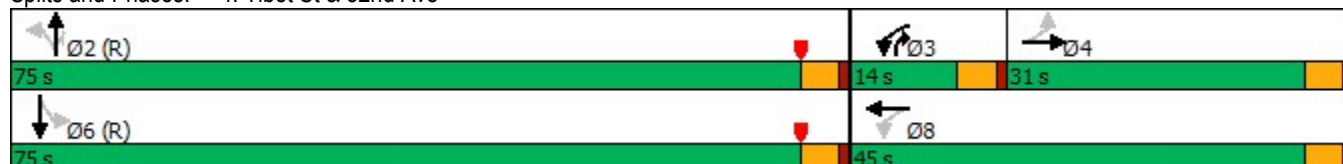
									
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	125	40	120	50	135	1050	60	65	685
Future Volume (vph)	125	40	120	50	135	1050	60	65	685
Turn Type	Perm	NA	pm+pt	NA	Perm	NA	pm+ov	Perm	NA
Protected Phases		4	3	8		2	3		6
Permitted Phases	4		8		2		2	6	
Detector Phase	4	4	3	8	2	2	3	6	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	9.5	22.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	31.0	31.0	14.0	45.0	75.0	75.0	14.0	75.0	75.0
Total Split (%)	25.8%	25.8%	11.7%	37.5%	62.5%	62.5%	11.7%	62.5%	62.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead				Lead		
Lead-Lag Optimize?	Yes	Yes	Yes				Yes		
Recall Mode	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effect Green (s)	18.8	18.8	32.5	32.5	78.5	78.5	92.2	78.5	78.5
Actuated g/C Ratio	0.16	0.16	0.27	0.27	0.65	0.65	0.77	0.65	0.65
v/c Ratio	0.72	0.55	0.56	0.35	0.43	0.49	0.05	0.30	0.39
Control Delay	60.6	15.1	42.5	19.2	13.3	11.9	1.2	14.9	10.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.6	15.1	42.5	19.2	13.3	11.9	1.2	14.9	10.6
LOS	E	B	D	B	B	B	A	B	B
Approach Delay		32.9		29.0		11.5			10.9
Approach LOS		C		C		B			B

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 68.5 (57%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
 Natural Cycle: 65
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.72
 Intersection Signal Delay: 15.6
 Intersection Capacity Utilization 66.5%
 Analysis Period (min) 15

Intersection LOS: B
 ICU Level of Service C























Splits and Phases: 4: Tibet St & 52nd Ave


















HCM 6th Signalized Intersection Summary

4: Tibet St & 52nd Ave

Long Term BG PM
02-19-2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	125	40	155	120	50	115	135	1050	60	65	685	125
Future Volume (veh/h)	125	40	155	120	50	115	135	1050	60	65	685	125
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	136	43	168	130	54	125	147	1141	65	71	745	136
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	244	51	198	226	133	308	405	2345	1165	236	1980	361
Arrive On Green	0.15	0.15	0.15	0.08	0.27	0.27	0.22	0.22	0.22	0.66	0.66	0.66
Sat Flow, veh/h	1205	333	1303	1781	501	1160	630	3554	1585	464	3001	548
Grp Volume(v), veh/h	136	0	211	130	0	179	147	1141	65	71	441	440
Grp Sat Flow(s),veh/h/ln	1205	0	1636	1781	0	1662	630	1777	1585	464	1777	1772
Q Serve(g_s), s	12.9	0.0	15.1	7.1	0.0	10.6	24.9	33.7	3.0	13.5	13.5	13.5
Cycle Q Clear(g_c), s	12.9	0.0	15.1	7.1	0.0	10.6	38.3	33.7	3.0	47.2	13.5	13.5
Prop In Lane	1.00		0.80	1.00		0.70	1.00		1.00	1.00		0.31
Lane Grp Cap(c), veh/h	244	0	249	226	0	441	405	2345	1165	236	1172	1169
V/C Ratio(X)	0.56	0.00	0.85	0.58	0.00	0.41	0.36	0.49	0.06	0.30	0.38	0.38
Avail Cap(c_a), veh/h	326	0	361	232	0	561	405	2345	1165	236	1172	1169
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.6	0.0	49.5	38.3	0.0	36.3	36.9	29.1	10.6	27.3	9.2	9.2
Incr Delay (d2), s/veh	2.0	0.0	11.8	3.3	0.0	0.6	2.5	0.7	0.1	3.3	0.9	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(95%),veh/ln	7.2	0.0	11.3	6.0	0.0	7.8	8.0	22.9	1.8	3.1	9.0	9.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.6	0.0	61.3	41.6	0.0	36.9	39.5	29.9	10.7	30.6	10.2	10.2
LnGrp LOS	D	A	E	D	A	D	D	C	B	C	B	B
Approach Vol, veh/h	347			309			1353			952		
Approach Delay, s/veh	57.1			38.9			30.0			11.7		
Approach LOS	E			D			C			B		
Timer - Assigned Phs	2		3	4		6		8				
Phs Duration (G+Y+Rc), s	83.7		13.5	22.8		83.7		36.3				
Change Period (Y+Rc), s	4.5		4.5	4.5		4.5		4.5				
Max Green Setting (Gmax), s	70.5		9.5	26.5		70.5		40.5				
Max Q Clear Time (g_c+I1), s	40.3		9.1	17.1		49.2		12.6				
Green Ext Time (p_c), s	12.5		0.0	1.2		7.0		1.1				
Intersection Summary												
HCM 6th Ctrl Delay	28.2											
HCM 6th LOS	C											

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	10	10	15	1235	955	5
Future Vol, veh/h	10	10	15	1235	955	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	0	100	-	-	100
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	11	16	1342	1038	5
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1741	519	1043	0	-	0
Stage 1	1038	-	-	-	-	-
Stage 2	703	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	*278	*685	*1024	-	-	-
Stage 1	*646	-	-	-	-	-
Stage 2	*523	-	-	-	-	-
Platoon blocked, %	1	1	1	-	-	-
Mov Cap-1 Maneuver	*274	*685	*1024	-	-	-
Mov Cap-2 Maneuver	*274	-	-	-	-	-
Stage 1	*636	-	-	-	-	-
Stage 2	*523	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	14.5	0.1		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	* 1024	-	274	685	-	-
HCM Lane V/C Ratio	0.016	-	0.04	0.016	-	-
HCM Control Delay (s)	8.6	-	18.7	10.3	-	-
HCM Lane LOS	A	-	C	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	0	-	-
Notes						
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined		*: All major volume in platoon

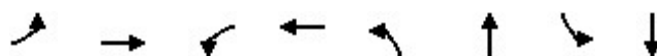
Intersection												
Int Delay, s/veh	1.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	5	10	70	5	55	15	1190	20	45	915	5
Future Vol, veh/h	5	5	10	70	5	55	15	1190	20	45	915	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	100	-	100	100	-	-
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	5	5	11	76	5	60	16	1293	22	49	995	5
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	1777	2443	500	1923	2423	647	1000	0	0	1315	0	0
Stage 1	1096	1096	-	1325	1325	-	-	-	-	-	-	-
Stage 2	681	1347	-	598	1098	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	*196	*151	*711	*196	*172	*580	*1063	-	-	*868	-	-
Stage 1	*589	*533	-	*547	*480	-	-	-	-	-	-	-
Stage 2	*547	*480	-	*670	*532	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1	1	1	-	-	1	-	-
Mov Cap-1 Maneuver	*162	*141	*711	*177	*160	*580	*1063	-	-	*868	-	-
Mov Cap-2 Maneuver	*162	*141	-	*177	*160	-	-	-	-	-	-	-
Stage 1	*580	*503	-	*539	*473	-	-	-	-	-	-	-
Stage 2	*478	*473	-	*616	*502	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	20.2		27.9			0.1			0.4			
HCM LOS	C		D									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR		
Capacity (veh/h)	*1063	-	-	162	303	177	476	*868	-	-		
HCM Lane V/C Ratio	0.015	-	-	0.034	0.054	0.43	0.137	0.056	-	-		
HCM Control Delay (s)	8.4	-	-	28	17.6	39.9	13.8	9.4	-	-		
HCM Lane LOS	A	-	-	D	C	E	B	A	-	-		
HCM 95th %tile Q(veh)	0	-	-	0.1	0.2	2	0.5	0.2	-	-		
Notes												
~: Volume exceeds capacity		\$: Delay exceeds 300s			+: Computation Not Defined				*: All major volume in platoon			

Appendix G. 2030 Total Traffic Level of Service

Timings

1: Picadilly Rd & 52nd Ave

02-21-2025



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	55	5	51	5	25	635	35	790
Future Volume (vph)	55	5	51	5	25	635	35	790
Turn Type	Perm	NA	pm+pt	NA	Perm	NA	Perm	NA
Protected Phases		4	3	8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	31.0	31.0	16.0	47.0	73.0	73.0	73.0	73.0
Total Split (%)	25.8%	25.8%	13.3%	39.2%	60.8%	60.8%	60.8%	60.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead					
Lead-Lag Optimize?	Yes	Yes	Yes					
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effect Green (s)	10.7	10.7	21.7	21.6	92.3	92.3	92.3	92.3
Actuated g/C Ratio	0.09	0.09	0.18	0.18	0.77	0.77	0.77	0.77
v/c Ratio	0.50	0.37	0.25	0.17	0.06	0.27	0.07	0.32
Control Delay	65.2	17.7	42.4	14.1	6.5	6.0	6.5	6.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	65.2	17.7	42.4	14.1	6.5	6.0	6.5	6.4
LOS	E	B	D	B	A	A	A	A
Approach Delay		38.7		28.2		6.0		6.4
Approach LOS		D		C		A		A

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

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

Natural Cycle: 55

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.50

Intersection Signal Delay: 9.7

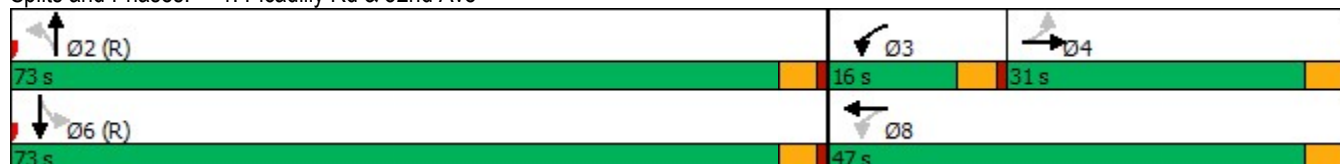
Intersection LOS: A

Intersection Capacity Utilization 46.3%

ICU Level of Service A

Analysis Period (min) 15






















Splits and Phases: 1: Picadilly Rd & 52nd Ave



HCM 6th Signalized Intersection Summary







1: Picadilly Rd & 52nd Ave

02-21-2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	5	65	51	5	46	25	635	45	35	790	20
Future Volume (veh/h)	55	5	65	51	5	46	25	635	45	35	790	20
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	60	5	71	55	5	50	27	690	49	38	859	22
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	151	7	101	155	21	208	509	2633	187	583	2770	71
Arrive On Green	0.07	0.07	0.07	0.04	0.14	0.14	0.78	0.78	0.78	0.78	0.78	0.78
Sat Flow, veh/h	1349	105	1496	1781	146	1461	630	3365	239	720	3540	91
Grp Volume(v), veh/h	60	0	76	55	0	55	27	364	375	38	431	450
Grp Sat Flow(s),veh/h/ln	1349	0	1601	1781	0	1607	630	1777	1827	720	1777	1854
Q Serve(g_s), s	5.2	0.0	5.6	3.4	0.0	3.6	1.5	6.7	6.7	1.8	8.4	8.4
Cycle Q Clear(g_c), s	5.2	0.0	5.6	3.4	0.0	3.6	9.9	6.7	6.7	8.6	8.4	8.4
Prop In Lane	1.00		0.93	1.00		0.91	1.00		0.13	1.00		0.05
Lane Grp Cap(c), veh/h	151	0	108	155	0	229	509	1390	1430	583	1390	1451
V/C Ratio(X)	0.40	0.00	0.71	0.36	0.00	0.24	0.05	0.26	0.26	0.07	0.31	0.31
Avail Cap(c_a), veh/h	358	0	354	258	0	569	509	1390	1430	583	1390	1451
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.6	0.0	54.8	48.0	0.0	45.7	5.2	3.6	3.6	4.7	3.8	3.8
Incr Delay (d2), s/veh	1.7	0.0	8.1	1.4	0.0	0.5	0.2	0.5	0.4	0.2	0.6	0.6
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(95%),veh/ln	3.3	0.0	4.5	2.8	0.0	2.7	0.4	3.9	4.0	0.5	4.9	5.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.3	0.0	62.9	49.4	0.0	46.2	5.4	4.0	4.0	5.0	4.3	4.3
LnGrp LOS	E	A	E	D	A	D	A	A	A	A	A	A
Approach Vol, veh/h	136			110			766			919		
Approach Delay, s/veh	60.0			47.8			4.1			4.3		
Approach LOS	E			D			A			A		
Timer - Assigned Phs	2		3	4	6		8					
Phs Duration (G+Y+Rc), s	98.4		9.0	12.6	98.4		21.6					
Change Period (Y+Rc), s	4.5		4.5	4.5	4.5		4.5					
Max Green Setting (Gmax), s	68.5		11.5	26.5	68.5		42.5					
Max Q Clear Time (g_c+I1), s	11.9		5.4	7.6	10.6		5.6					
Green Ext Time (p_c), s	5.8		0.0	0.5	7.4		0.3					
Intersection Summary												
HCM 6th Ctrl Delay	10.6											
HCM 6th LOS	B											

HCM 6th TWSC
2: Access #16 & 52nd Ave

02-21-2025

Intersection												
Int Delay, s/veh	3.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	70	10	5	67	10	15	5	5	20	5	20
Future Vol, veh/h	5	70	10	5	67	10	15	5	5	20	5	20
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	0	-	-	100	-	-	-	-	-	-	-	-
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	5	76	11	5	73	11	16	5	5	22	5	22







Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	84	0	0	87	0	0	194	186	82	186	186	79
Stage 1	-	-	-	-	-	-	92	92	-	89	89	-
Stage 2	-	-	-	-	-	-	102	94	-	97	97	-
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	1522	-	-	1518	-	-	817	742	1004	827	742	1008
Stage 1	-	-	-	-	-	-	937	829	-	940	831	-
Stage 2	-	-	-	-	-	-	925	828	-	931	825	-
Platoon blocked, %	1	-	-	1	-	-	1	1	1	1	1	1
Mov Cap-1 Maneuver	1522	-	-	1518	-	-	791	738	1004	814	738	1008
Mov Cap-2 Maneuver	-	-	-	-	-	-	791	738	-	814	738	-
Stage 1	-	-	-	-	-	-	934	827	-	937	829	-
Stage 2	-	-	-	-	-	-	897	825	-	917	822	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.4			0.5			9.6			9.3		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	814	1522	-	-	1518	-	-	879
HCM Lane V/C Ratio	0.033	0.004	-	-	0.004	-	-	0.056
HCM Control Delay (s)	9.6	7.4	-	-	7.4	-	-	9.3
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.2

HCM 6th TWSC
3: Access #14 & 52nd Ave

02-21-2025

Intersection												
Int Delay, s/veh	3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	75	15	9	50	5	27	5	13	5	5	5
Future Vol, veh/h	5	75	15	9	50	5	27	5	13	5	5	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	100	-	-	-	-	-	-	-	-
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	5	82	16	10	54	5	29	5	14	5	5	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	59	0	0	98	0	0	182	179	90	187	185	57
Stage 1	-	-	-	-	-	-	100	100	-	77	77	-
Stage 2	-	-	-	-	-	-	82	79	-	110	108	-
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	1556	-	-	1513	-	-	858	765	1015	851	759	1037
Stage 1	-	-	-	-	-	-	946	832	-	954	842	-
Stage 2	-	-	-	-	-	-	949	840	-	934	825	-
Platoon blocked, %	1	-	-	1	-	-	1	1	1	1	1	1
Mov Cap-1 Maneuver	1556	-	-	1513	-	-	843	757	1015	828	751	1037
Mov Cap-2 Maneuver	-	-	-	-	-	-	843	757	-	828	751	-
Stage 1	-	-	-	-	-	-	943	829	-	952	836	-
Stage 2	-	-	-	-	-	-	931	834	-	912	822	-



















Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	1	9.4	9.3
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	875	1556	-	-	1513	-	-	856
HCM Lane V/C Ratio	0.056	0.003	-	-	0.006	-	-	0.019
HCM Control Delay (s)	9.4	7.3	-	-	7.4	-	-	9.3
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.1

Timings

4: Tibet St & 52nd Ave

02-21-2025

									
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	19	60	60	30	17	449	180	155	622
Future Volume (vph)	19	60	60	30	17	449	180	155	622
Turn Type	Perm	NA	pm+pt	NA	Perm	NA	Perm	Perm	NA
Protected Phases		4	3	8		2			6
Permitted Phases	4		8		2		2	6	
Detector Phase	4	4	3	8	2	2	2	6	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	29.0	29.0	16.0	45.0	75.0	75.0	75.0	75.0	75.0
Total Split (%)	24.2%	24.2%	13.3%	37.5%	62.5%	62.5%	62.5%	62.5%	62.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead						
Lead-Lag Optimize?	Yes	Yes	Yes						
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effect Green (s)	10.1	10.1	21.5	21.5	89.5	89.5	89.5	89.5	89.5
Actuated g/C Ratio	0.08	0.08	0.18	0.18	0.75	0.75	0.75	0.75	0.75
v/c Ratio	0.19	0.50	0.29	0.27	0.03	0.18	0.16	0.26	0.26
Control Delay	50.5	53.1	42.0	17.8	9.4	8.4	3.7	7.3	5.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.5	53.1	42.0	17.8	9.4	8.4	3.7	7.3	5.9
LOS	D	D	D	B	A	A	A	A	A
Approach Delay		52.6		27.8		7.1			6.2
Approach LOS		D		C		A			A

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

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

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.50

Intersection Signal Delay: 11.0

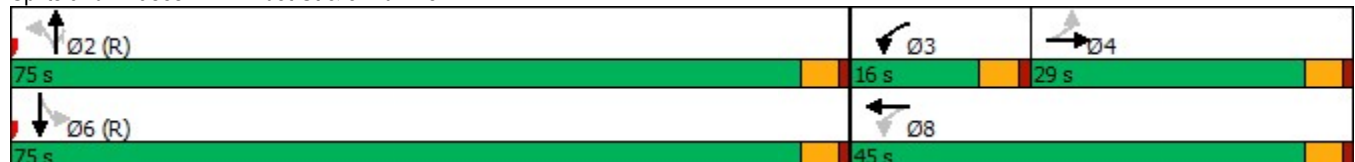
Intersection LOS: B

Intersection Capacity Utilization 43.1%

ICU Level of Service A

Analysis Period (min) 15























Splits and Phases: 4: Tibet St & 52nd Ave



HCM 6th Signalized Intersection Summary







4: Tibet St & 52nd Ave

02-21-2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	60	14	60	30	55	17	449	180	155	622	17
Future Volume (veh/h)	19	60	14	60	30	55	17	449	180	155	622	17
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	21	65	15	65	33	60	18	488	196	168	676	18
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	143	93	22	165	87	157	606	2770	1236	650	2757	73
Arrive On Green	0.02	0.02	0.02	0.04	0.15	0.15	1.00	1.00	1.00	0.78	0.78	0.78
Sat Flow, veh/h	1303	1470	339	1781	595	1081	750	3554	1585	757	3536	94
Grp Volume(v), veh/h	21	0	80	65	0	93	18	488	196	168	340	354
Grp Sat Flow(s),veh/h/ln	1303	0	1809	1781	0	1676	750	1777	1585	757	1777	1853
Q Serve(g_s), s	1.9	0.0	5.3	4.0	0.0	6.0	0.2	0.0	0.0	7.5	6.3	6.3
Cycle Q Clear(g_c), s	1.9	0.0	5.3	4.0	0.0	6.0	6.5	0.0	0.0	7.5	6.3	6.3
Prop In Lane	1.00		0.19	1.00		0.65	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	143	0	115	165	0	244	606	2770	1236	650	1385	1445
V/C Ratio(X)	0.15	0.00	0.70	0.39	0.00	0.38	0.03	0.18	0.16	0.26	0.25	0.25
Avail Cap(c_a), veh/h	326	0	369	257	0	566	606	2770	1236	650	1385	1445
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.9	0.0	57.6	47.9	0.0	46.4	0.2	0.0	0.0	3.7	3.6	3.6
Incr Delay (d2), s/veh	0.5	0.0	7.4	1.5	0.0	1.0	0.1	0.1	0.3	1.0	0.4	0.4
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(95%),veh/ln	1.2	0.0	4.9	3.3	0.0	4.7	0.0	0.1	0.2	2.0	3.7	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.4	0.0	65.0	49.5	0.0	47.4	0.3	0.1	0.3	4.7	4.0	4.0
LnGrp LOS	E	A	E	D	A	D	A	A	A	A	A	A
Approach Vol, veh/h	101				158				702			
Approach Delay, s/veh	63.2				48.2				0.2			
Approach LOS	E				D				A			
Timer - Assigned Phs	2			3		4		6		8		
Phs Duration (G+Y+Rc), s	98.0			9.8		12.1		98.0		22.0		
Change Period (Y+Rc), s	4.5			4.5		4.5		4.5		4.5		
Max Green Setting (Gmax), s	70.5			11.5		24.5		70.5		40.5		
Max Q Clear Time (g_c+I1), s	8.5			6.0		7.3		9.5		8.0		
Green Ext Time (p_c), s	4.7			0.0		0.4		6.8		0.5		
Intersection Summary												
HCM 6th Ctrl Delay				9.7								
HCM 6th LOS				A								

HCM 6th TWSC
5: Tibet St & Filing 17 Access

02-21-2025










Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	24	24	10	622	684	12
Future Vol, veh/h	24	24	10	622	684	12
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	100	-	-	100
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	26	26	11	676	743	13

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1103	372	756	0	-	0
Stage 1	743	-	-	-	-	-
Stage 2	360	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	*540	*815	1202	-	-	-
Stage 1	*769	-	-	-	-	-
Stage 2	*794	-	-	-	-	-
Platoon blocked, %	1	1	1	-	-	-
Mov Cap-1 Maneuver	*535	*815	1202	-	-	-
Mov Cap-2 Maneuver	*535	-	-	-	-	-
Stage 1	*762	-	-	-	-	-
Stage 2	*794	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.8	0.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1202	-	535	815	-	-
HCM Lane V/C Ratio	0.009	-	0.049	0.032	-	-
HCM Control Delay (s)	8	-	12.1	9.6	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0	-	0.2	0.1	-	-

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

Intersection												
Int Delay, s/veh	1.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	5	15	30	5	25	5	602	115	115	588	5
Future Vol, veh/h	5	5	15	30	5	25	5	602	115	115	588	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	100	-	-	100	-	-	100	-	100	100	-	-
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	5	5	16	33	5	27	5	654	125	125	639	5

Major/Minor	Minor2		Minor1		Major1		Major2	
Conflicting Flow All	1232	1681	322	1236	1558	327	644	0
Stage 1	892	892	-	664	664	-	-	-
Stage 2	340	789	-	572	894	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-
Pot Cap-1 Maneuver	*565	224	*841	*565	*300	*841	*1258	-
Stage 1	*542	523	-	*793	*695	-	-	-
Stage 2	*793	598	-	*793	*522	-	-	-
Platoon blocked, %	1	1	1	1	1	1	1	-
Mov Cap-1 Maneuver	*491	198	*841	*495	*265	*841	*1258	-
Mov Cap-2 Maneuver	*491	198	-	*495	*265	-	-	-
Stage 1	*540	465	-	*790	*692	-	-	-
Stage 2	*758	596	-	*683	*463	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13	12	0.1	1.4
HCM LOS	B	B		

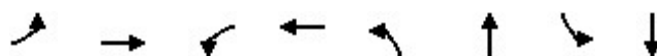
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	* 1258	-	-	491	464	495	617	1119	-	-
HCM Lane V/C Ratio	0.004	-	-	0.011	0.047	0.066	0.053	0.112	-	-
HCM Control Delay (s)	7.9	-	-	12.4	13.1	12.8	11.2	8.6	-	-
HCM Lane LOS	A	-	-	B	B	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0.2	0.2	0.4	-	-

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

Timings

1: Picadilly Rd & 52nd Ave

02-19-2025



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	35	10	64	5	10	775	31	835
Future Volume (vph)	35	10	64	5	10	775	31	835
Turn Type	Perm	NA	pm+pt	NA	Perm	NA	Perm	NA
Protected Phases		4	3	8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	28.0	28.0	17.0	45.0	75.0	75.0	75.0	75.0
Total Split (%)	23.3%	23.3%	14.2%	37.5%	62.5%	62.5%	62.5%	62.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead					
Lead-Lag Optimize?	Yes	Yes	Yes					
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effect Green (s)	8.9	8.9	20.8	20.7	93.2	93.2	93.2	93.2
Actuated g/C Ratio	0.07	0.07	0.17	0.17	0.78	0.78	0.78	0.78
v/c Ratio	0.38	0.19	0.32	0.19	0.03	0.33	0.08	0.33
Control Delay	63.1	32.3	45.9	15.6	5.9	5.9	6.2	6.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.1	32.3	45.9	15.6	5.9	5.9	6.2	6.1
LOS	E	C	D	B	A	A	A	A
Approach Delay		50.3		31.7		5.9		6.1
Approach LOS		D		C		A		A

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

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

Natural Cycle: 55

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.38

Intersection Signal Delay: 9.1

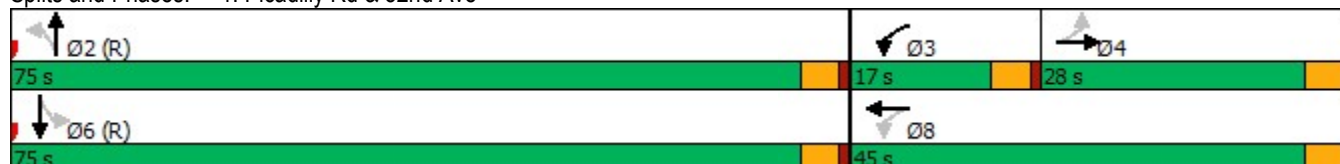
Intersection LOS: A

Intersection Capacity Utilization 43.5%

ICU Level of Service A

Analysis Period (min) 15






















Splits and Phases: 1: Picadilly Rd & 52nd Ave



HCM 6th Signalized Intersection Summary








1: Picadilly Rd & 52nd Ave

02-19-2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	10	15	64	5	52	10	775	43	31	835	10
Future Volume (veh/h)	35	10	15	64	5	52	10	775	43	31	835	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	38	11	16	70	5	57	11	842	47	34	908	11
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	121	31	45	187	17	193	500	2717	152	514	2855	35
Arrive On Green	0.05	0.05	0.05	0.05	0.13	0.13	0.79	0.79	0.79	0.79	0.79	0.79
Sat Flow, veh/h	1340	689	1002	1781	129	1475	608	3422	191	625	3596	44
Grp Volume(v), veh/h	38	0	27	70	0	62	11	437	452	34	449	470
Grp Sat Flow(s),veh/h/ln	1340	0	1690	1781	0	1605	608	1777	1836	625	1777	1863
Q Serve(g_s), s	3.3	0.0	1.9	4.4	0.0	4.2	0.6	8.1	8.1	1.9	8.4	8.4
Cycle Q Clear(g_c), s	3.3	0.0	1.9	4.4	0.0	4.2	9.0	8.1	8.1	10.0	8.4	8.4
Prop In Lane	1.00		0.59	1.00		0.92	1.00		0.10	1.00		0.02
Lane Grp Cap(c), veh/h	121	0	76	187	0	210	500	1411	1458	514	1411	1479
V/C Ratio(X)	0.32	0.00	0.35	0.37	0.00	0.29	0.02	0.31	0.31	0.07	0.32	0.32
Avail Cap(c_a), veh/h	322	0	331	287	0	542	500	1411	1458	514	1411	1479
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.3	0.0	55.6	49.5	0.0	47.1	4.6	3.4	3.4	4.7	3.4	3.4
Incr Delay (d2), s/veh	1.5	0.0	2.8	1.2	0.0	0.8	0.1	0.6	0.6	0.2	0.6	0.6
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(95%),veh/ln	2.1	0.0	1.5	3.6	0.0	3.1	0.1	4.6	4.7	0.5	4.7	4.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.8	0.0	58.3	50.7	0.0	47.9	4.7	4.0	3.9	5.0	4.0	4.0
LnGrp LOS	E	A	E	D	A	D	A	A	A	A	A	A
Approach Vol, veh/h	65			132			900			953		
Approach Delay, s/veh	58.0			49.4			4.0			4.0		
Approach LOS	E			D			A			A		
Timer - Assigned Phs	2		3	4	6		8					
Phs Duration (G+Y+Rc), s	99.8		10.3	9.9	99.8		20.2					
Change Period (Y+Rc), s	4.5		4.5	4.5	4.5		4.5					
Max Green Setting (Gmax), s	70.5		12.5	23.5	70.5		40.5					
Max Q Clear Time (g_c+I1), s	11.0		6.4	5.3	12.0		6.2					
Green Ext Time (p_c), s	7.2		0.1	0.2	7.8		0.3					
Intersection Summary												
HCM 6th Ctrl Delay	8.6											
HCM 6th LOS	A											

HCM 6th TWSC
2: Access #16 & 52nd Ave

02-19-2025

Intersection												
Int Delay, s/veh	1.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	69	10	5	111	5	5	5	5	5	5	5
Future Vol, veh/h	5	69	10	5	111	5	5	5	5	5	5	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	100	-	-	-	-	-	-	-	-
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	5	75	11	5	121	5	5	5	5	5	5	5







Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	126	0	0	86	0	0	230	227	81	230	230	124
Stage 1	-	-	-	-	-	-	91	91	-	134	134	-
Stage 2	-	-	-	-	-	-	139	136	-	96	96	-
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	1484	-	-	1520	-	-	817	731	1005	817	728	992
Stage 1	-	-	-	-	-	-	938	830	-	924	812	-
Stage 2	-	-	-	-	-	-	917	810	-	932	826	-
Platoon blocked, %	1	-	-	1	-	-	1	1	1	1	1	1
Mov Cap-1 Maneuver	1484	-	-	1520	-	-	804	726	1005	804	724	992
Mov Cap-2 Maneuver	-	-	-	-	-	-	804	726	-	804	724	-
Stage 1	-	-	-	-	-	-	935	828	-	921	810	-
Stage 2	-	-	-	-	-	-	903	808	-	918	823	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.4			0.3			9.4			9.4		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	830	1484	-	-	1520	-	-	826
HCM Lane V/C Ratio	0.02	0.004	-	-	0.004	-	-	0.02
HCM Control Delay (s)	9.4	7.4	-	-	7.4	-	-	9.4
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1

HCM 6th TWSC
3: Access #14 & 52nd Ave

02-19-2025

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	5	45	29	13	96	5	20	5	10	5	5	5
Future Vol, veh/h	5	45	29	13	96	5	20	5	10	5	5	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	100	-	-	-	-	-	-	-	-
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	5	49	32	14	104	5	22	5	11	5	5	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	109	0	0	81	0	0	215	212	65	218	226	107
Stage 1	-	-	-	-	-	-	75	75	-	135	135	-
Stage 2	-	-	-	-	-	-	140	137	-	83	91	-
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	1499	-	-	1526	-	-	812	730	1026	809	717	992
Stage 1	-	-	-	-	-	-	956	844	-	904	802	-
Stage 2	-	-	-	-	-	-	899	800	-	948	830	-
Platoon blocked, %	1	-	-	1	-	-	1	1	1	1	1	1
Mov Cap-1 Maneuver	1499	-	-	1526	-	-	795	721	1026	788	708	992
Mov Cap-2 Maneuver	-	-	-	-	-	-	795	721	-	788	708	-
Stage 1	-	-	-	-	-	-	954	841	-	902	795	-
Stage 2	-	-	-	-	-	-	879	793	-	928	828	-



















Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	0.8	9.5	9.5
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	837	1499	-	-	1526	-	-	813
HCM Lane V/C Ratio	0.045	0.004	-	-	0.009	-	-	0.02
HCM Control Delay (s)	9.5	7.4	-	-	7.4	-	-	9.5
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1

Timings

4: Tibet St & 52nd Ave

02-19-2025

									
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	7	35	120	60	40	843	60	65	679
Future Volume (vph)	7	35	120	60	40	843	60	65	679
Turn Type	Perm	NA	pm+pt	NA	Perm	NA	pm+ov	Perm	NA
Protected Phases		4	3	8		2	3		6
Permitted Phases	4		8		2		2	6	
Detector Phase	4	4	3	8	2	2	3	6	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	9.5	22.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	27.0	27.0	20.0	47.0	73.0	73.0	20.0	73.0	73.0
Total Split (%)	22.5%	22.5%	16.7%	39.2%	60.8%	60.8%	16.7%	60.8%	60.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead				Lead		
Lead-Lag Optimize?	Yes	Yes	Yes				Yes		
Recall Mode	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effect Green (s)	8.3	8.3	23.5	23.5	87.5	87.5	105.6	87.5	87.5
Actuated g/C Ratio	0.07	0.07	0.20	0.20	0.73	0.73	0.88	0.73	0.73
v/c Ratio	0.10	0.42	0.50	0.48	0.09	0.35	0.05	0.18	0.29
Control Delay	51.0	43.8	46.5	24.5	9.1	9.4	1.6	8.1	6.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.0	43.8	46.5	24.5	9.1	9.4	1.6	8.1	6.8
LOS	D	D	D	C	A	A	A	A	A
Approach Delay		44.7		33.4		8.9			6.9
Approach LOS		D		C		A			A

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 68.5 (57%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.50

Intersection Signal Delay: 12.7

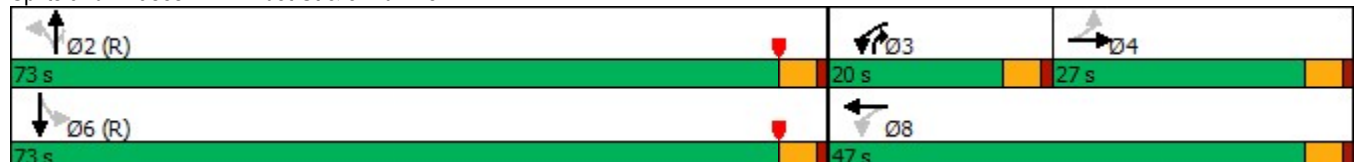
Intersection LOS: B

Intersection Capacity Utilization 52.0%

ICU Level of Service A

Analysis Period (min) 15























Splits and Phases: 4: Tibet St & 52nd Ave



HCM 6th Signalized Intersection Summary







4: Tibet St & 52nd Ave

02-19-2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	35	18	120	60	115	40	843	60	65	679	14
Future Volume (veh/h)	7	35	18	120	60	115	40	843	60	65	679	14
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	8	38	20	130	65	125	43	916	65	71	738	15
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	121	59	31	234	98	189	549	2677	1326	492	2683	55
Arrive On Green	0.05	0.05	0.05	0.08	0.17	0.17	1.00	1.00	1.00	0.75	0.75	0.75
Sat Flow, veh/h	1193	1154	607	1781	572	1100	710	3554	1585	574	3562	72
Grp Volume(v), veh/h	8	0	58	130	0	190	43	916	65	71	368	385
Grp Sat Flow(s),veh/h/ln	1193	0	1761	1781	0	1672	710	1777	1585	574	1777	1857
Q Serve(g_s), s	0.8	0.0	3.9	8.0	0.0	12.7	0.7	0.0	0.0	4.2	7.7	7.7
Cycle Q Clear(g_c), s	0.8	0.0	3.9	8.0	0.0	12.7	8.4	0.0	0.0	4.2	7.7	7.7
Prop In Lane	1.00		0.34	1.00		0.66	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	121	0	89	234	0	287	549	2677	1326	492	1338	1399
V/C Ratio(X)	0.07	0.00	0.65	0.56	0.00	0.66	0.08	0.34	0.05	0.14	0.28	0.28
Avail Cap(c_a), veh/h	284	0	330	315	0	592	549	2677	1326	492	1338	1399
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.4	0.0	55.9	46.8	0.0	46.4	0.4	0.0	0.0	4.2	4.6	4.6
Incr Delay (d2), s/veh	0.2	0.0	7.7	2.1	0.0	2.6	0.3	0.3	0.1	0.6	0.5	0.5
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(95%),veh/ln	0.4	0.0	3.4	6.6	0.0	9.4	0.1	0.2	0.0	0.9	4.8	5.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.7	0.0	63.6	48.9	0.0	49.0	0.6	0.3	0.1	4.8	5.1	5.1
LnGrp LOS	D	A	E	D	A	D	A	A	A	A	A	A
Approach Vol, veh/h	66			320			1024			824		
Approach Delay, s/veh	62.5			49.0			0.3			5.1		
Approach LOS	E			D			A			A		
Timer - Assigned Phs	2		3	4		6		8				
Phs Duration (G+Y+Rc), s	94.9		14.5	10.6		94.9		25.1				
Change Period (Y+Rc), s	4.5		4.5	4.5		4.5		4.5				
Max Green Setting (Gmax), s	68.5		15.5	22.5		68.5		42.5				
Max Q Clear Time (g_c+I1), s	10.4		10.0	5.9		9.7		14.7				
Green Ext Time (p_c), s	9.2		0.1	0.2		6.7		1.2				
Intersection Summary												
HCM 6th Ctrl Delay	10.9											
HCM 6th LOS	B											

HCM 6th TWSC
5: Tibet St & Filing 17 Access

02-19-2025










Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	19	16	25	924	798	19
Future Vol, veh/h	19	16	25	924	798	19
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	100	-	-	100
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	21	17	27	1004	867	21

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1423	434	888	0	-	0
Stage 1	867	-	-	-	-	-
Stage 2	556	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	*525	*763	1140	-	-	-
Stage 1	*720	-	-	-	-	-
Stage 2	*671	-	-	-	-	-
Platoon blocked, %	1	1	1	-	-	-
Mov Cap-1 Maneuver	*513	*763	1140	-	-	-
Mov Cap-2 Maneuver	*513	-	-	-	-	-
Stage 1	*703	-	-	-	-	-
Stage 2	*671	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.2	0.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1140	-	513	763	-	-
HCM Lane V/C Ratio	0.024	-	0.04	0.023	-	-
HCM Control Delay (s)	8.2	-	12.3	9.8	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	0.1	-	-

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

Intersection												
Int Delay, s/veh	1.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	5	10	70	5	55	15	889	20	45	764	5
Future Vol, veh/h	5	5	10	70	5	55	15	889	20	45	764	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	100	-	-	100	-	-	100	-	100	100	-	-
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	5	5	11	76	5	60	16	966	22	49	830	5

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1449	1951	418	1514	1931	483	835	0	0	988	0	0
Stage 1	931	931	-	998	998	-	-	-	-	-	-	-
Stage 2	518	1020	-	516	933	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	*401	*230	*763	*401	*246	*711	*1141	-	-	*1063	-	-
Stage 1	*663	*593	-	*670	*587	-	-	-	-	-	-	-
Stage 2	*670	*587	-	*719	*592	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1	1	1	-	-	1	-	-
Mov Cap-1 Maneuver	*345	*217	*763	*371	*232	*711	*1141	-	-	*1063	-	-
Mov Cap-2 Maneuver	*345	*217	-	*371	*232	-	-	-	-	-	-	-
Stage 1	*654	*566	-	*661	*579	-	-	-	-	-	-	-
Stage 2	*599	*579	-	*670	*564	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	14.4		14.6		0.1		0.5	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	* 1141	-	-	345	415	371	607	* 1063	-	-
HCM Lane V/C Ratio	0.014	-	-	0.016	0.039	0.205	0.107	0.046	-	-
HCM Control Delay (s)	8.2	-	-	15.6	14	17.2	11.6	8.6	-	-
HCM Lane LOS	A	-	-	C	B	C	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0.8	0.4	0.1	-	-

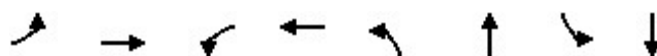
Notes												
~: Volume exceeds capacity			\$: Delay exceeds 300s			+: Computation Not Defined			*: All major volume in platoon			

Appendix H. 2045 Total Traffic Level of Service

Timings

1: Picadilly Rd & 52nd Ave

02-19-2025



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	60	25	126	10	35	970	100	950
Future Volume (vph)	60	25	126	10	35	970	100	950
Turn Type	Perm	NA	pm+pt	NA	Perm	NA	Perm	NA
Protected Phases		4	3	8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	23.0	23.0	14.0	37.0	83.0	83.0	83.0	83.0
Total Split (%)	19.2%	19.2%	11.7%	30.8%	69.2%	69.2%	69.2%	69.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead					
Lead-Lag Optimize?	Yes	Yes	Yes					
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effect Green (s)	11.9	11.9	25.8	25.8	85.2	85.2	85.2	85.2
Actuated g/C Ratio	0.10	0.10	0.22	0.22	0.71	0.71	0.71	0.71
v/c Ratio	0.56	0.58	0.69	0.45	0.14	0.50	0.44	0.46
Control Delay	68.3	20.3	52.6	14.5	8.1	8.9	15.7	8.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.3	20.3	52.6	14.5	8.1	8.9	15.7	8.5
LOS	E	C	D	B	A	A	B	A
Approach Delay		33.7		29.9		8.9		9.1
Approach LOS		C		C		A		A

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

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

Natural Cycle: 80

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.69

Intersection Signal Delay: 13.1

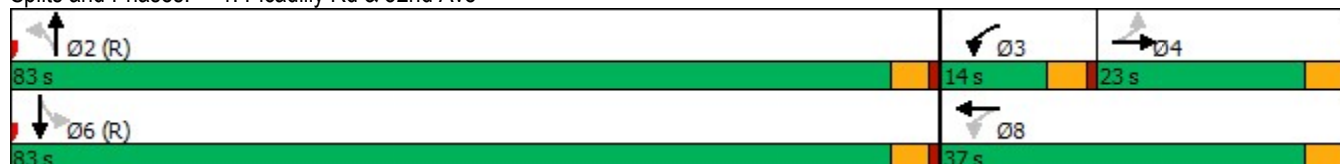
Intersection LOS: B

Intersection Capacity Utilization 69.1%

ICU Level of Service C

Analysis Period (min) 15





















Splits and Phases: 1: Picadilly Rd & 52nd Ave



HCM 6th Signalized Intersection Summary








1: Picadilly Rd & 52nd Ave

02-19-2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	25	130	126	10	176	35	970	170	100	950	100
Future Volume (veh/h)	60	25	130	126	10	176	35	970	170	100	950	100
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	65	27	141	137	11	191	38	1054	185	109	1033	109
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	204	32	166	226	21	360	326	2075	363	293	2227	235
Arrive On Green	0.12	0.12	0.12	0.08	0.24	0.24	0.69	0.69	0.69	0.69	0.69	0.69
Sat Flow, veh/h	1180	261	1364	1781	87	1511	493	3023	529	449	3244	342
Grp Volume(v), veh/h	65	0	168	137	0	202	38	619	620	109	566	576
Grp Sat Flow(s),veh/h/ln	1180	0	1625	1781	0	1598	493	1777	1775	449	1777	1809
Q Serve(g_s), s	6.1	0.0	12.2	7.8	0.0	13.2	4.6	20.1	20.2	18.5	17.6	17.6
Cycle Q Clear(g_c), s	6.1	0.0	12.2	7.8	0.0	13.2	22.2	20.1	20.2	38.7	17.6	17.6
Prop In Lane	1.00		0.84	1.00		0.95	1.00		0.30	1.00		0.19
Lane Grp Cap(c), veh/h	204	0	198	226	0	381	326	1220	1219	293	1220	1242
V/C Ratio(X)	0.32	0.00	0.85	0.61	0.00	0.53	0.12	0.51	0.51	0.37	0.46	0.46
Avail Cap(c_a), veh/h	242	0	251	226	0	433	326	1220	1219	293	1220	1242
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.0	0.0	51.6	40.7	0.0	39.8	13.8	9.0	9.1	18.4	8.6	8.6
Incr Delay (d2), s/veh	0.9	0.0	19.4	4.6	0.0	1.1	0.7	1.5	1.5	3.6	1.3	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.4	0.0	10.0	6.7	0.0	9.1	1.0	12.2	12.3	3.9	11.0	11.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.9	0.0	71.0	45.3	0.0	41.0	14.5	10.5	10.6	22.0	9.9	9.9
LnGrp LOS	D	A	E	D	A	D	B	B	B	C	A	A
Approach Vol, veh/h	233			339			1277			1251		
Approach Delay, s/veh	65.1			42.7			10.7			11.0		
Approach LOS	E			D			B			B		
Timer - Assigned Phs	2		3	4		6		8				
Phs Duration (G+Y+Rc), s	86.9		14.0	19.1		86.9		33.1				
Change Period (Y+Rc), s	4.5		4.5	4.5		4.5		4.5				
Max Green Setting (Gmax), s	78.5		9.5	18.5		78.5		32.5				
Max Q Clear Time (g_c+I1), s	24.2		9.8	14.2		40.7		15.2				
Green Ext Time (p_c), s	13.0		0.0	0.4		12.4		1.1				
Intersection Summary												
HCM 6th Ctrl Delay	18.4											
HCM 6th LOS	B											

HCM 6th TWSC
2: Access #16 & 52nd Ave

02-19-2025

Intersection												
Int Delay, s/veh	1.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	280	10	5	277	10	15	5	5	20	5	20
Future Vol, veh/h	5	280	10	5	277	10	15	5	5	20	5	20
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	0	-	-	100	-	-	-	-	-	-	-	-
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	5	304	11	5	301	11	16	5	5	22	5	22







Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	312	0	0	315	0	0	650	642	310	642	642	307
Stage 1	-	-	-	-	-	-	320	320	-	317	317	-
Stage 2	-	-	-	-	-	-	330	322	-	325	325	-
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	1282	-	-	1278	-	-	541	492	853	552	492	857
Stage 1	-	-	-	-	-	-	793	699	-	797	702	-
Stage 2	-	-	-	-	-	-	781	697	-	788	695	-
Platoon blocked, %	1	-	-	1	-	-	1	1	1	1	1	1
Mov Cap-1 Maneuver	1282	-	-	1278	-	-	520	488	853	540	488	857
Mov Cap-2 Maneuver	-	-	-	-	-	-	520	488	-	540	488	-
Stage 1	-	-	-	-	-	-	790	696	-	794	699	-
Stage 2	-	-	-	-	-	-	753	695	-	774	692	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			0.1			11.8			11.1		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	556	1282	-	-	1278	-	-	637
HCM Lane V/C Ratio	0.049	0.004	-	-	0.004	-	-	0.077
HCM Control Delay (s)	11.8	7.8	-	-	7.8	-	-	11.1
HCM Lane LOS	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.2

HCM 6th TWSC
3: Access #14 & 52nd Ave

02-19-2025

Intersection												
Int Delay, s/veh	1.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	285	15	9	260	5	27	5	13	5	5	5
Future Vol, veh/h	5	285	15	9	260	5	27	5	13	5	5	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	100	-	-	-	-	-	-	-	-
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	5	310	16	10	283	5	29	5	14	5	5	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	288	0	0	326	0	0	639	636	318	644	642	286
Stage 1	-	-	-	-	-	-	328	328	-	306	306	-
Stage 2	-	-	-	-	-	-	311	308	-	338	336	-
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	*1299	-	-	*1260	-	-	*584	*515	*842	576	508	*868
Stage 1	-	-	-	-	-	-	*794	*695	-	811	711	-
Stage 2	-	-	-	-	-	-	*805	*709	-	791	695	-
Platoon blocked, %	1	-	-	1	-	-	1	1	1	1	1	1
Mov Cap-1 Maneuver	*1299	-	-	*1260	-	-	*570	*509	*842	556	502	*868
Mov Cap-2 Maneuver	-	-	-	-	-	-	*570	*509	-	556	502	-
Stage 1	-	-	-	-	-	-	*790	*692	-	808	705	-
Stage 2	-	-	-	-	-	-	*787	*704	-	769	692	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			0.3			11.3			11.1		
HCM LOS							B			B		



















Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	620	* 1299	-	-	* 1260	-	-	607
HCM Lane V/C Ratio	0.079	0.004	-	-	0.008	-	-	0.027
HCM Control Delay (s)	11.3	7.8	-	-	7.9	-	-	11.1
HCM Lane LOS	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	0.1

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

Timings

4: Tibet St & 52nd Ave

02-19-2025

									
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	119	55	60	30	127	524	180	155	692
Future Volume (vph)	119	55	60	30	127	524	180	155	692
Turn Type	Perm	NA	pm+pt	NA	Perm	NA	Perm	Perm	NA
Protected Phases		4	3	8		2			6
Permitted Phases	4		8		2		2	6	
Detector Phase	4	4	3	8	2	2	2	6	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	29.0	29.0	16.0	45.0	75.0	75.0	75.0	75.0	75.0
Total Split (%)	24.2%	24.2%	13.3%	37.5%	62.5%	62.5%	62.5%	62.5%	62.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead						
Lead-Lag Optimize?	Yes	Yes	Yes						
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effect Green (s)	17.2	17.2	28.4	28.4	82.6	82.6	82.6	82.6	82.6
Actuated g/C Ratio	0.14	0.14	0.24	0.24	0.69	0.69	0.69	0.69	0.69
v/c Ratio	0.69	0.64	0.31	0.21	0.37	0.23	0.17	0.31	0.37
Control Delay	58.8	28.0	36.1	14.1	16.2	10.1	3.6	11.6	9.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.8	28.0	36.1	14.1	16.2	10.1	3.6	11.6	9.5
LOS	E	C	D	B	B	B	A	B	A
Approach Delay		40.0		23.2		9.6			9.8
Approach LOS		D		C		A			A

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

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

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.69

Intersection Signal Delay: 14.7

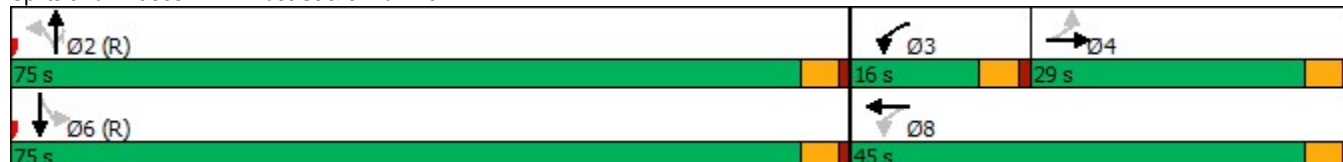
Intersection LOS: B

Intersection Capacity Utilization 59.9%

ICU Level of Service B

Analysis Period (min) 15























Splits and Phases: 4: Tibet St & 52nd Ave



HCM 6th Signalized Intersection Summary







4: Tibet St & 52nd Ave

02-19-2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	119	55	129	60	30	55	127	524	180	155	692	117
Future Volume (veh/h)	119	55	129	60	30	55	127	524	180	155	692	117
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	129	60	140	65	33	60	138	570	196	168	752	127
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	248	72	168	164	133	242	441	2492	1111	552	2132	360
Arrive On Green	0.05	0.05	0.05	0.04	0.22	0.22	1.00	1.00	1.00	0.70	0.70	0.70
Sat Flow, veh/h	1303	498	1163	1781	595	1081	631	3554	1585	702	3041	513
Grp Volume(v), veh/h	129	0	200	65	0	93	138	570	196	168	439	440
Grp Sat Flow(s),veh/h/ln	1303	0	1661	1781	0	1676	631	1777	1585	702	1777	1778
Q Serve(g_s), s	11.7	0.0	14.3	3.6	0.0	5.5	5.3	0.0	0.0	11.3	11.8	11.8
Cycle Q Clear(g_c), s	11.7	0.0	14.3	3.6	0.0	5.5	17.1	0.0	0.0	11.3	11.8	11.8
Prop In Lane	1.00		0.70	1.00		0.65	1.00		1.00	1.00		0.29
Lane Grp Cap(c), veh/h	248	0	240	164	0	375	441	2492	1111	552	1246	1247
V/C Ratio(X)	0.52	0.00	0.83	0.40	0.00	0.25	0.31	0.23	0.18	0.30	0.35	0.35
Avail Cap(c_a), veh/h	326	0	339	260	0	566	441	2492	1111	552	1246	1247
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.5	0.0	55.7	40.7	0.0	38.3	1.2	0.0	0.0	7.0	7.1	7.1
Incr Delay (d2), s/veh	1.7	0.0	11.6	1.5	0.0	0.3	1.9	0.2	0.3	1.4	0.8	0.8
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(95%),veh/ln	7.6	0.0	11.6	3.0	0.0	4.1	0.6	0.1	0.2	3.2	7.8	7.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.1	0.0	67.3	42.3	0.0	38.6	3.1	0.2	0.3	8.5	7.9	7.9
LnGrp LOS	E	A	E	D	A	D	A	A	A	A	A	A
Approach Vol, veh/h	329			158			904			1047		
Approach Delay, s/veh	62.9			40.1			0.7			8.0		
Approach LOS	E			D			A			A		
Timer - Assigned Phs	2		3	4	6		8					
Phs Duration (G+Y+Rc), s	88.6		9.5	21.8	88.6		31.4					
Change Period (Y+Rc), s	4.5		4.5	4.5	4.5		4.5					
Max Green Setting (Gmax), s	70.5		11.5	24.5	70.5		40.5					
Max Q Clear Time (g_c+I1), s	19.1		5.6	16.3	13.8		7.5					
Green Ext Time (p_c), s	7.2		0.0	1.0	9.3		0.5					
Intersection Summary												
HCM 6th Ctrl Delay	14.8											
HCM 6th LOS	B											

HCM 6th TWSC
5: Tibet St & Filing 17 Access

02-19-2025










Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	24	24	10	807	869	12
Future Vol, veh/h	24	24	10	807	869	12
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	100	-	-	100
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	26	26	11	877	945	13

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1406	473	958	0	-	0
Stage 1	945	-	-	-	-	-
Stage 2	461	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	*377	*711	*1063	-	-	-
Stage 1	*671	-	-	-	-	-
Stage 2	*720	-	-	-	-	-
Platoon blocked, %	1	1	1	-	-	-
Mov Cap-1 Maneuver	*373	*711	*1063	-	-	-
Mov Cap-2 Maneuver	*373	-	-	-	-	-
Stage 1	*664	-	-	-	-	-
Stage 2	*720	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.9	0.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	* 1063	-	373	711	-	-
HCM Lane V/C Ratio	0.01	-	0.07	0.037	-	-
HCM Control Delay (s)	8.4	-	15.4	10.3	-	-
HCM Lane LOS	A	-	C	B	-	-
HCM 95th %tile Q(veh)	0	-	0.2	0.1	-	-

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

Intersection												
Int Delay, s/veh	1.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	5	15	30	5	25	5	787	115	115	668	110
Future Vol, veh/h	5	5	15	30	5	25	5	787	115	115	668	110
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	100	-	-	100	-	-	100	-	100	100	-	-
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	5	5	16	33	5	27	5	855	125	125	726	120

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1476	2026	423	1481	1961	428	846	0	0	980	0	0
Stage 1	1036	1036	-	865	865	-	-	-	-	-	-	-
Stage 2	440	990	-	616	1096	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	*313	89	*815	*308	*104	*763	1087	-	-	1021	-	-
Stage 1	*456	456	-	*719	*630	-	-	-	-	-	-	-
Stage 2	*719	546	-	*768	*421	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1	1	1	-	-	1	-	-
Mov Cap-1 Maneuver	*261	78	*815	*259	*91	*763	1087	-	-	1021	-	-
Mov Cap-2 Maneuver	*261	78	-	*259	*91	-	-	-	-	-	-	-
Stage 1	*454	400	-	*716	*627	-	-	-	-	-	-	-
Stage 2	*684	543	-	*652	*369	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	20.9		18.8		0		1.2	
HCM LOS	C		C					

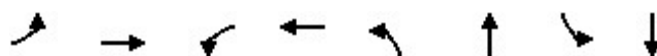
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1087	-	-	261	242	259	342	1021	-	-
HCM Lane V/C Ratio	0.005	-	-	0.021	0.09	0.126	0.095	0.122	-	-
HCM Control Delay (s)	8.3	-	-	19.1	21.3	20.9	16.6	9	-	-
HCM Lane LOS	A	-	-	C	C	C	C	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.3	0.4	0.3	0.4	-	-

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

Timings

1: Picadilly Rd & 52nd Ave

02-19-2025



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	←	→	←	→	←	→	←	→
Traffic Volume (vph)	35	20	154	10	20	1145	121	1110
Future Volume (vph)	35	20	154	10	20	1145	121	1110
Turn Type	Perm	NA	pm+pt	NA	Perm	NA	Perm	NA
Protected Phases		4	3	8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	21.0	21.0	12.0	33.0	87.0	87.0	87.0	87.0
Total Split (%)	17.5%	17.5%	10.0%	27.5%	72.5%	72.5%	72.5%	72.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead					
Lead-Lag Optimize?	Yes	Yes	Yes					
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effect Green (s)	9.3	9.3	19.3	19.3	91.7	91.7	91.7	91.7
Actuated g/C Ratio	0.08	0.08	0.16	0.16	0.76	0.76	0.76	0.76
v/c Ratio	0.41	0.42	0.88	0.57	0.08	0.56	0.65	0.47
Control Delay	65.1	27.4	80.0	23.0	5.6	7.3	27.7	6.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	65.1	27.4	80.0	23.0	5.6	7.3	27.7	6.5
LOS	E	C	E	C	A	A	C	A
Approach Delay		40.0		49.4		7.3		8.5
Approach LOS		D		D		A		A

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

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

Natural Cycle: 100

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.88

Intersection Signal Delay: 13.4

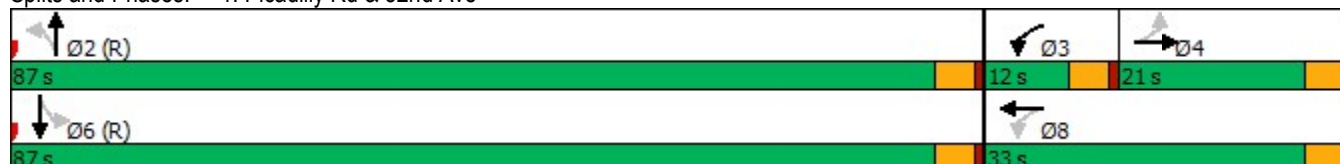
Intersection LOS: B

Intersection Capacity Utilization 75.3%

ICU Level of Service D

Analysis Period (min) 15






















Splits and Phases: 1: Picadilly Rd & 52nd Ave



HCM 6th Signalized Intersection Summary







1: Picadilly Rd & 52nd Ave

02-19-2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	20	50	154	10	167	20	1145	217	121	1110	45
Future Volume (veh/h)	35	20	50	154	10	167	20	1145	217	121	1110	45
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	38	22	54	167	11	182	22	1245	236	132	1207	49
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	120	31	77	198	15	249	340	2269	426	269	2645	107
Arrive On Green	0.06	0.06	0.06	0.06	0.16	0.16	0.76	0.76	0.76	0.76	0.76	0.76
Sat Flow, veh/h	1190	480	1178	1781	91	1508	442	2985	561	356	3481	141
Grp Volume(v), veh/h	38	0	76	167	0	193	22	737	744	132	616	640
Grp Sat Flow(s),veh/h/ln	1190	0	1658	1781	0	1599	442	1777	1769	356	1777	1845
Q Serve(g_s), s	3.8	0.0	5.4	7.5	0.0	13.8	2.3	20.4	20.9	29.2	15.3	15.3
Cycle Q Clear(g_c), s	5.5	0.0	5.4	7.5	0.0	13.8	17.6	20.4	20.9	50.2	15.3	15.3
Prop In Lane	1.00		0.71	1.00		0.94	1.00		0.32	1.00		0.08
Lane Grp Cap(c), veh/h	120	0	108	198	0	264	340	1350	1345	269	1350	1402
V/C Ratio(X)	0.32	0.00	0.71	0.84	0.00	0.73	0.06	0.55	0.55	0.49	0.46	0.46
Avail Cap(c_a), veh/h	206	0	228	198	0	380	340	1350	1345	269	1350	1402
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.9	0.0	55.0	50.8	0.0	47.6	8.5	5.9	6.0	16.4	5.3	5.3
Incr Delay (d2), s/veh	1.5	0.0	8.1	26.9	0.0	4.1	0.4	1.6	1.6	6.3	1.1	1.1
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(95%),veh/ln	2.1	0.0	4.5	5.1	0.0	9.7	0.5	11.4	11.6	5.0	9.0	9.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.4	0.0	63.1	77.7	0.0	51.7	8.9	7.5	7.6	22.6	6.4	6.4
LnGrp LOS	E	A	E	E	A	D	A	A	A	C	A	A
Approach Vol, veh/h	114		360			1503			1388			
Approach Delay, s/veh	61.2		63.7			7.6			7.9			
Approach LOS	E		E			A			A			
Timer - Assigned Phs	2		3		4		6		8			
Phs Duration (G+Y+Rc), s	95.7		12.0		12.3		95.7		24.3			
Change Period (Y+Rc), s	4.5		4.5		4.5		4.5		4.5			
Max Green Setting (Gmax), s	82.5		7.5		16.5		82.5		28.5			
Max Q Clear Time (g_c+I1), s	22.9		9.5		7.5		52.2		15.8			
Green Ext Time (p_c), s	17.9		0.0		0.3		14.2		0.9			
Intersection Summary												
HCM 6th Ctrl Delay	15.5											
HCM 6th LOS	B											
Notes												

HCM 6th TWSC
2: Access #16 & 52nd Ave

02-19-2025

Intersection												
Int Delay, s/veh	0.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	343	10	5	321	5	5	5	5	5	5	5
Future Vol, veh/h	5	343	10	5	321	5	5	5	5	5	5	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	100	-	-	-	-	-	-	-	-
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	5	373	11	5	349	5	5	5	5	5	5	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	354	0	0	384	0	0	756	753	379	756	756	352
Stage 1	-	-	-	-	-	-	389	389	-	362	362	-
Stage 2	-	-	-	-	-	-	367	364	-	394	394	-
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	*1221	-	-	1204	-	-	*415	*388	806	*415	*386	*816
Stage 1	-	-	-	-	-	-	*748	*659	-	*769	*673	-
Stage 2	-	-	-	-	-	-	*769	*673	-	*742	*655	-
Platoon blocked, %	1	-	-	1	-	-	1	1	1	1	1	1
Mov Cap-1 Maneuver	*1221	-	-	1204	-	-	*405	*385	806	*405	*383	*816
Mov Cap-2 Maneuver	-	-	-	-	-	-	*405	*385	-	*405	*383	-
Stage 1	-	-	-	-	-	-	*745	*657	-	*766	*671	-
Stage 2	-	-	-	-	-	-	*755	*671	-	*728	*652	-







Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			0.1			12.8			12.8		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	476	* 1221	-	-	1204	-	-	476
HCM Lane V/C Ratio	0.034	0.004	-	-	0.005	-	-	0.034
HCM Control Delay (s)	12.8	8	-	-	8	-	-	12.8
HCM Lane LOS	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1

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

HCM 6th TWSC
3: Access #14 & 52nd Ave

02-19-2025

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	5	320	28	13	306	5	20	5	10	5	5	5
Future Vol, veh/h	5	320	28	13	306	5	20	5	10	5	5	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	100	-	-	-	-	-	-	-	-
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	5	348	30	14	333	5	22	5	11	5	5	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	338	0	0	378	0	0	742	739	363	745	752	336
Stage 1	-	-	-	-	-	-	373	373	-	364	364	-
Stage 2	-	-	-	-	-	-	369	366	-	381	388	-
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	1256	-	-	1212	-	-	490	439	*816	486	425	842
Stage 1	-	-	-	-	-	-	768	673	-	759	671	-
Stage 2	-	-	-	-	-	-	754	669	-	758	660	-
Platoon blocked, %	1	-	-	1	-	-	1	1	1	1	1	1
Mov Cap-1 Maneuver	1256	-	-	1212	-	-	476	432	*816	469	419	842
Mov Cap-2 Maneuver	-	-	-	-	-	-	476	432	-	469	419	-
Stage 1	-	-	-	-	-	-	764	670	-	756	663	-
Stage 2	-	-	-	-	-	-	734	661	-	739	657	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			0.3			12.3			12.1		
HCM LOS							B			B		



















Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	532	1256	-	-	1212	-	-	526
HCM Lane V/C Ratio	0.072	0.004	-	-	0.012	-	-	0.031
HCM Control Delay (s)	12.3	7.9	-	-	8	-	-	12.1
HCM Lane LOS	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.1

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

Timings

4: Tibet St & 52nd Ave

02-19-2025

									
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	127	40	120	50	145	1053	60	65	689
Future Volume (vph)	127	40	120	50	145	1053	60	65	689
Turn Type	Perm	NA	pm+pt	NA	Perm	NA	pm+ov	Perm	NA
Protected Phases		4	3	8		2	3		6
Permitted Phases	4		8		2		2	6	
Detector Phase	4	4	3	8	2	2	3	6	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	9.5	22.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	30.0	30.0	14.0	44.0	76.0	76.0	14.0	76.0	76.0
Total Split (%)	25.0%	25.0%	11.7%	36.7%	63.3%	63.3%	11.7%	63.3%	63.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead				Lead		
Lead-Lag Optimize?	Yes	Yes	Yes				Yes		
Recall Mode	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effect Green (s)	18.7	18.7	32.4	32.4	78.6	78.6	92.3	78.6	78.6
Actuated g/C Ratio	0.16	0.16	0.27	0.27	0.66	0.66	0.77	0.66	0.66
v/c Ratio	0.74	0.58	0.59	0.35	0.46	0.49	0.05	0.30	0.39
Control Delay	61.5	15.1	44.6	18.7	18.4	13.1	2.9	14.8	10.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.5	15.1	44.6	18.7	18.4	13.1	2.9	14.8	10.5
LOS	E	B	D	B	B	B	A	B	B
Approach Delay		32.7		29.6		13.2			10.8
Approach LOS		C		C		B			B

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 68.5 (57%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow

Natural Cycle: 70

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.74

Intersection Signal Delay: 16.5

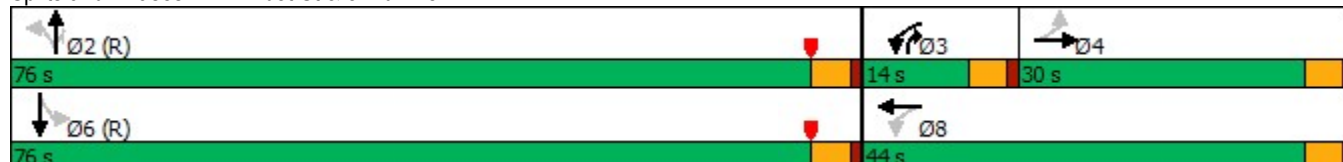
Intersection LOS: B

Intersection Capacity Utilization 67.4%

ICU Level of Service C

Analysis Period (min) 15























Splits and Phases: 4: Tibet St & 52nd Ave



HCM 6th Signalized Intersection Summary







4: Tibet St & 52nd Ave

02-19-2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	127	40	168	120	50	115	145	1053	60	65	689	129
Future Volume (veh/h)	127	40	168	120	50	115	145	1053	60	65	689	129
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	138	43	183	130	54	125	158	1145	65	71	749	140
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	254	50	213	223	137	317	395	2317	1152	327	1948	364
Arrive On Green	0.16	0.16	0.16	0.07	0.27	0.27	0.87	0.87	0.87	0.65	0.65	0.65
Sat Flow, veh/h	1205	311	1322	1781	501	1160	625	3554	1585	462	2988	558
Grp Volume(v), veh/h	138	0	226	130	0	179	158	1145	65	71	445	444
Grp Sat Flow(s),veh/h/ln	1205	0	1632	1781	0	1662	625	1777	1585	462	1777	1770
Q Serve(g_s), s	13.0	0.0	16.2	7.1	0.0	10.5	13.1	9.0	0.5	9.2	14.0	14.0
Cycle Q Clear(g_c), s	13.0	0.0	16.2	7.1	0.0	10.5	27.1	9.0	0.5	18.2	14.0	14.0
Prop In Lane	1.00		0.81	1.00		0.70	1.00		1.00	1.00		0.32
Lane Grp Cap(c), veh/h	254	0	262	223	0	454	395	2317	1152	327	1159	1154
V/C Ratio(X)	0.54	0.00	0.86	0.58	0.00	0.39	0.40	0.49	0.06	0.22	0.38	0.38
Avail Cap(c_a), veh/h	316	0	347	231	0	547	395	2317	1152	327	1159	1154
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	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.7	0.0	49.0	37.8	0.0	35.5	7.6	3.4	1.7	12.7	9.7	9.7
Incr Delay (d2), s/veh	1.8	0.0	15.5	3.5	0.0	0.6	3.0	0.8	0.1	1.5	1.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	7.3	0.0	12.3	5.9	0.0	7.8	3.1	4.3	0.3	1.9	9.3	9.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.5	0.0	64.5	41.2	0.0	36.1	10.6	4.1	1.8	14.2	10.7	10.7
LnGrp LOS	D	A	E	D	A	D	B	A	A	B	B	B
Approach Vol, veh/h	364			309			1368			960		
Approach Delay, s/veh	58.8			38.3			4.8			10.9		
Approach LOS	E			D			A			B		
Timer - Assigned Phs	2		3	4		6		8				
Phs Duration (G+Y+Rc), s	82.7		13.5	23.8		82.7		37.3				
Change Period (Y+Rc), s	4.5		4.5	4.5		4.5		4.5				
Max Green Setting (Gmax), s	71.5		9.5	25.5		71.5		39.5				
Max Q Clear Time (g_c+I1), s	29.1		9.1	18.2		20.2		12.5				
Green Ext Time (p_c), s	14.3		0.0	1.1		8.7		1.1				
Intersection Summary												
HCM 6th Ctrl Delay	16.7											
HCM 6th LOS	B											

HCM 6th TWSC
5: Tibet St & Filing 17 Access

02-19-2025











Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	19	16	25	1239	958	19
Future Vol, veh/h	19	16	25	1239	958	19
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	100	-	-	100
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	21	17	27	1347	1041	21

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1769	521	1062	0	-	0
Stage 1	1041	-	-	-	-	-
Stage 2	728	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	*390	*685	*1024	-	-	-
Stage 1	*646	-	-	-	-	-
Stage 2	*523	-	-	-	-	-
Platoon blocked, %	1	1	1	-	-	-
Mov Cap-1 Maneuver	*380	*685	*1024	-	-	-
Mov Cap-2 Maneuver	*380	-	-	-	-	-
Stage 1	*629	-	-	-	-	-
Stage 2	*523	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.9	0.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	* 1024	-	380	685	-	-
HCM Lane V/C Ratio	0.027	-	0.054	0.025	-	-
HCM Control Delay (s)	8.6	-	15	10.4	-	-
HCM Lane LOS	A	-	C	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	0.1	-	-

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

Intersection												
Int Delay, s/veh	1.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	5	10	70	5	55	15	1204	20	45	924	5
Future Vol, veh/h	5	5	10	70	5	55	15	1204	20	45	924	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	100	-	-	100	-	-	100	-	100	100	-	-
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	5	5	11	76	5	60	16	1309	22	49	1004	5
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	1794	2468	505	1944	2448	655	1009	0	0	1331	0	0
Stage 1	1105	1105	-	1341	1341	-	-	-	-	-	-	-
Stage 2	689	1363	-	603	1107	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	*291	*57	*711	*291	*63	*580	*1063	-	-	*868	-	-
Stage 1	*578	*526	-	*547	*480	-	-	-	-	-	-	-
Stage 2	*547	*480	-	*670	*524	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1	1	1	-	-	1	-	-
Mov Cap-1 Maneuver	*229	*53	*711	*250	*59	*580	*1063	-	-	*868	-	-
Mov Cap-2 Maneuver	*229	*53	-	*250	*59	-	-	-	-	-	-	-
Stage 1	*569	*496	-	*539	*473	-	-	-	-	-	-	-
Stage 2	*478	*473	-	*616	*495	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	31.2		22.3			0.1			0.4			
HCM LOS	D		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR		
Capacity (veh/h)	*1063	-	-	229	138	250	334	*868	-	-		
HCM Lane V/C Ratio	0.015	-	-	0.024	0.118	0.304	0.195	0.056	-	-		
HCM Control Delay (s)	8.4	-	-	21.1	34.6	25.6	18.4	9.4	-	-		
HCM Lane LOS	A	-	-	C	D	D	C	A	-	-		
HCM 95th %tile Q(veh)	0	-	-	0.1	0.4	1.2	0.7	0.2	-	-		
Notes												
~: Volume exceeds capacity		\$: Delay exceeds 300s			+: Computation Not Defined				*: All major volume in platoon			

Appendix I. Queueing Summary Table

Intersection	Movement	Per Lane Queue Length (ft) AM/PM	CDOT Storage Length (ft) Requirement AM/PM	Recommended Storage Length
1. Picadilly Road and 52 nd Avenue	EB Left-turn	100/75	75/50	100
	EB Through/Right-turn	250/125	175/75	Continuous
	WB Left-turn	175/150	125/175	175
	WB Through/Right-turn	250/250	200/200	Continuous
	NB Left-turn	25/25	50/25	25
	NB Through/Right-turn	325/300	600/700	Continuous
	SB Left-turn	100/125	125/150	125
	SB Through/Right-turn	300/250	550/625	Continuous
2. Access #16 and 52 nd Avenue	EB Left-turn	25/25	25/25	50
	EB Through/Right-turn		325/375	Continuous
	WB Left-turn	25/25	25/25	50
	WB Through/Right-turn		300/350	Continuous
	NB Left-turn/Through/Right-turn	25/25	25/25	50
	SB Left-turn/Through/Right-turn	25/25	25/25	50
3. Access #14 and 52 nd Avenue	EB Left-turn	25/25	25/25	50
	EB Through/Right-turn		300/325	Continuous
	WB Left-turn	25/25	25/25	50
	WB Through/Right-turn		300/325	Continuous
	NB Left-turn/Through/Right-turn	25/25	50/25	50
	SB Left-turn/Through/Right-turn	25/25	25/25	50
4. Tibet Road & 52 nd Avenue	EB Left-turn	200/200	125/150	200
	EB Through/Right-turn	300/325	200/225	Continuous
	WB Left-turn	75/150	75/125	150
	WB Through/Right-turn	125/200	100/175	Continuous
	NB Left-turn	100/150	150/175	150
	NB Through	125/325	275/550	Continuous
	NB Right-turn	75/25	200/75	75
	SB Left-turn	100/75	175/75	100
	SB Through	200/250	375/375	Continuous
	SB Right-turn	200/250	125/150	250
5. Tibet Road & Filing 17 Access	EB Left-turn	25/25	25/25	50
	EB Right-turn	25/25	25/25	50
	NB Left Turn	25/25	25/50	50
	SB Through		925/1000	Continuous
	SB Through/Right-turn			Continuous
6. Tibet Road & Filing 5 Access	EB Left-Turn	25/25	25/25	50
	EB Through/Right-turn	25/25	25/25	Continuous
	WB Left-Turn	25/50	50/75	75
	WB Through/Right-Turn	25/25	50/75	Continuous

Intersection	Movement	Per Lane Queue Length (ft) AM/PM	CDOT Storage Length (ft) Requirement AM/PM	Recommended Storage Length
	NB Left-Turn	25/25	25/25	50
	SB Left-turn	25/25	125/50	125
	SB Through		350/500	Continuous
	SB Through/Right-turn		400/500	Continuous