

Galloway

TRAFFIC IMPACT

56TH & PICADILLY MAP

Aurora, CO

Include discussion of future improvements along 56th Avenue and Picadilly Road. Who is responsible for specific improvements and when they will be constructed including additional lanes and signalization.

The Picadilly Road Widening Plans do not appear to consider the proposed access to align with Maxwell Place as 3/4 movement. The NB left turn lanes extend all the way to Maxwell Place so there would be no available room for a SB left turn lane at the proposed access to the site.

Consider pedestrian/bicycle crossing at proposed access to align with Maxwell Place. There is currently a bike lane along Maxwell Place along the west side of Picadilly. It is likely there will be demand for pedestrians and bicycles to cross Picadilly Road at this location to access the proposed development. Consider the Uncontrolled Pedestrian Crossing Guidelines and determine if additional treatment is needed based on spacing and projected traffic volumes.

Future improvements were included in Section IV and Section V. The Picadilly Widening plans were included in the background and total future scenarios. All Picadilly Rd street design, including the pedestrian/bicycle infrastructure, is being done by ARTA and AECOM under separate applications.

PREPARED BY:
Brian Horan, PE, PTOE
Daniela Gonzalez
Cooper Riddell-Brosig

Galloway & Company, Inc.
5500 Greenwood Plaza Blvd, Suite 200
Greenwood Village, CO 80111

DATE:
October 2, 2024

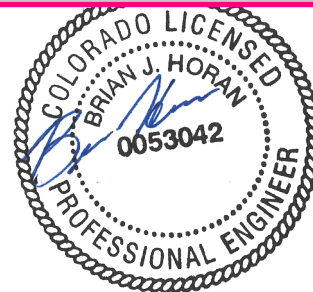


TABLE OF CONTENTS

Executive Summary	5
Site Location and Study Area	5
Description of Proposed Development	5
Conclusions and Recommendations	5
Conclusions	5
Recommendations	6
I. Introduction	7
Overview	7
Site Location and Study Area	7
Site Description and Access	8
Figure 1-1 Site Location	9
Figure 1-2 Site Plan	10
Figure 1-3 Existing Zoning	11
II. Background Information	12
Study Area	12
Study Assumptions	12
Study Methodology	12
Existing Roadway Network	12
Figure 2-1 Existing Lane Use and Traffic Control	14
III. Analysis of Existing Conditions	15
Traffic Volumes	15
Operational Analysis	15
Existing Intersection Queues	15
Figure 3-1 Existing Volumes	16
Figure 3-2 Existing Levels of Service	17
Table 3-1 Existing Levels of Service	18
Table 3-2 Existing Queues	19
IV. Analysis of Future Conditions without Site Development	20
Methodology	20
Regional Growth	20
Pipeline Developments	20
Background Traffic Forecasts	21
Background Future Levels of Service	21
Background Future Queueing	22
Figure 4-1 Background Growth 2026	23

Figure 4-2 Background Growth 2050.....	24
Figure 4-3 Pipeline Locations	25
Figure 4-4 Pipeline Site Trips 2026.....	26
Figure 4-5 Pipeline Site Trips 2050.....	27
Figure 4-6 Background Lane Use and Traffic Control 2026	28
Figure 4-7 Background Lane Use and Traffic Control 2050	29
Figure 4-8 Background Forecasts 2026.....	30
Figure 4-9 Background Forecasts 2050.....	31
Figure 4-10 Background Levels of Service 2026	32
Figure 4-11 Background Levels of Service 2050	33
Table 4-1 Background Levels of Service	34
Table 4-2 Background Queues	35
V. Site Analysis	36
Overview.....	36
Proposed Site Access	36
Trip Generation.....	36
Figure 5-1 Total Future Lane Use and Traffic Control 2026	38
Figure 5-2 Total Future Lane Use and Traffic Control 2050	39
Figure 5-3 Pass-by Trips.....	40
Figure 5-4 Site Trips	41
Table 5-1 Site Trip Generation.....	42
VI. Analysis of Future Conditions with Site Development	43
Total Future Traffic Forecasts	43
Total Future Levels of Service with Proposed Development.....	43
Total Future Queuing.....	43
Signal Warrants	44
Figure 6-1 Total Future Forecasts 2026	46
Figure 6-2 Total Future Forecasts 2050	47
Figure 6-3 Total Future Levels of Service 2026.....	48
Figure 6-4 Total Future Levels of Service 2050.....	49
Table 6-1 Future Levels of Service	50
Table 6-2 Future Queues	51
VII. Conclusions and Recommendations	52
Conclusions	52
Recommendations.....	53

Appendices:

- A. Full Sized Conceptual Site Plan
- B. LOS Descriptions
- C. Traffic Counts
- D. Existing Synchro Outputs
- E. Pipeline Development Excerpts
- F. Background (without site development) Synchro Outputs
- G. Future (with site development) Synchro Outputs
- H. Signal Warrant Analysis Tables & Figures

Executive Summary

Site Location and Study Area

The property that comprises the application area for the proposed development is approximately 26.95 acres in size and is identified as part of Adams County Parcel Number 182113200004. It is located south of E 56th Ave and east of Picadilly Rd in Aurora, CO. It is zoned Mixed-Use Airport (MU-A) and is currently vacant.

The study area is generally bounded by E 56th Ave to the north, Picadilly Rd to the west, and property lines to the east and south. The study area for the project includes intersections that could be affected by the proposed development:

- E 56th Ave & Picadilly Rd
- Maxwell PI & Picadilly Rd
- E 54th Ave & Picadilly Rd
- Future Site Accesses

Description of Proposed Development

The Applicant seeks to develop the property with a mix of commercial/retail uses anchored by a grocery store use and gas station use. Site access is proposed via a $\frac{3}{4}$ movement at Maxwell PI, a right-in right-out (RIRO) on Picadilly Rd, a signalized full movement access at E 54th Ave & Picadilly Rd, a RIRO access on E 56th Ave, and a signalized full movement access on E 56th Ave.

Conclusions and Recommendations

Conclusions

Based on the results of this traffic impact study, the following may be concluded:

- Under existing traffic conditions, the unsignalized intersection movements within the study area currently operate at overall acceptable levels of service (LOS) "C" or better during the weekday AM and PM peak hours except for the northbound and southbound movements at E 56th Ave & Picadilly Rd which operate at LOS "F". All queues remain within their respective storage lengths.
- Under background future 2026 and 2050 traffic conditions, without the development of the subject site, delays would increase at study intersections due to regional traffic growth. The signalized intersections are forecasted to operate at LOS "D" or better in 2026 and 2050 conditions with the exception of E 56th Ave & Picadilly Rd which would operate at LOS "E" in 2050 PM conditions due to regional growth. The unsignalized intersection movements are forecasted to operate at overall acceptable LOS "D" or better in 2026 and 2050 conditions with the exception of:
 - The EBLR approach at Maxwell PI & Picadilly Rd which would operate at LOS "F" in 2050 conditions.
 - The NBL movement at Maxwell PI & Picadilly Rd which would operate at LOS "E" in 2050 conditions.
 - The EBL and SBR movements at E 56th Ave & Skydance Access which would operate at LOS "F" in 2050 PM conditions.

- Queues in background conditions remain within their respective storage lengths except for the EBL, WBL, WBR, and NBR movements at the intersection of E 56th Ave & Picadilly Rd in 2050 conditions.
- The proposed site development would generate, upon completion and full occupancy, 576 net new weekday AM and 910 net new weekday PM peak hour vehicle trips as well as 11,024 net new weekday daily trips.
- Under total future 2026 and 2050 traffic conditions with development of the site, the signalized intersections are forecasted to operate at LOS “D” or better in 2026 and 2050 conditions with the exception of E 56th Ave & Picadilly Rd which would operate at LOS “E” in 2050 PM conditions due to regional growth. The unsignalized intersection movements would operate at LOS “D” or better in 2026 and 2050 conditions with the exception of:
 - The EBR movement at Maxwell PI & Picadilly Rd which would operate at LOS “E” in 2050 AM conditions.
 - The WBR movement at Maxwell PI & Picadilly Rd which would operate at LOS “F” in 2050 PM conditions.
 - The NBL movement at Maxwell PI & Picadilly Rd which would operate at LOS “E” in 2050 AM and PM conditions.
 - The SBL movement at Maxwell PI & Picadilly Rd which would operate at LOS “F” in 2050 PM conditions.
 - The EBL movement at E 56th Ave & Skydance/N Site Access which would operate at LOS “F” in 2050 PM conditions.
 - The SBR movement at E 56th Ave & Skydance/N Site Access which would operate at LOS “E” in 2050 PM conditions.
- Queues in total future conditions remain within their respective storage lengths except for the EBL, WBL, WBR, and NBR movements at the intersection of E 56th Ave & Picadilly Rd in 2050 conditions.

Recommendations

- It is recommended that the Applicant provide access consistent with the site plan contained herein.
- Site access should be provided via:
 - SBL lane and NBTR lane at Maxwell PI & Picadilly Rd.
 - SBL, NBR, and EBTR lane at E 54th Ave & Picadilly Rd.
 - EBTR and WBL lane at E 56th Ave & Road A.
 - EBTR lane at E 56th Ave & N Site Access.
 - NBTR lane at W Site Access & Picadilly Rd.

I. Introduction

Overview

This report presents the results of a Traffic Impact Study (TIS) conducted in support of a site plan to develop a mix of commercial/retail uses with a grocery store use and gas station use as an anchor in Aurora, CO. Currently the site is vacant. For planning and analysis purposes, Strip Retail, a Drive-In Bank, 3 Fast-Food Restaurants with Drive-Throughs, a Coffee Shop with Drive-Through, an Automobile Parts and Service Center, and an Automated Car Wash uses were assumed for the mix of commercial/retail uses on site.

Per the requirements of the City of Aurora, a TIS is required to support the proposed development.

Site Location and Study Area

The property that comprises the application area for the proposed development is approximately 26.95 acres in size and is identified as portion of Adams County Parcel Number 182113200004. It is located south of E 56th Ave and east of Picadilly Rd in Aurora, CO, as shown in Figure 1-1. It is zoned Mixed-Use Airport (MU-A) and is currently vacant. Site access is proposed via a $\frac{3}{4}$ movement at Maxwell Pl, a right-in right-out (RIRO) on Picadilly Rd, a signalized full movement access at E 54th Ave & Picadilly Rd, a RIRO access on E 56th Ave, and a signalized full movement access on E 56th Ave.

The Applicant seeks to develop the property with a Grocery Store and Gas Station use. The remainder of the site would be available for out parcel development and these lots were assumed as Retail stores, a Drive-In Bank, 3 Fast-Food Restaurants with Drive-Throughs, a Coffee Shop with Drive-Through, an Automobile Parts and Service Center, and an Automated Car Wash use. A reduction of the Applicant's proposed conceptual site plan is provided in Figure 1-2. A full-size copy of the plan is provided in Appendix A.

The study area is generally bounded by E 56th Ave to the north, Picadilly Rd to the west, and property boundaries to the east and south.

Tasks undertaken during this study included the following:

1. Reviewed the Applicant's proposed development plans and other background data.
2. Conducted a virtual field reconnaissance of existing roadway and intersection geometries, traffic controls, and speed limits.
3. Collected peak hour turning movement counts at the key intersections.
4. Analyzed existing levels of service at each of the key study intersections based on the methodologies set forth in the Highway Capacity Guidelines (HCM) 7th Edition and reports generated by Synchro as reported by Synchro version 12.
5. Forecasted background future traffic volumes based on baseline traffic counts, pipeline projects, and regional traffic growth for 2026 (build-out) and 2050 (long-range) conditions.
6. Calculated background levels of service at each of the key study intersections for the projected build-out years based on background future traffic forecasts, and the future lane use and traffic controls.

7. Estimated the number of AM and PM peak hour trips that would be generated by the proposed uses based on the Institute of Transportation Engineers (ITE) Trip Generation 11th Edition rates/equations and methodologies.
8. Prepared AM and PM peak hour total future traffic forecasts based on background traffic forecasts plus site traffic assignments for the 2026 (build-out) and 2050 (long-range) conditions.
9. Calculated total future levels of service for each of the key study intersections based on projected total future traffic forecasts, existing/future traffic controls and intersection geometries.
10. Identified roadway improvements required to accommodate future traffic volumes, as necessary.

Sources of data for this analysis included the Institute of Transportation Engineers (ITE) Trip Generation, 11th edition, the Highway Capacity Guidelines HCM 7th, Synchro 12, City of Aurora, Colorado, Adams County, and the files/library of Galloway.

Site Description and Access

Site Conditions

The terrain proximate to and surrounding the site is generally classified as “level”.

Hazardous Conditions

Based on the field reconnaissance in the vicinity of the subject site, no hazardous features or constraints were identified.

Proposed Site Access

Access to the site is proposed via:

- An additional east leg of the Maxwell PI & Picadilly Rd intersection which will operate as a $\frac{3}{4}$ movement stop-controlled intersection.
- An additional east leg of the E 54th Ave & Picadilly Rd intersection which will operate under signalized control.
- A new right-in right-out (RIRO) access on Picadilly Rd between Maxwell PI and E 54th Ave that will operate under stop control.
- A new RIRO access on E 56th Ave that will operate under stop control.
- A new signalized full movement intersection on E 56th Ave.

Existing Zoning

The subject site is currently zoned Mixed-Use Airport (MU-A) and is currently vacant. Figure 1-3 depicts the existing zoning associated with the subject property, as well as neighboring properties as shown on the Town of Aurora zoning map.

Nearby Uses

The developed properties west and south of the subject site are mostly residential, and the other properties surrounding the subject site are generally planned to be developed with commercial and residential uses. The proposed uses would be consistent with area development.

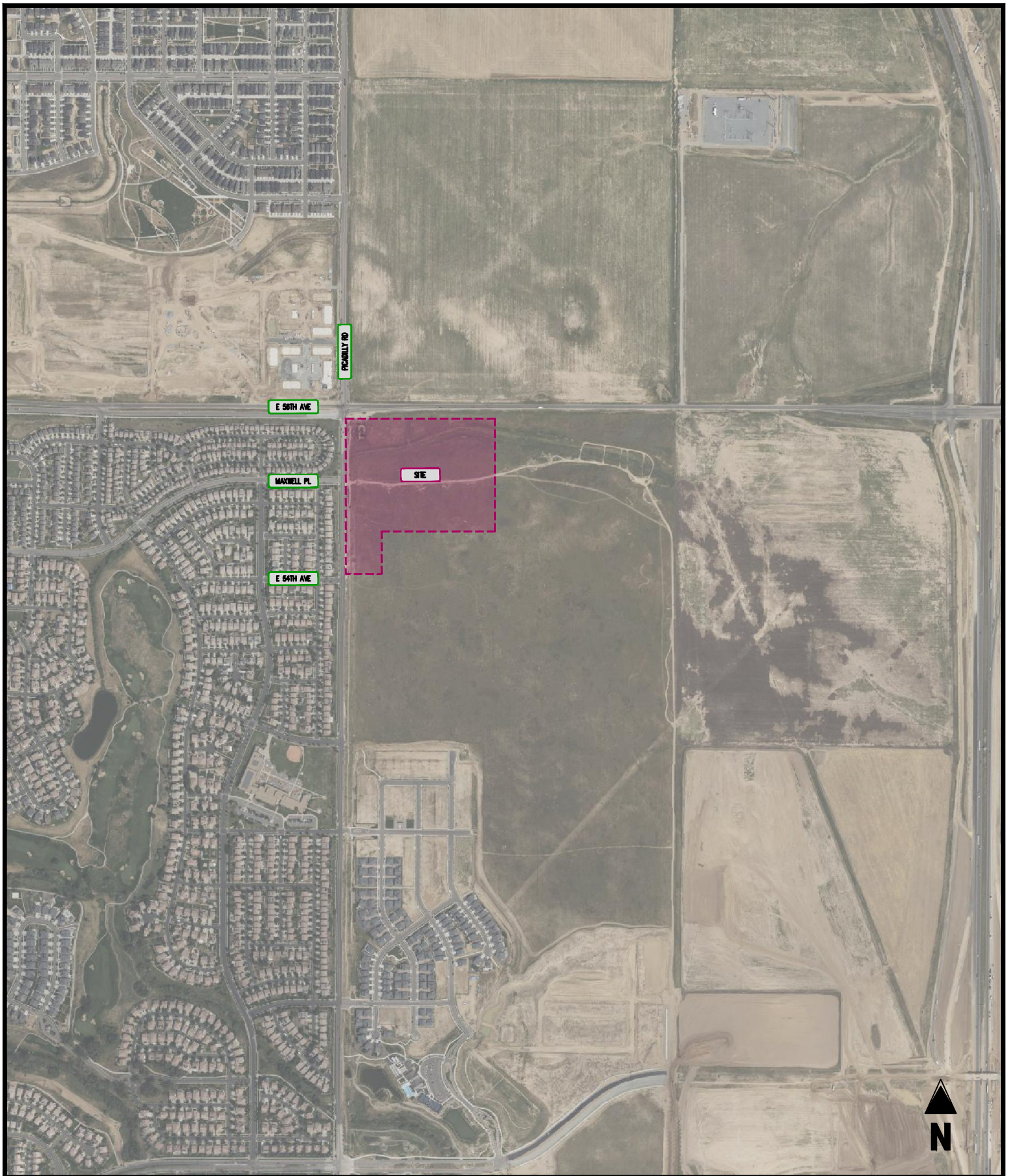


FIGURE 1-1
SITE LOCATION

56TH & PICADILLY
AURORA, CO



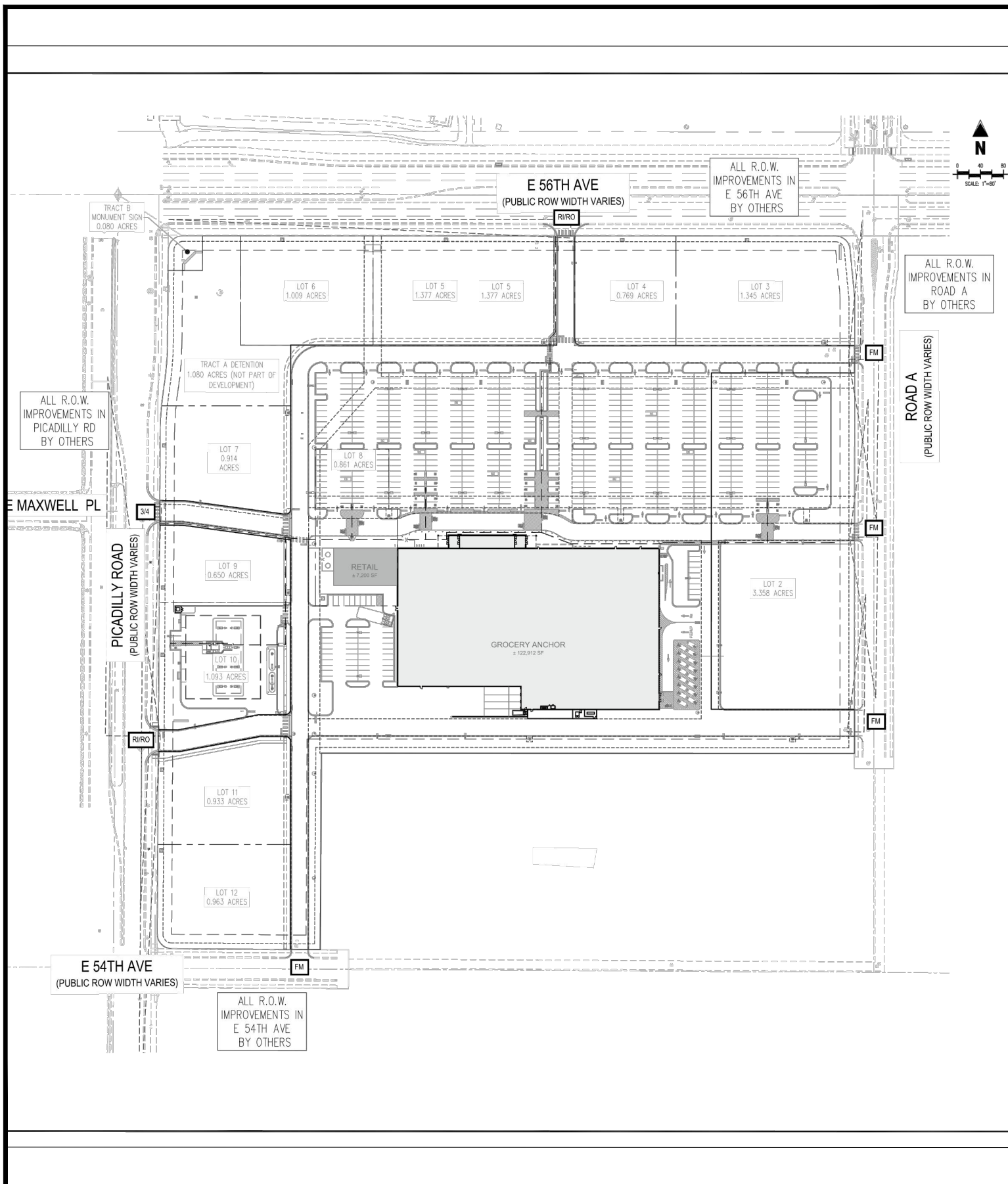


FIGURE 1-2
SITE PLAN



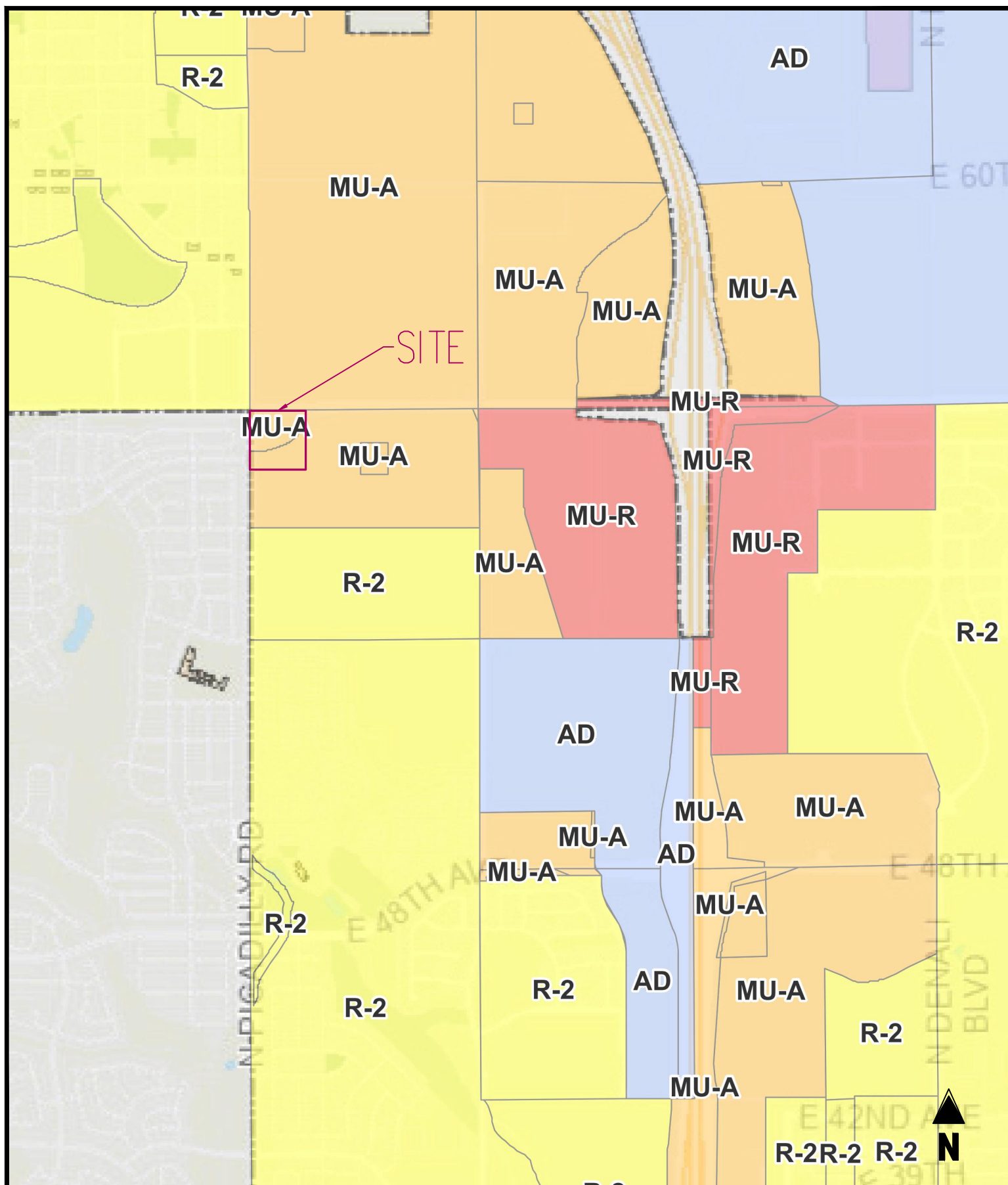


FIGURE 1-3
EXISTING ZONING



II. Background Information

Study Area

The study area was determined by a review of intersections that would experience a significant portion of turning movement volumes generated by the site. As such, the traffic study focuses primarily on the following intersections:

Study Intersections

- E 56th Ave & Picadilly Rd
- Maxwell Pl & Picadilly Rd
- E 54th Ave & Picadilly Rd
- Future Site Accesses

Study Assumptions

For purposes of this analysis only, the proposed use was assumed to be built and occupied in one distinct phase. It was assumed that the use would be built and operational in the study year 2026. A long-term analysis of 2050 is also provided.

Study Methodology

Synchro software version 12 was used to evaluate levels of service at each of the study intersections during the weekday AM and PM peak hours. Synchro is a macroscopic model used for optimizing traffic signal timing and performing capacity analyses. The software can model existing traffic signal timings or optimize splits, offsets, and cycle lengths for individual intersections, an arterial, or a complete network. Synchro allows the user to evaluate the effects of changing intersection geometrics, traffic demands, traffic control, and/or traffic signal settings as well as optimize traffic signal timings.

The levels of service reported for the signalized and unsignalized intersections analyzed herein were taken from the Highway Capacity Manual (HCM) 7th and reports generated by Synchro. Level of service descriptions are included in Appendix B.

A default percent heavy vehicle (%HV) factor of 2% was used for all movements in the study area.

Existing Roadway Network

Regional access to the subject site is provided by E 56th Ave, and local access is provided via Picadilly Rd. Maxwell Pl and E 54th Ave are local roads that connect the residential neighborhood to Picadilly Rd. Figure 2-1 depicts existing lane use and traffic controls in the vicinity of the subject site. The following provides a description of each of the roadways within the study network.

E 56th Ave

E 56th Ave is constructed as a four-lane median divided section to the west of the subject site and as a two-lane section to the east of the site with turn lanes at major intersections. The posted speed limit is 45 mph in the vicinity of the subject site. The roadway functions as a Major Arterial and provides east west connection through the region. The intersection with Picadilly Rd currently operates under STOP control.

56th & Picadilly
Aurora, CO

there are existing bike lanes along Maxwell Place west of Picadilly Road. how will the pedestrian bike connection be accommodated with the proposed development? it is likely there will be demand to access the new commercial development to the east from the existing residential. consider Uncontrolled Pedestrian Crossing Guidelines and if additional treatment is needed at Maxwell Place.

Picadilly Rd

Picadilly Rd is constructed as a two-lane roadway. The posted speed limit is 30 mph. The roadway functions as a Major Arterial providing access to the subject site. The intersections in the vicinity of the subject site are as follows:

All Picadilly Rd street design, including the pedestrian/bicycle infrastructure, is being done by ARTA and AECOM under separate application.

Maxwell PI

Maxwell PI is constructed as a two-lane roadway in the vicinity of the subject site with a speed limit of 30 mph. The roadway is to provide connection to the residential neighborhood located west of the subject site. The intersections along its length operate under STOP control.

E 54th Ave

E 54th Ave is constructed as a two-lane roadway in the vicinity of the subject site with no posted speed limit. The roadway is to provide connection to the residential neighborhood located west of the subject site. The intersections along its length operate under STOP control.

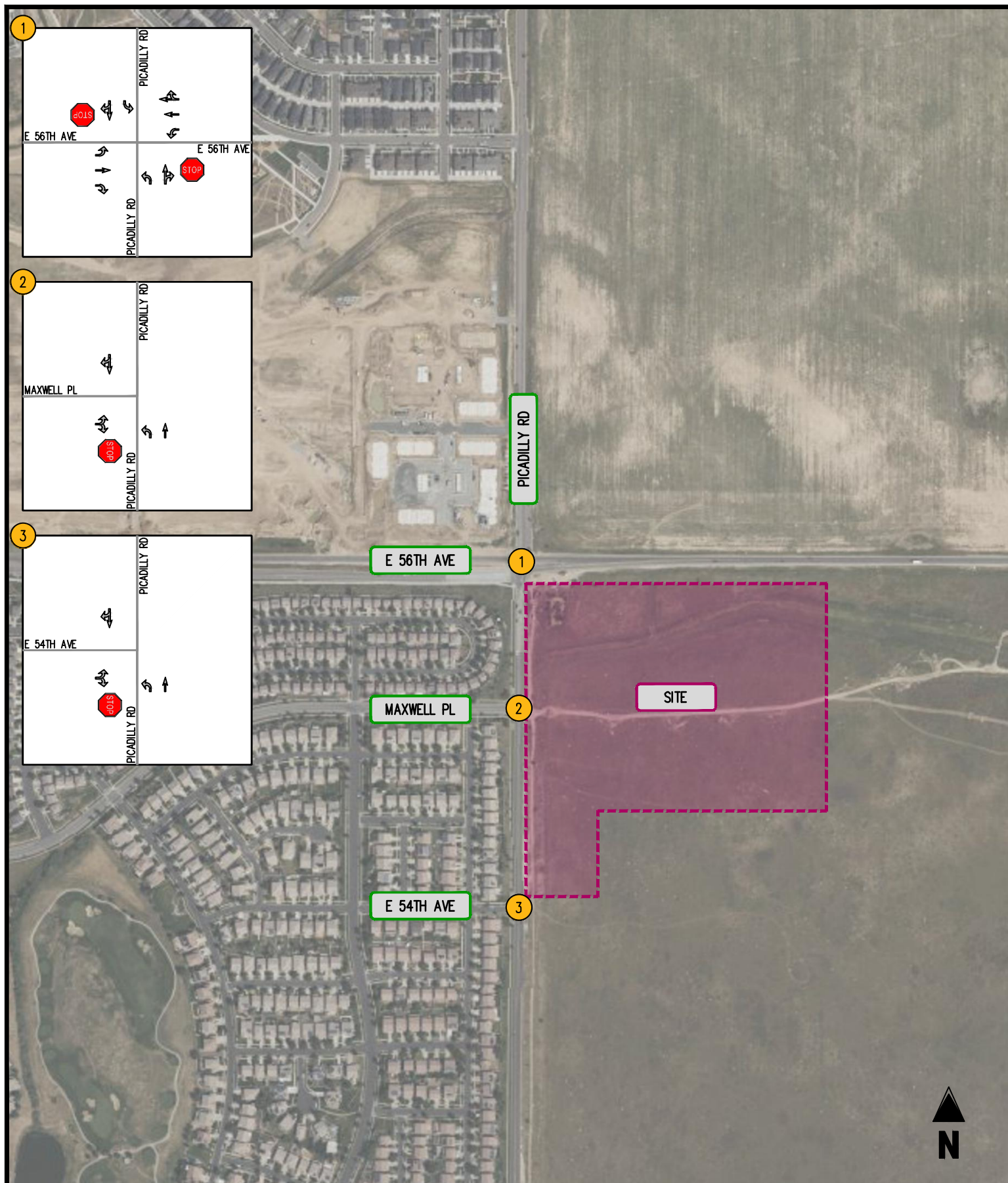
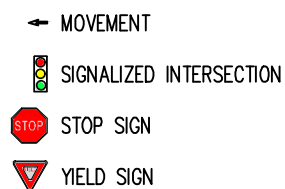


FIGURE 2-1
EXISTING LANE USE AND TRAFFIC CONTROL

56TH & PICADILLY
AURORA, CO



III. Analysis of Existing Conditions

Traffic Volumes

Weekday AM and PM peak hour traffic volumes counts were conducted on Thursday September 12, 2024, from 7:00 AM to 9:00 AM and 4:00 PM to 6:00 PM for the Maxwell PI & Picadilly Rd intersection and from 7:00 AM to 7:00 PM for the E 56th Ave & Picadilly Rd and E 54th Ave & Picadilly Rd intersections by IDAX Data Solutions.

The existing volumes are summarized in Figure 3-1. Copies of traffic counts are included in Appendix C. Existing peak hour factors (PHF) were also computed by approach from the traffic counts and applied to the analysis with a minimum of 0.85 and a maximum of 0.92.

Operational Analysis

Capacity/level of service (LOS) analyses were conducted at the study intersections based on the existing lane use and traffic controls shown in Figure 2-1 and existing baseline vehicular traffic volumes shown in Figure 3-1. The capacity analysis results are presented in Appendix D and summarized in Table 3-1 and in Figure 3-2.

As shown in Table 3-1, the stop-controlled intersection movements operate at LOS “C” or better during the weekday AM and PM peak hours except for the northbound and southbound movements at the E 56th Ave & Picadilly Rd intersection which operate at LOS “F”.

Existing Intersection Queues

An analysis of intersection 95th-percentile queues was performed at key locations. The results of the queuing analysis, as reported by Synchro, are summarized in Table 3-2. As shown in the table, queues are contained within their effective storage.

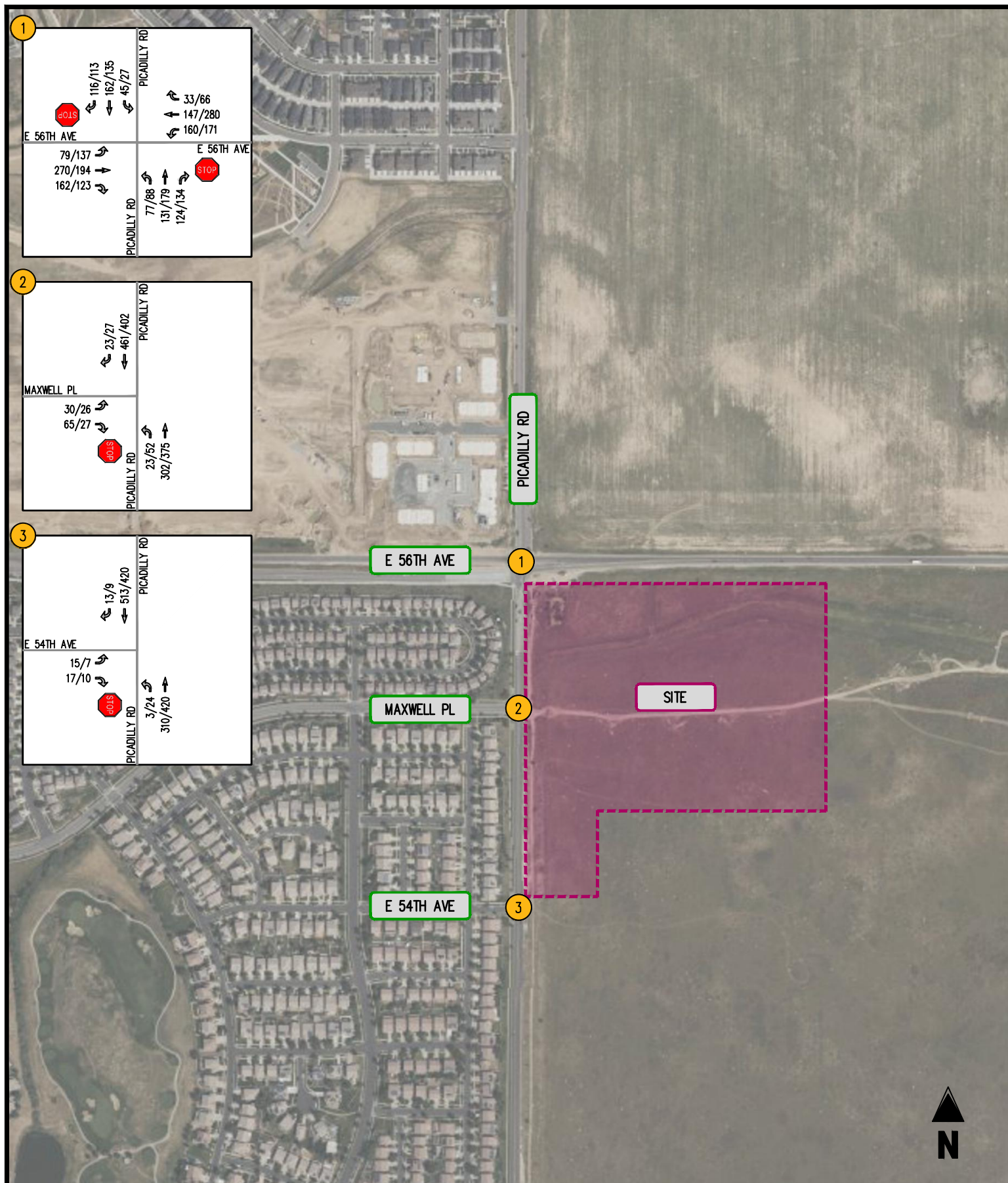


FIGURE 3-1
EXISTING VOLUMES

56TH & PICADILLY
AURORA, CO

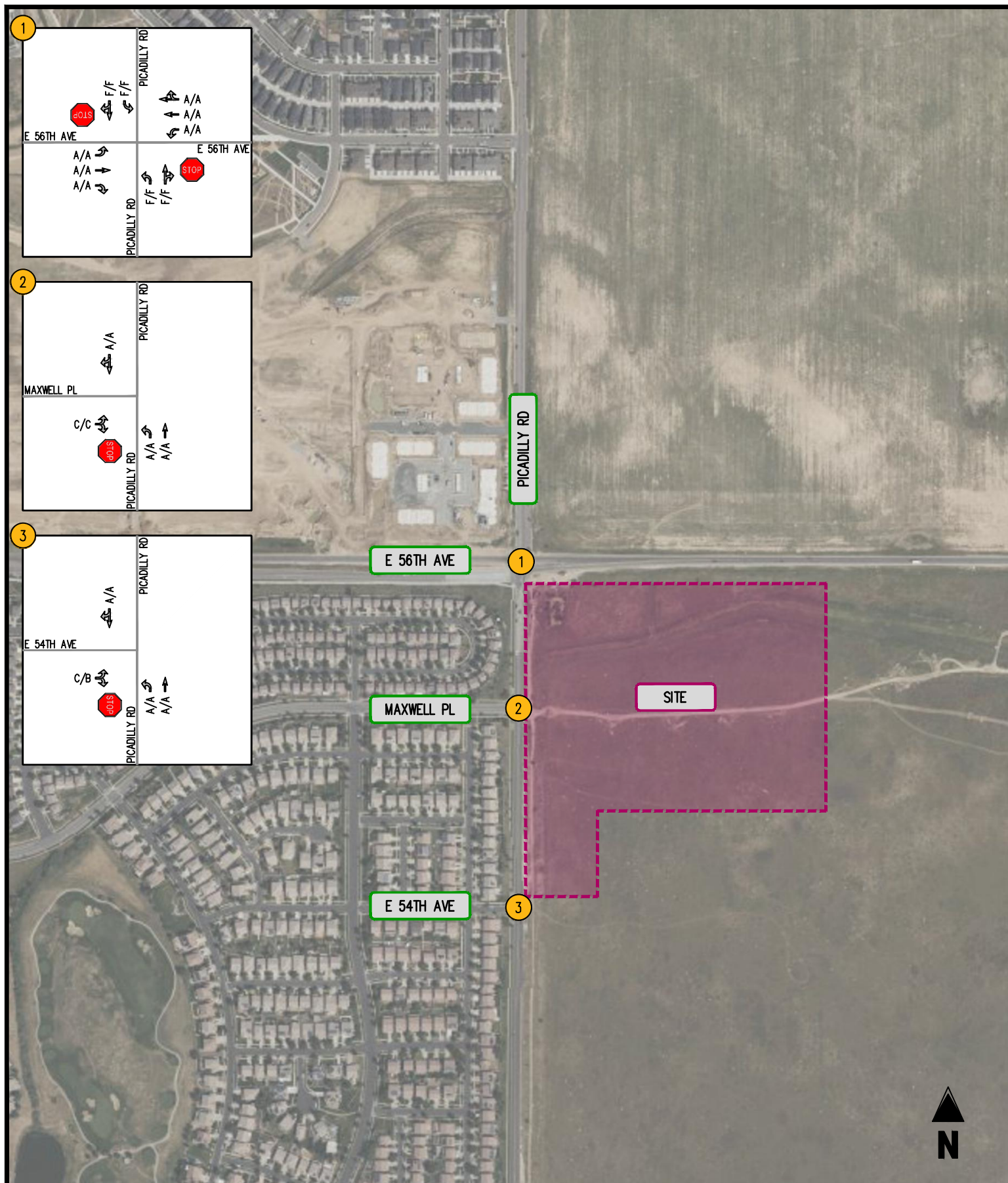


FIGURE 3-2
EXISTING LEVELS OF SERVICE

56TH & PICADILLY
AURORA, CO

(A/A) INTERSECTION LOS
0000/0000 (AM PEAK HOUR/PM PEAK HOUR)




← MOVEMENT
 SIGNALIZED INTERSECTION
 STOP SIGN
 YIELD SIGN



Table 3-1
56th & Picadilly - Aurora, CO
Existing Intersection Level of Service Summary (1)

Intersection	Operating Condition	Street Name	Approach/ Movement	Existing 2024	
				AM Peak Hour	PM Peak Hour
1 E 56th Ave & Picadilly Rd	STOP	E 56th Ave	EBL	A [7.8]	A [8.6]
			EBT	A [0.0]	A [0.0]
			EBR	A [0.0]	A [0.0]
			WBL	A [9.0]	A [8.7]
		E 56th Ave	WBT	A [0.0]	A [0.0]
			WBR	A [0.0]	A [0.0]
			NBL	F [77.6]	F [220.9]
		Picadilly Rd	NBTR	F [119.7]	F [599.4]
			SBL	F [1676.2]	F [117.7]
		Picadilly Rd	SBTR	F [294.9]	F [464.4]
2 Maxwell Pl & Picadilly Rd	STOP	Maxwell Pl	EBLR	C [16.3]	C [17.0]
		Picadilly Rd	NBL	A [8.6]	A [8.5]
		Picadilly Rd	NBT	A [0.0]	A [0.0]
			SBTR	A [0.0]	A [0.0]
3 E 54th Ave & Picadilly Rd	STOP	E 54th Ave	EBLR	C [15.7]	B [14.5]
		Picadilly Rd	NBL	A [8.7]	A [8.4]
		Picadilly Rd	NBT	A [0.0]	A [0.0]
			SBTR	A [0.0]	A [0.0]

Notes : (1) Numbers in brackets [] represent delay at unsignalized intersections in seconds per vehicle.

Table 3-2
56th & Picadilly - Aurora, CO
Existing Intersection Queueing Summary (1)

Intersection	Operating Condition	Street Name	Approach/ Movement	Available Storage	Existing 2024	
					AM Peak Hour	PM Peak Hour
1 E 56th Ave & Picadilly Rd	STOP	E 56th Ave	EBL	400	5	12.5
			EBT	-	0	0
			EBR	-	0	0
		E 56th Ave	WBL	150	15	15
			WBT	-	0	0
			WBR	-	0	0
		Picadilly Rd	NBL	225	95	177.5
			NBTR	-	305	742.5
		Picadilly Rd	SBL	225	185	52.5
			SBTR	-	500	537.5
2 Maxwell Pl & Picadilly Rd	STOP	Maxwell Pl	EBLR	-	25	15
			NBL	125	2.5	5
		Picadilly Rd	NBT	-	0	0
		Picadilly Rd	SBTR	-	0	0
3 E 54th Ave & Picadilly Rd	STOP	E 54th Ave	EBLR	-	7.5	5
			NBL	125	0	2.5
		Picadilly Rd	NBT	-	0	0
		Picadilly Rd	SBTR	-	0	0

Notes : (1) Queue length, in feet, is based on the 95th percentile queue as reported by Synchro, Version 12.

IV. Analysis of Future Conditions without Site Development

Methodology

The future traffic forecasts, without the proposed new use, were developed for 2026 and 2050 conditions based on a composite of existing baseline traffic volumes, pipeline developments, and regional traffic growth. A 5.0% growth factor per year was applied to movements of existing traffic on the study intersections.

Regional Growth

Increases in traffic associated with regional growth was assumed as 5.0 percent per year compounded for movements on study intersections up to 2026 as well as to 2050 per the Green Valley Master Plan (MP) Traffic Impact Study (TIS) performed by Felsburg Holt & Ullevig in September 2023. This growth accounts for increases in traffic resulting from influences outside of the immediate study area. The resulting increases in volumes within the study area are reflected in Figure 4-1 for 2026 conditions and Figure 4-2 for 2050 conditions.

Pipeline Developments

Approved but unbuilt/unoccupied (i.e., “pipeline”) developments were identified for consideration within the study. The location of the pipeline developments in relation to the Applicant’s property is shown in Figure 4-3. The Green Valley MP TIS was last updated in September 2023, and the Skydance Development TIS was last updated February 2022.

The Green Valley MP is the master study for the ~290-acre area which includes the current site that is being analyzed. The following pipeline development and development program was included in the background and total future analysis for 2026 and 2050 conditions:

Green Valley Master Plan

327	DU	Senior Housing Attached
1,067	DU	Multi-Family (Low-Rise)
24	DU	Single Family Detached
30	DU	Single Family Attached
2,100	SF	Fast-food Restaurant with Drive-Through
377,268	SF	General Office
197,579	SF	Shopping Plaza (40-150k)
121,999	SF	Strip Retail Plaza (<40k)
8	FP	Gas Station with Convenience Store
1,904	SF	High-Turnover Sit-Down Restaurant
100	Rooms	Hotel
111,000	SF	Hardware Store
9,100	SF	Medical Office Building
12,000	SF	Day Care

Pipeline development site trips were obtained from removing the assumed uses for the current site area from the Green Valley MP TIS. This site was accounted for in planning areas 47 and 53 in the Master Plan and had assumed uses of 220 DU of Multi-Family (Low-Rise) use, 42,600 SF of Strip Retail Plaza (<40k) use, 25,800 SF of Shopping Plaza (40-150k) use, 124,000 SF of Grocery Store use, 40,000 SF of Fitness Center Use, and a 10 FP Gas Station use. The trips for these uses were tabulated and removed from the

total Master Plan trips and the pipeline trips were calculated for the trips to and from the other areas/sites of the master plan.

The Skydance Development is located directly north of the site. The following pipeline development and development program was included in the background and total future analysis for 2050 conditions:

Skydance Development TIS

163	DU	Single-Family Homes (Detached)
197	DU	Townhomes
1,236	DU	Multi-Family Homes
197,850	SF	Commercial Retail
64,000	SF	Supermarket
12	FP	Gas Station with Convenience Store Use
640	SF	Car Wash
4,750	SF	Fast-Food Restaurant

The pipeline trips are shown in Figure 4-4 for 2026 conditions and Figure 4-5 for 2050 conditions.

The intersections of E 56th Ave & Picadilly Rd, E 54th Ave & Picadilly Rd, and E 56th Ave & Road A were identified in the Pipeline TIS's to be signalized once developments are completed. Relevant excerpts from the pipeline developments TIS's are included in Appendix E.

The background future lane uses and traffic control was determined from the Green Valley Master Plan and can be seen in Figure 4-6 for 2026 conditions and Figure 4-7 for 2050 conditions.

Background Traffic Forecasts

The existing traffic forecasts depicted in Figure 3-1, the regional growth shown in Figure 4-1 (2026) and Figure 4-2 (2050), and the pipeline development site trips shown in Figure 4-4 (2026) and Figure 4-5 (2050) were added together to yield the background future traffic forecasts shown in Figure 4-8 for 2026 conditions and Figure 4-9 for 2050 conditions.

Background Future Levels of Service

Capacity analyses of 2026 and 2050 future traffic conditions without the proposed development are provided in Appendix F and summarized in Table 4-1. The forecasted levels of service are also depicted graphically in Figure 4-10 for 2026 conditions and Figure 4-11 for 2050 conditions.

As shown on Table 4-1, the stop-controlled intersection movements would operate at overall acceptable LOS "C" or better in 2026 and LOS "D" or better in 2050 with some exceptions. Those exceptions include:

- The eastbound approach at Maxwell PI & Picadilly Rd which would operate at LOS "F" in 2050 conditions due to regional growth.
- The northbound left movement at Maxwell PI & Picadilly Rd would operate at LOS "F" in 2050 conditions due to regional growth.
- The eastbound left and southbound right movements at E 56th Ave & Picadilly Rd would operate LOS "F" in 2050 PM conditions.

Need a section discussing future lane use and control. This would include the Picadilly Road Widening project by the City of Aurora from 38th to 56th. When is this project anticipated to be completed and what improvements does it include in the site vicinity - specifically at the intersection of 56th & Picadilly. The current plans show the proposed access to the east, aligning with Maxwell Place, as a right-in/right-out. No southbound left turn lane is planned. The dual northbound lefts at 56th extend 250', with no room for a southbound left at Maxwell Place.

A section discussing future lane use and traffic control was included in Section IV and Section V. The Picadilly Road Widening Project was assumed to be completed by 2026 conditions. The $\frac{3}{4}$ movement at Maxwell PI & Picadilly Rd was removed therefore the southbound left turn lane would be removed and the dual northbound left turns could extend to 250'.

The signalized intersections are forecasted to operate at overall acceptable LOS “D” or better in 2026 and 2050 conditions with the exception of the E 56th Ave & Picadilly Rd intersection which would operate at LOS “E” in 2050 conditions due to regional growth.

Background Future Queueing

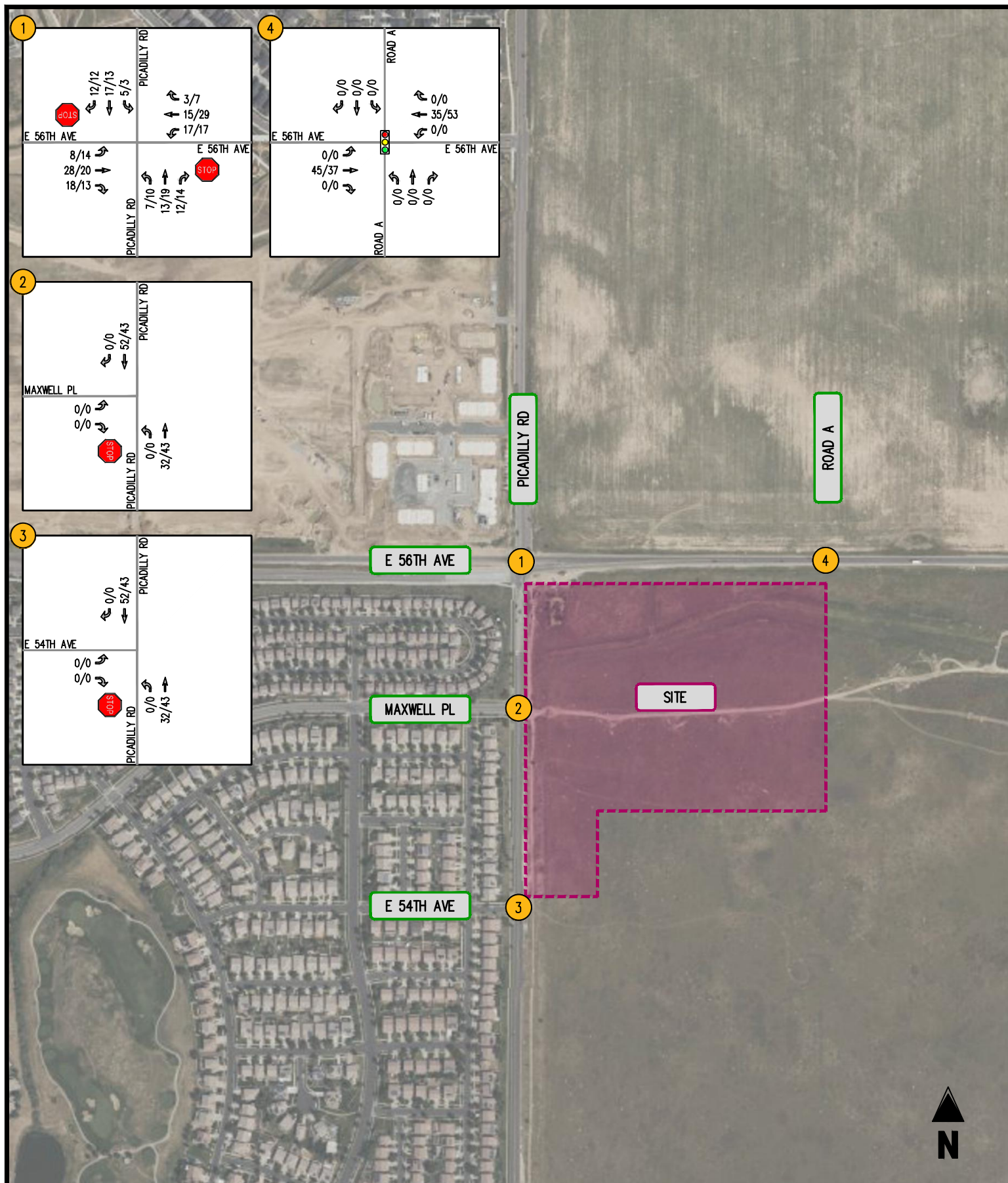
An analysis of intersection queues was performed at key locations under background future traffic conditions. The results of the queueing analysis are summarized in Table 4-2.

As shown in the table, queues within the study network will increase due to regional traffic growth. All queues are expected to be contained in their effective storage with the exception of the E 56th Ave & Picadilly Rd intersection of which the WBL and NBR movements in the 2050 AM conditions and the EBL, WBL, WBR, and NBR movements in the 2050 PM conditions would exceed the available storage.

Operational and queueing deficiencies have been identified for 2050 long range conditions and suggests that further study should be required as development occurs in the area.

Include planned improvements as part of the Picadilly Road Widening project. Existing storage, planned storage with the project, and what is needed. Also, please indicate where future storage will exceed what is existing and/or planned for the future.

A section discussing future lane use and traffic control was included in Section IV and Section V. Existing storage is shown in Table 3-2 Existing Queues, and planned storage with the project is shown in Table 4-2 and 6-2. Where storage will exceed existing/planned length is highlighted in the queue tables (Table 4-2 and Table 6-2).



**FIGURE 4-1
BACKGROUND GROWTH 2026**

56TH & PICADILLY
AURORA, CO

(A/A) INTERSECTION LOS
0000/0000 (AM PEAK HOUR/PM PEAK HOUR)

- ← MOVEMENT
- 🚦 SIGNALIZED INTERSECTION
- 🛑 STOP SIGN
- 🚶 YIELD SIGN



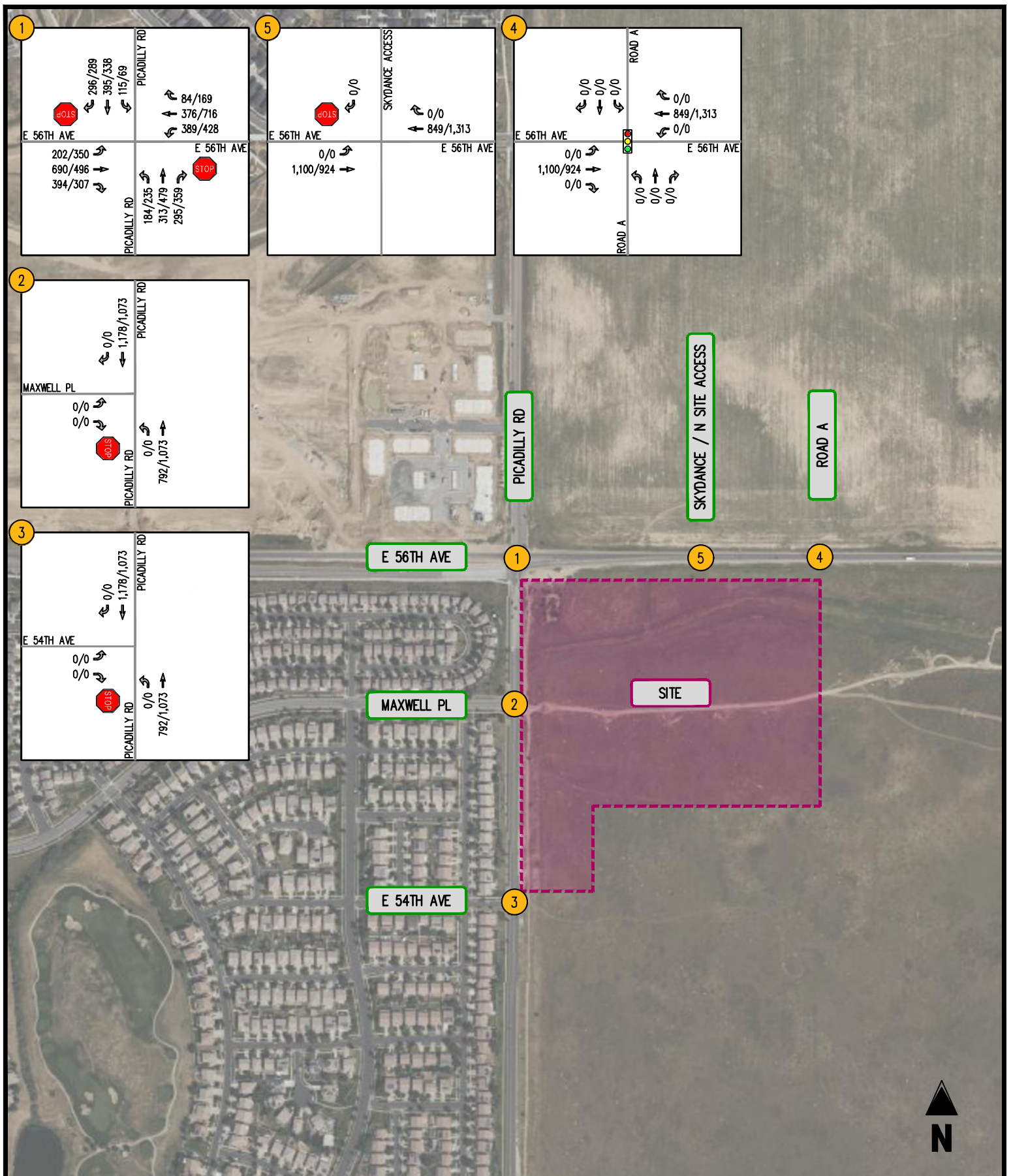


FIGURE 4-2
BACKGROUND GROWTH 2050

56TH & PICADILLY
AURORA, CO

(A/A) INTERSECTION LOS
0000/0000 (AM PEAK HOUR/PM PEAK HOUR)

← MOVEMENT
 SIGNALIZED INTERSECTION
 STOP SIGN
 YIELD SIGN



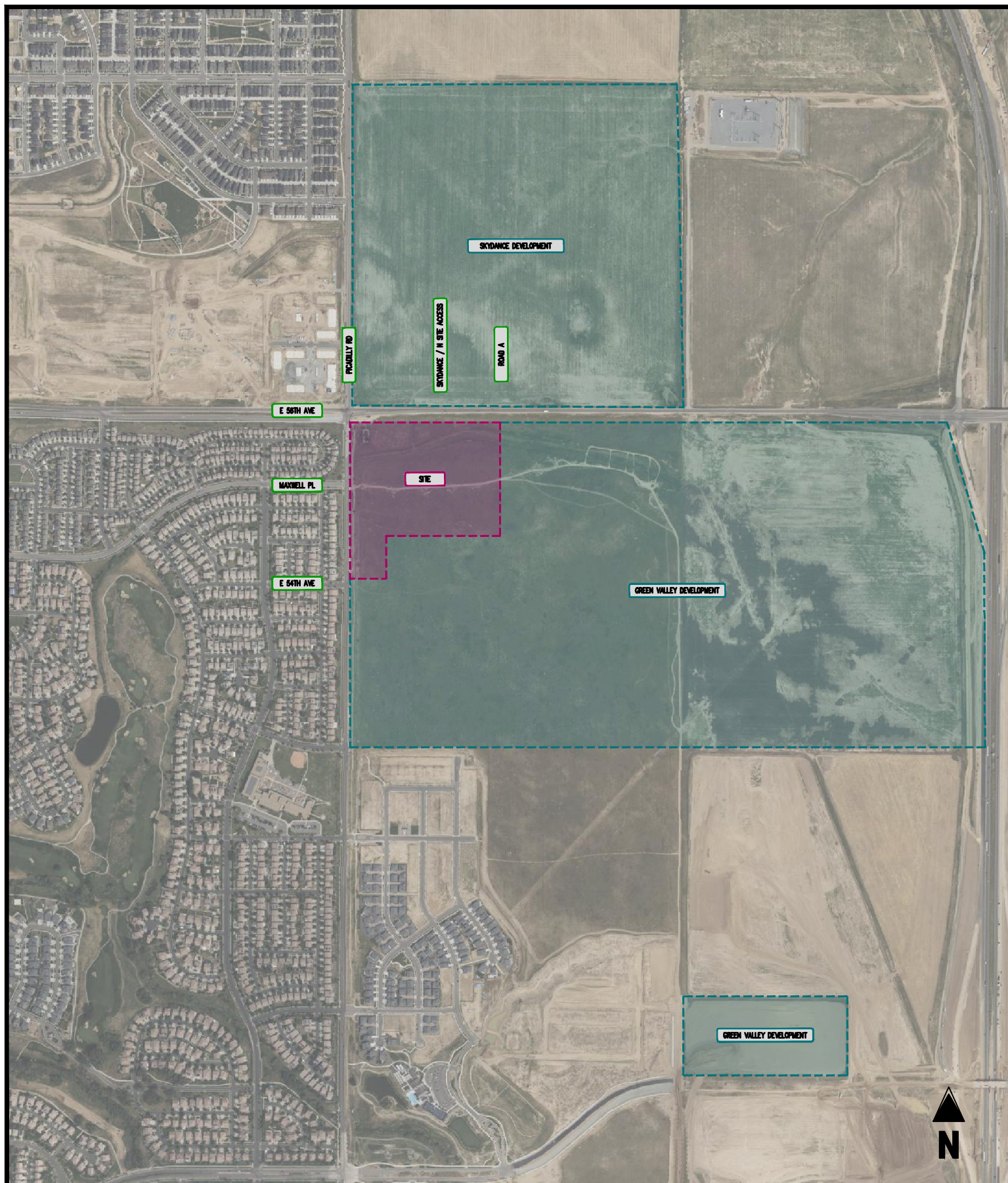


FIGURE 4-3
PIPELINE LOCATIONS



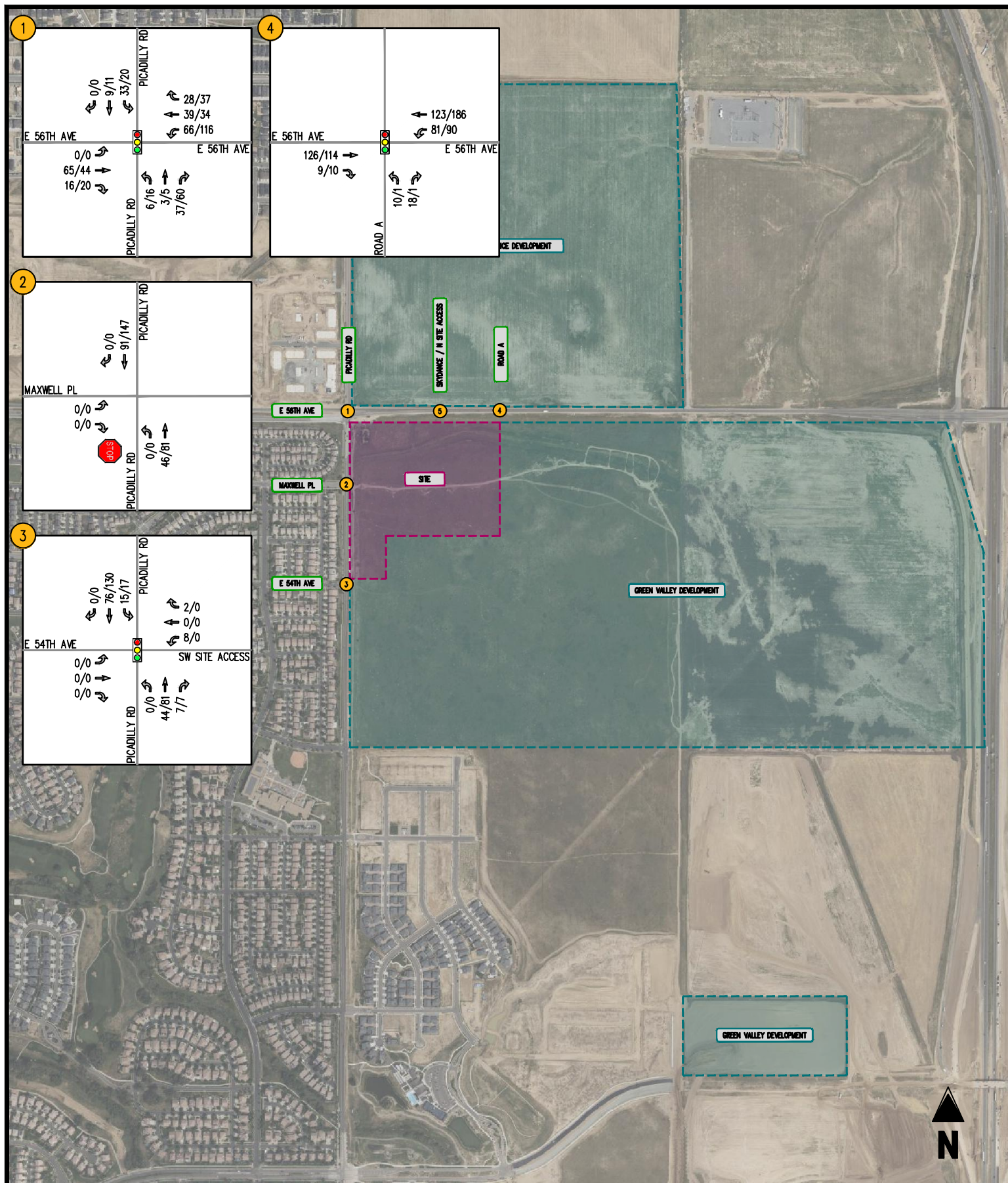


FIGURE 4-4
PIPELINE SITE TRIPS 2026

56TH & PICADILLY
AURORA, CO

(A/A) INTERSECTION LOS
0000/0000 (AM PEAK HOUR/PM PEAK HOUR)

← MOVEMENT
 SIGNALIZED INTERSECTION
 STOP SIGN
 YIELD SIGN



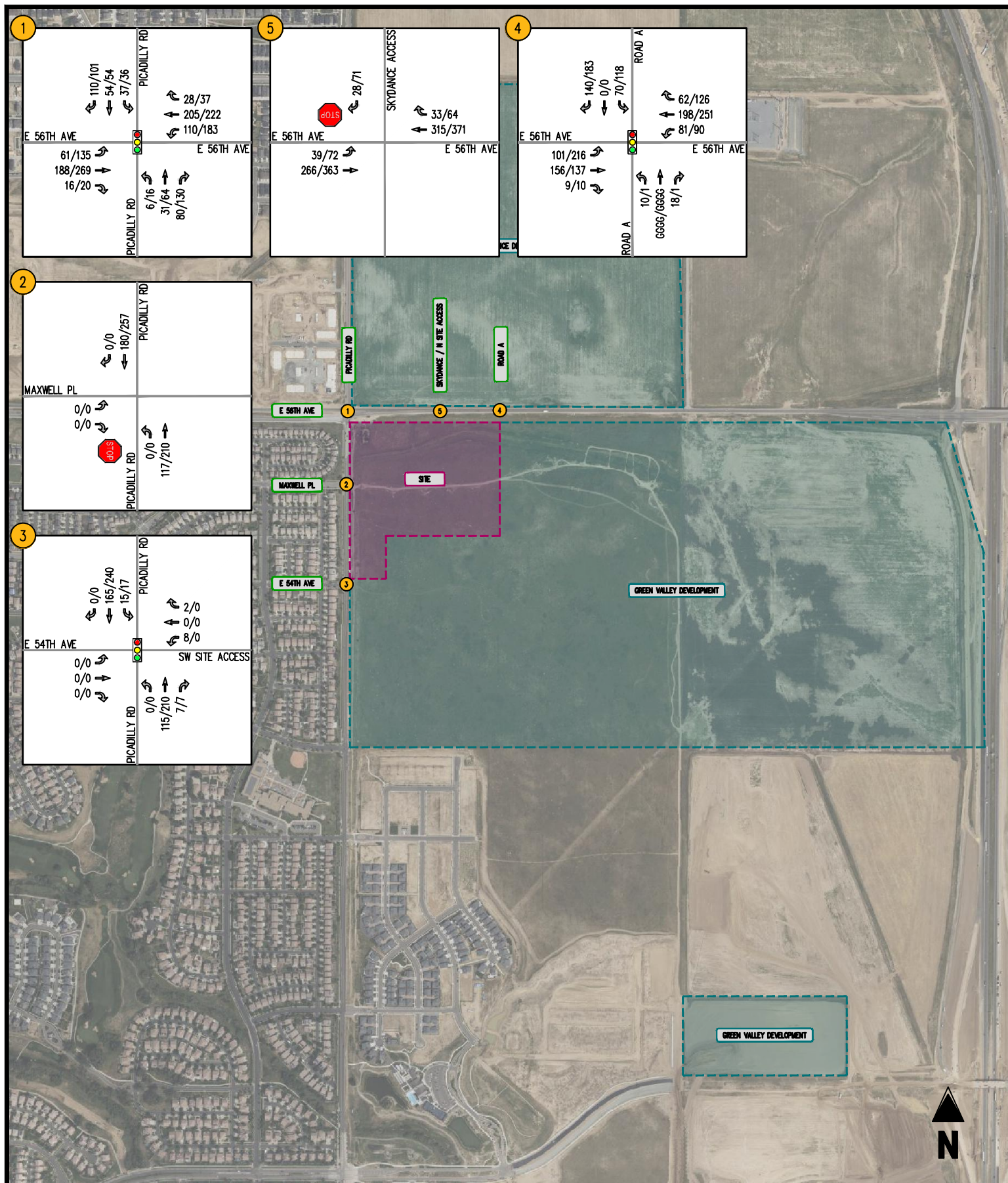


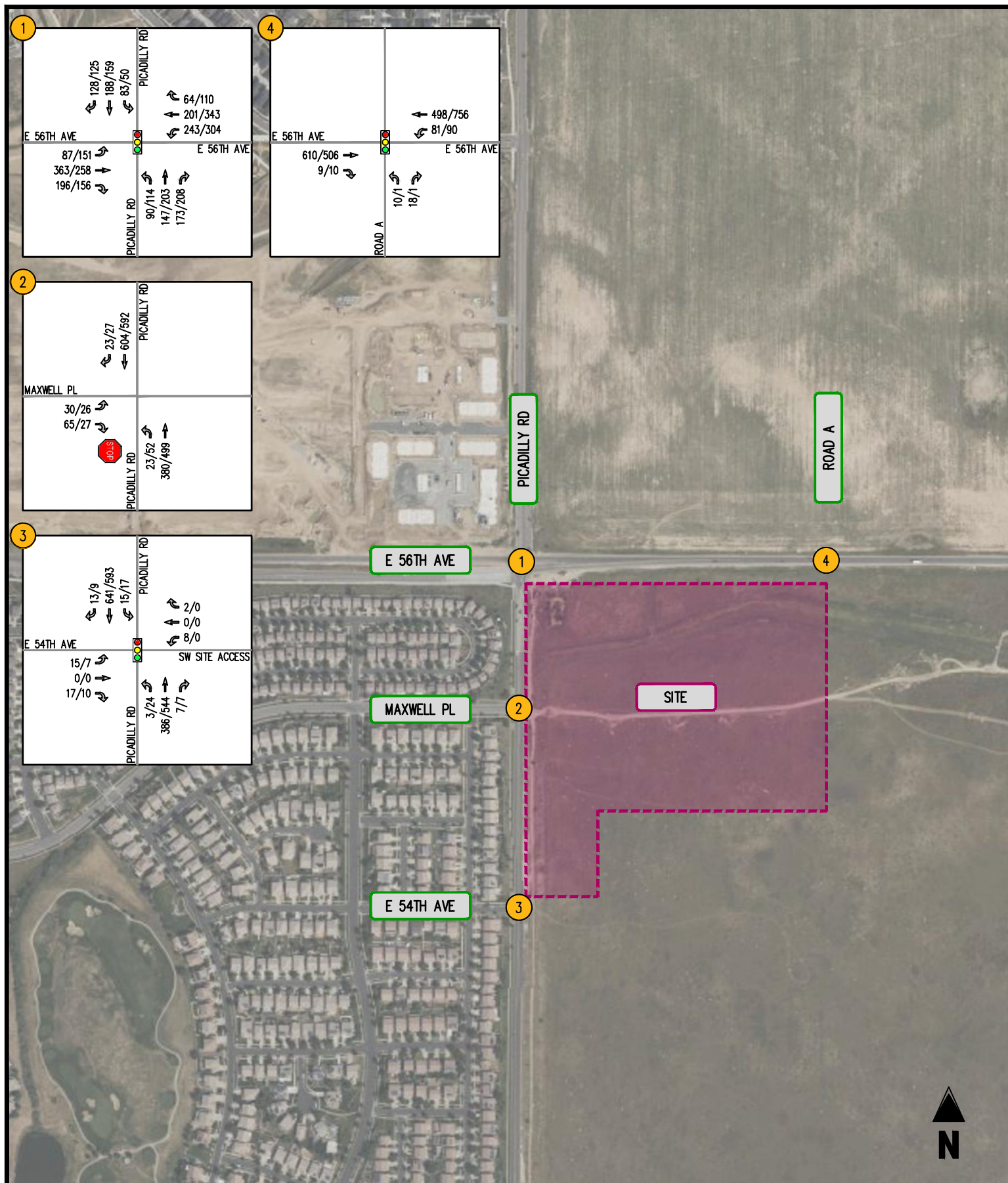
FIGURE 4-5
PIPELINE SITE TRIPS 2050

56TH & PICADILLY
AURORA, CO

(A/A) INTERSECTION LOS
0000/0000 (AM PEAK HOUR/PM PEAK HOUR)

← MOVEMENT
 SIGNALIZED INTERSECTION
 STOP SIGN
 YIELD SIGN





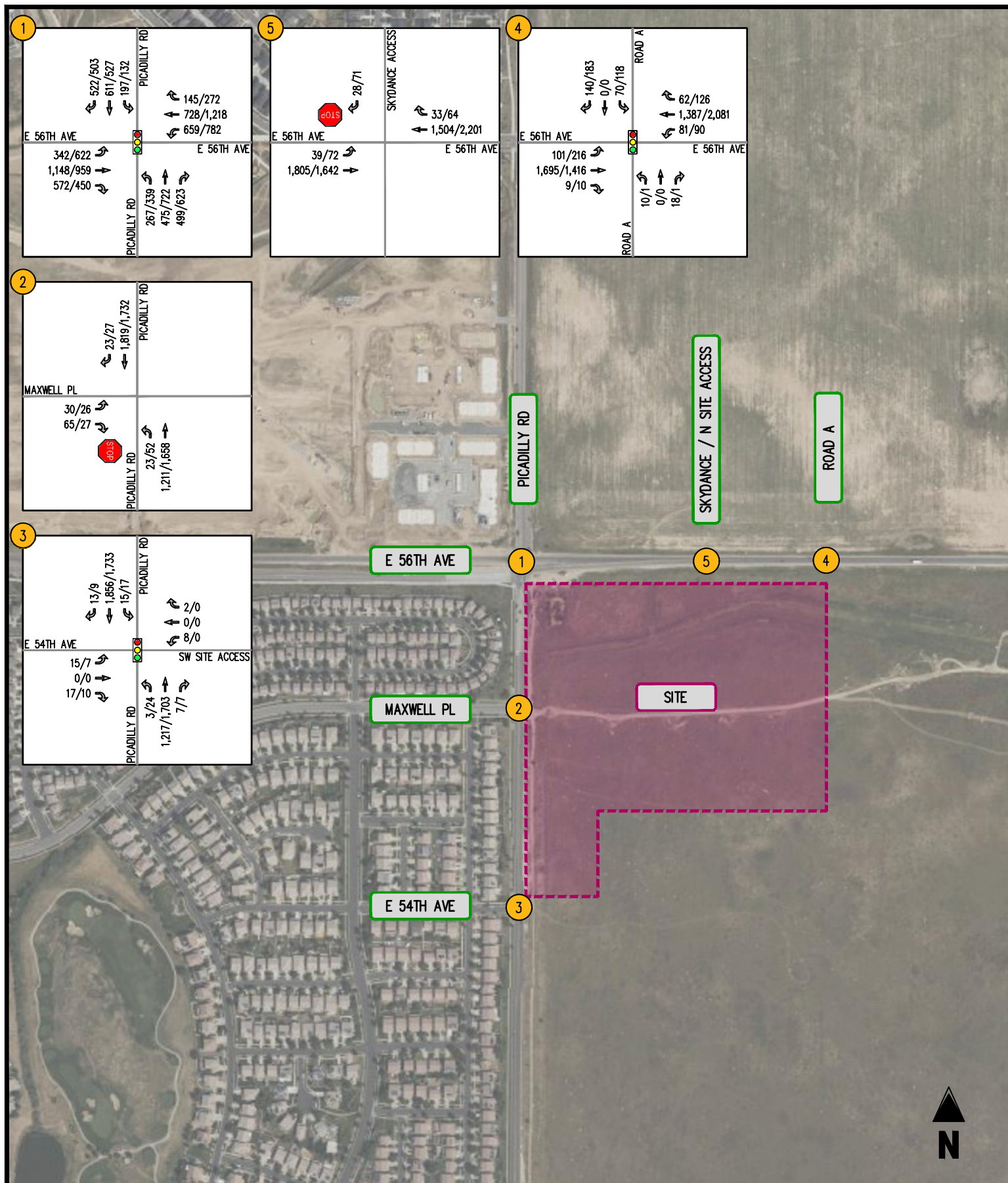


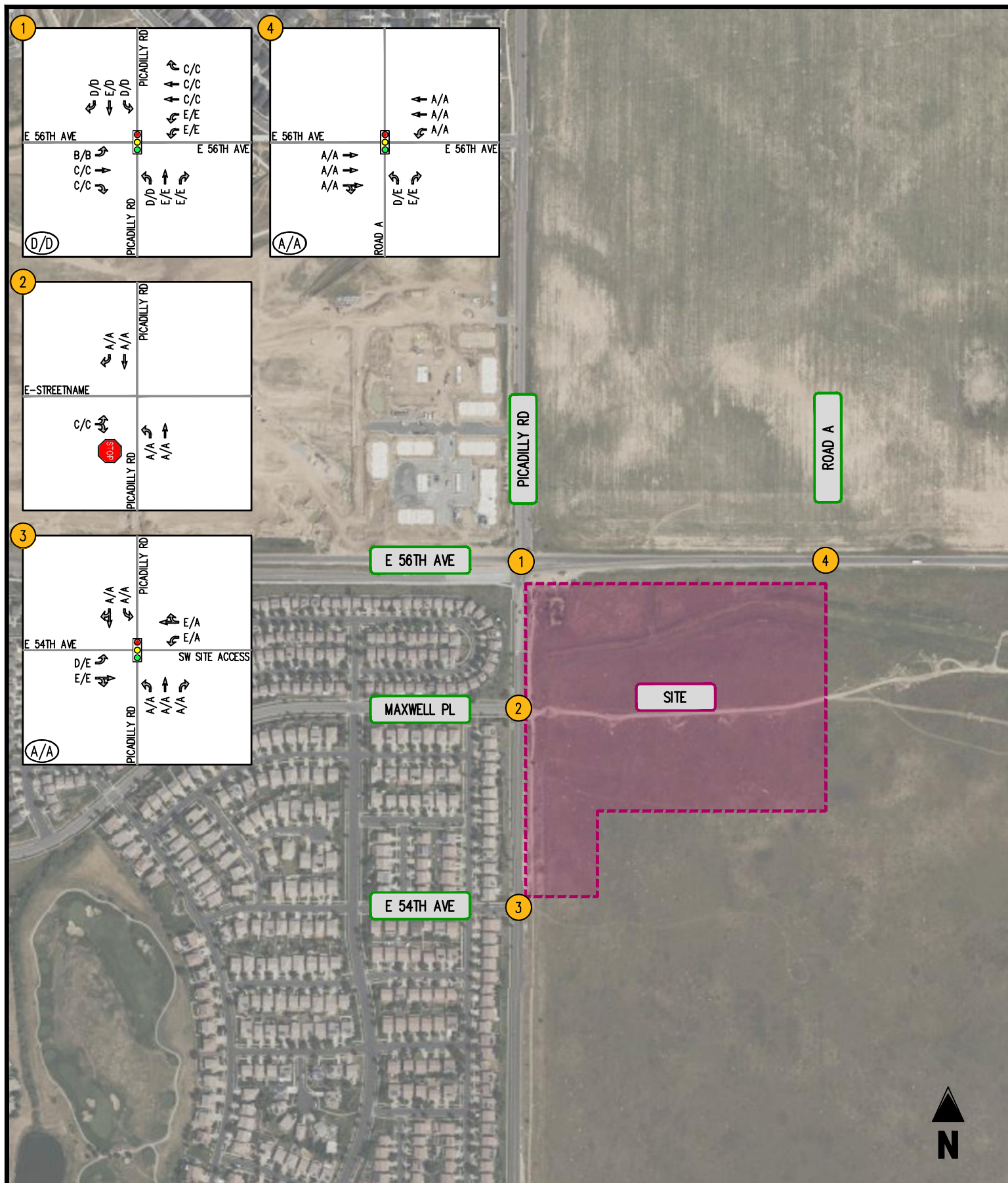
FIGURE 4-9
BACKGROUND FORECASTS 2050

56TH & PICADILLY
AURORA, CO

(A/A) INTERSECTION LOS
0000/0000 (AM PEAK HOUR/PM PEAK HOUR)

← MOVEMENT
 SIGNALIZED INTERSECTION
 STOP SIGN
 YIELD SIGN





**FIGURE 4-10
BACKGROUND LEVELS OF SERVICE 2026**

56TH & PICADILLY
AURORA, CO

(A/A) INTERSECTION LOS
0000/0000 (AM PEAK HOUR/PM PEAK HOUR)

- ← MOVEMENT
- 🚦 SIGNALIZED INTERSECTION
- 🛑 STOP SIGN
- 🚧 YIELD SIGN



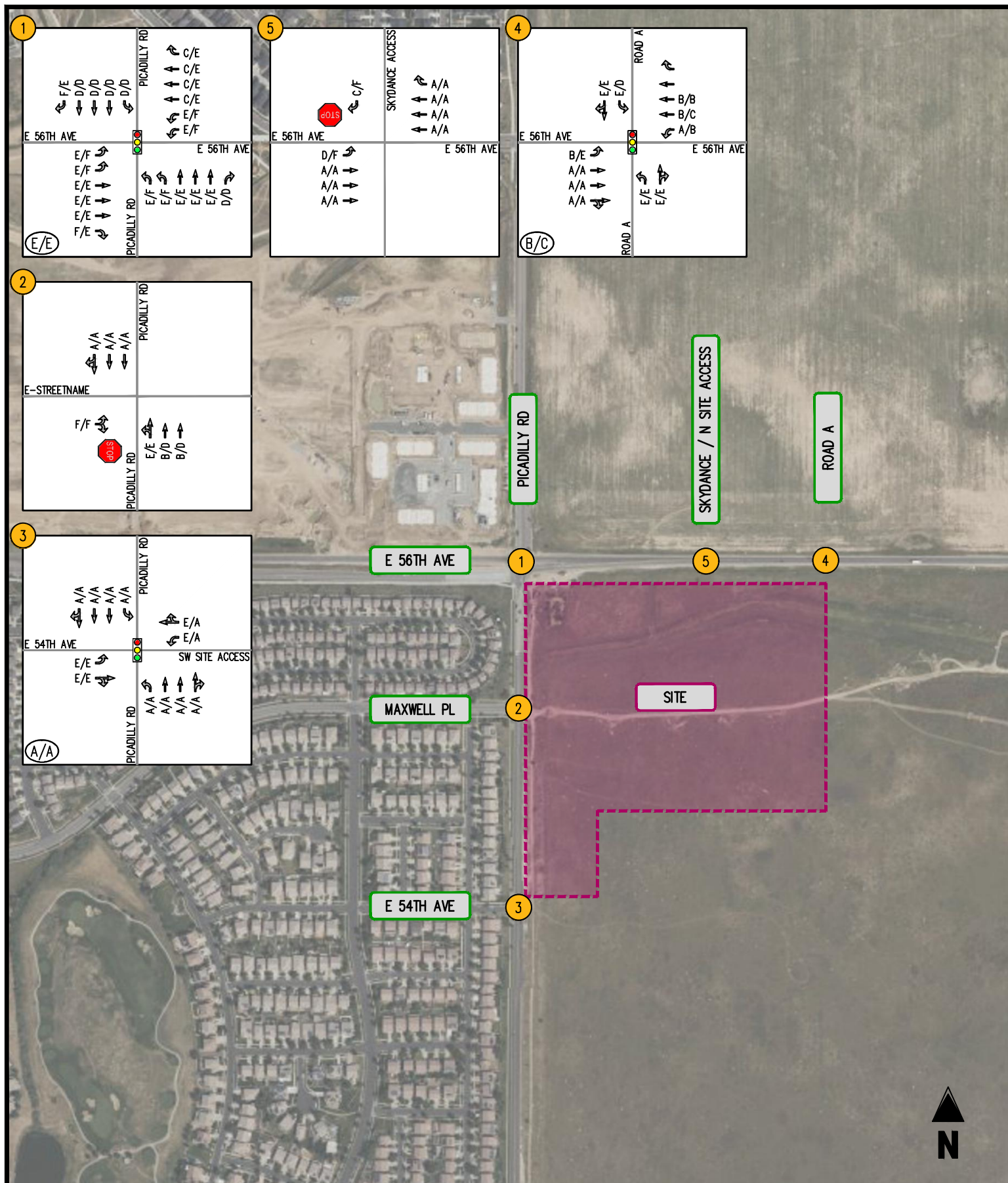


FIGURE 4-11
BACKGROUND LEVELS OF SERVICE 2050

56TH & PICADILLY
AURORA, CO

(A/A) INTERSECTION LOS
0000/0000 (AM PEAK HOUR/PM PEAK HOUR)

← MOVEMENT
 SIGNALIZED INTERSECTION
 STOP SIGN
 YIELD SIGN



Table 4-1
56th & Picadilly - Aurora, CO
Background Future Intersection Level of Service Summary (1) (2)

				Existing 2024		Background 2026		Background 2050		
Intersection	Operating Condition	Street Name	Approach/ Movement	AM	PM	AM	PM	AM	PM	
				Peak Hour	Peak Hour	Peak Hour	Peak Hour	Peak Hour	Peak Hour	
1 E 56th Ave & Picadilly Rd	STOP	E 56th Ave	EBL	A [7.8]	A [8.6]	-	-	-	-	
			EBT	A [0.0]	A [0.0]	-	-	-	-	
			EBR	A [0.0]	A [0.0]	-	-	-	-	
			WBL	A [9.0]	A [8.7]	-	-	-	-	
		E 56th Ave	WBT	A [0.0]	A [0.0]	-	-	-	-	
			WBR	A [0.0]	A [0.0]	-	-	-	-	
		Picadilly Rd	NBL	F [77.6]	F [220.9]	-	-	-	-	
			NBTR	F [119.7]	F [599.4]	-	-	-	-	
		Picadilly Rd	SBL	F [1676.2]	F [117.7]	-	-	-	-	
			SBTR	F [294.9]	F [464.4]	-	-	-	-	
	Signalization + Lane Improvements	SIGNAL	E 56th Ave	EBL	-	-	B (14.4)	B (16.9)	E (64.1)	F (95.0)
				EBT	-	-	C (23.1)	C (23.8)	E (62.1)	E (60.2)
				EBR	-	-	C (20.5)	C (22.4)	F (103.7)	E (57.8)
				WBL	-	-	E (61.4)	E (64.7)	E (69.5)	F (90.5)
		E 56th Ave	WBT	-	-	C (27.2)	C (31.1)	C (22.1)	E (69.2)	
			WBR	-	-	C (26.5)	C (29.9)	C (21.5)	E (62.8)	
		Picadilly Rd	NBL	-	-	D (44.9)	D (43.6)	E (77.0)	F (81.1)	
			NBT	-	-	E (55.9)	E (56.6)	E (57.7)	E (60.1)	
		Picadilly Rd	NBR	-	-	E (63.5)	E (67.2)	D (46.2)	D (47.4)	
			SBL	-	-	D (42.4)	D (41.7)	D (44.8)	D (45.2)	
		Picadilly Rd	SBT	-	-	E (55.1)	D (51.2)	D (49.7)	D (52.2)	
SBR	-		-	<u>D (51.7)</u>	<u>D (50.8)</u>	<u>F (90.8)</u>	<u>E (56.0)</u>			
Overall			-	-	D (40.5)	D (42.6)	E (60.9)	E (66.7)		
2 Maxwell Pl & Picadilly Rd	STOP	Maxwell Pl	EBLR	C [16.3]	C [17.0]	C [19.8]	C [23.7]	F [297.2]	F [802.8]	
		Picadilly Rd	NBL	A [8.6]	A [8.5]	A [9.1]	A [9.2]	E [41.0]	E [47.8]	
			NBT	A [0.0]	A [0.0]	A [0.0]	A [0.0]	B [10.2]	D [26.6]	
		Picadilly Rd	SBT	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	
			SBR	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	
3 E 54th Ave & Picadilly Rd	STOP	E 54th Ave	EBLR	C [15.7]	B [14.5]	-	-	-	-	
		Picadilly Rd	NBL	A [8.7]	A [8.4]	-	-	-	-	
			NBT	A [0.0]	A [0.0]	-	-	-	-	
		Picadilly Rd	SBTR	A [0.0]	A [0.0]	-	-	-	-	
	Added East Leg + Signal	SIGNAL	E 54th Ave	EBL	-	-	D (54.6)	E (56.4)	E (64.3)	E (66.0)
				EBTR	-	-	E (55.1)	E (57.1)	E (64.9)	E (66.8)
				WBL	-	-	E (59.3)	A (0.0)	E (69.1)	A (0.0)
		SW Site Access	WBTR	-	-	E (57.5)	A (0.0)	E (67.2)	A (0.0)	
			NBL	-	-	A (6.9)	A (2.8)	A (6.2)	A (3.8)	
		Picadilly Rd	NBT	-	-	A (9.7)	A (6.0)	A (8.9)	A (5.4)	
			NBR	-	-	A (7.0)	A (3.5)	A (9.2)	A (5.9)	
		Picadilly Rd	SBL	-	-	A (6.6)	A (3.6)	A (6.2)	A (3.7)	
			SBT	-	-	-	-	A (1.9)	A (5.8)	
		SBR	-	-	<u>A (4.1)</u>	<u>A (1.1)</u>	<u>A (2.6)</u>	<u>A (6.3)</u>		
		Overall			-	-	A (8.0)	A (4.2)	A (5.7)	A (6.1)
4 E 56th Ave & Road A 3-Leg Intersection	SIGNAL	E 56th Ave	EBT	-	-	A (1.0)	A (0.1)	-	-	
			EBR	-	-	A (1.1)	A (0.2)	-	-	
			WBL	-	-	A (3.0)	A (1.8)	-	-	
			WBT	-	-	A (2.2)	A (1.4)	-	-	
		Road A	NBL	-	-	D (54.6)	E (64.1)	-	-	
			NBR	-	-	<u>E (55.8)</u>	<u>E (65.4)</u>	-	-	
		Overall			-	-	A (2.9)	A (1.0)	-	-
	4-Leg Intersection	SIGNAL	E 56th Ave	EBL	-	-	-	-	B (10.9)	E (69.8)
				EBT	-	-	-	-	A (1.1)	A (0.8)
				EBR	-	-	-	-	A (2.0)	A (1.5)
				WBL	-	-	-	-	A (8.6)	B (12.3)
		E 56th Ave	WBT	-	-	-	-	B (14.7)	C (27.8)	
			WBR	-	-	-	-	B (10.6)	B (15.8)	
		Road A	NBL	-	-	-	-	E (58.4)	E (60.3)	
			NBTR	-	-	-	-	E (60.9)	E (60.4)	
		Road A	SBL	-	-	-	-	E (56.4)	D (53.7)	
			SBTR	-	-	-	-	<u>E (72.9)</u>	<u>E (72.6)</u>	
		Overall			-	-	-	-	B (11.5)	C (22.9)
5 E 56th Ave & Skydance Access 3-Leg Intersection (With North Leg)	STOP	E 56th Ave	EBL	-	-	-	-	D [30.5]	F [229.2]	
			EBT	-	-	-	-	A [0.0]	A [0.0]	
		E 56th Ave	WBT	-	-	-	-	A [0.0]	A [0.0]	
			WBR	-	-	-	-	A [0.0]	A [0.0]	
		Skydance Access	SBR	-	-	-	-	C [19.8]	F [50.2]	

Notes : (1) Numbers in brackets [] represent delay at unsignalized intersections in seconds per vehicle.
(2) Numbers in parenthesis () represent delay at signalized intersections in seconds per vehicle.

Table 4-2
56th & Picadilly - Aurora, CO
Background Future Intersection Queueing Summary (1)

Intersection	Operating Condition	Street Name	Approach/ Movement	Available Storage	Existing 2024		Background 2026		Background 2050	
					AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
1 E 56th Ave & Picadilly Rd	STOP	E 56th Ave	EBL	400	5	12.5	-	-	-	-
			EBT	-	0	0	-	-	-	-
			EBR	-	0	0	-	-	-	-
			WBL	150	15	15	-	-	-	-
		E 56th Ave	WBT	-	0	0	-	-	-	-
			WBR	-	0	0	-	-	-	-
		Picadilly Rd	NBL	225	95	177.5	-	-	-	-
			NBTR	-	305	742.5	-	-	-	-
	Signalization + Lane Improvements	E 56th Ave	SBL	225	185	52.5	-	-	-	-
			SBTR	-	500	537.5	-	-	-	-
			EBL	400	-	-	67	106	197	460
			EBT	-	-	-	388	273	496	427
		E 56th Ave	EBR	-	-	-	56	52	619	394
			WBL	375	-	-	142	170	477	553
			WBT	-	-	-	105	184	175	508
			WBR	125	-	-	0	48	54	243
2 Maxwell Pl & Picadilly Rd	STOP	Maxwell Pl	NBL	-	25	15	30	22.5	197.5	172.5
			NBT	125	2.5	5	2.5	5	17.5	45
			SBT	-	0	0	0	0	0	0
			SBR	-	0	0	0	0	0	0
	Added East Leg + Signal	E 54th Ave	EBLR	-	7.5	5	-	-	-	-
			NBL	125	0	2.5	-	-	-	-
			NBT	-	0	0	-	-	-	-
			SBTR	-	0	0	-	-	-	-
		SW Site Access	EBL	-	-	-	35	22	39	25
			EBTR	-	-	-	0	0	0	0
			WBL	-	-	-	24	0	27	0
			WBTR	-	-	-	0	0	0	0
3 E 54th Ave & Picadilly Rd	STOP	E 54th Ave	NBL	125	0	2.5	-	-	-	-
			NBT	-	0	0	-	-	-	-
			SBTR	-	0	0	-	-	-	-
		Picadilly Rd	NBL	-	-	-	4	9	4	8
			NBT	-	-	-	262	267	258	268
			NBR	-	-	-	0	0	0	0
			SBL	300	-	-	3	1	4	2
			SBT	-	-	-	619	133	415	111
	Signal	E 54th Ave	SBR	-	-	-	0	0	0	0
			EBL	325	-	-	2	7	-	-
			EBR	-	-	-	0	0	-	-
		E 56th Ave	WBL	350	-	-	21	23	-	-
			WBT	-	-	-	55	88	-	-
			NBL	100	-	-	27	7	-	-
			NBR	-	-	-	25	6	-	-
		Road A	NBL	-	-	-	-	-	-	-
4 E 56th Ave & Road A	3-Leg Intersection	E 56th Ave	EBT	325	-	-	2	7	-	-
			EBR	-	-	-	0	0	-	-
			WBL	350	-	-	21	23	-	-
			WBT	-	-	-	55	88	-	-
		Road A	NBL	100	-	-	27	7	-	-
			NBR	-	-	-	25	6	-	-
	4-Leg Intersection	E 56th Ave	EBL	325	-	-	-	-	52	214
			EBT	-	-	-	-	-	350	280
			EBR	-	-	-	-	-	0	0
			WBL	350	-	-	-	-	55	47
		E 56th Ave	WBT	-	-	-	-	-	357	856
			WBR	-	-	-	-	-	0	37
			NBL	100	-	-	-	-	26	6
			NBTR	-	-	-	-	-	0	0
5 E 56th Ave & Skydance Access	STOP	E 56th Ave	SBL	-	-	-	-	-	105	163
			SBTR	-	-	-	-	-	0	0
		E 56th Ave	EBL	273*	-	-	-	-	22.5	145
			EBT	-	-	-	-	-	0	0
			WBT	-	-	-	-	-	0	0
			WBR	200	-	-	-	-	0	0
		Skydance Access	SBL	-	-	-	-	-	10	60
			SBR	-	-	-	-	-	-	-
	Signal	E 56th Ave	EBL	325	-	-	-	-	52	214
			EBT	-	-	-	-	-	350	280
			EBR	-	-	-	-	-	0	0
			WBL	350	-	-	-	-	55	47
		E 56th Ave	WBT	-	-	-	-	-	357	856
			WBR	-	-	-	-	-	0	37
			NBL	100	-	-	-	-	26	6
			NBTR	-	-	-	-	-	0	0
6 E 56th Ave & Skydance Access	STOP	E 56th Ave	SBL	-	-	-	-	-	105	163
			SBTR	-	-	-	-	-	0	0
		E 56th Ave	EBL	273*	-	-	-	-	22.5	145
			EBT	-	-	-	-	-	0	0
			WBT	-	-	-	-	-	0	0
			WBR	200	-	-	-	-	0	0
		Skydance Access	SBL	-	-	-	-	-	10	60
			SBR	-	-	-	-	-	-	-
	Signal	E 56th Ave	EBL	325	-	-	-	-	52	214
			EBT	-	-	-	-	-	350	280
			EBR	-	-	-	-	-	0	0
			WBL	350	-	-	-	-	55	47
		E 56th Ave	WBT	-	-	-	-	-	357	856
			WBR	-	-	-	-	-	0	37
			NBL	100	-	-	-	-	26	6
			NBTR	-	-	-	-	-	0	0

Notes : (1) Queue length, in feet, is based on the 95th percentile queue as reported by Synchro, Version 12.
* Storage length per Skydance Development TIS

V. Site Analysis

Overview

The Applicant is proposing to develop the approximately 26.95-acre site with a mix of commercial/retail uses. For purposes of this study, the site is assumed complete and occupied in 2026. For analysis purposes the following use and development programs were assumed:

Build-Out 2026:

168,117	SF	Shopping Center (>150k)
18	FP	Gas Station
4,750	SF	Drive-In Bank
4,500	SF	Fast-Food Restaurant w/Drive Thru
1,500	SF	Coffee Shop w/Drive-Thru
4,500	SF	Fast-Food Restaurant w/Drive Thru
3,700	SF	Fast-Food Restaurant w/Drive Thru
7,200	SF	Automobile Parts and Service Center
1	TUNNEL	Automated Car Wash

Why didn't you use the ITE Land Use Code for Grocery Store since that land use has been specifically identified?

If these uses correlate with specific Lots on the site plan, please identify so we can make sure the site plan matches what is being proposed within this study.

Proposed Site Access

As shown on the Applicant's conceptual plan (Figure 1-2) via:

- An additional east leg of the Maxwell PI & Picadilly movement stop-controlled intersection.
- An additional east leg of the E 54th Ave & Picadilly signalized control.
- A new right-in right-out (RIRO) access on Picadilly operate under stop control.
- A new RIRO access on E 56th Ave that will operate under stop control.
- A new signalized full movement intersection on E 56th Ave.

The Shopping Center ITE Land Use Code was used to encompass the grocery store, retail lot to the west of the grocery store, and the Jr Anchor lot (Lot 2) to the east of the grocery store. The other assumed uses are not coordinated with specific lots, but to be conservative with trip generation, each lot was assumed have one (1) use.

The proposed lane use and traffic control are shown in Figure 5-1 for 2026 and Figure 5-2 for 2050.

Trip Generation

Overview

Trip generation estimates for the weekday AM and PM peak hours, as well as the weekday average daily traffic (ADT), were derived from the standard Institute of Transportation Engineers (ITE) Trip Generation Manual rates/equations, as published in the 11th edition. The trip generation analysis is presented in Table 5-1.

Pass-by Trips

According to ITE, in some cases the driveway volumes at a particular land use are different from the amount of traffic added to the adjacent street system. Uses such as retail establishments attract a portion of their trips from traffic that is already present on the road network. Pass-by trips are those trips which are made as intermediate stops on the way to a primary destination. An example of a pass-by trip would be one in which a driver stops at a coffee shop on his/her way to work.

Some of the proposed uses would experience pass-by trips consistent with the primary uses located on site. In recognition of this phenomenon and consistent with ITE published data, the following pass-by reductions were applied to the trip generation analysis:

- Shopping Center: 0% AM / 29% PM
- Gas Station: 63% AM / 57% PM
- Drive-In Bank: 29% AM / 35% PM
- Fast-Food Restaurant w/Drive-Thru: 50% AM / 55% PM
- Coffee Shop w/Drive-Thru: 50% AM / 55% PM

As shown in Table 5-1, the site in total is anticipated to generate 481 weekday AM, and 655 weekday PM peak hour pass-by trips. Therefore, these trips would be drawn from the existing road network and assigned to the future site entrances accordingly. Pass-by trip assignments at key study intersections are shown in Figure 5-3.

Net Site Trips

The vehicle trips that would be generated by the proposed development plan are summarized in Table 5-1. As shown in Table 5-1, the site would generate upon completion and full occupancy 576 net new weekday AM and 910 net new weekday PM peak hour vehicle trips, as well as 11,024 net new weekday daily trips.

Site Trip Distributions

The distribution of the anticipated trips generated by the completion of the proposed development was based on the Green Valley MP. Existing travel patterns indicate the following distribution is appropriate in the forecasting of future site traffic:

- To/from the west on E 56th Ave: 10%
- To/from the east on E 56th Ave: 30%
- To/from the north on Picadilly Rd: 5%
- To/from the south on Picadilly Rd: 55%

Discussion of pass-by trip distribution - directional percentages along 56th & Picadilly. Was it directional based on time day?

No, the trip distributions were the same for the AM & PM peak hours.

Site Trip Assignments

The assignment of the new vehicle trips generated upon the future build-out of the development project was based on the above distribution. The net new trips assignments are depicted in Figure 5-4.

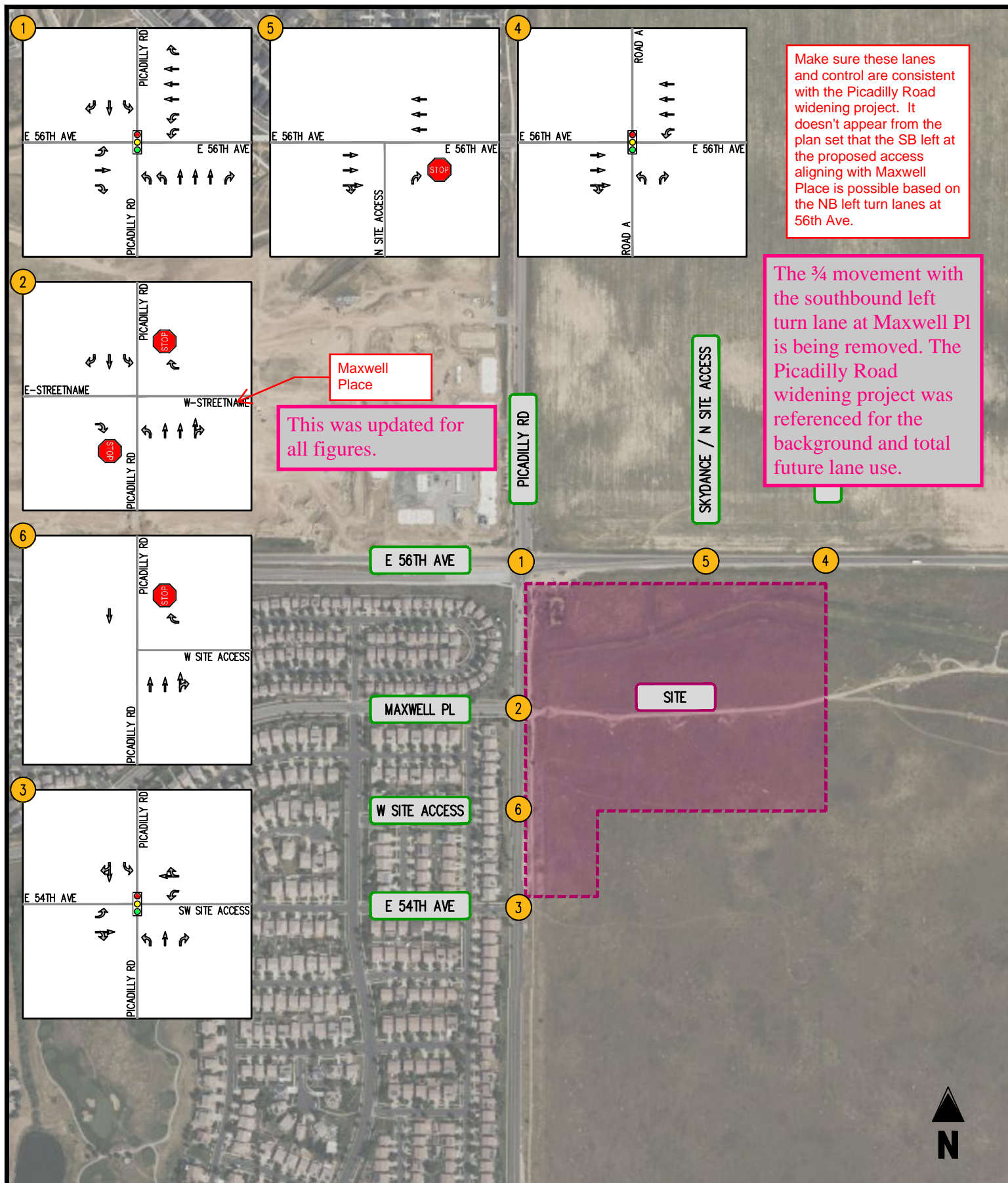


FIGURE 5-1
TOTAL FUTURE LANE USE AND TRAFFIC CONTROL 2026

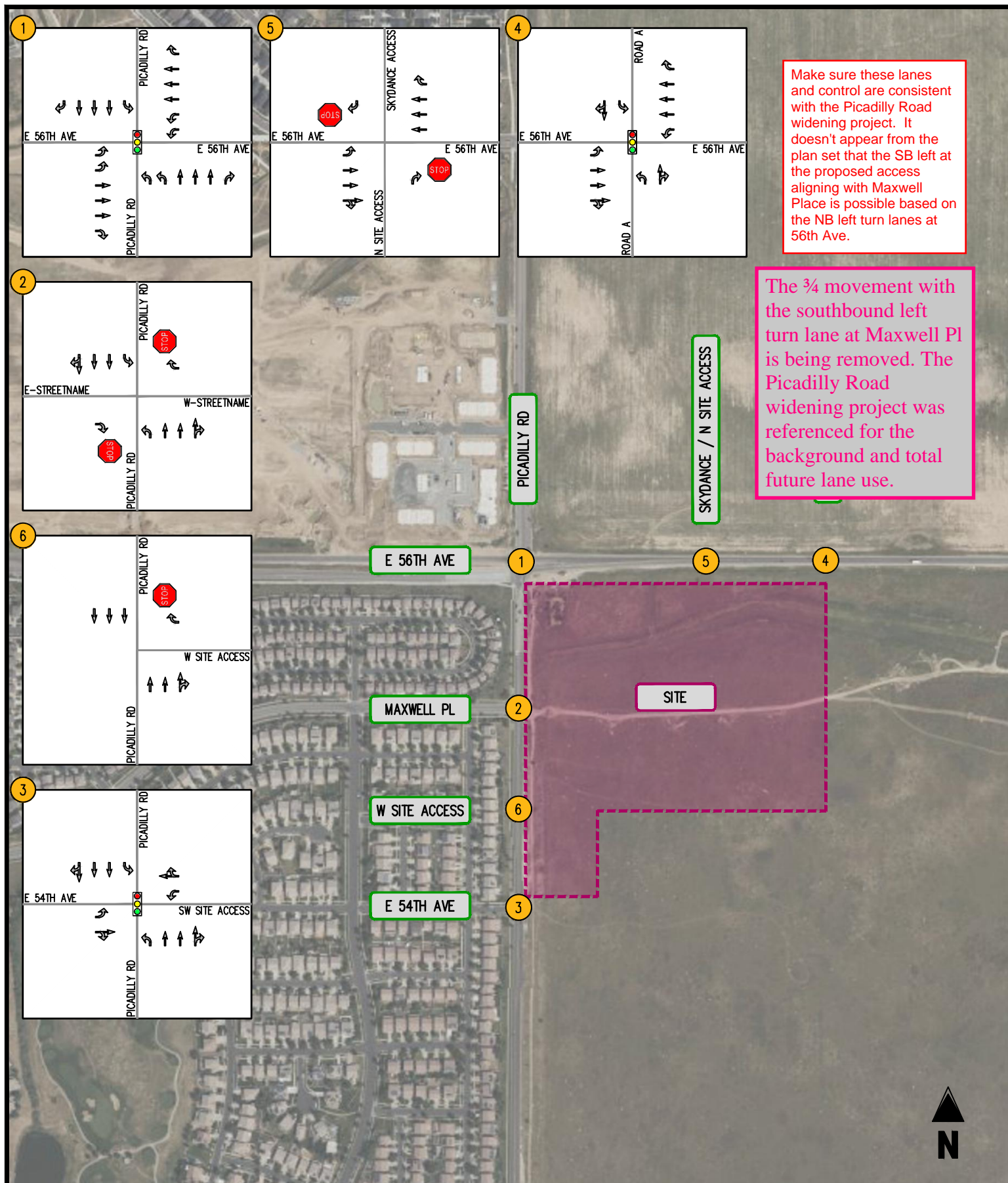
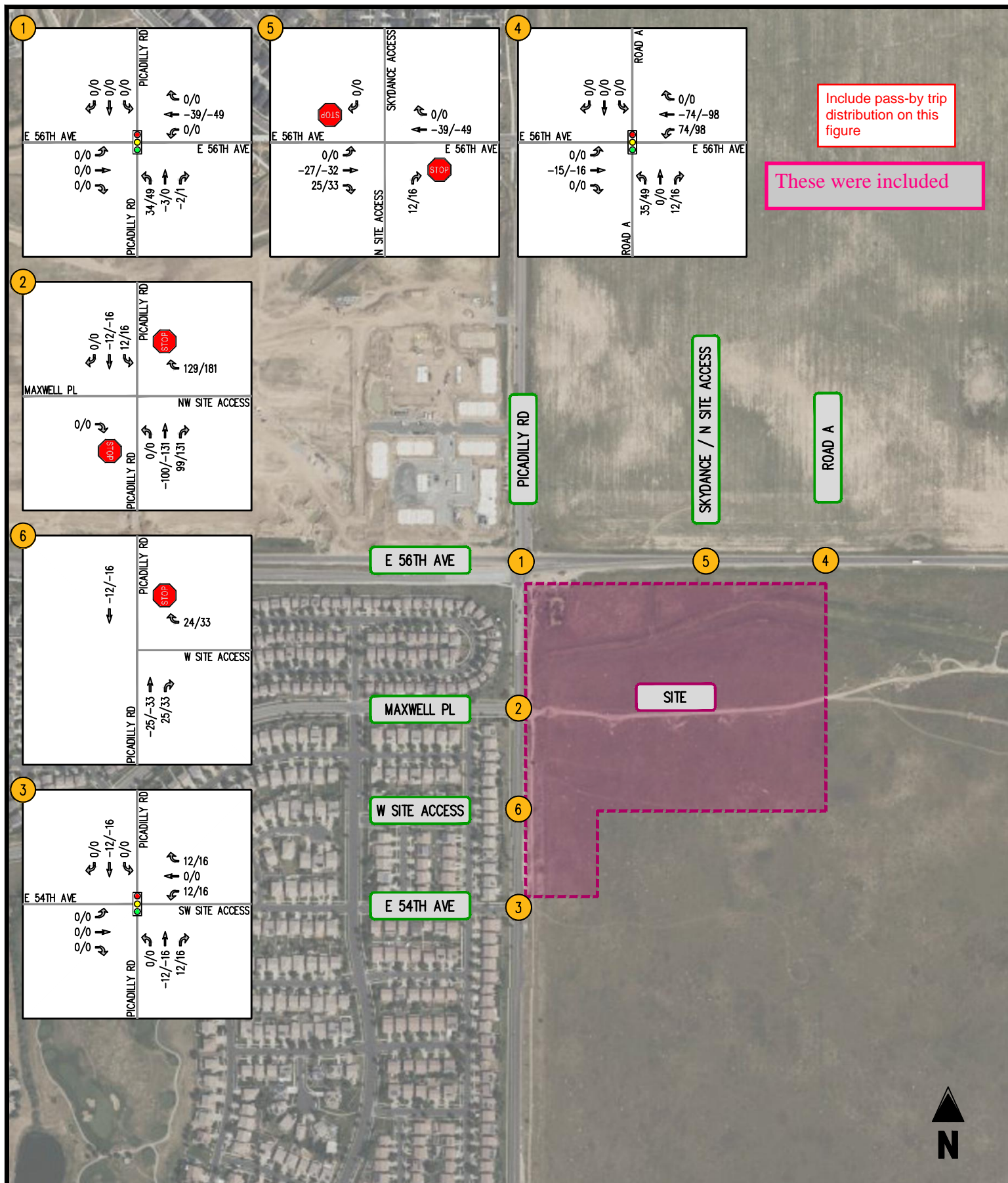


FIGURE 5-2
TOTAL FUTURE LANE USE AND TRAFFIC CONTROL 2050



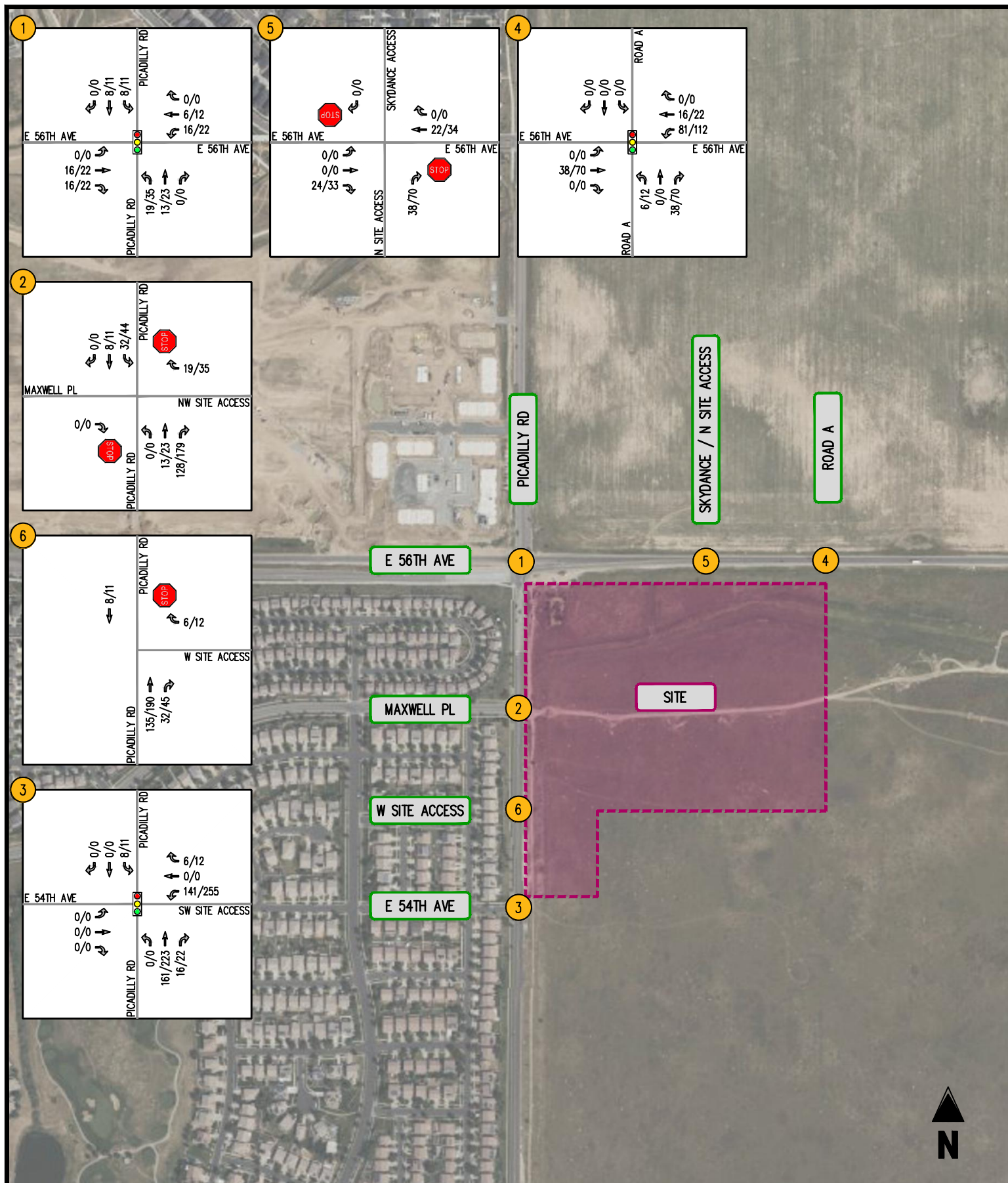


FIGURE 5-4
SITE TRIPS

56TH & PICADILLY
AURORA, CO

The conceptual site plan refers to lots. Is it possible to correlate the Pads described below to the Lots on the site plan. Also - for the ITE Land Use Code Shopping Center, does this correspond to the grocery store? Why didn't you use the ITE Land Use Code for grocery store? Also - the square footage below does not match the site plan.

Table 5-1
56th & Picadilly - Aurora, CO
Site Trip Generation ⁽¹⁾

Land Use							M Peak Hour			Average Daily Trips		
							Out	Total				
<i>Proposed</i>												
Shopping Center (>150k)							426	820		10,253		
	Internal Capture (10%)						-43	-82		-1,025		
	External Trips						383	738		9,228		
	Pass-by (AM 0%/PM 0%)						-111	-214		-2,676		
	Net New Trips						272	524		6,552		
Gas Station	944	18	FP				93	92	185	125	250	3,096
	Internal Capture (10%)						-9	-9	-19	-13	-25	-310
	External Trips						84	83	166	112	224	2,786
	Pass-by (AM 63%/PM 57%)						-59	-58	-117	-71	-142	-1,765
	Net New Trips						25	25	49	41	82	1,021
Pad A - Drive-In Bank	912	4,750	SF				27	20	47	50	100	477
	Internal Capture (10%)						-3	-2	-5	-5	-10	-48
	External Trips						24	18	42	45	90	429
	Pass-by (AM 29%/PM 35%)						-8	-6	-14	-18	-36	-167
	Net New Trips						16	12	28	27	54	262
Pad B - Fast-Food Restaurant w/ Drive-Thru	934	4,500	SF				103	98	201	77	149	2,104
	Internal Capture (10%)						-10	-10	-20	-8	-15	-210
	External Trips						93	88	181	69	134	1,894
	Pass-by (AM 50%/PM 55%)						-52	-49	-101	-42	-82	-1,157
	Net New Trips						41	39	80	27	52	737
Pad C - Coffee Shop w/Drive-Thru	937	1,500	SF				66	63	129	29	58	800
	Internal Capture (10%)						-7	-6	-13	-3	-6	-80
	External Trips						59	57	116	26	52	720
	Pass-by (AM 50%/PM 55%)						-33	-32	-65	-16	-32	-420
	Net New Trips						26	25	51	10	20	300
Pad D - Fast-Food Restaurant w/ Drive-Thru	934	4,500	SF				103	98	201	77	149	2,104
	Internal Capture (10%)						-10	-10	-20	-8	-15	-210
	External Trips						93	88	181	69	134	1,894
	Pass-by (AM 50%/PM 55%)						-52	-49	-101	-42	-82	-1,157
	Net New Trips						41	39	80	27	52	737
Pad F - Fast-Food Restaurant w/ Drive-Thru	934	3,700	SF				84	81	165	63	122	1,730
	Internal Capture (10%)						-8	-8	-17	-6	-12	-173
	External Trips						76	73	148	57	110	1,557
	Pass-by (AM 50%/PM 55%)						-42	-41	-83	-35	-67	-952
	Net New Trips						34	32	65	22	43	605
Pad G - Automobile Parts and Service Center	943	7,200	SF				10	4	14	6	15	120
	Internal Capture (10%)						-1	0	-1	-1	-2	-12
	Net New Trips						9	4	13	5	13	108
Pad H - Automated Car Wash	948	1	TUNNEL				0	0	0	39	78	780
	Internal Capture (10%)						0	0	0	-4	-8	-78
	Net New Trips						0	0	0	35	70	702
Total External Trips							568	491	1,057	773	1,565	19,318
Pass-by Total							-246	-235	-481	-327	-655	-8,294
Net Total							322	256	576	446	910	11,024

The Shopping Center ITE Land Use Code was used to encompass the grocery store, retail lot to the west of the grocery store, and the Jr Anchor lot (Lot 2) to the east of the grocery store. The other assumed uses are not coordinated with specific lots, but to be conservative with trip generation, each lot was assumed have one (1) use.

Note(s):

(1) Trip generation based on the Institute of Transportation Engineers' Trip Generation Manual, 11th Edition

VI. Analysis of Future Conditions with Site Development

Total Future Traffic Forecasts

The 2026 and 2050 total future traffic forecasts associated with the proposed development were developed by combining the background future forecasts shown in Figure 4-8 (2026) and Figure 4-9 (2050), the pass-by trips shown in Figure 5-3, and the site trip assignments shown in Figure 5-4. The resulting total future traffic forecasts are provided in Figure 6-1 for 2026 conditions and Figure 6-2 for 2050 conditions.

Total Future Levels of Service with Proposed Development

Future levels of service with the proposed development plan were estimated at key study intersections based on the future traffic volumes shown in Figures 6-1 (2026) and Figure 6-2 (2050), the total future lane use in Figure 5-1 (2026) and Figure 5-2 (2050), and the HCM 7th methodologies for signalized and unsignalized intersections. The results of these analyses are provided in Appendix G and presented in Table 6-1. Total future levels of service are also presented graphically in Figure 6-3 (2026) and Figure 6-4 (2050).

As shown in Table 6-1, levels of service under future site development conditions would remain generally consistent with future background conditions (i.e., without site development). Overall delays would experience an increase due to site trips. The signalized intersections within the study area would continue to operate at overall acceptable LOS “D” or better in 2026 and 2050 conditions with the exception of the E 56th Ave & Picadilly Rd intersection which would operate at LOS “E” in 2050 conditions. The unsignalized intersection movements in the study area are forecasted to operate at LOS “D” or better in 2026 and 2050 conditions with some exceptions. Those exceptions include:

- The eastbound right movement at Maxwell PI & Picadilly Rd which would operate at LOS “E” in 2050 AM conditions due to regional growth.
- The westbound right movement at Maxwell PI & Picadilly Rd which would operate at LOS “F” in 2050 PM conditions due to regional growth.
- The northbound left movement at Maxwell PI & Picadilly Rd which would operate at LOS “E” in 2050 AM and PM conditions due to regional growth.
- The southbound left movement at Maxwell PI & Picadilly Rd which would operate at LOS “F” in 2050 PM conditions due to regional growth.
- The eastbound left movement at E 56th Ave & Skydance/N Site Access which would operate at LOS “F” in 2050 PM conditions.
- The southbound right movement at E 56th Ave & Skydance/N Site Access which would operate at LOS “E” in 2050 PM conditions.

Total Future Queuing

Total future queues were forecasted using Synchro software. The results of the queuing analysis are summarized in Table 6-2. The forecasted queues are expected to be contained in their effective storage with the exception of the E 56th Ave & Picadilly Rd intersection of which the WBL and NBR movements in the 2050 AM conditions and the EBL, WBL, WBR, and NBR movements in the 2050 PM conditions would exceed the available storage, consistent with background conditions.

Signal Warrants

The Manual on Uniform Traffic Control Devices (MUTCD) contains nine traffic signal warrants that help determine if installing a traffic signal at a particular location is justified. The Signal Warrants are listed below.

- #1 – Eight-Hour Vehicular Volume
- #2 – Four-Hour Vehicular Volume
- #3 – Peak Hour
- #4 – Pedestrian Volume
- #5 – School Crossing
- #6 – Coordinated Signal System
- #7 – Crash Experience
- #8 – Roadway Network
- #9 – Intersection Near a (Railroad) Grade Crossing

The Eight-Hour Vehicular Volume (#1), Four-Hour Vehicular Volume (#2), and the Peak Hour (#3) warrants were used to analyze the intersections of E 56th Ave & Picadilly Rd, E 54th Ave & Picadilly Rd, and E 56th Ave & Road A. The other Signal Warrants are either not applicable, or it is not possible at this time to accurately forecast the data needed to evaluate a particular Signal Warrant.

12-hour counts were taken at the intersections of E 56th Ave & Picadilly Rd and E 54th Ave & Picadilly Rd from 7:00 AM to 7:00 PM. Since the intersection of E 56th Ave & Road A is not yet constructed, the eastbound/westbound volumes were calculated using the 12-hour counts from the E 56th Ave & Picadilly Rd intersection. These existing volume counts were used along with the proposed new AADT of the site, the site trip distributions, and the hourly distribution of vehicle trips for Shopping Centers (Land Use Code 820) from the ITE Trip Generation Manual 11th Edition to forecast the hourly approach volumes at each intersection for an average day. These values were used for Warrants #1 and #2. Pipeline development trips were not considered in these warrant analyses. All signal warrant analysis tables and graphs are included in Appendix H.

E 56th Ave & Picadilly Rd

Warrant 1 (Eight-Hour Vehicular Volume) was met for this intersection in existing conditions due to the high volume of traffic on both E 56th Ave and Picadilly Rd. The existing volumes for every hour from 7:00 AM – 7:00 PM were calculated for the major road and each minor road approach and were compared to Table 4C-1 from the MUTCD. All twelve of the hours exceeded the requirements for Condition A-Minimum Vehicular Volume.

Warrant 2 (Four-Hour Vehicular Volume) was met for this intersection during existing conditions since there were over four hours that the major/minor street volumes fall above the '1 lane & 1 lane' curve in Figure 4C-2.

Warrant 3 (Peak Hour) was met for this intersection with existing conditions. Both the AM and PM peak hour volumes fell above the '1 lane & 1 lane' curve in Figure 4C-4.

E 54th Ave & Picadilly Rd

Warrant 1 (Eight-Hour Vehicular Volume) was met for this intersection in total future conditions with the site development in 2026 and 2050. The projected volumes for every hour from 7:00 AM – 7:00 PM were calculated for the major road and each minor road approach and were compared to Table 4C-1 from the MUTCD. Ten of the hours exceeded requirements for Condition A – Minimum Vehicular Volume.

Warrant 2 (Four-Hour Vehicular Volume) was met for this intersection during total future conditions in 2026 and 2050 since there were over four hours that the major/minor street volumes fall above the '1 lane & 1 lane' curve for 2026 and the '2 or more lanes & 1 lane' curve for 2050 shown in Figure 4C-1. The graph for Warrant 2 is provided in Appendix H with volumes plotted for future conditions; due to high projected 2050 volumes, those plotted points do not appear on the graph provided.

Warrant 3 (Peak Hour) was met for this intersection with background 2050 and total future 2026 and 2050 conditions. The total future AM and PM peak hour volumes fell above '1 lane & 1 lane' curve for 2026 and the '2 or more lanes & 1 lane' curve for 2050 shown in Figure 4C-3. The graph for Warrant 3 is provided in Appendix H with volumes plotted for future conditions; due to high projected 2050 volumes, those plotted points do not appear on the graph provided.

E 56th Ave & Road A

Warrant 1 (Eight-Hour Vehicular Volume) was met for this intersection in total future conditions with the site development in 2026 and 2050. The projected volumes for every hour from 7:00 AM – 7:00 PM were calculated for the major and minor road approach and were compared to Table 4C-1 from the MUTCD. Nine of the hours exceeded requirements for Condition A – Minimum Vehicular Volume.

Warrant 2 (Four-Hour Vehicular Volume) was met for this intersection during total future conditions in 2026 and 2050 since there were over four hours that the major/minor street volumes fall above the '2 or more lanes & 2 or more lanes' curve in Figure 4C-2. The graph for Warrant 2 is provided in Appendix H with volumes plotted for future conditions; due to high projected 2050 volumes, those plotted points do not appear on the graph provided.

Warrant 3 (Peak Hour) was met for this intersection with background and total future conditions in 2026 and 2050. All of the AM and PM peak hour volumes fell above the '2 or more lanes & 2 or more lanes' curve in Figure 4C-4. The graph for Warrant 3 is provided in Appendix H with volumes plotted for future conditions; due to high projected 2026 PM and 2050 volumes, those plotted points do not appear on the graph provided.

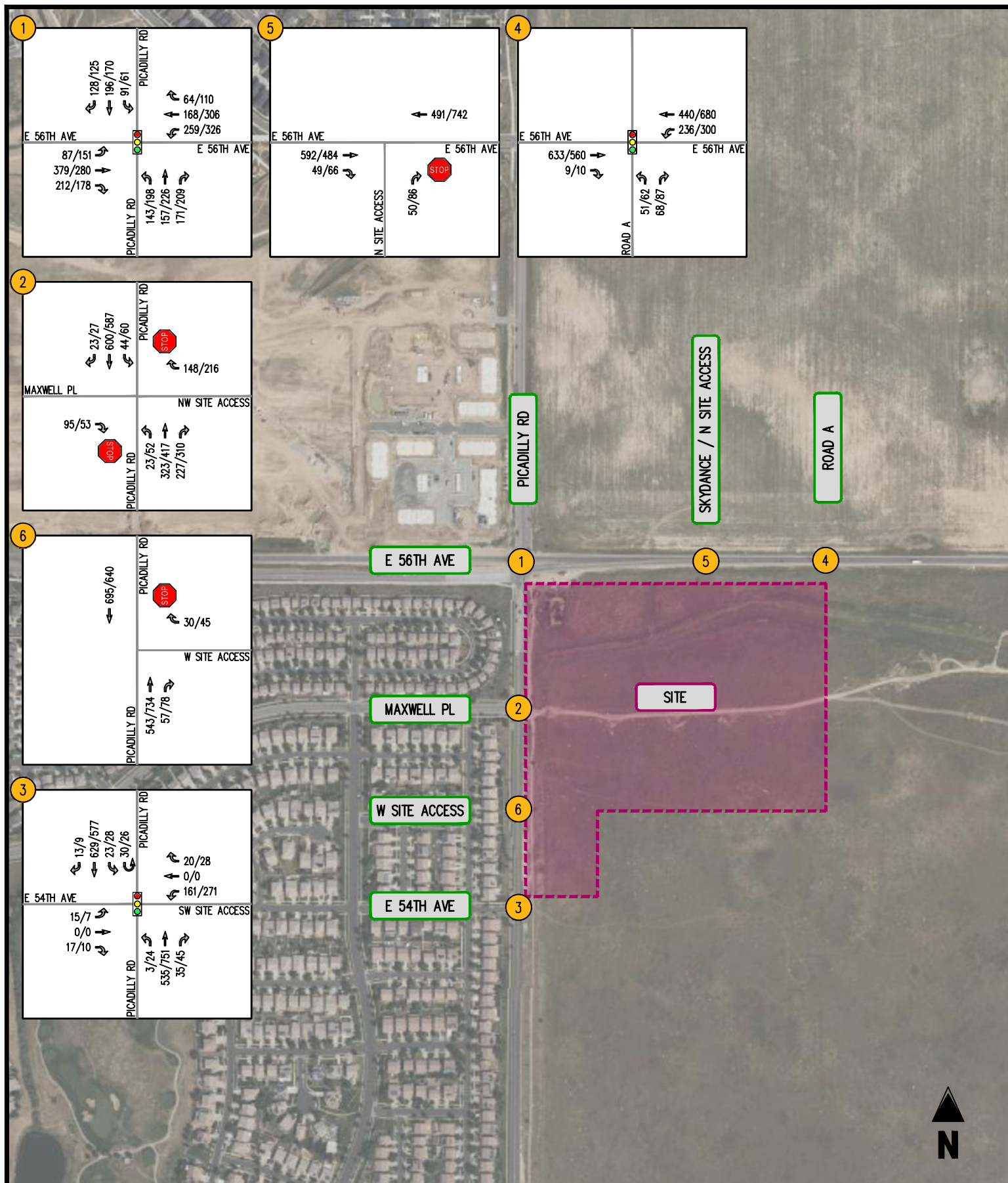


FIGURE 6-1
TOTAL FUTURE FORECASTS 2026

56TH & PICADILLY
AURORA, CO

(A/A) INTERSECTION LOS
0000/0000 (AM PEAK HOUR/PM PEAK HOUR)

← MOVEMENT
 SIGNALIZED INTERSECTION
 STOP SIGN
 YIELD SIGN



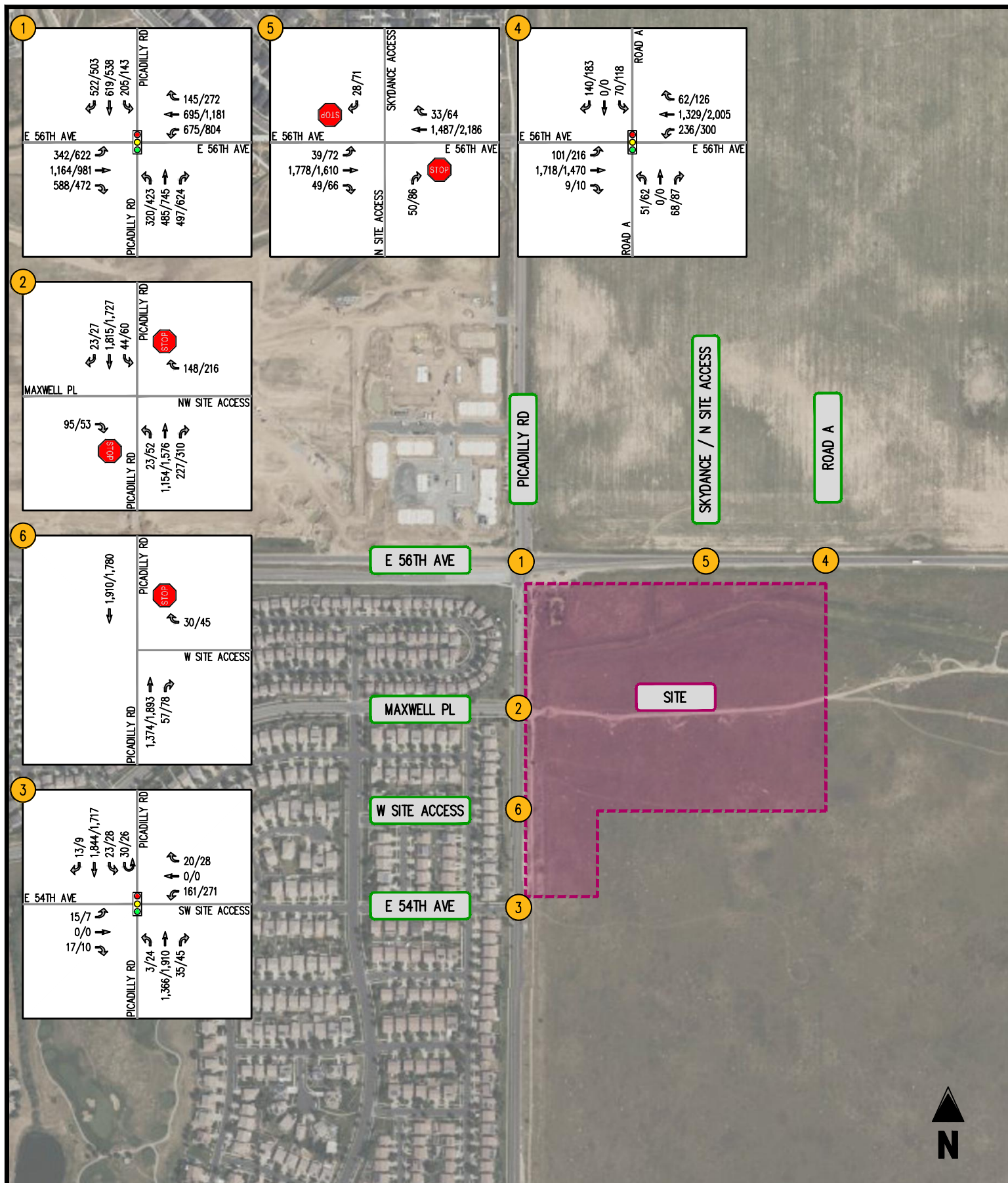


FIGURE 6-2
TOTAL FUTURE FORECASTS 2050

56TH & PICADILLY
AURORA, CO

(A/A) INTERSECTION LOS
0000/0000 (AM PEAK HOUR/PM PEAK HOUR)

← MOVEMENT
 SIGNALIZED INTERSECTION
 STOP SIGN
 YIELD SIGN

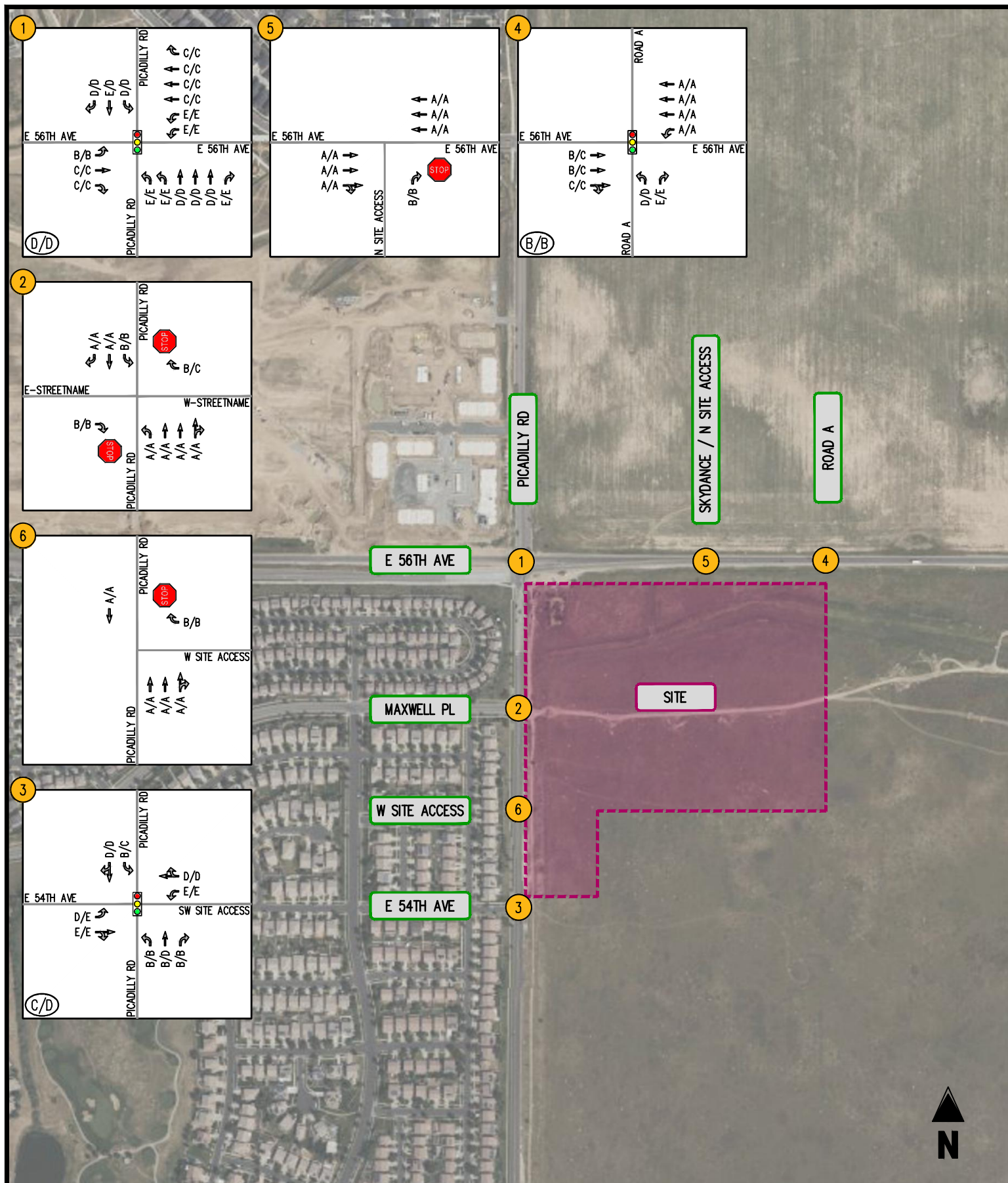


FIGURE 6-3
TOTAL FUTURE LEVELS OF SERVICE 2026

56TH & PICADILLY
 AURORA, CO

(A/A) INTERSECTION LOS
 0000/0000 (AM PEAK HOUR/PM PEAK HOUR)

- ← MOVEMENT
- 🚦 SIGNALIZED INTERSECTION
- 🛑 STOP SIGN
- 🚧 YIELD SIGN



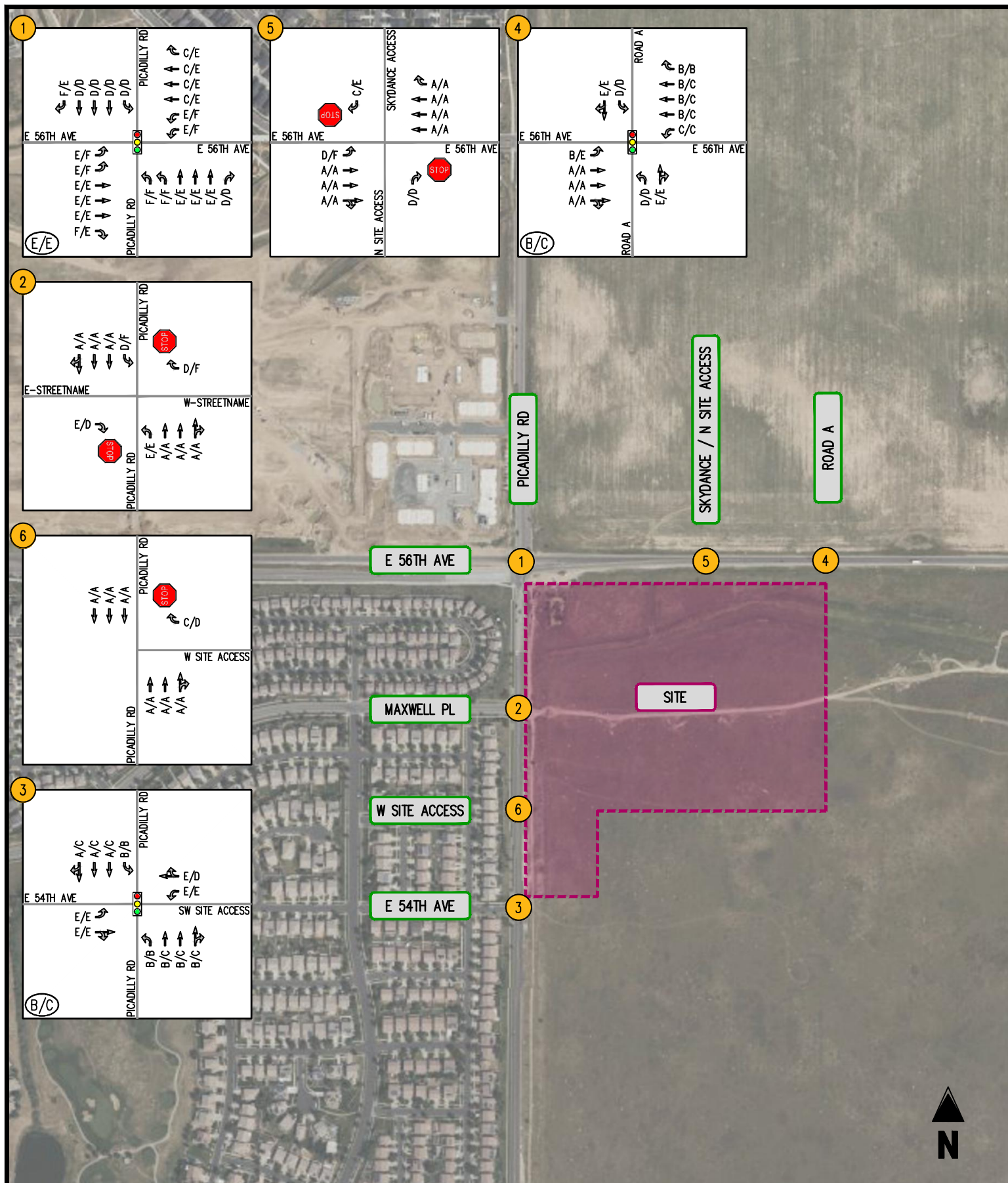


FIGURE 6-4
TOTAL FUTURE LEVELS OF SERVICE 2050

56TH & PICADILLY
AURORA, CO

(A/A) INTERSECTION LOS
0000/0000 (AM PEAK HOUR/PM PEAK HOUR)

← MOVEMENT
 SIGNALIZED INTERSECTION
 STOP SIGN
 YIELD SIGN



Table 6-1
56th & Picadilly - Aurora, CO
Total Future Intersection Level of Service Summary (1) (2)

Intersection	Operating Condition	Street Name	Approach/ Movement	Background 2026		Background 2050		Total Future 2026		Total Future 2050	
				AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
1 E 56th Ave & Picadilly Rd <i>Signalization + Lane Improvements</i>	SIGNAL	E 56th Ave	EBL	B (14.4)	B (16.9)	E (64.1)	F (95.0)	B (15.0)	B (17.4)	E (64.1)	F (95.0)
			EBT	C (23.1)	C (23.8)	E (62.1)	E (60.2)	C (24.4)	C (25.4)	E (63.9)	E (69.8)
			EBR	C (20.5)	C (22.4)	F (103.7)	E (57.8)	C (21.6)	C (24.0)	F (96.7)	E (63.4)
		E 56th Ave	WBL	E (61.4)	E (64.7)	E (69.5)	F (90.5)	E (62.3)	E (66.2)	E (75.6)	F (97.8)
			WBT	C (27.2)	C (31.1)	C (22.1)	E (69.2)	C (26.3)	C (29.6)	C (21.9)	E (71.3)
			WBR	C (26.5)	C (29.9)	C (21.5)	E (62.8)	C (26.8)	C (30.4)	C (21.5)	E (65.2)
		Picadilly Rd	NBL	D (44.9)	D (43.6)	E (77.0)	F (81.1)	E (62.1)	E (64.3)	F (81.5)	F (103.1)
			NBT	E (55.9)	E (56.6)	E (57.7)	E (60.1)	D (51.0)	D (49.7)	E (57.9)	E (59.7)
			NBR	E (63.5)	E (67.2)	D (46.2)	D (47.4)	E (62.8)	E (66.5)	D (46.0)	D (45.3)
		Picadilly Rd	SBL	D (42.4)	D (41.7)	D (44.8)	D (45.2)	D (41.0)	D (40.9)	D (47.8)	D (46.1)
			SBT	E (55.1)	D (51.2)	D (49.7)	D (52.2)	E (55.2)	D (52.1)	D (52.3)	D (52.5)
			SBR	<u>D (51.7)</u>	<u>D (50.8)</u>	<u>F (90.8)</u>	<u>E (56.0)</u>	<u>D (51.0)</u>	<u>D (50.8)</u>	<u>F (107.3)</u>	<u>E (56.0)</u>
		Overall		D (40.5)	D (42.6)	E (60.9)	E (66.7)	D (41.9)	D (44.2)	E (63.6)	E (70.8)
2 Maxwell Pl & Picadilly Rd <i>Added East Leg</i>	STOP	Maxwell Pl	EBLR	C [19.8]	C [23.7]	F [297.2]	F [802.8]	-	-	-	-
		Picadilly Rd	NBL	A [9.1]	A [9.2]	E [41.0]	E [47.8]	-	-	-	-
		Picadilly Rd	NBT	A [0.0]	A [0.0]	B [10.2]	D [26.6]	-	-	-	-
		Picadilly Rd	SBT	A [0.0]	A [0.0]	A [0.0]	A [0.0]	-	-	-	-
	STOP	Maxwell Pl	EBR	-	-	-	-	B [14.9]	B [13.6]	E [38.3]	D [26.7]
		NW Site Access	WBR	-	-	-	-	B [13.3]	C [17.6]	D [29.5]	F [168.1]
		Picadilly Rd	NBL	-	-	-	-	A [9.1]	A [9.2]	E [40.7]	E [47.4]
		Picadilly Rd	NBT	-	-	-	-	A [0.0]	A [0.0]	A [0.0]	A [0.0]
		Picadilly Rd	NBR	-	-	-	-	A [0.0]	A [0.0]	A [0.0]	A [0.0]
		Picadilly Rd	SBL	-	-	-	-	B [11.4]	B [13.4]	D [25.5]	F [68.0]
		Picadilly Rd	SBT	-	-	-	-	A [0.0]	A [0.0]	A [0.0]	A [0.0]
		Picadilly Rd	SBR	-	-	-	-	A [0.0]	A [0.0]	A [0.0]	A [0.0]
3 E 54th Ave & Picadilly Rd <i>Added East Leg + Signal</i>	SIGNAL	E 54th Ave	EBL	D (54.6)	E (56.4)	E (64.3)	E (66.0)	D (54.6)	E (56.4)	E (64.3)	E (66.0)
			EBTR	E (55.1)	E (57.1)	E (64.9)	E (66.8)	E (55.1)	E (57.1)	E (64.9)	E (66.8)
			WBL	E (59.3)	A (0.0)	E (69.1)	A (0.0)	E (60.7)	E (68.6)	E (71.9)	E (73.2)
		SW Site Access	WBTR	E (57.5)	A (0.0)	E (67.2)	A (0.0)	D (47.8)	D (41.0)	E (56.0)	D (47.9)
			NBL	A (6.9)	A (2.8)	A (6.2)	A (3.8)	B (19.2)	B (17.4)	B (11.6)	B (18.8)
			NBT	A (9.7)	A (6.0)	A (8.9)	A (5.4)	B (19.0)	D (35.9)	B (16.4)	C (25.1)
		Picadilly Rd	NBR	A (7.0)	A (3.5)	A (9.2)	A (5.9)	B (12.0)	B (15.2)	B (17.1)	C (27.2)
			SBL	A (6.6)	A (3.6)	A (6.2)	A (3.7)	B (12.9)	C (22.7)	B (11.6)	B (19.9)
			SBT	A (4.1)	A (1.1)	A (1.9)	A (5.8)			A (7.1)	C (33.4)
			SBR	<u>A (8.0)</u>	<u>A (4.2)</u>	<u>A (2.6)</u>	<u>A (6.3)</u>	<u>D (39.4)</u>	<u>D (44.1)</u>	<u>A (8.1)</u>	<u>C (34.7)</u>
		Overall		A (8.0)	A (4.2)	A (5.7)	A (6.1)	C (33.6)	D (43.0)	B (14.9)	C (32.7)
4 E 56th Ave & Road A <i>3-Leg Intersection</i>	SIGNAL	E 56th Ave	EBT	A (1.0)	A (0.1)	-	-	B (20.0)	C (20.3)	-	-
			EBR	A (1.1)	A (0.2)	-	-	C (20.2)	C (20.5)	-	-
			WBL	A (3.0)	A (1.8)	-	-	A (6.0)	A (6.1)	-	-
		E 56th Ave	WBT	A (2.2)	A (1.4)	-	-	A (2.7)	A (2.9)	-	-
			NBL	D (54.6)	E (64.1)	-	-	D (53.7)	D (54.6)	-	-
			NBR	<u>E (55.8)</u>	<u>E (65.4)</u>	-	-	<u>E (56.9)</u>	<u>E (61.0)</u>	-	-
		Road A	SBL	A (6.6)	A (3.6)	A (6.2)	A (3.7)	B (12.9)	C (22.7)	B (11.6)	B (19.9)
			SBT	A (4.1)	A (1.1)	A (1.9)	A (5.8)			A (7.1)	C (33.4)
			SBR	<u>A (8.0)</u>	<u>A (4.2)</u>	<u>A (2.6)</u>	<u>A (6.3)</u>	<u>D (39.4)</u>	<u>D (44.1)</u>	<u>A (8.1)</u>	<u>C (34.7)</u>
		Overall		A (2.9)	A (1.0)	-	-	B (15.4)	B (14.2)	-	-
4-Leg Intersection	SIGNAL	E 56th Ave	EBL	-	-	B (10.9)	E (69.8)	-	-	B (12.9)	E (69.8)
			EBT	-	-	A (1.1)	A (0.8)	-	-	A (1.6)	A (1.5)
			EBR	-	-	A (2.0)	A (1.5)	-	-	A (2.8)	A (2.8)
		E 56th Ave	WBL	-	-	A (8.6)	B (12.3)	-	-	C (22.5)	C (26.8)
			WBT	-	-	B (14.7)	C (27.8)	-	-	B (16.7)	C (32.7)
			WBR	-	-	B (10.6)	B (15.8)	-	-	B (12.2)	B (18.8)
		Road A	NBL	-	-	E (58.4)	E (60.3)	-	-	D (54.0)	D (54.0)
			NBTR	-	-	E (60.9)	E (60.4)	-	-	E (60.2)	E (61.2)
			SBL	-	-	E (56.4)	D (53.7)	-	-	D (53.0)	D (51.3)
		Road A	SBTR	-	-	<u>E (72.9)</u>	<u>E (72.6)</u>	-	-	<u>E (71.5)</u>	<u>E (77.1)</u>
				-	-	B (11.5)	C (22.9)	-	-	B (14.1)	C (26.8)
5 E 56th Ave & Skydance/N Site Access <i>3-Leg Intersection (With North Leg)</i>	STOP	E 56th Ave	EBL	-	-	D [30.5]	F [229.2]	-	-	-	-
			EBT	-	-	A [0.0]	A [0.0]	-	-	-	-
			WBT	-	-	A [0.0]	A [0.0]	-	-	-	-
		E 56th Ave	WBR	-	-	A [0.0]	A [0.0]	-	-	-	-
			WBT	-	-	A [0.0]	A [0.0]	-	-	-	-
			SBR	-	-	C [19.8]	F [50.2]	-	-	-	-
		Skydance Access	SBTR	-	-	-	-	-	-	-	-
		E 56th Ave	EBTR	-	-	-	-	A [0.0]	A [0.0]	-	-
			WBT	-	-	-	-	A [0.0]	A [0.0]	-	-
			NBR	-	-	-	-	B [12.2]	B [12.2]	-	-
		N Site Access	NBTR	-	-	-	-	-	-	-	-
		Skydance Access	EBL	-	-	-	-	-	-	D [29.8]	F [220.1]
			EBT	-	-	-	-	-	-	A [0.0]	A [0.0]
			EBR	-	-	-	-	-	-	A [0.0]	A [0.0]
6 W Site Access & Picadilly Rd	STOP	W Site Access	WBR	-	-	-	-	B [13.7]	B [13.3]	C [18.9]	D [31.1]
			NBT	-	-	-	-	A [0.0]	A [0.0]	A [0.0]	A [0.0]
			NBR	-	-	-	-	A [0.0]	A [0.0]	A [0.0]	A [0.0]
		Picadilly Rd	SBT	-	-	-	-	A [0.0]	A [0.0]	A [0.0]	A [0.0]
			SBTR	-	-	-	-	-	-	-	-
			SBT	-	-	-	-	-	-	-	-
		Picadilly Rd	EBL	-	-	-	-	-	-	-	-
			EBT	-	-	-	-	-	-	-	-
			EBR	-	-	-	-	-	-	-	-
		E 56th Ave	WBL	-	-	-	-	-	-	-	-
			WBT	-	-	-	-	-	-	-	-
			WBR	-	-	-	-	-	-	-	-
		N Site Access	NBR	-	-	-	-	-	-	D [28.1]	D [29.6]
		Skydance Access	SBR	-	-	-	-	-	-	C [19.5]	E [49.2]

Notes : (1) Numbers in brackets [] represent delay at unsignalized intersections in seconds per vehicle.
(2) Numbers in parenthesis () represent delay at signalized intersections in seconds per vehicle.

Table 6-2
56th & Picadilly - Aurora, CO
Total Future

Intersection	Control	Street Name	Approach/ Movement	Available Storage	Background 2014		2035		2045		2055	
					AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
1 E 56th Ave & Picadilly Rd <i>Signal</i>		E 56th Ave	EBL	400	67	2	39	25	35	22	39	25
			EBT	-	388	0	0	0	0	0	0	0
			EBR	-	56	0	0	0	0	0	0	0
			WBL	375	142	2	27	0	196	306	226	339
			WBT	-	105	0	0	0	0	0	0	0
			WBR	125	0	0	0	0	0	0	0	0
			NBL	350	111	2	4	8	6	26	5	27
			NBT	-	196	267	258	268	524	1025	420	856
			NBR	175	136	0	0	0	0	0	0	0
			SBL	225	83	1	4	2	20	40	18	29
2 Maxwell Pl & Picadilly Rd <i>Added East Leg</i>	STOP	Maxwell Pl	EBLR	-	30	2	-	-	20	10	-	-
			NBL	125	2.5	-	-	-	27.5	57.5	-	-
			NBT	-	0	-	-	-	2.5	5	-	-
			NBR	-	0	-	-	-	0	0	-	-
		Picadilly Rd	SBT	-	0	-	-	-	0	0	0	0
			SBR	-	0	-	-	-	0	0	0	0
			EBR	-	-	-	-	-	-	-	-	-
			WBR	-	-	-	-	-	-	-	-	-
			NBL	250	-	-	-	-	-	-	-	-
			NBT	-	-	-	-	-	0	0	0	0
3 E 54th Ave & Picadilly Rd <i>Added East Leg + Signal</i>	SIGNAL	E 54th Ave	EBL	-	35	22	39	25	35	22	39	25
			EBTR	-	0	0	0	0	0	0	0	0
		SW Site Access	WBL	-	24	0	27	0	196	306	226	339
			WBTR	-	0	0	0	0	0	0	0	0
		Picadilly Rd	NBL	125	4	9	4	8	6	26	5	27
			NBT	-	262	267	258	268	524	1025	420	856
			NBR	-	0	0	0	0	0	0	0	0
			SBL	300	3	1	4	2	20	40	18	29
			SBT	-	619	133	415	111	728	720	690	677
			SBR	-	0	0	0	0	0	0	0	0
4 E 56th Ave & Road A <i>3-Leg Intersection</i> <i>4-Leg Intersection</i>	SIGNAL	E 56th Ave	EBT	325	2	7	-	-	22	53	-	-
			EBR	-	0	0	-	-	0	0	-	-
		E 56th Ave	WBL	350	21	23	-	-	65	88	-	-
			WBT	-	55	88	-	-	36	59	-	-
		Road A	NBL	100	27	7	-	-	83	95	-	-
			NBR	-	25	6	-	-	46	51	-	-
		SIGNAL	EBL	325	-	-	52	214	-	-	34	193
			EBT	-	-	-	350	280	-	-	394	377
			EBR	-	-	-	0	0	-	-	0	0
			WBL	350	-	-	55	47	-	-	261	328
			WBT	-	-	-	357	856	-	-	342	813
			WBR	-	-	-	0	37	-	-	0	37
			NBL	100	-	-	26	6	-	-	81	95
			NBTR	-	-	-	0	0	-	-	0	0
5 E 56th Ave & Skydance/N Site Access <i>3-Leg Intersection (With North Leg)</i> <i>3-Leg Intersection (With South Leg)</i> <i>4-Leg Intersection</i>	STOP	E 56th Ave	EBL	273*	-	-	22.5	145	-	-	-	-
			EBT	-	-	-	0	0	-	-	-	-
		Skydance Access	WBT	-	-	-	0	0	-	-	-	-
			WBR	200	-	-	0	0	-	-	-	-
			SBR	-	-	-	10	60	-	-	-	-
	STOP	E 56th Ave	EBTR	-	-	-	-	-	0	0	-	-
		E 56th Ave	WBT	-	-	-	-	-	0	0	-	-
		N Site Access	NBR	-	-	-	-	-	7.5	15	-	-
	STOP	E 56th Ave	EBL	273*	-	-	-	-	-	-	20	142.5
			EBT	-	-	-	-	-	-	-	0	0
		E 56th Ave	EBR	-	-	-	-	-	-	-	0	0
			WBT	-	-	-	-	-	-	-	0	0
			WBR	200	-	-	-	-	-	-	0	0
		N Site Access	NBR	-	-	-	-	-	-	-	25	45
			SBR	-	-	-	-	-	-	-	10	60
6 W Site Access & Picadilly Rd	STOP	W Site Access	WBR	-	-	-	-	-	5	7.5	10	25
		Picadilly Rd	NBT	-	-	-	-	-	0	0	0	0
		Picadilly Rd	NBR	-	-	-	-	-	0	0	0	0
		Picadilly Rd	SBT	-	-	-	-	-	0	0	0	0

Notes : (1) Queue length, in feet, is based on the 95th percentile queue as reported by Synchro, Version 12.
* Storage length per Skydance Development TIS

Plans show 250' of dual left turn storage

The northbound left queue at 56th Ave & Picadilly Rd was updated to 250'.

Include in this description if the storage length provided is existing or proposed. If proposed - please site who is responsible for this improvement. Also if the turn lane storage is based on single/dual lefts.

Highlight or bold to indicate where future storage exceeds available/planned storage. Also note if it is possible to lengthen the storage.

For this table, all turn lanes described are the proposed storage length. Roadway design with improvement responsibility is being submitted separately. Dual lefts were noted with superscripts.

Queues that would exceed the available storage were highlighted. Due to the high 8.5% growth rate, it is expected that the intersections will need to be reevaluated if/when growth occurs and the lane use and queueing would be updated at that time.

VII. Conclusions and Recommendations

Conclusions

Based on the results of this traffic impact study, the following may be concluded:

- Under existing traffic conditions, the unsignalized intersection movements currently operate at overall acceptable levels of service (LOS) "C" or better during AM and PM peak hours except for the northbound and southbound movements at E 56th Ave & Picadilly Rd which operate at LOS "F". All queues remain within their respective storage lengths.
- Under background future 2026 and 2050 traffic conditions, without the development of the proposed site, delays would increase at study intersections due to regional traffic growth. Intersections are forecasted to operate at LOS "D" or better in 2026 and 2050 with the exception of E 56th Ave & Picadilly Rd which would operate at LOS "E" in 2050 PM conditions due to regional growth. The unsignalized intersection movements are forecasted to operate at acceptable LOS "D" or better in 2026 and 2050 conditions with the exception of:
 - The EBLR approach at Maxwell PI & Picadilly Rd which would operate at LOS "F" in 2050 PM conditions.
 - The NBL movement at Maxwell PI & Picadilly Rd which would operate at LOS "E" in 2050 PM conditions.
 - The EBL and SBR movements at E 56th Ave & Skydance Access which would operate at LOS "F" in 2050 PM conditions.
- Queues in background conditions remain within their respective storage lengths except for the EBLR movement at Maxwell PI & Picadilly Rd which would operate at LOS "F" in 2050 PM conditions.
- The proposed site development would generate, upon completion, 910 net new weekday PM peak hour trips and 910 net new weekday AM peak hour trips.
- Under total future 2026 and 2050 traffic conditions with the proposed site development, intersections are forecasted to operate at LOS "D" or better in 2026 and 2050 conditions with the exception of E 56th Ave & Picadilly Rd which would operate at LOS "E" in 2050 PM conditions due to regional growth. The unsignalized intersection movements would operate at LOS "D" or better in 2026 and 2050 conditions with the exception of:
 - The EBR movement at Maxwell PI & Picadilly Rd which would operate at LOS "E" in 2050 AM conditions.
 - The WBR movement at Maxwell PI & Picadilly Rd which would operate at LOS "F" in 2050 PM conditions.
 - The NBL movement at Maxwell PI & Picadilly Rd which would operate at LOS "E" in 2050 AM and PM conditions.
 - The SBL movement at Maxwell PI & Picadilly Rd which would operate at LOS "F" in 2050 PM conditions.

It looks like the traffic volumes at 56th & Picadilly are pretty balanced. Was all-way stop control considered short term prior to signalization as an interim solution?

A signal is warranted in existing conditions, and the updated analysis shows an all-way stop that has movements operating at LOS "E" and "F", therefore a signal is required for build-out conditions.

Is there room to lengthen these lanes to provide adequate storage? Discuss impact of project traffic for these movements and mitigations proposed.

Mitigations for 2050 conditions are not being proposed due to the high growth rate and the unknown developments in the area. It is expected that the intersections will need to be reevaluated if/when growth occurs and the lane use and queueing would be updated at that time.

Include discussion of future signalized intersections and who is responsible for construction of these signals. Who is responsible for the widening of 56th Avenue east of Picadilly and these improvements?

Roadway design for Picadilly Rd and 56th Ave are being submitted separately and the responsibility of improvements and signals will be discussed then.

- The EBL movement at E 56th Ave & Skydance/N Site Access which would operate at LOS “F” in 2050 PM conditions.
- The SBR movement at E 56th Ave & Skydance/N Site Access which would operate at LOS “E” in 2050 PM conditions.
- Queues in total future conditions remain within their respective storage lengths except for the EBL, WBL, WBR, and NBR movements at the intersection of E 56th Ave & Picadilly Rd in 2050 conditions.

Recommendations

- It is recommended that the Applicant provide access consistent with the site plan contained herein.

- Site access should be provided via:

- SBL lane and NBTR lane at Maxwell PI & Picadilly Rd.
- SBL, NBR, and EBTR lane at E 54th Ave & Picadilly Rd.
- EBTR and WBL lane at E 56th Ave & Road A.
- EBTR lane at E 56th Ave & N Site Access.
- NBTR lane at W Site Access & Picadilly Rd.

This access may need to be restricted to right turns only due to the Picadilly Road Widening project and the 250' dual northbound left turn lanes at 56th Avenue.

The southbound left lane was removed and access to the site updated to a RIRO access.

Include turn lane lengths in these recommendations

Turn lane lengths were included in the recommendations section.

APPENDIX A – Full Sized Conceptual Plan

NOT FOR
CONSTRUCTION

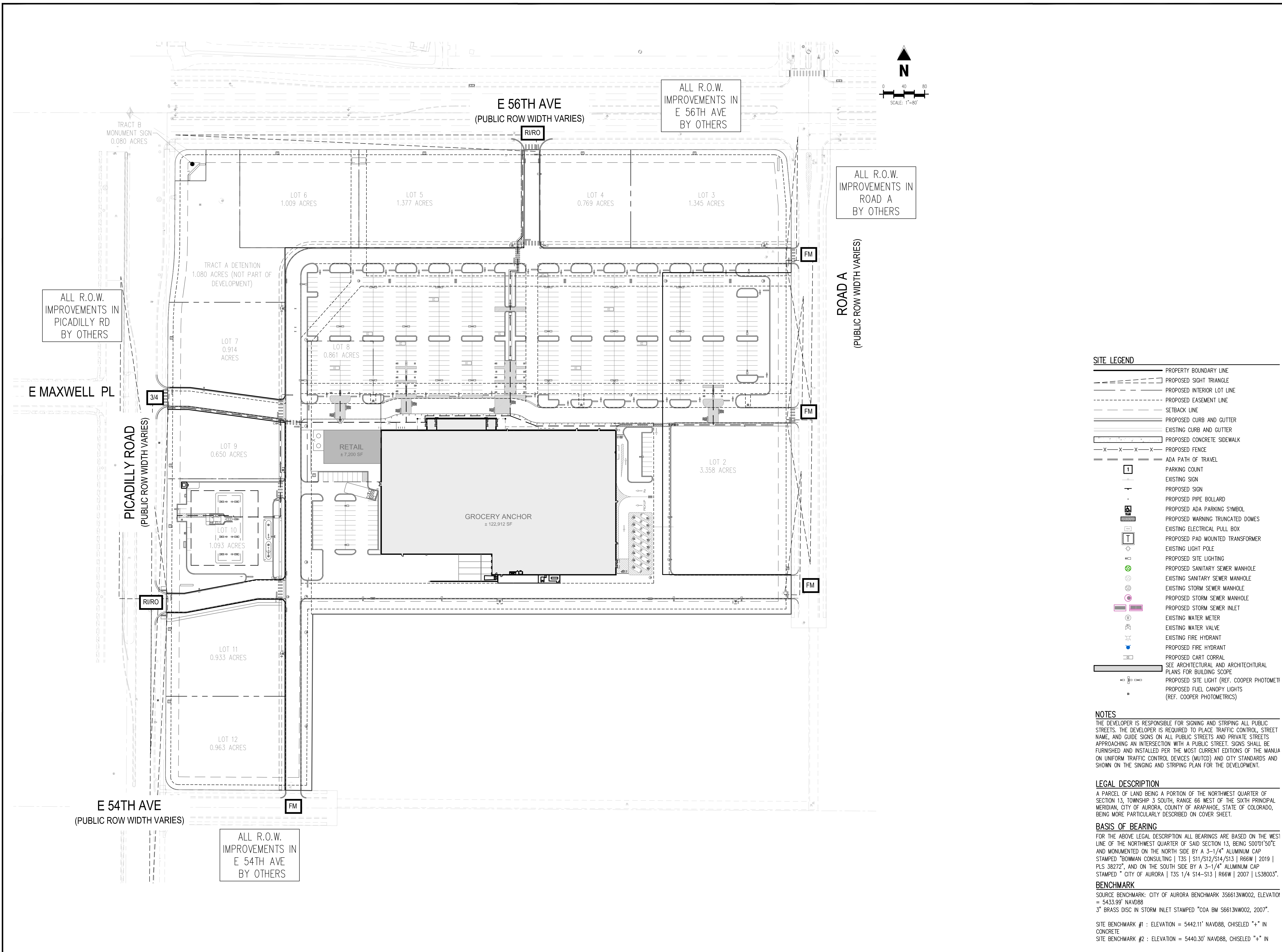
THESE PLANS ARE AN INSTRUMENT OF SERVICE AND ARE THE PROPERTY OF GALLOWAY, AND MAY NOT BE DUPLICATED, DISCLOSED, OR REPRODUCED WITHOUT THE WRITTEN CONSENT OF GALLOWAY. COPYRIGHTS AND INFRINGEMENTS WILL BE ENFORCED AND PROSECUTED.

E 56TH AVE AND PICIDILLY RD
AURORA, COLORADO

[illegible]

Project No:	KSS000156
Drawn By:	JKS
Checked By:	TDK
Date:	AUGUST 2024

OVERALL SITE PLAN



APPENDIX B – LOS Descriptions

Level of Service for Signalized Intersections

Level of service for signalized intersections is defined in terms of delay, which is a measure of driver discomfort and frustration, fuel consumption, and lost travel time. Specifically, level-of-service (LOS) criteria are stated in terms of the average stopped delay per vehicle for a 15-min analysis period. The criteria are given in Exhibit 16-2. Delay may be measured in the field or estimated using procedures presented later in this chapter. Delay is a complex measure and is dependent on a number of variables, including the quality of progression, the cycle length, the green ratio, and the v/c ratio for the lane group in question.

LOS A describes operations with very low delay, up to 10 sec per vehicle. This level of service occurs when progression is extremely favorable and most vehicles arrive during the green phase. Most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.

LOS B describes operations with delay greater than 10 and up to 20 sec per vehicle. This level generally occurs with good progression, short cycle lengths, or both. More vehicles stop than with LOS A, causing higher levels of average delay.

Exhibit 16-2. Level-of-Service Criteria for Signalized Intersections

LEVEL OF SERVICE	STOPPED DELAY PER VEHICLE (SEC)
A	≤ 10.0
B	> 10.0 and ≤ 20.0
C	> 20.0 and ≤ 35.0
D	> 35.0 and ≤ 55.0
E	> 55.0 and ≤ 80.0
F	> 80.0

LOS C describes operations with delay greater than 20 and up to 35 sec per vehicle. These higher delays may result from fair progression, longer cycle lengths, or both. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant at this level, though many still pass through the intersection without stopping.

LOS D describes operations with delay greater than 35 and up to 55 sec per vehicle. At level D, the influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high v/c ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.

LOS E describes operations with delay greater than 55 and up to 80 sec per vehicle. This level is considered by many agencies to be the limit of acceptable delay. These high delay values generally indicate poor progression, long cycle lengths, and high v/c ratios. Individual cycle failures are frequent occurrences.

LOS F describes operations with delay in excess of 80 sec per vehicle. This level, considered to be unacceptable to most drivers, often occurs with oversaturation, that is, when arrival flow rates exceed the capacity of the intersection. It may also occur at high v/c ratios below 1.0 with many individual cycle failures. Poor progression and long cycle lengths may also be major contributing causes to such delay levels.

Source: Highway Capacity Manual, 2000. Transportation Research Board, National Research Council

Level of Service Criteria for Stop Sign Controlled Intersections

The level of service criteria are given in Table 17-2. As used here, control delay is defined as the total elapsed time from the time a vehicle stops at the end of the queue until the vehicle departs from the stop line; this time includes the time required for the vehicle to travel from the last-in-queue position to the first-in-queue position, including deceleration of vehicles from free-flow speed to the speed of vehicles in queue.

The average total delay for any particular minor movement is a function of the service rate or capacity of the approach and the degree of saturation. . . .

Table 17-2. Level of Service Criteria for TWSC Intersections

LEVEL OF SERVICE	AVERAGE CONTROL DELAY (sec/veh)
A	≤ 10
B	$> 10 \text{ and } \leq 15$
C	$> 15 \text{ and } \leq 25$
D	$> 25 \text{ and } \leq 35$
E	$> 35 \text{ and } \leq 50$
F	> 50

Average total delay less than 10 sec/veh is defined as Level of Service (LOS) A. Follow-up times of less than 5 sec have been measured when there is no conflicting traffic for a minor street movement, so control delays of less than 10 sec/veh are appropriate for low flow conditions. To remain consistent with the AWSC intersection analysis procedure described later in this chapter, a total delay of 50 sec/veh is assumed as the break point between LOS E and F.

The proposed level of service criteria for TWSC intersections are somewhat different from the criteria used in Chapter 16 for signalized intersections. The primary reason for this difference is that drivers expect different levels of performance from different kinds of transportation facilities. The expectation is that a signalized intersection is designed to carry higher traffic volumes than an unsignalized intersection. Additionally, several driver behavior considerations combine to make delays at signalized intersections less onerous than at unsignalized intersections. For example, drivers at signalized intersections are able to relax during the red interval, where drivers on the minor approaches to unsignalized intersections must remain attentive to the task of identifying acceptable gaps and vehicle conflicts. Also, there is often much more variability in the amount of delay experienced by individual drivers at unsignalized than signalized intersections. For these reasons, it is considered that the total delay threshold for any given level of service is less for an unsignalized intersection than for a signalized intersection. . . .

LOS F exists when there are insufficient gaps of suitable size to allow a side street demand to cross safely through a major street traffic stream. This level of service is generally evident from extremely long total delays experienced by side street traffic and by queueing on the minor approaches. The method, however, is based on a constant critical gap size - that is, the critical gap remains constant, no matter how long the side street motorist waits. LOS F may also appear in the form of side street vehicles' selecting smaller-than-usual gaps. In such cases, safety may be a problem and some disruption to the major traffic stream may result. It is important to note that LOS F may not always result in long queues but may result in adjustments to normal gap acceptance behavior. The latter is more difficult to observe on the field than queueing, which is more obvious.

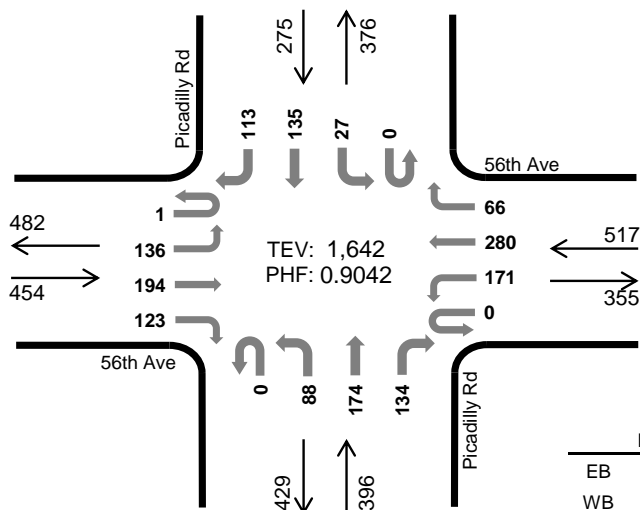
Source: Highway Capacity Manual, 2000. Transportation Research Board, National Research Council

APPENDIX C – Traffic Counts

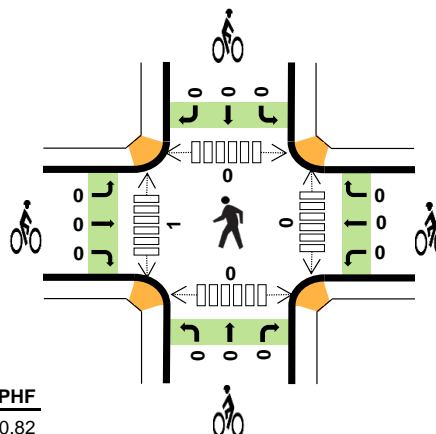
Picadilly Rd 56th Ave



Peak Hour



Date: 9/12/2024
Count Period: 7:00 AM to 7:00 PM
Peak Hour: 4:30 PM to 5:30 PM



	HV%	PHF
EB	6%	0.82
WB	8%	0.85
NB	7%	0.85
SB	3%	0.87
TOTAL	6%	0.90

Peak Hour Count Summaries

Peak Hour Interval Start		56th Ave				56th Ave				Picadilly Rd				Picadilly Rd				15-min Total	Rolling Hour Total
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:30 PM		0	32	35	37	0	44	55	10	0	25	41	24	0	7	35	29	374	0
4:45 PM		0	26	51	28	0	49	59	13	0	20	46	33	0	4	37	29	395	0
5:00 PM		0	36	45	26	0	40	86	26	0	30	39	47	0	13	37	29	454	0
5:15 PM		1	42	63	32	0	38	80	17	0	13	48	30	0	3	26	26	419	1,642
Pk Hr	All	1	136	194	123	0	171	280	66	0	88	174	134	0	27	135	113	1,642	
	HV	0	2	23	4	0	18	21	1	0	9	8	12	0	2	4	2	106	
	HV%	0%	1%	12%	3%	-	11%	8%	2%	-	10%	5%	9%	-	7%	3%	2%	6%	

Note: For complete count summary (all intervals), see following pages.

** Heavy Vehicle Classifications include FHWA Classes 4-13.

** Count Summaries include heavy vehicles, but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
4:30 PM	7	12	8	2	29	0	0	0	0	0	0	0	0	0	0
4:45 PM	7	12	6	2	27	0	0	0	0	0	0	0	0	0	0
5:00 PM	7	7	9	1	24	0	0	0	0	0	0	0	0	0	0
5:15 PM	8	9	6	3	26	0	0	0	0	0	0	1	0	0	1
Peak Hour	29	40	29	8	106	0	0	0	0	0	0	1	0	0	1

Count Summaries - All Vehicles																			
Interval Start		56th Ave				56th Ave				Picadilly Rd				Picadilly Rd				15-min Total	Rolling Hour Total
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
	7:00 AM	0	25	67	27	0	14	35	5	0	14	29	37	0	4	46	27	330	0
	7:15 AM	0	23	65	30	0	37	26	6	0	11	24	28	0	14	47	38	349	0
	7:30 AM	0	17	66	32	0	36	32	11	0	24	43	35	0	12	44	25	377	0
	7:45 AM	0	22	76	41	0	45	42	11	0	23	36	34	0	12	27	24	393	1,449
	8:00 AM	0	17	63	54	0	37	47	5	0	19	28	27	0	7	39	29	372	1,491
	8:15 AM	0	24	38	43	0	25	42	7	0	32	23	25	0	7	24	17	307	1,449
	8:30 AM	1	27	53	29	0	21	35	6	0	26	30	25	0	7	31	19	310	1,382
	8:45 AM	0	23	51	29	0	20	45	7	0	8	19	27	0	3	27	26	285	1,274
	9:00 AM	0	22	45	18	0	20	44	6	0	9	19	19	0	5	12	24	243	1,145
	9:15 AM	0	12	46	19	0	12	35	1	0	18	20	19	1	4	19	21	227	1,065
	9:30 AM	0	22	47	15	0	12	33	5	0	10	12	19	3	3	17	35	233	988
	9:45 AM	0	21	33	14	0	11	44	2	0	9	14	17	0	4	10	17	196	899
	10:00 AM	2	20	44	19	0	19	33	1	0	14	19	14	0	7	12	29	233	889
	10:15 AM	1	19	27	17	0	10	38	4	0	10	17	19	0	5	19	30	216	878
	10:30 AM	0	8	34	10	0	13	25	2	0	8	12	17	0	4	16	11	160	805
	10:45 AM	0	21	44	18	0	14	32	2	0	7	20	19	0	4	17	26	224	833
	11:00 AM	0	18	37	17	0	11	47	5	0	13	20	20	0	3	16	25	232	832
	11:15 AM	0	16	48	18	0	12	39	5	0	16	17	23	0	1	19	25	239	855
	11:30 AM	0	13	56	17	0	21	38	5	0	12	15	17	0	1	29	23	247	942
	11:45 AM	0	22	56	25	0	22	46	4	0	5	13	24	0	3	17	20	257	975
	12:00 PM	1	21	46	19	0	22	53	3	0	13	18	19	0	6	21	34	276	1,019
	12:15 PM	1	22	41	19	0	16	35	3	0	20	23	14	0	7	26	31	258	1,038
	12:30 PM	0	35	39	21	0	19	41	10	0	12	16	14	0	1	17	16	241	1,032
	12:45 PM	1	22	45	12	0	27	42	5	0	16	26	27	0	9	11	17	260	1,035
	1:00 PM	0	18	50	23	0	21	45	3	0	8	18	28	0	9	23	34	280	1,039
	1:15 PM	0	27	42	16	0	28	53	3	0	16	19	24	0	1	19	28	276	1,057
	1:30 PM	0	25	44	25	0	16	68	2	0	17	17	26	0	3	20	33	296	1,112
	1:45 PM	1	26	49	19	0	33	34	3	0	16	22	24	0	2	24	21	274	1,126
	2:00 PM	1	16	44	20	0	39	64	6	0	21	20	11	0	4	35	21	302	1,148
	2:15 PM	0	21	45	25	0	21	52	2	0	17	30	17	0	7	29	27	293	1,165
	2:30 PM	0	25	32	32	0	21	72	5	0	17	36	23	0	8	38	14	323	1,192
	2:45 PM	1	20	31	24	0	28	60	9	0	22	43	10	0	5	35	34	322	1,240
	3:00 PM	0	26	28	50	0	40	52	5	0	12	30	27	0	4	37	34	345	1,283
	3:15 PM	0	25	34	43	0	39	63	5	0	30	35	28	0	5	47	25	379	1,369
	3:30 PM	0	19	50	34	0	32	66	9	0	34	42	25	0	8	35	29	383	1,429
	3:45 PM	0	20	47	36	0	47	78	5	0	8	41	37	0	0	35	24	378	1,485
	4:00 PM	0	17	44	36	0	46	61	12	0	19	36	19	0	11	41	19	361	1,501
	4:15 PM	0	33	49	35	0	29	57	9	0	18	44	30	0	2	35	30	371	1,493
	4:30 PM	0	32	35	37	0	44	55	10	0	25	41	24	0	7	35	29	374	1,484
	4:45 PM	0	26	51	28	0	49	59	13	0	20	46	33	0	4	37	29	395	1,501
	5:00 PM	0	36	45	26	0	40	86	26	0	30	39	47	0	13	37	29	454	1,594
	5:15 PM	1	42	63	32	0	38	80	17	0	13	48	30	0	3	26	26	419	1,642
	5:30 PM	0	23	39	42	0	37	53	13	0	26	39	22	0	6	37	29	366	1,634
	5:45 PM	0	32	27	27	0	36	52	6	0	38	49	19	0	5	23	20	334	1,573
	6:00 PM	0	32	40	24	0	28	52	9	0	24	51	26	0	2	30	28	346	1,465
	6:15 PM	0	26	28	35	0	32	33	6	0	17	27	16	0	6	27	19	272	1,318
	6:30 PM	2	37	25	27	0	17	53	3	0	15	34	18	0	2	18	25	276	1,228
	6:45 PM	0	39	55	25	0	24	36	1	0	9	25	17	0	7	28	20	286	1,180
Count Total		13	1,135	2,164	1,284	0	1,281	2,313	303	0	821	1,345	1,120	4	257	1,314	1,216	14,570	
Pk Hr	All	1	136	194	123	0	171	280	66	0	88	174	134	0	27	135	113	1,642	
	HV	0	2	23	4	0	18	21	1	0	9	8	12	0	2	4	2	106	
	HV%	0%	1%	12%	3%	-	11%	8%	2%	-	10%	5%	9%	-	7%	3%	2%	6%	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
7:00 AM	8	5	7	5	25	0	0	0	0	0	0	0	0	0	0
7:15 AM	9	7	5	2	23	0	0	0	0	0	0	0	0	0	0
7:30 AM	8	8	6	1	23	0	0	0	0	0	0	0	0	0	0
7:45 AM	13	12	5	3	33	0	0	0	0	0	0	0	0	0	0
8:00 AM	6	8	10	1	25	0	0	0	0	0	0	0	0	0	0
8:15 AM	12	13	10	2	37	0	0	0	0	0	0	0	0	0	0
8:30 AM	12	10	8	5	35	0	0	0	0	0	0	0	0	0	0
8:45 AM	9	9	5	5	28	0	0	0	0	0	0	0	1	0	1
9:00 AM	7	10	6	4	27	0	0	0	0	0	0	0	0	0	0
9:15 AM	9	15	9	1	34	0	0	0	0	0	0	0	0	0	0
9:30 AM	14	20	4	6	44	0	0	0	0	0	0	0	0	0	0
9:45 AM	7	24	6	1	38	0	0	0	0	0	0	0	0	0	0
10:00 AM	8	13	7	3	31	0	0	0	0	0	0	0	0	0	0
10:15 AM	6	14	6	5	31	0	0	0	0	0	0	0	0	0	0
10:30 AM	7	9	3	2	21	0	0	0	0	0	0	1	0	0	1
10:45 AM	8	9	8	3	28	0	0	0	0	0	2	1	0	0	3
11:00 AM	10	11	3	2	26	0	0	0	0	0	2	0	0	0	2
11:15 AM	10	14	7	4	35	0	0	0	0	0	1	0	3	0	4
11:30 AM	9	6	8	4	27	0	0	0	0	0	0	1	0	0	1
11:45 AM	9	12	10	6	37	0	0	0	0	0	0	1	0	0	1
12:00 PM	3	8	9	3	23	0	0	0	0	0	0	0	0	0	0
12:15 PM	8	5	7	0	20	0	0	0	0	0	0	0	0	0	0
12:30 PM	12	8	9	1	30	0	0	0	0	0	0	1	0	0	1
12:45 PM	10	10	8	2	30	0	0	0	0	0	0	1	0	0	1
1:00 PM	9	12	6	3	30	0	0	0	0	0	0	0	0	0	0
1:15 PM	8	10	10	2	30	0	0	0	0	0	0	1	0	0	1
1:30 PM	1	7	6	3	17	0	0	0	0	0	0	0	0	0	0
1:45 PM	11	10	8	4	33	0	0	0	0	0	0	0	0	0	0
2:00 PM	10	6	5	2	23	0	0	0	0	0	0	0	0	0	0
2:15 PM	10	7	11	2	30	0	0	0	0	0	0	1	0	0	1
2:30 PM	6	9	6	4	25	0	0	0	0	0	0	0	0	0	0
2:45 PM	9	7	6	5	27	0	0	0	0	0	0	0	0	0	0
3:00 PM	9	7	3	5	24	0	0	0	0	0	0	0	0	0	0
3:15 PM	5	15	6	3	29	0	0	0	0	0	0	0	0	0	0
3:30 PM	10	10	12	3	35	0	0	0	0	0	0	1	0	0	1
3:45 PM	7	11	4	2	24	0	0	0	0	0	0	1	0	0	1
4:00 PM	5	9	2	8	24	0	0	0	0	0	0	2	0	0	2
4:15 PM	6	3	3	2	14	0	0	0	0	0	0	0	0	0	0
4:30 PM	7	12	8	2	29	0	0	0	0	0	0	0	0	0	0
4:45 PM	7	12	6	2	27	0	0	0	0	0	0	0	0	0	0
5:00 PM	7	7	9	1	24	0	0	0	0	0	0	0	0	0	0
5:15 PM	8	9	6	3	26	0	0	0	0	0	0	1	0	0	1
5:30 PM	5	4	6	2	17	0	0	0	0	0	0	0	0	0	0
5:45 PM	2	4	2	0	8	0	0	0	0	0	0	0	0	0	0
6:00 PM	3	5	4	1	13	0	0	1	0	1	1	1	0	0	2
6:15 PM	4	0	3	0	7	0	0	0	0	0	0	0	0	0	0
6:30 PM	1	10	3	1	15	0	0	0	0	0	0	0	0	0	0
6:45 PM	9	2	4	0	15	0	0	0	0	0	0	1	0	0	1
Count Total	373	448	305	131	1257	0	0	1	0	1	6	15	4	0	25
Peak Hour	29	40	29	8	106	0	0	0	0	0	0	1	0	0	1

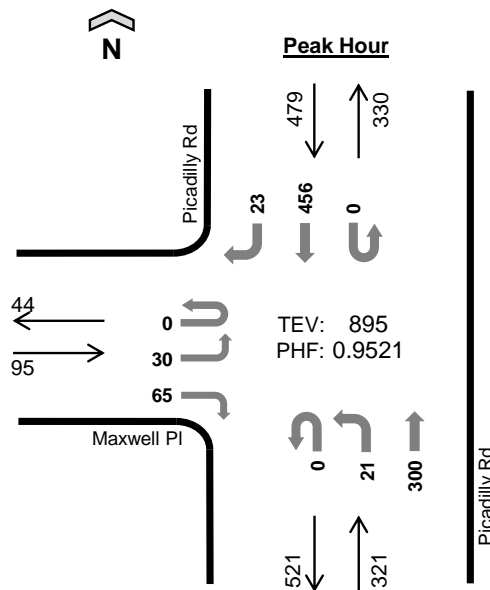
Count Summaries - Heavy Vehicles

Interval Start	56th Ave				56th Ave				Picadilly Rd				Picadilly Rd				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	2	3	3	0	2	3	0	0	0	2	5	0	1	4	0	25	0
7:15 AM	0	5	2	2	0	2	4	1	0	1	3	1	0	0	1	1	23	0
7:30 AM	0	0	6	2	0	4	3	1	0	2	1	3	0	0	1	0	23	0
7:45 AM	0	1	10	2	0	6	6	0	0	0	1	4	0	1	1	1	33	104
8:00 AM	0	0	5	1	0	5	3	0	0	0	4	6	0	0	0	1	25	104
8:15 AM	0	2	7	3	0	4	8	1	0	3	3	4	0	0	1	1	37	118
8:30 AM	0	1	9	2	0	1	7	2	0	0	2	6	0	0	3	2	35	130
8:45 AM	0	4	3	2	0	5	3	1	0	0	2	3	0	0	3	2	28	125
9:00 AM	0	1	5	1	0	2	8	0	0	0	2	4	0	1	3	0	27	127
9:15 AM	0	1	4	4	0	2	13	0	0	1	5	3	0	1	0	0	34	124
9:30 AM	0	2	6	6	0	3	15	2	0	1	0	3	0	1	4	1	44	133
9:45 AM	0	0	5	2	0	3	21	0	0	2	2	2	0	0	1	0	38	143
10:00 AM	0	0	8	0	0	3	10	0	0	2	2	3	0	2	0	1	31	147
10:15 AM	0	1	4	1	0	4	7	3	0	2	1	3	0	1	3	1	31	144
10:30 AM	0	0	5	2	0	2	7	0	0	0	1	2	0	0	2	0	21	121
10:45 AM	0	1	6	1	0	3	5	1	0	1	4	3	0	0	2	1	28	111
11:00 AM	0	2	6	2	0	2	9	0	0	0	0	3	0	0	2	0	26	106
11:15 AM	0	0	7	3	0	5	8	1	0	4	0	3	0	0	3	1	35	110
11:30 AM	0	0	3	6	0	2	4	0	0	2	1	5	0	0	4	0	27	116
11:45 AM	0	1	4	4	0	2	10	0	0	0	5	5	0	1	5	0	37	125
12:00 PM	0	0	0	3	0	4	4	0	0	1	3	5	0	1	2	0	23	122
12:15 PM	0	2	2	4	0	0	4	1	0	1	4	2	0	0	0	0	20	107
12:30 PM	0	1	8	3	0	1	5	2	0	2	2	5	0	0	1	0	30	110
12:45 PM	0	1	8	1	0	4	4	2	0	4	1	3	0	1	1	0	30	103
1:00 PM	0	2	6	1	0	7	5	0	0	0	1	5	0	1	0	2	30	110
1:15 PM	0	0	6	2	0	3	6	1	0	4	2	4	0	0	0	2	30	120
1:30 PM	0	0	1	0	0	2	5	0	0	1	1	4	0	0	2	1	17	107
1:45 PM	0	1	7	3	0	6	2	2	0	2	2	4	0	0	3	1	33	110
2:00 PM	0	0	8	2	0	4	1	1	0	1	1	3	0	0	1	1	23	103
2:15 PM	0	0	8	2	0	0	7	0	0	5	5	1	0	1	1	0	30	103
2:30 PM	0	0	5	1	0	4	5	0	0	1	2	3	0	2	1	1	25	111
2:45 PM	0	1	6	2	0	4	3	0	0	2	2	2	0	1	3	1	27	105
3:00 PM	0	0	3	6	0	5	0	2	0	1	2	0	0	0	3	2	24	106
3:15 PM	0	0	3	2	0	8	5	2	0	2	2	2	0	0	3	0	29	105
3:30 PM	0	0	6	4	0	3	7	0	0	1	3	8	0	1	2	0	35	115
3:45 PM	0	0	5	2	0	5	5	1	0	1	1	2	0	0	2	0	24	112
4:00 PM	0	1	2	2	0	6	3	0	0	0	1	1	0	3	5	0	24	112
4:15 PM	0	1	4	1	0	2	1	0	0	1	2	0	0	0	0	2	14	97
4:30 PM	0	0	6	1	0	6	6	0	0	3	3	2	0	0	1	1	29	91
4:45 PM	0	2	3	2	0	4	8	0	0	2	1	3	0	1	1	0	27	94
5:00 PM	0	0	7	0	0	2	4	1	0	3	3	3	0	1	0	0	24	94
5:15 PM	0	0	7	1	0	6	3	0	0	1	1	4	0	0	2	1	26	106
5:30 PM	0	0	4	1	0	1	2	1	0	0	2	4	0	0	2	0	17	94
5:45 PM	0	0	2	0	0	2	1	1	0	1	0	1	0	0	0	0	8	75
6:00 PM	0	0	2	1	0	3	2	0	0	0	1	3	0	0	1	0	13	64
6:15 PM	0	1	2	1	0	0	0	0	0	0	1	2	0	0	0	0	7	45
6:30 PM	0	0	0	1	0	6	4	0	0	1	0	2	0	0	1	0	15	43
6:45 PM	0	0	7	2	0	2	0	0	0	1	0	3	0	0	0	0	15	50
Count Total	0	37	236	100	0	162	256	30	0	63	90	152	0	22	81	28	1,257	
Pk Hr Heavy	0	2	23	4	0	18	21	1	0	9	8	12	0	2	4	2	106	

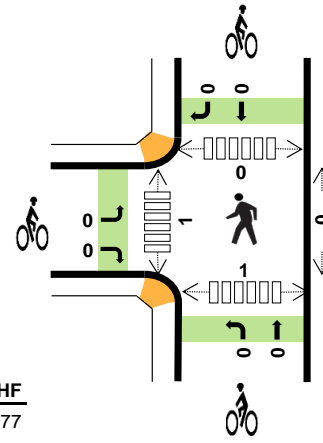
Count Summaries - Bikes

Interval Start	56th Ave				56th Ave				Picadilly Rd				Picadilly Rd				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Count Total	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	
Pk Hr Bike	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

Picadilly Rd Maxwell PI



Date: 9/12/2024
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:15 AM to 8:15 AM



	HV%	PHF
EB	5%	0.77
WB	--	--
NB	8%	0.83
SB	6%	0.91
TOTAL	7%	0.95

Peak Hour Count Summaries

Peak Hour Interval Start		Maxwell PI				n/a				Picadilly Rd				Picadilly Rd				15-min Total	Rolling Hour Total
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:15 AM		0	10	0	21	0	0	0	0	0	4	59	0	0	0	108	3	205	0
7:30 AM		0	7	0	17	0	0	0	0	0	5	86	0	0	0	108	7	230	0
7:45 AM		0	7	0	9	0	0	0	0	0	6	91	0	0	0	114	8	235	0
8:00 AM		0	6	0	18	0	0	0	0	0	6	64	0	0	0	126	5	225	895
Pk Hr	All	0	30	0	65	0	0	0	0	0	21	300	0	0	0	456	23	895	
	HV	0	1	0	4	0	0	0	0	0	0	27	0	0	0	24	3	59	
	HV%	-	3%	-	6%	-	-	-	-	-	-	0%	9%	-	-	-	5%	13%	

Note: For complete count summary (all intervals), see following pages.

** Heavy Vehicle Classifications include FHWA Classes 4-13.

** Count Summaries include heavy vehicles, but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
7:15 AM	0	0	5	5	10	0	0	0	0	0	0	0	0	0	0
7:30 AM	2	0	6	7	15	0	0	0	0	0	0	0	0	0	0
7:45 AM	2	0	5	9	16	0	0	0	0	0	0	0	0	0	0
8:00 AM	1	0	11	6	18	0	0	0	0	0	0	1	0	1	2
Peak Hour	5	0	27	27	59	0	0	0	0	0	0	1	0	1	2

Count Summaries - All Vehicles

Interval Start		Maxwell PI				n/a				Picadilly Rd				Picadilly Rd				15-min Total	Rolling Hour Total
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	6	0	8	0	0	0	0	0	3	71	0	0	0	70	5	163	0
7:15 AM		0	10	0	21	0	0	0	0	0	4	59	0	0	0	108	3	205	0
7:30 AM		0	7	0	17	0	0	0	0	0	5	86	0	0	0	108	7	230	0
7:45 AM		0	7	0	9	0	0	0	0	0	6	91	0	0	0	114	8	235	833
8:00 AM		0	6	0	18	0	0	0	0	0	6	64	0	0	0	126	5	225	895
8:15 AM		0	8	0	12	0	0	0	0	0	4	71	0	0	0	99	0	194	884
8:30 AM		0	8	0	9	0	0	0	0	0	6	76	0	0	0	74	5	178	832
8:45 AM		0	3	0	8	0	0	0	0	0	1	55	0	0	0	74	2	143	740
Count Total		0	55	0	102	0	0	0	0	0	35	573	0	0	0	773	35	1,573	
P k Hr	All	0	30	0	65	0	0	0	0	0	21	300	0	0	0	456	23	895	
	HV	0	1	0	4	0	0	0	0	0	0	27	0	0	0	24	3	59	
	HV%	-	3%	-	6%	-	-	-	-	-	0%	9%	-	-	-	5%	13%	7%	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
7:00 AM	0	0	7	9	16	0	0	0	0	0	0	1	0	0	1
7:15 AM	0	0	5	5	10	0	0	0	0	0	0	0	0	0	0
7:30 AM	2	0	6	7	15	0	0	0	0	0	0	0	0	0	0
7:45 AM	2	0	5	9	16	0	0	0	0	0	0	0	0	0	0
8:00 AM	1	0	11	6	18	0	0	0	0	0	0	1	0	1	2
8:15 AM	0	0	10	7	17	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	6	7	13	0	0	0	0	0	0	0	0	0	0
8:45 AM	1	0	6	10	17	0	0	0	0	0	0	0	0	0	0
Count Total	6	0	56	60	122	0	0	0	0	0	0	2	0	1	3
Peak Hour	5	0	27	27	59	0	0	0	0	0	0	1	0	1	2

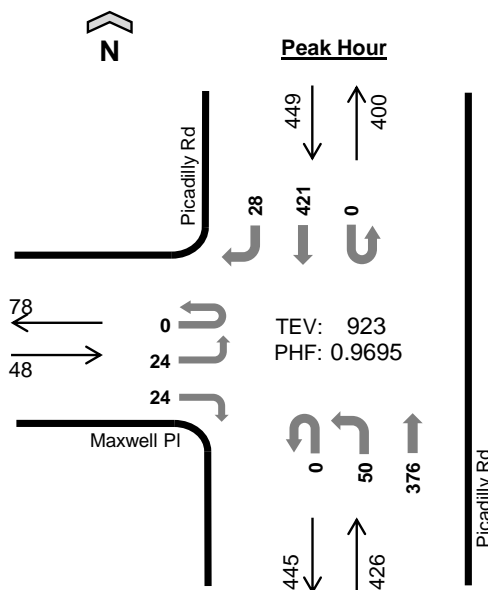
Count Summaries - Heavy Vehicles

Interval Start	Maxwell PI				n/a				Picadilly Rd				Picadilly Rd				15-min Total	Rolling Hour Total	
	Eastbound				Westbound				Northbound				Southbound						
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
7:00 AM	0	0	0	0	0	0	0	0	0	0	7	0	0	0	9	0	16	0	
7:15 AM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	5	0	10	0	
7:30 AM	0	1	0	1	0	0	0	0	0	0	6	0	0	0	7	0	15	0	
7:45 AM	0	0	0	2	0	0	0	0	0	0	5	0	0	0	8	1	16	57	
8:00 AM	0	0	0	1	0	0	0	0	0	0	11	0	0	0	4	2	18	59	
8:15 AM	0	0	0	0	0	0	0	0	0	0	10	0	0	0	7	0	17	66	
8:30 AM	0	0	0	0	0	0	0	0	0	0	6	0	0	0	7	0	13	64	
8:45 AM	0	0	0	1	0	0	0	0	0	0	5	0	0	0	10	0	17	65	
Count Total	0	1	0	5	0	0	0	0	0	0	1	55	0	0	0	57	3	122	
Pk Hr Heavy	0	1	0	4	0	0	0	0	0	0	0	27	0	0	0	24	3	59	

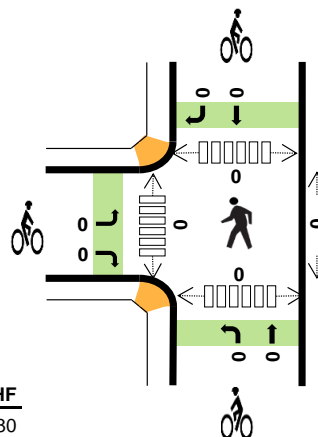
Count Summaries - Bikes

Interval Start	Maxwell PI				n/a				Picadilly Rd				Picadilly Rd				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Pk Hr Bike	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Picadilly Rd Maxwell PI



Date: 9/12/2024
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:15 PM to 5:15 PM



	HV%	PHF
EB	2%	0.80
WB	--	--
NB	7%	0.87
SB	5%	0.97
TOTAL	6%	0.97

Peak Hour Count Summaries

Peak Hour Interval Start		Maxwell PI				n/a				Picadilly Rd				Picadilly Rd				15-min Total	Rolling Hour Total
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:15 PM		0	4	0	5	0	0	0	0	0	12	87	0	0	0	108	8	224	0
4:30 PM		0	7	0	8	0	0	0	0	0	13	82	0	0	0	105	9	224	0
4:45 PM		0	6	0	7	0	0	0	0	0	13	97	0	0	0	111	4	238	0
5:00 PM		0	7	0	4	0	0	0	0	0	12	110	0	0	0	97	7	237	923
Pk Hr	All	0	24	0	24	0	0	0	0	0	50	376	0	0	0	421	28	923	
	HV	0	0	0	1	0	0	0	0	0	0	29	0	0	0	24	0	54	
	HV%	-	0%	-	4%	-	-	-	-	-	-	0%	8%	-	-	-	6%	0%	

Note: For complete count summary (all intervals), see following pages.

** Heavy Vehicle Classifications include FHWA Classes 4-13.

** Count Summaries include heavy vehicles, but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
4:15 PM	0	0	3	6	9	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	8	7	15	0	0	0	0	0	0	0	0	0	0
4:45 PM	1	0	7	8	16	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	11	3	14	0	0	0	0	0	0	0	0	0	0
Peak Hour	1	0	29	24	54	0	0	0	0	0	0	0	0	0	0

Count Summaries - All Vehicles

Interval Start		Maxwell PI				n/a				Picadilly Rd				Picadilly Rd				15-min Total	Rolling Hour Total
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	3	0	8	0	0	0	0	0	10	70	0	0	0	100	4	195	0
4:15 PM		0	4	0	5	0	0	0	0	0	12	87	0	0	0	108	8	224	0
4:30 PM		0	7	0	8	0	0	0	0	0	13	82	0	0	0	105	9	224	0
4:45 PM		0	6	0	7	0	0	0	0	0	13	97	0	0	0	111	4	238	881
5:00 PM		0	7	0	4	0	0	0	0	0	12	110	0	0	0	97	7	237	923
5:15 PM		0	6	0	8	0	0	0	0	0	14	83	0	0	0	94	7	212	911
5:30 PM		0	5	0	10	0	0	0	0	0	11	84	0	0	0	103	4	217	904
5:45 PM		0	5	0	7	0	0	0	0	0	6	97	0	0	0	92	3	210	876
Count Total		0	43	0	57	0	0	0	0	0	91	710	0	0	0	810	46	1,757	
P k H r	All	0	24	0	24	0	0	0	0	0	50	376	0	0	0	421	28	923	
	HV	0	0	0	1	0	0	0	0	0	0	29	0	0	0	24	0	54	
	HV%	-	0%	-	4%	-	-	-	-	-	0%	8%	-	-	-	6%	0%	6%	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
4:00 PM	0	0	1	12	13	0	0	0	0	0	0	2	0	0	2
4:15 PM	0	0	3	6	9	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	8	7	15	0	0	0	0	0	0	0	0	0	0
4:45 PM	1	0	7	8	16	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	11	3	14	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	6	7	13	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	4	4	8	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	3	1	4	0	0	0	0	0	0	0	0	0	0
Count Total	1	0	43	48	92	0	0	0	0	0	0	2	0	0	2
Peak Hour	1	0	29	24	54	0	0	0	0	0	0	0	0	0	0

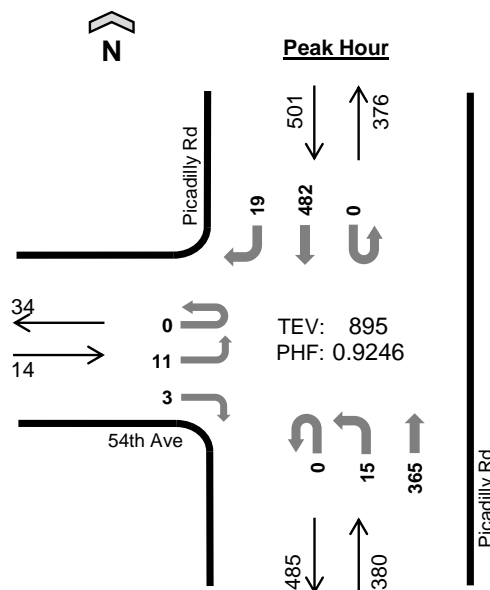
Count Summaries - Heavy Vehicles

Interval Start	Maxwell PI				n/a				Picadilly Rd				Picadilly Rd				15-min Total	Rolling Hour Total	
	Eastbound				Westbound				Northbound				Southbound						
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
4:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	12	0	13	0	
4:15 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	6	0	9	0	
4:30 PM	0	0	0	0	0	0	0	0	0	0	8	0	0	0	7	0	15	0	
4:45 PM	0	0	0	1	0	0	0	0	0	0	7	0	0	0	8	0	16	53	
5:00 PM	0	0	0	0	0	0	0	0	0	0	11	0	0	0	3	0	14	54	
5:15 PM	0	0	0	0	0	0	0	0	0	0	6	0	0	0	7	0	13	58	
5:30 PM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4	0	8	51	
5:45 PM	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	1	4	39	
Count Total	0	0	0	1	0	0	0	0	0	0	1	42	0	0	0	48	0	92	
Pk Hr Heavy	0	0	0	1	0	0	0	0	0	0	0	29	0	0	0	24	0	54	

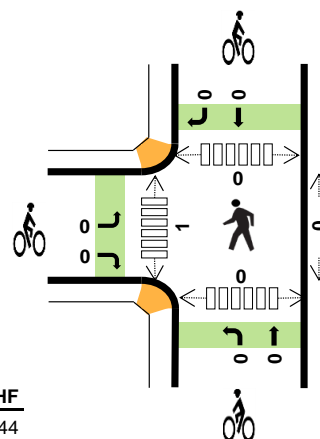
Count Summaries - Bikes

Interval Start	Maxwell PI				n/a				Picadilly Rd				Picadilly Rd				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Pk Hr Bike	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

Picadilly Rd 54th Ave



Date: 9/12/2024
Count Period: 7:00 AM to 7:00 PM
Peak Hour: 3:15 PM to 4:15 PM



	HV%	PHF
EB	0%	0.44
WB	--	--
NB	7%	0.90
SB	9%	0.94
TOTAL	8%	0.92

Peak Hour Count Summaries

Peak Hour Interval Start		54th Ave				n/a				Picadilly Rd				Picadilly Rd				15-min Total	Rolling Hour Total
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
3:15 PM		0	6	0	2	0	0	0	0	0	5	96	0	0	0	133	0	242	0
3:30 PM		0	3	0	0	0	0	0	0	0	2	103	0	0	0	111	5	224	0
3:45 PM		0	2	0	0	0	0	0	0	0	4	87	0	0	0	122	6	221	0
4:00 PM		0	0	0	1	0	0	0	0	0	4	79	0	0	0	116	8	208	895
Pk Hr	All	0	11	0	3	0	0	0	0	0	15	365	0	0	0	482	19	895	
	HV	0	0	0	0	0	0	0	0	0	1	24	0	0	0	42	2	69	
	HV%	-	0%	-	0%	-	-	-	-	-	7%	7%	-	-	-	9%	11%	8%	

Note: For complete count summary (all intervals), see following pages.

** Heavy Vehicle Classifications include FHWA Classes 4-13.

** Count Summaries include heavy vehicles, but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
3:15 PM	0	0	7	12	19	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	10	10	20	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	5	11	16	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	3	11	14	0	0	0	0	0	0	1	0	0	1
Peak Hour	0	0	25	44	69	0	0	0	0	0	0	1	0	0	1

Count Summaries - All Vehicles																			
Interval Start		54th Ave				n/a				Picadilly Rd				Picadilly Rd				15-min Total	Rolling Hour Total
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	3	0	6	0	0	0	0	0	0	71	0	0	0	74	3	157	0
7:15 AM		0	4	0	5	0	0	0	0	0	0	57	0	0	0	136	2	204	0
7:30 AM		0	1	0	3	0	0	0	0	0	0	99	0	0	0	117	5	225	0
7:45 AM		0	6	0	6	0	0	0	0	0	2	84	0	0	0	114	4	216	802
8:00 AM		0	4	0	3	0	0	0	0	0	1	70	0	0	0	146	2	226	871
8:15 AM		0	5	0	4	0	0	0	0	0	2	70	0	0	0	100	2	183	850
8:30 AM		0	5	0	4	0	0	0	0	0	2	76	0	0	0	86	3	176	801
8:45 AM		0	1	0	3	0	0	0	0	0	3	51	0	0	0	75	2	135	720
9:00 AM		0	0	0	2	0	0	0	0	0	1	45	0	0	0	57	2	107	601
9:15 AM		0	2	0	2	0	0	0	0	0	0	59	0	0	0	50	2	115	533
9:30 AM		0	0	0	0	0	0	0	0	0	1	44	0	0	0	45	0	90	447
9:45 AM		0	3	0	2	0	0	0	0	0	0	34	0	0	0	38	2	79	391
10:00 AM		0	0	0	4	0	0	0	0	0	1	47	0	0	0	49	1	102	386
10:15 AM		0	0	0	0	0	0	0	0	0	1	45	0	0	0	47	1	94	365
10:30 AM		0	0	0	1	0	0	0	0	0	0	37	0	0	0	46	1	85	360
10:45 AM		0	2	0	0	0	0	0	0	0	1	45	0	0	0	47	1	96	377
11:00 AM		0	2	0	0	0	0	0	0	0	1	52	0	1	0	38	0	94	369
11:15 AM		0	2	0	3	0	0	0	0	0	2	50	0	0	0	45	4	106	381
11:30 AM		0	3	0	4	0	0	0	0	0	8	40	0	1	0	62	6	124	420
11:45 AM		0	3	0	1	0	0	0	0	0	6	44	0	0	0	64	4	122	446
12:00 PM		0	1	0	4	0	0	0	0	0	6	38	0	0	0	67	3	119	471
12:15 PM		0	2	0	5	0	0	0	0	0	3	55	0	0	0	59	3	127	492
12:30 PM		0	1	0	4	0	0	0	0	0	1	33	0	0	0	52	1	92	460
12:45 PM		0	3	0	2	0	0	0	0	0	2	68	0	0	0	50	1	126	464
1:00 PM		0	1	0	0	0	0	0	0	0	1	51	0	0	0	55	5	113	458
1:15 PM		0	3	0	1	0	0	0	0	0	1	53	0	0	0	58	5	121	452
1:30 PM		0	4	0	3	0	0	0	0	0	0	17	0	0	0	58	3	85	445
1:45 PM		0	2	0	2	0	0	0	0	0	2	57	0	0	0	67	2	132	451
2:00 PM		0	2	0	0	0	0	0	0	0	3	50	0	0	0	87	3	145	483
2:15 PM		0	1	0	5	0	0	0	0	0	2	66	0	0	0	83	1	158	520
2:30 PM		0	2	0	3	0	0	0	0	0	2	75	0	0	0	89	6	177	612
2:45 PM		0	1	0	3	0	0	0	0	0	1	67	0	0	0	84	1	157	637
3:00 PM		0	0	0	2	0	0	0	0	0	0	68	0	0	0	114	4	188	680
3:15 PM		0	6	0	2	0	0	0	0	0	5	96	0	0	0	133	0	242	764
3:30 PM		0	3	0	0	0	0	0	0	0	2	103	0	0	0	111	5	224	811
3:45 PM		0	2	0	0	0	0	0	0	0	4	87	0	0	0	122	6	221	875
4:00 PM		0	0	0	1	0	0	0	0	0	4	79	0	0	0	116	8	208	895
4:15 PM		0	3	0	0	0	0	0	0	0	2	97	0	0	0	101	1	204	857
4:30 PM		0	3	0	4	0	0	0	0	0	6	103	0	0	0	110	2	228	861
4:45 PM		0	1	0	2	0	0	0	0	0	3	99	0	0	0	111	3	219	859
5:00 PM		0	3	0	1	0	0	0	0	0	6	116	0	0	0	96	2	224	875
5:15 PM		0	0	0	3	0	0	0	0	1	8	102	0	0	0	103	2	219	890
5:30 PM		0	1	0	0	0	0	0	0	0	5	91	0	0	0	106	8	211	873
5:45 PM		0	2	0	4	0	0	0	0	0	1	104	0	0	0	90	5	206	860
6:00 PM		0	4	0	1	0	0	0	0	0	6	101	0	0	0	79	5	196	832
6:15 PM		0	2	0	8	0	0	0	0	0	5	64	0	0	0	84	2	165	778
6:30 PM		0	3	0	4	0	0	0	0	0	2	61	0	0	0	62	1	133	700
6:45 PM		0	0	0	3	0	0	0	0	0	1	46	0	0	0	74	1	125	619
Count Total		0	102	0	120	0	0	0	0	1	116	3,167	0	2	0	3,857	136	7,501	
Pk Hr	All	0	11	0	3	0	0	0	0	0	15	365	0	0	0	482	19	895	
	HV	0	0	0	0	0	0	0	0	0	1	24	0	0	0	42	2	69	
	HV%	-	0%	-	0%	-	-	-	-	-	7%	7%	-	-	-	9%	11%	8%	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
7:00 AM	0	0	6	9	15	0	0	0	0	0	0	1	0	0	1
7:15 AM	0	0	5	6	11	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	7	9	16	0	0	0	0	0	0	1	0	0	1
7:45 AM	0	0	5	8	13	0	0	0	0	0	0	2	0	0	2
8:00 AM	0	0	11	6	17	0	0	0	0	0	0	2	0	0	2
8:15 AM	0	0	9	5	14	0	0	0	0	0	0	1	0	0	1
8:30 AM	0	0	8	8	16	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	5	11	16	0	0	0	0	0	0	1	0	0	1
9:00 AM	1	0	6	5	12	0	0	0	0	0	0	2	0	0	2
9:15 AM	0	0	10	7	17	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	4	14	18	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	7	6	13	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	6	3	9	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	6	8	14	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	4	8	12	0	0	0	0	0	0	1	0	0	1
10:45 AM	1	0	6	7	14	0	0	0	0	0	0	1	0	0	1
11:00 AM	0	0	3	5	8	0	0	0	0	0	0	2	0	0	2
11:15 AM	0	0	6	10	16	0	0	0	0	0	0	1	0	0	1
11:30 AM	0	0	12	10	22	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	10	14	24	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	6	10	16	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	8	7	15	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	7	5	12	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	11	7	18	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	7	9	16	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	10	5	15	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	7	4	11	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	7	12	19	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	5	8	13	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	9	5	14	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	7	6	13	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	5	8	13	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	4	15	19	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	7	12	19	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	10	10	20	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	5	11	16	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	3	11	14	0	0	0	0	0	0	1	0	0	1
4:15 PM	0	0	3	3	6	0	0	0	0	0	0	2	0	0	2
4:30 PM	0	0	8	9	17	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	6	6	12	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	9	5	14	0	0	0	0	0	0	1	0	0	1
5:15 PM	0	0	7	8	15	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	4	6	10	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	4	1	5	0	0	0	0	0	0	2	0	0	2
6:00 PM	0	0	4	6	10	0	0	0	0	0	0	1	0	0	1
6:15 PM	0	0	3	3	6	0	0	0	0	0	0	5	0	0	5
6:30 PM	0	0	3	7	10	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	2	4	6	0	0	0	0	0	0	1	0	0	1
Count Total	2	0	307	362	671	0	0	0	0	0	0	28	0	0	28
Peak Hour	0	0	25	44	69	0	0	0	0	0	0	1	0	0	1

Count Summaries - Heavy Vehicles










Interval Start	54th Ave				n/a				Picadilly Rd				Picadilly Rd				15-min Total	Rolling Hour Total	
	Eastbound				Westbound				Northbound				Southbound						
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
7:00 AM	0	0	0	0	0	0	0	0	0	0	6	0	0	0	8	1	15	0	
7:15 AM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	6	0	11	0	
7:30 AM	0	0	0	0	0	0	0	0	0	0	7	0	0	0	9	0	16	0	
7:45 AM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	8	0	13	55	
8:00 AM	0	0	0	0	0	0	0	0	0	0	11	0	0	0	6	0	17	57	
8:15 AM	0	0	0	0	0	0	0	0	0	0	9	0	0	0	5	0	14	60	
8:30 AM	0	0	0	0	0	0	0	0	0	0	8	0	0	0	8	0	16	60	
8:45 AM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	11	0	16	63	
9:00 AM	0	0	0	1	0	0	0	0	0	0	6	0	0	0	5	0	12	58	
9:15 AM	0	0	0	0	0	0	0	0	0	0	10	0	0	0	7	0	17	61	
9:30 AM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	14	0	18	63	
9:45 AM	0	0	0	0	0	0	0	0	0	0	7	0	0	0	6	0	13	60	
10:00 AM	0	0	0	0	0	0	0	0	0	0	6	0	0	0	3	0	9	57	
10:15 AM	0	0	0	0	0	0	0	0	0	0	6	0	0	0	8	0	14	54	
10:30 AM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	8	0	12	48	
10:45 AM	0	1	0	0	0	0	0	0	0	0	6	0	0	0	7	0	14	49	
11:00 AM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	5	0	8	48	
11:15 AM	0	0	0	0	0	0	0	0	0	0	6	0	0	0	10	0	16	50	
11:30 AM	0	0	0	0	0	0	0	0	0	2	10	0	1	0	9	0	22	60	
11:45 AM	0	0	0	0	0	0	0	0	0	0	10	0	0	0	14	0	24	70	
12:00 PM	0	0	0	0	0	0	0	0	0	0	6	0	0	0	10	0	16	78	
12:15 PM	0	0	0	0	0	0	0	0	0	0	8	0	0	0	7	0	15	77	
12:30 PM	0	0	0	0	0	0	0	0	0	0	7	0	0	0	5	0	12	67	
12:45 PM	0	0	0	0	0	0	0	0	0	0	11	0	0	0	7	0	18	61	
1:00 PM	0	0	0	0	0	0	0	0	0	0	7	0	0	0	9	0	16	61	
1:15 PM	0	0	0	0	0	0	0	0	0	0	10	0	0	0	5	0	15	61	
1:30 PM	0	0	0	0	0	0	0	0	0	0	7	0	0	0	4	0	11	60	
1:45 PM	0	0	0	0	0	0	0	0	0	0	7	0	0	0	12	0	19	61	
2:00 PM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	7	1	13	58	
2:15 PM	0	0	0	0	0	0	0	0	0	0	9	0	0	0	5	0	14	57	
2:30 PM	0	0	0	0	0	0	0	0	0	0	7	0	0	0	6	0	13	59	
2:45 PM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	8	0	13	53	
3:00 PM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	15	0	19	59	
3:15 PM	0	0	0	0	0	0	0	0	0	0	7	0	0	0	12	0	19	64	
3:30 PM	0	0	0	0	0	0	0	0	0	0	10	0	0	0	10	0	20	71	
3:45 PM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	10	1	16	74	
4:00 PM	0	0	0	0	0	0	0	0	0	0	1	2	0	0	10	1	14	69	
4:15 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	6	56	
4:30 PM	0	0	0	0	0	0	0	0	0	0	8	0	0	0	9	0	17	53	
4:45 PM	0	0	0	0	0	0	0	0	0	0	6	0	0	0	6	0	12	49	
5:00 PM	0	0	0	0	0	0	0	0	0	0	9	0	0	0	5	0	14	49	
5:15 PM	0	0	0	0	0	0	0	0	0	0	7	0	0	0	8	0	15	58	
5:30 PM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	6	0	10	51	
5:45 PM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	1	0	5	44	
6:00 PM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	6	0	10	40	
6:15 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	6	31	
6:30 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	7	0	10	31	
6:45 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	4	0	6	32	
Count Total	0	1	0	1	0	0	0	0	0	0	3	304	0	1	0	357	4	671	
Pk Hr Heavy	0	0	0	0	0	0	0	0	0	0	1	24	0	0	0	42	2	69	

Count Summaries - Bikes																		
Interval Start	54th Ave				n/a				Picadilly Rd				Picadilly Rd				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Pk Hr Bike	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

APPENDIX D – Existing Synchro Outputs





HCM 7th TWSC
1: Picadilly Rd & E 56th Ave

09/26/2024

Intersection												
Int Delay, s/veh	133.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	79	270	162	160	147	33	77	131	124	45	162	116
Future Vol, veh/h	79	270	162	160	147	33	77	131	124	45	162	116
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	400	-	0	150	-	-	225	-	-	225	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	87	297	178	188	173	39	91	154	146	53	191	136
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	212	0	0	475	0	0	1029	1059	297	1116	1217	106
Stage 1	-	-	-	-	-	-	470	470	-	569	569	-
Stage 2	-	-	-	-	-	-	558	588	-	547	648	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.33	6.53	6.23	7.33	6.53	6.93
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.53	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.53	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.219	-	-	2.219	-	-	3.519	4.019	3.319	3.519	4.019	3.319
Pot Cap-1 Maneuver	1357	-	-	1085	-	-	200	224	742	173	~ 180	929
Stage 1	-	-	-	-	-	-	573	559	-	475	505	-
Stage 2	-	-	-	-	-	-	482	495	-	520	465	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1357	-	-	1085	-	-	132	173	742	~ 15	~ 139	929
Mov Cap-2 Maneuver	-	-	-	-	-	-	132	173	-	~ 15	~ 139	-
Stage 1	-	-	-	-	-	-	536	523	-	393	417	-
Stage 2	-	-	-	-	-	-	185	409	-	276	435	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	1.21			4.24			109.94			\$ 487.35		
HCM LOS							F			F		
Minor Lane/Major Mvmt	NBLn1 NBLn2		EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2		
Capacity (veh/h)	132 276		1357	-	-	1085	-	-	15	216		
HCM Lane V/C Ratio	0.687 1.087		0.064	-	-	0.173	-	-	3.568	1.515		
HCM Control Delay (s/veh)	77.6 119.7		7.8	-	-	9	-	-	\$ 1676.2	294.9		
HCM Lane LOS	F F		A	-	-	A	-	-	F F			
HCM 95th %tile Q(veh)	3.8 12.2		0.2	-	-	0.6	-	-	7.4	20		
Notes												
~: Volume exceeds capacity		\$: Delay exceeds 300s			+: Computation Not Defined				*: All major volume in platoon			

HCM 7th TWSC
2: Picadilly Rd & Maxwell PI

09/26/2024

Intersection						
Int Delay, s/veh	2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	30	65	23	302	461	23
Future Vol, veh/h	30	65	23	302	461	23
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	85	85	85	85	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	35	76	27	355	507	25






Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	929	519	532	0	-	0
Stage 1	519	-	-	-	-	-
Stage 2	409	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	297	557	1036	-	-	-
Stage 1	597	-	-	-	-	-
Stage 2	670	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	289	557	1036	-	-	-
Mov Cap-2 Maneuver	289	-	-	-	-	-
Stage 1	581	-	-	-	-	-
Stage 2	670	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v16.25		0.61	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1036	-	431	-	-
HCM Lane V/C Ratio	0.026	-	0.259	-	-
HCM Control Delay (s/veh)	8.6	-	16.3	-	-
HCM Lane LOS	A	-	C	-	-
HCM 95th %tile Q(veh)	0.1	-	1	-	-

HCM 7th TWSC
3: Picadilly Rd & E 54th Ave

09/26/2024

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	15	17	3	310	513	13
Future Vol, veh/h	15	17	3	310	513	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	125	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	18	20	4	365	576	15













Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	955	584	591	0	-	0
Stage 1	584	-	-	-	-	-
Stage 2	372	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	286	512	985	-	-	-
Stage 1	558	-	-	-	-	-
Stage 2	697	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	285	512	985	-	-	-
Mov Cap-2 Maneuver	285	-	-	-	-	-
Stage 1	556	-	-	-	-	-
Stage 2	697	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v15.73		0.08	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	985	-	373	-	-
HCM Lane V/C Ratio	0.004	-	0.101	-	-
HCM Control Delay (s/veh)	8.7	-	15.7	-	-
HCM Lane LOS	A	-	C	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-






HCM 7th TWSC
1: Picadilly Rd & E 56th Ave

09/26/2024

Intersection												
Int Delay, s/veh	198.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	137	194	123	171	280	66	88	179	134	27	135	113
Future Vol, veh/h	137	194	123	171	280	66	88	179	134	27	135	113
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	400	-	0	150	-	-	225	-	-	225	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	161	228	145	201	329	78	104	211	158	31	155	130
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	407	0	0	373	0	0	1195	1360	228	1426	1466	204
Stage 1	-	-	-	-	-	-	551	551	-	771	771	-
Stage 2	-	-	-	-	-	-	645	809	-	656	695	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.33	6.53	6.23	7.33	6.53	6.93
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.53	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.53	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.219	-	-	2.219	-	-	3.519	4.019	3.319	3.519	4.019	3.319
Pot Cap-1 Maneuver	1150	-	-	1184	-	-	152 ~ 148	810	104	~ 127	804	-
Stage 1	-	-	-	-	-	-	518	515	-	360	409	-
Stage 2	-	-	-	-	-	-	428	392	-	454	443	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1150	-	-	1184	-	-	~ 91 ~ 105	810	60	~ 91	804	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 91 ~ 105	-	60	~ 91	-	-
Stage 1	-	-	-	-	-	-	445	443	-	299	339	-
Stage 2	-	-	-	-	-	-	162	326	-	165	381	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	2.61			2.87			\$ 516.33			\$ 430.33		
HCM LOS							F			F		
Minor Lane/Major Mvmt	NBLn1 NBLn2		EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2		
Capacity (veh/h)	91	168	1150	-	-	1184	-	-	60	153		
HCM Lane V/C Ratio	1.137	2.191	0.14	-	-	0.17	-	-	0.52	1.867		
HCM Control Delay (s/veh)	220.9	\$ 599.4	8.6	-	-	8.7	-	-	117.7	\$ 464.4		
HCM Lane LOS	F	F	A	-	-	A	-	-	F	F		
HCM 95th %tile Q(veh)	7.1	29.7	0.5	-	-	0.6	-	-	2.1	21.5		
Notes												
~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon												

HCM 7th TWSC
2: Picadilly Rd & Maxwell PI

09/26/2024

Intersection						
Int Delay, s/veh	1.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	26	27	52	375	402	27
Future Vol, veh/h	26	27	52	375	402	27
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	88	88	87	87	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	30	31	60	431	437	29





Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	1002	452	466
Stage 1	452	-	-
Stage 2	551	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	269	608	1095
Stage 1	641	-	-
Stage 2	578	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	254	608	1095
Mov Cap-2 Maneuver	254	-	-
Stage 1	606	-	-
Stage 2	578	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v16.95		1.03	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1095	-	361	-	-
HCM Lane V/C Ratio	0.055	-	0.167	-	-
HCM Control Delay (s/veh)	8.5	-	17	-	-
HCM Lane LOS	A	-	C	-	-
HCM 95th %tile Q(veh)	0.2	-	0.6	-	-

HCM 7th TWSC
3: Picadilly Rd & E 54th Ave

09/26/2024

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	7	10	24	420	420	9
Future Vol, veh/h	7	10	24	420	420	9
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	85	85	91	91	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	8	12	26	462	457	10

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	976	461	466	0	-	0
Stage 1	461	-	-	-	-	-
Stage 2	514	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	279	600	1095	-	-	-
Stage 1	635	-	-	-	-	-
Stage 2	600	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	272	600	1095	-	-	-
Mov Cap-2 Maneuver	272	-	-	-	-	-
Stage 1	619	-	-	-	-	-
Stage 2	600	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	14.45	0.45	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1095	-	401	-	-
HCM Lane V/C Ratio	0.024	-	0.05	-	-
HCM Control Delay (s/veh)	8.4	-	14.5	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	-	-

APPENDIX E – Pipeline Development Excerpts

GREEN VALLEY MP AMENDMENT 2

TRAFFIC IMPACT STUDY

Prepared for:

Oakwood Homes
4908 Tower Rd.
Denver, CO 80249

Prepared by:

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

Project Manager: Lyle E. DeVries, PE, PTOE
Project Engineer: Faith Burkey, EI



FHU Reference No. 121372-01

Original Report: December 2021

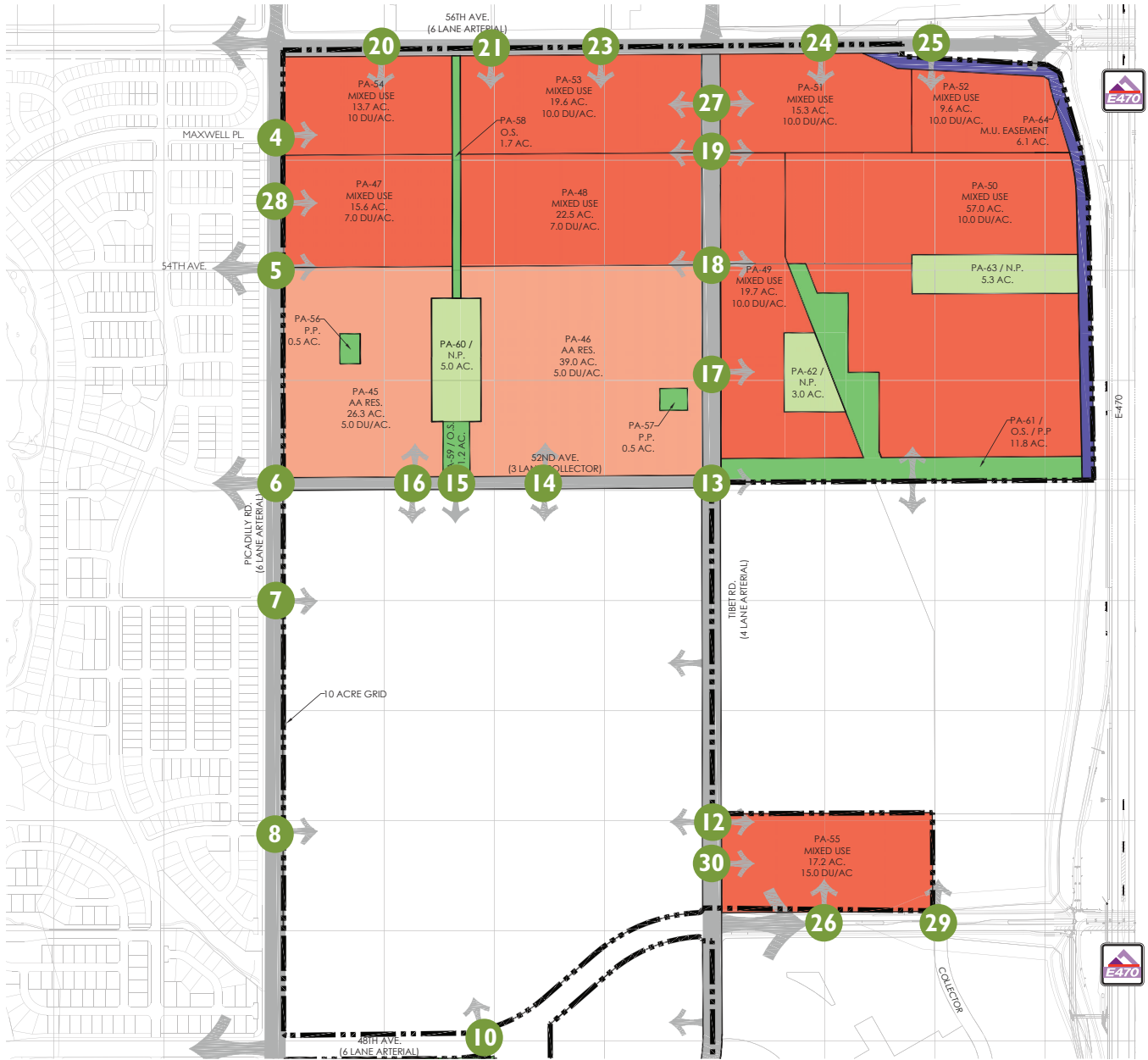
Second Edition: February 2022

Third Edition: June 2022

Fourth Edition: December 2022

Fifth Edition: July 2023

Current Edition: September 2023



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 development would consist of about 327 senior housing units, 54 units of single-family housing, 1,164 multifamily units, 683,700 square feet of retail space, and 386,400 square feet of office space. This analysis used a mix of the regression equations and average rates per dwelling unit and per thousand square feet for the corresponding ITE code. **Table I** outlines the ITE trip generation rates and equations for the applicable land use codes.

Table I. ITE Trip Generation Rates and Equations

Land Use	ITE Code	Unit	Daily	Peak	Equations & Rates	Distributions	
						In	Out
Single-family Detached	210	DU	$\ln(T)=0.92*\ln(X)+2.68$	AM	$\ln(T)=0.91*\ln(T)+0.12$	25%	75%
				PM	$\ln(T)=0.94*\ln(X)+0.27$	63%	37%
Single-family Attached	215	DU	$T=7.62*X+-50.48$	AM	$T=0.52*X+-5.7$	25%	75%
				PM	$T=0.6*X+-3.93$	59%	41%
Multifamily (Low-Rise)	220	DU	$T=6.41*X+75.31$	AM	$T=0.31*X+22.85$	24%	76%
				PM	$T=0.43*X+20.55$	63%	37%
Senior Housing Detached	251	DU	$\ln(T)=0.85\ln(X)+2.47$	AM	$\ln(T)=0.76*\ln(T)+0.16$	33%	67%
				PM	$\ln(T)=0.78*\ln(X)+0.2$	61%	39%
Hotel	310	Rooms	$T=7.99*X$	AM	$T=0.46*X$	56%	44%
				PM	$T=0.59*X$	51%	49%
Fitness Center	492	KSF	N/A	AM	$T=1.31*X$	51%	49%
				PM	$T=3.45*X$	57%	43%
Day Care	565	KSF	$T=47.62*X$	AM	$T=11*X$	53%	47%
				PM	$T=11.12*X$	47%	53%
General Office	710	KSF	$T=10.84*X$	AM	$T=1.52*X$	88%	12%
				PM	$T=1.44*X$	17%	83%
Medical Office Building	720	KSF	$T=T=42.97*X-108.01$	AM	$\ln(T)=0.9*\ln(X)+1.34$	79%	21%
				PM	$T=4.07*X-3.17$	30%	70%
Shopping Center	821	KSF	$T=67.52*X$	AM	$T=1.73*X$	62%	38%
				PM	$T=5.19*X$	49%	51%
Shopping Center	822	KSF	$T=42.2*X+229.68$	AM	$T=2.36*X$	60%	40%
				PM	$T=6.59*X$	50%	50%

Land Use	ITE Code	Unit	Daily	Peak	Equations & Rates	Distributions	
						In	Out
Grocery Store	850	KSF	$T=93.84 \times X$	AM	$T=2.86 \times X$	59%	41%
				PM	$T=8.95 \times X$	50%	50%
Hardware Store	863	KSF	$T=30.74 \times X$	AM	$T=1.51 \times X$	57%	43%
				PM	$T=2.29 \times X$	49%	51%
High Turnover (Sit-Down) Restaurant	932	KSF	$T=107.2 \times X$	AM	$T=9.57 \times X$	55%	45%
				PM	$T=9.05 \times X$	61%	39%
Fast-Food Restaurant with Drive-Thru Window	934	KSF	$T=467.48 \times X$	AM	$T=44.61 \times X$	51%	49%
				PM	$T=33.03 \times X$	52%	48%
Gas Station	945	FP	$T=265.12 \times X$	AM	$T=16.06 \times X$	50%	50%
				PM	$T=18.42 \times X$	50%	50%

As shown in **Table 2**, the Green Valley MP Amendment 2 development would generate an estimated total of 52,000 new external vehicle trips per day with 2,739 in the AM and 4,364 in the PM. These trips are divided by assumed planning areas as shown in **Figure 2**. Given the National Cooperative Highway Research Program (NCHRP) 684 spreadsheet, an 8 percent daily internal capture rate was determined with 9 to 17 percent of the trips being internal for the AM and PM peak hours. **Appendix C** shows the NCHRP 684 internal capture summary sheets. Pass-by trips are those trips which are assumed to already use the roadway network, but decide to stop at a proposed use, if it is implemented. Land uses within this development that are assumed to generate pass-by trips would be restaurants, shopping centers, gas stations, hardware stores, and grocery stores. Pass-by estimates were assumed to be approximately 10 percent for each applicable land use based on engineering judgement.

Table 2. Trip Generation

Planning Area	Land Use	ITE Code	Unit	Quantity	Daily	AM Peak			PM Peak		
						In	Out	Total	In	Out	Total
45	Senior Housing Attached	251	DU	132	750	16	32	48	34	21	55
46	Senior Housing Attached	251	DU	195	1,045	21	44	65	46	29	75
47	Multi-Family (Low-Rise)	220	DU	97	697	13	40	53	39	23	62
48	Multi-Family (Low-Rise)	220	DU	135	941	16	49	65	50	29	79
49	Single Family Detached	210	DU	24	271	5	15	20	16	10	26
	Single Family Attached	215	DU	30	178	3	7	10	8	6	14
	Multi-Family (Low-Rise)	220	DU	84	614	12	37	49	36	21	57
	Drive-Thru Restaurant	934	KSF	2.1	998	48	47	95	37	34	71
	General Office	710	KSF	53.8	583	72	10	82	13	64	77
	Shopping Center	822	KSF	14.4	838	20	14	34	48	47	95

Planning Area	Land Use	ITE Code	Unit	Quantity	Daily	AM Peak			PM Peak		
						In	Out	Total	In	Out	Total
	General Office	710	KSF	13.4	146	18	2	20	3	16	19
	Gas Station	945	FP	8	2,121	64	64	128	74	73	147
	Subtotal				5,749	242	196	438	235	271	506
50	Multi-Family (Low-Rise)	220	DU	340	2,255	31	97	128	105	62	167
	Shopping Center	821	KSF	125.235	8,456	135	82	217	319	331	650
	General Office	710	KSF	250.47	2,715	335	46	381	61	300	361
	Subtotal				13,426	501	225	726	485	693	1,178
51	Multi-Family (Low-Rise)	220	DU	153	1,056	17	53	70	54	32	86
	High-Turnover Sit-Down Restaurant	932	KSF	1.90419	204	10	8	18	10	7	17
	Shopping Center	821	KSF	42.8444	2,893	46	28	74	109	113	222
	Subtotal				4,153	73	89	162	173	152	325
52	Multi-Family (Low-Rise)	220	DU	97	697	13	40	53	39	23	62
	Hotel	310	Rooms	100	799	26	20	46	30	29	59
	Subtotal				1,496	39	60	99	69	52	121
53	Hardware Store	863	KSF	111	3,412	96	72	168	124	130	254
	Shopping Center	822	KSF	27	1,369	38	26	64	89	89	178
	Shopping Center	822	KSF	24	1,242	34	23	57	79	79	158
	Shopping Center	822	KSF	7.4	542	10	7	17	25	24	49
	Shopping Center	822	KSF	7.4	542	10	7	17	25	24	49
	Shopping Center	821	KSF	8.9	600	9	6	15	23	23	46
	Shopping Center	821	KSF	9.9	671	11	6	17	25	27	52
	Shopping Center	821	KSF	10.7	724	12	7	19	27	29	56
	Shopping Center	822	KSF	7.2	534	10	7	17	24	23	47
	Shopping Center	822	KSF	4.8	432	7	4	11	16	16	32
	Medical Office Building	720	KSF	9.1	283	22	6	28	10	24	34
	Day Care	565	KSF	12	571	70	62	132	63	70	133
	Subtotal				10,922	329	233	562	530	558	1,088
54	Shopping Center	822	KSF	6.4	498	9	6	15	21	21	42

Planning Area	Land Use	ITE Code	Unit	Quantity	Daily	AM Peak			PM Peak		
						In	Out	Total	In	Out	Total
	Shopping Center	822	KSF	6.4	498	9	6	15	21	21	42
	Shopping Center	821	KSF	8.1	547	9	5	14	21	21	42
	Shopping Center	821	KSF	8.1	547	9	5	14	21	21	42
	Shopping Center	821	KSF	9.6	647	11	6	17	25	25	50
	Grocery Store	850	KSF	124.0	11,636	209	146	355	555	555	1,110
	Shopping Center	822	KSF	7.8	559	11	7	18	26	25	51
	Fitness Center	492	KSF	40	N/A	27	25	52	79	59	138
	Shopping Center	822	KSF	22	1,158	31	21	52	73	72	145
	Gas Station	945	FP	10	2,651	81	80	161	92	92	184
	Subtotal					18,741	406	307	713	934	912
55	Multi-Family (Low-Rise)	220	DU	258	1,729	25	78	103	83	48	131
	Shopping Center	822	KSF	29.799	1,487	42	28	70	98	98	196
	General Office	710	KSF	59.598	646	80	11	91	15	71	86
	Subtotal					3,862	147	117	264	196	217
Subtotal Trips					61,782	1,803	1,392	3,195	2,791	2,957	5,748
Total Internal Trips					5,200	143	137	286	504	481	981
Total Pass-by Trips					4,582	99	73	170	202	201	403
Total New External Trips					52,000	1,561	1,182	2,739	2,085	2,275	4,364

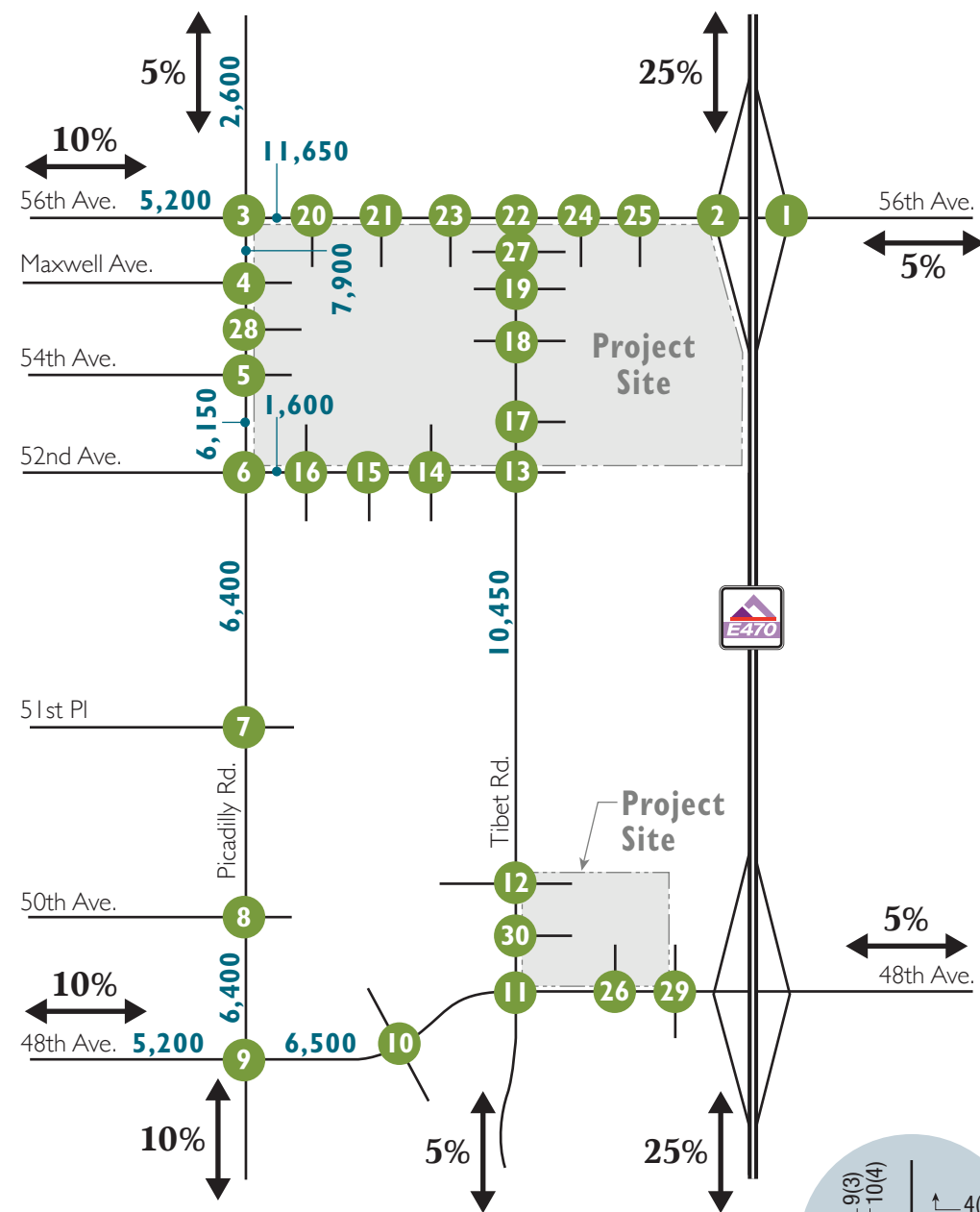
III.B. Site Trip Distribution and Site-Generated Traffic Assignment

For the Short-Range Future scenario, it is expected that the Green Valley Ranch East MP Amendment 1 development will include construction (partial cross-sections) of the roadways immediately adjacent to the Green Valley MP Amendment 2 site, including 48th Avenue, Tibet Street, and 52nd Avenue. It is estimated that the existing two-lane cross-section on Picadilly Road would remain sufficient in the near term for purposes of this study.

The trip generation estimates from **Table 2** were assigned to the adjacent roadway system based on existing travel patterns, travel demand modeling information, and engineering judgment. The following distribution percentages were used to assign the site generated trips to the roadway network:

- 5 percent oriented to/from the north on Picadilly Road
- 10 percent oriented to/from the west on 56th Avenue
- 25 percent oriented to/from the north on E-470
- 25 percent oriented to/from the south on E-470
- 5 percent oriented to/from the east on 48th Avenue
- 5 percent oriented to/from the south on Tibet Street
- 10 percent oriented to/from the south on Picadilly Road
- 10 percent oriented to/from the west on 48th Avenue
- 5 percent oriented to/from the east on 56th Avenue

Internal trips were deducted from the trip generation total before assignments and are not reflected in the site generated trips. It should be noted that some internal trips may cross Tibet Street to reach other planning areas; however, these trips were not accounted for and Tibet is anticipated to see more east-west through volumes at site accesses than shown. Pass-by trips were assumed to travel through on 56th Avenue, Picadilly Road, 48th Avenue, and Tibet Street. Using an industry software tool, VISTRO, net new site generated trips were assigned to the network along with pass-by trips. **Figure 4** shows the site trip distribution and resultant traffic assignment including pass-by trips. As indicated, Picadilly Road would carry between 2,600 and 7,900 VPD of site traffic, 56th Avenue would carry about 5,200 west of Picadilly Road and 11,650 VPD east of Picadilly Road. 48th Avenue would carry between 5,200 VPD west of Picadilly and 6,500 VPD east of Picadilly Road in site-generated traffic.

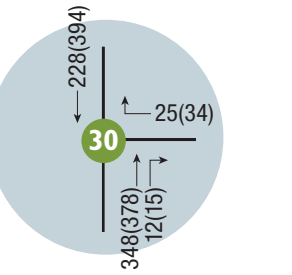
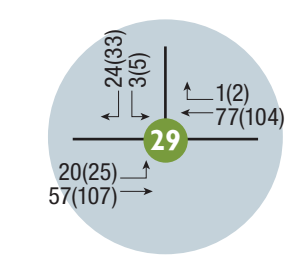
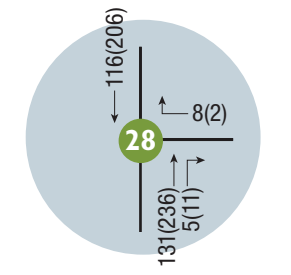
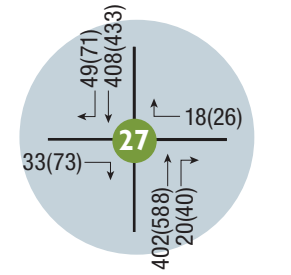
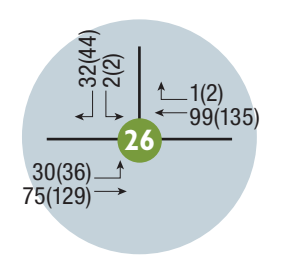
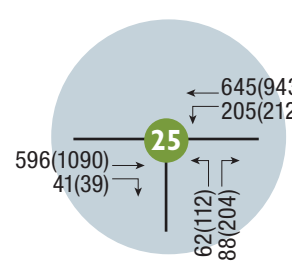
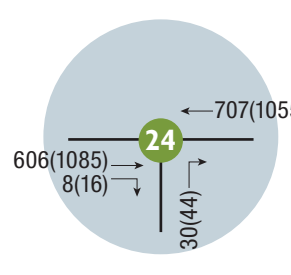
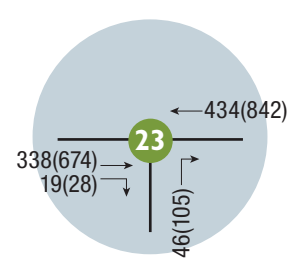
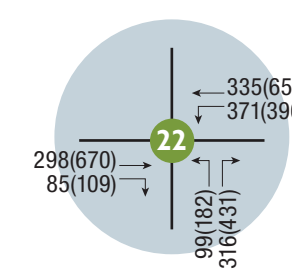
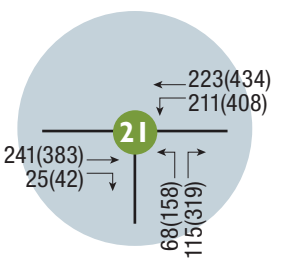
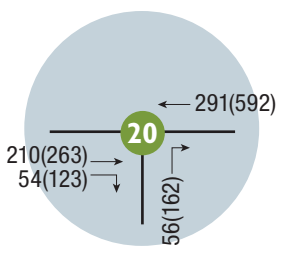
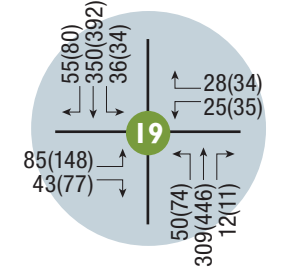
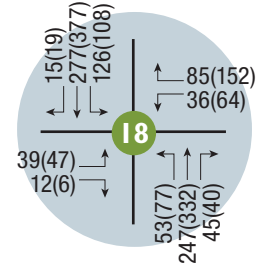
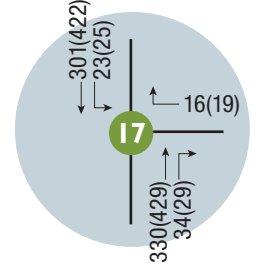
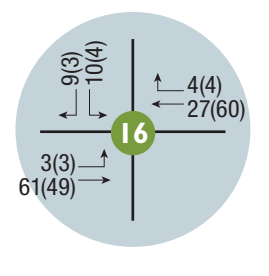
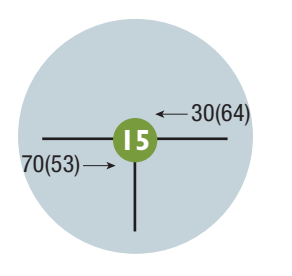
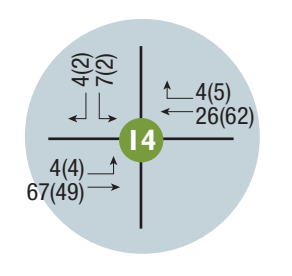
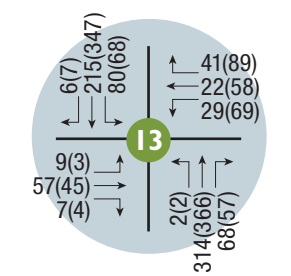
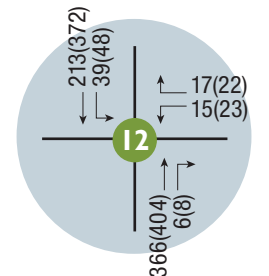
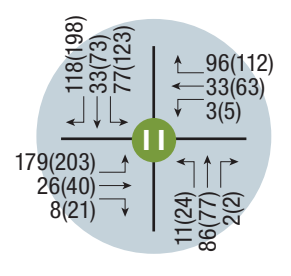
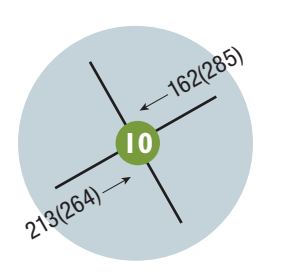
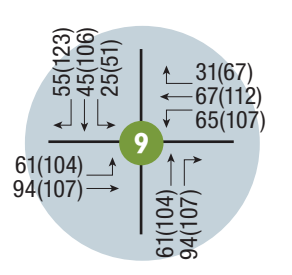
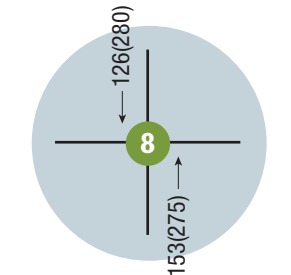
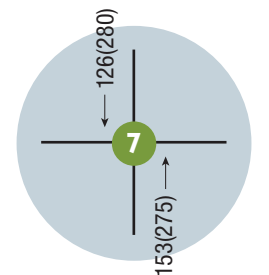
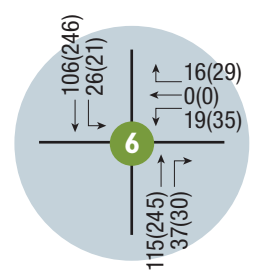
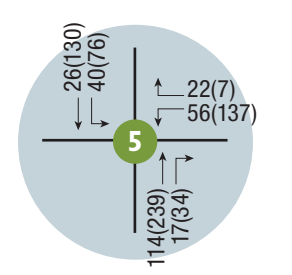
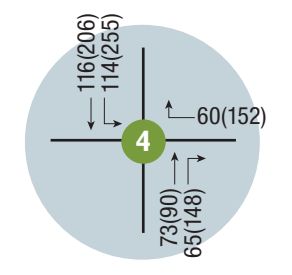
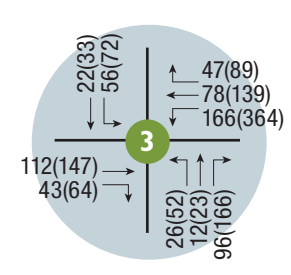
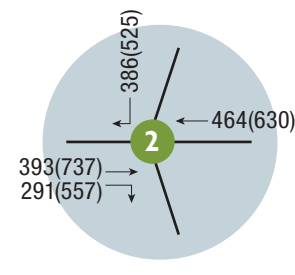
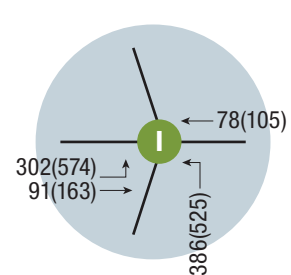


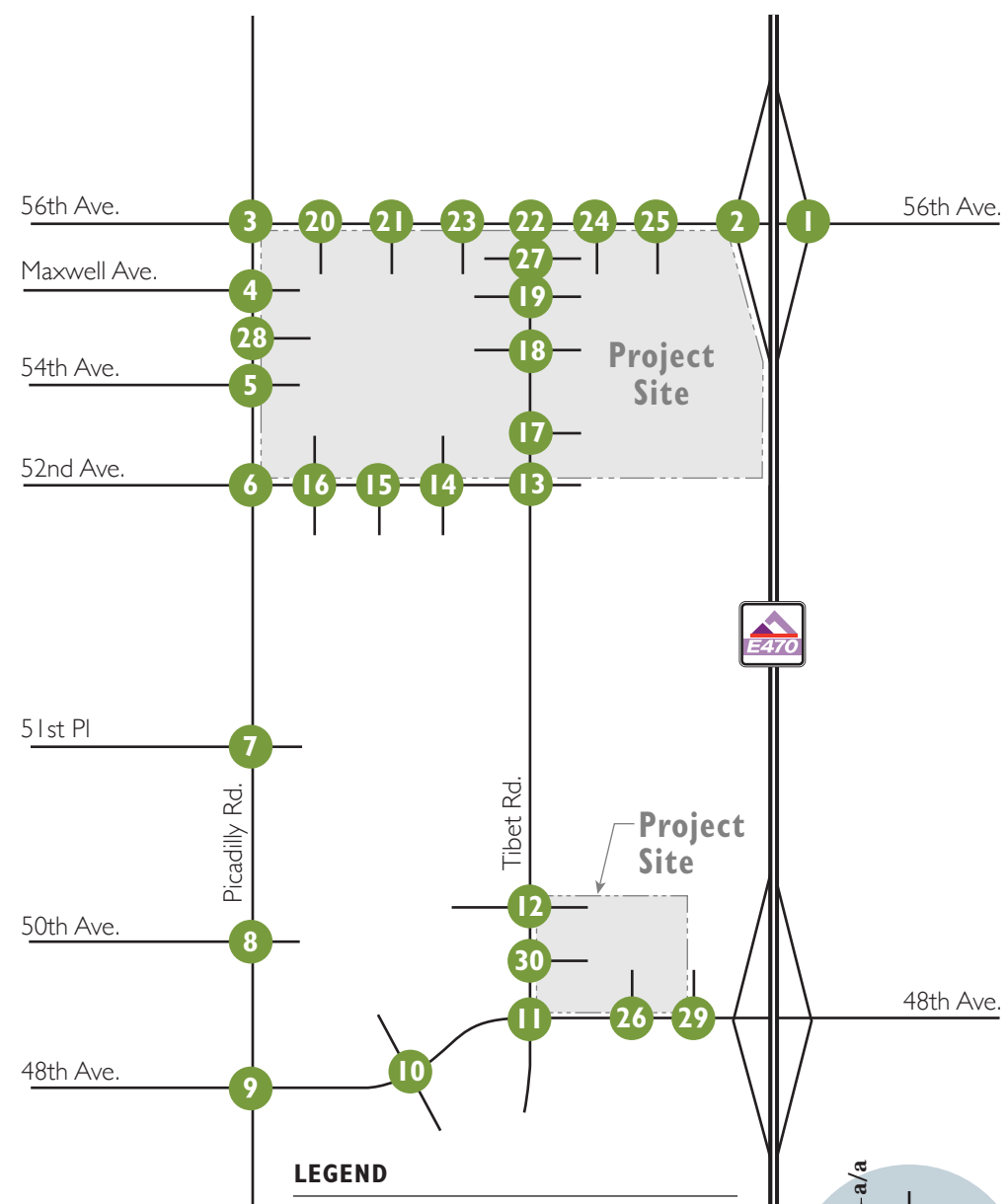
LEGEND

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

XXXX = Daily Traffic Volumes

XX% = Site Trip Distribution





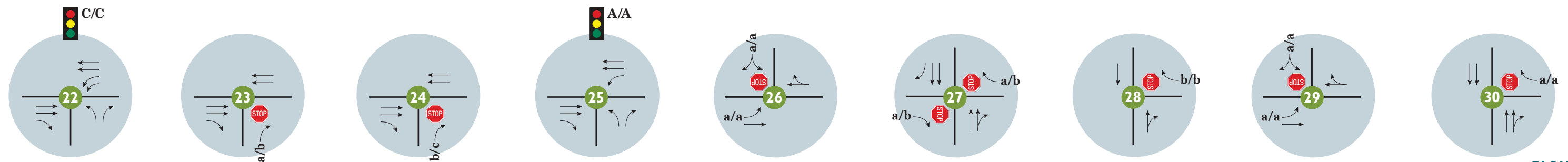
LEGEND

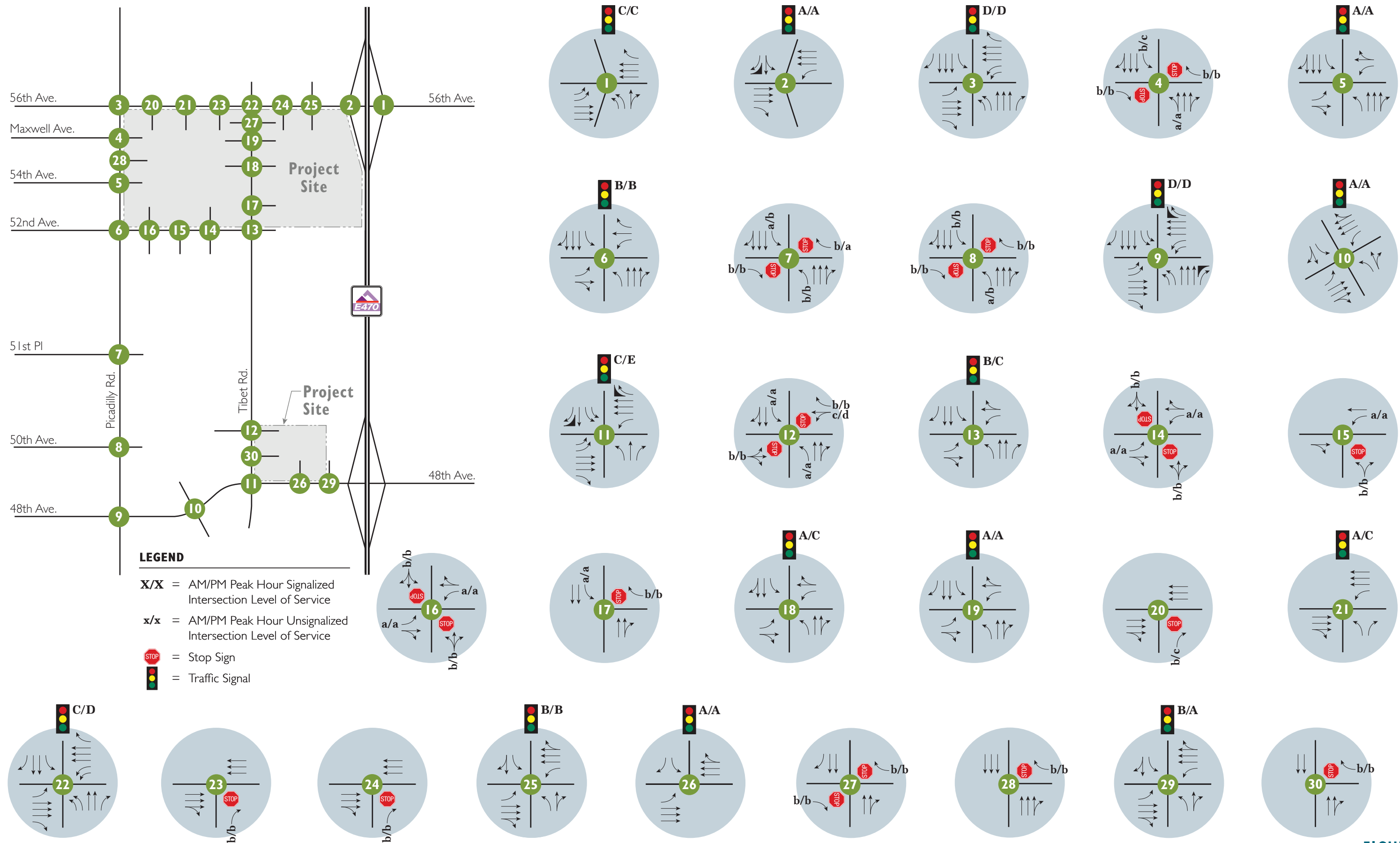
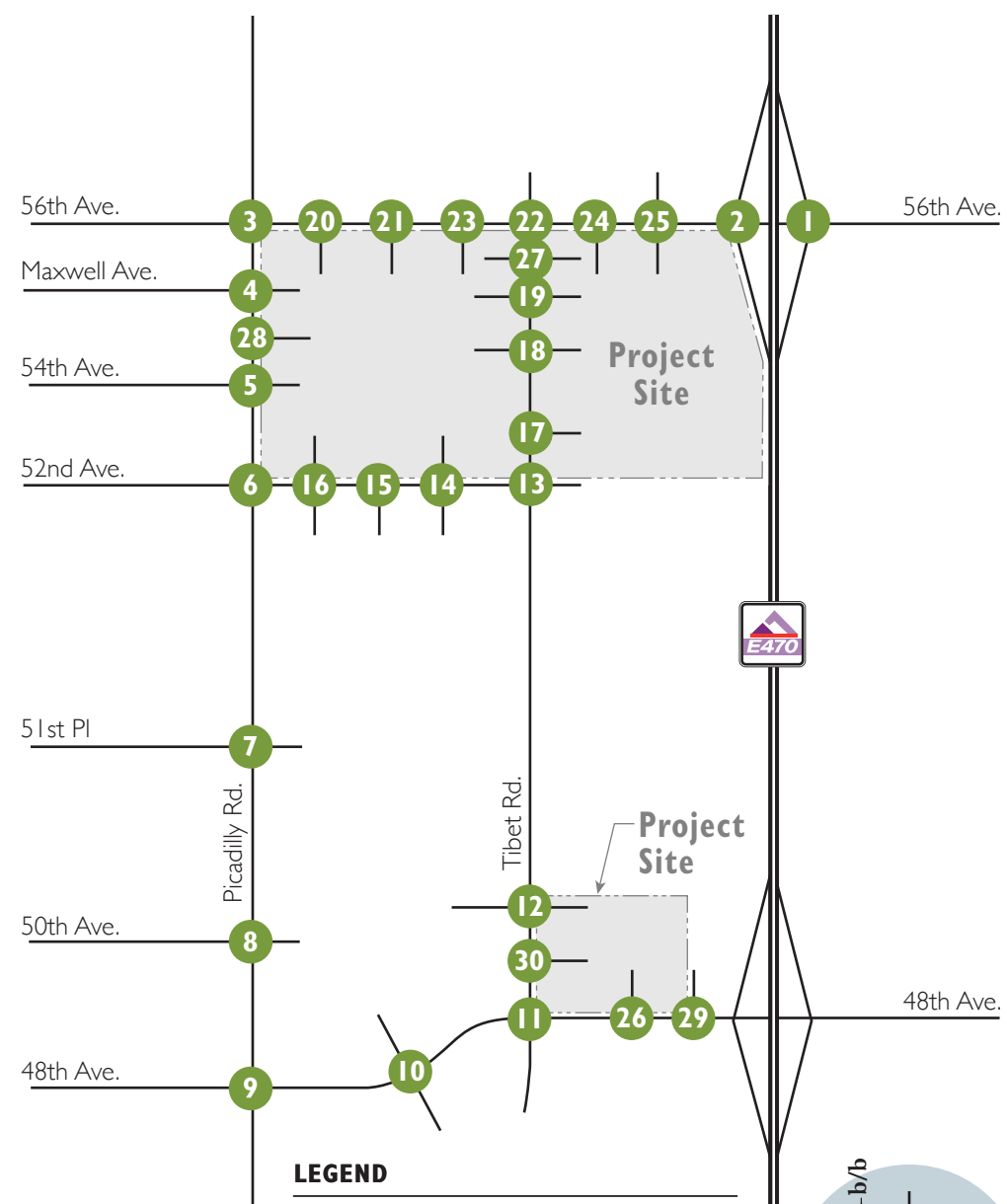
X/X = AM/PM Peak Hour Signalized Intersection Level of Service

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

= Stop Sign

= Traffic Signal





Skydance Development

Traffic Impact Study



1st Submittal Date: July 21, 2021

2nd Submittal Date: November 16, 2021

Updated Date: February 2, 2022

Submitted To:

Westside Investment Partners, Inc.
4100 East Mississippi Avenue, Suite 500
Denver, CO 80246

Submitted By:

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



5.2 Year 2030 Anticipated Transportation Network

For comparison purposes, this traffic study assumes that many of the planned roadways shown in the *NEATS Refresh* report and auxiliary lanes shown in other development traffic studies will be completed by Year 2030 background. If the future scenario was evaluated with the existing roadway network, then it would be difficult to compare intersection operates when many of the intersections will be altered and/or relocated and roadways widened which impacts the volumes, capacity, and routing. The following roadway and intersection improvements were assumed to be completed by Year 2030:

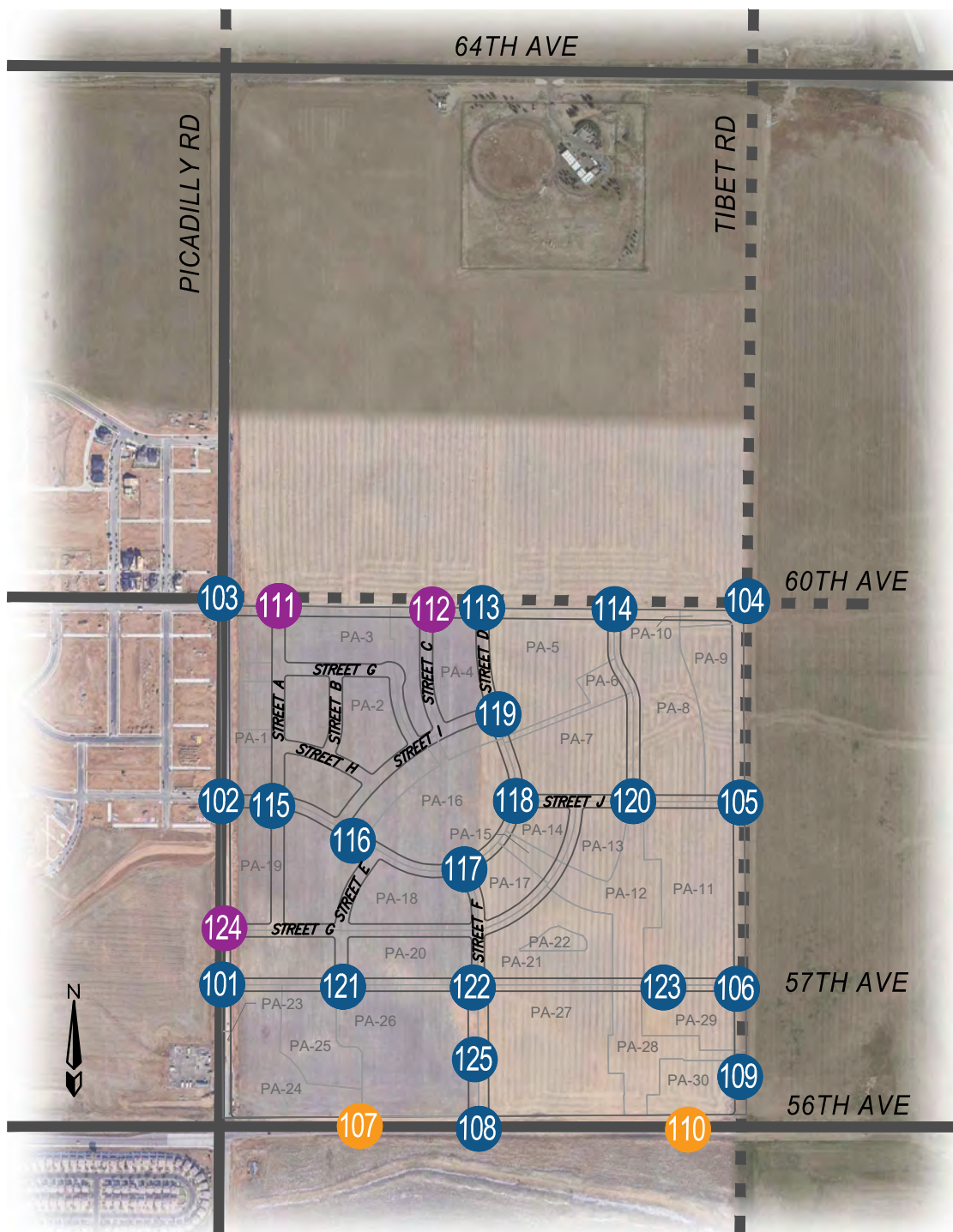
- **56th Avenue** – Widen to three lanes per direction.
- **64th Avenue** – Widen to three lanes per direction.
- **Picadilly Road** – Widen to three lanes per direction.
- **Tibet Road** – Constructed as a four-lane, minor arterial from south of 56th Avenue to north of 64th Avenue.
- **56th Avenue at Dunkirk Street** – Add second eastbound left-turn lane and add one eastbound right-turn lane. Add second westbound left-turn lane and add one westbound right-turn lane.
- **56th Avenue at Picadilly Road** – Signalize. Provide three through lanes on the east and west approaches (per *NEATS Refresh*). Provide three through lanes on the north and south approaches (per *NEATS Refresh*). Add dual left-turn lanes on each approach. Add one right-turn lane per approach.
- **56th Avenue at E-470 Southbound Ramps** – Signalize. Provide three through lanes on the east and west approaches (per *NEATS Refresh*). Add second westbound left-turn lane. Reconstruct off-ramp with dual southbound left-turn lanes and one southbound through lane.
- **56th Avenue at E-470 Southbound Ramps** – Signalize. Provide three through lanes on the east and west approaches (per *NEATS Refresh*). Reconstruct off-ramp with dual northbound left-turn lanes.
- **64th Avenue at Picadilly Road** – Signalize. Provide three through lanes on the east and west approaches (per *NEATS Refresh*). Provide three through lanes on the north and south approaches (per *NEATS Refresh*). Add dual left-turn lanes on each approach. Add one right-turn lane per approach.

Table 6: Land Use Assumptions

Planning Area (PA)	Previous PA (for reference only)	Land Use Type	Size
PA-2	PA-5	Single-Family Homes (Detached)	88 DU
PA-4	PA-3	Single-Family Homes (Detached)	21 DU
PA-5, 7, & 8	PA-2	Multi-Family Homes	300 DU
PA-11	PA-20	Multi-Family Homes	394 DU
		Commercial Retail	38,000 sq. ft.
PA-13 & 14, & 17	PA-16, 21, & 22	Townhomes	56 DU
PA-18	PA-8	Single-Family Homes (Detached)	54 DU
PA-20	PA-9	Townhomes	84 DU
PA-21	PA-15	Townhomes	57 DU
PA-26	PA-10	Commercial Retail	44,700 sq. ft.
		Supermarket	64,000 sq. ft.
		Gas Station with Convenience Store	12 fueling positions
		Car Wash	640 sq. ft.
PA-27	PA-12	Multi-Family Homes	407 DU
		Commercial Retail	56,000 sq. ft.
PA-29 & 30	PA-14 & 24	Multi-Family Homes	135 DU
		Commercial Retail	59,150 sq. ft.
		Fast-Food Restaurant	4,750 sq. ft.
Total Skydance Development			
	Single-Family Homes		163 DU
	Townhomes		197 DU
	Multi-Family Homes		1,236 DU
	Commercial		271,240 sq. ft.

Table 11 - Peak Hour Estimated Queues and Proposed Auxiliary Lanes

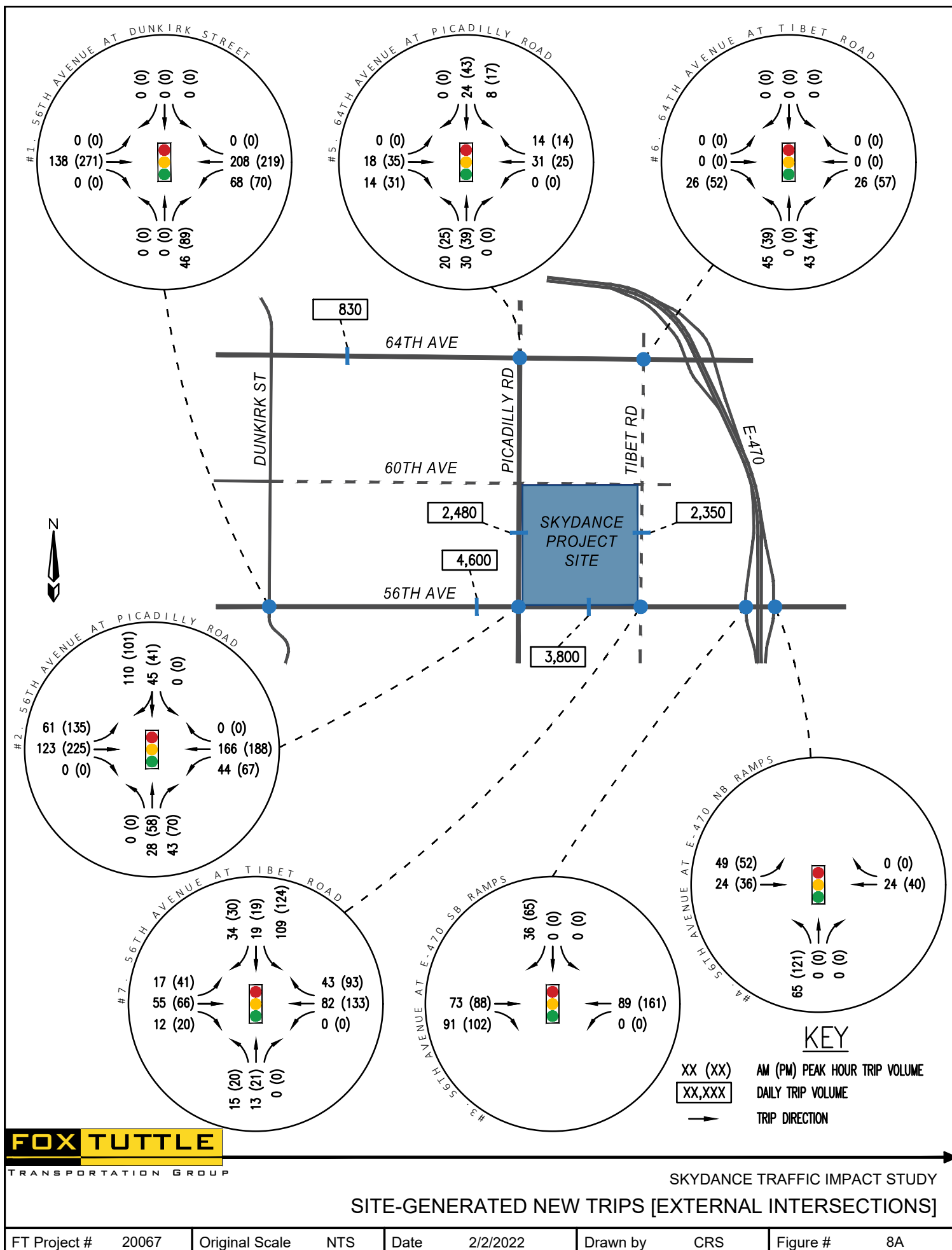
Intersection and Lanes Groups	2021 Existing		2030 Background		2030 Bkgrd + Project		2040 Background		2040 Bkgrd + Project		Max. Queue	CDOT SHAC Requirement (NR-B)				Proposed Future Storage
	95th % Q		95th % Q		95th % Q		95th % Q		95th % Q			Speed (mph)	Total (feet)	Storage (feet)	Taper (feet)	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM						
#107. 56th Avenue at PA-26 Access (3/4 mvmt)					Stop-Control (SB)				Stop-Control (SB)							
Eastbound Left					8'	23'			10'	43'	43'	45	435	273	162	273'
Southbound Right					5'	15'			5'	25'	25'	25	180	90	90	90'
#108. 56th Avenue at Street H					Signalized				Signalized							
Eastbound Left					142'	254'			127'	227'	227'	45	435	273	162	273'
Eastbound Through					116'	128'			216'	167'	-	-	-	-	-	-
Westbound Through					78'	111'			216'	384'	-	-	-	-	-	-
Westbound Right					7'	7'			26'	42'	42'	45	435	273	162	273'
Southbound Left					72'	122'			75'	120'	120'	30	250	154	96	154'
Southbound Right					44'	54'			46'	53'	53'	30	250	154	96	154'
#109. Tibet Road at PA-30 Access					Stop-Control (EB)				Stop-Control (EB)							
Eastbound Left+Right					3'	10'			5'	23'	23'	45	435	273	162	273'
Northbound Left					0'	3'			0'	3'	3'	30	250	154	96	154'
Northbound Through					0'	0'			0'	0'	0'	45	435	273	162	273'
Southbound Through+Right					0'	0'			0'	0'	0'	30	250	154	96	154'
#110. 56th Avenue at PA-30 Access (3/4 mvmt)					Stop-Control (SB)				Stop-Control (SB)							
Eastbound Left					3'	8'			5'	15'	15'	45	435	273	162	273'
Southbound Right					3'	5'			3'	8'	8'	30	250	154	96	154'
#111. 60th Avenue at Street A (RIRO)					Stop-Control (NB)				Stop-Control (NB)							
Northbound Right					0'	0'			0'	0'	-	-	-	-	-	-
#112. 60th Avenue at Street C (RIRO)					Stop-Control (NB/SB)				Stop-Control (NB/SB)							
Northbound Right					0'	0'			0'	0'	-	-	-	-	-	-
Southbound Right					5'	8'			13'	20'	-	-	-	-	-	-
#113. 60th Avenue at Street D					Stop-Control (NB/SB)				Stop-Control (NB/SB)							
Eastbound Left					0'	0'			0'	3'	3'	30	250	154	96	154'
Westbound Left					0'	0'			0'	0'	0'	30	250	154	96	154'
Northbound Left					3'	3'			5'	3'	5'	25	180	90	90	90'
Northbound Through+Right					0'	0'			3'	3'	-	-	-	-	-	-
Southbound Left					0'	0'			3'	0'	3'	25	180	90	90	90'
Southbound Through+Right					3'	3'			3'	3'	-	-	-	-	-	-
#114. 60th Avenue at PA-5 & PA-8 Access					Stop-Control (NB)				Stop-Control (NB)							
Westbound Left					0'	0'			0'	0'	0'	30	250	154	96	154'
Northbound Left+Right					3'	0'			3'	3'	-	-	-	-	-	-
#115. Street D at Street A					Stop-Control (SB)				Stop-Control (SB)							
Eastbound Left+Through+Right					0'	0'			0'	0'	-	-	-	-	-	-
Westbound Left+Through+Right					0'	0'			0'	0'	-	-	-	-	-	-
Northbound Left+Through+Right					3'	0'			3'	0'	-	-	-	-	-	-
Southbound Left+Through+Right					3'	0'			3'	0'	-	-	-	-	-	-
#116. Street D at Street I / Street E (offset)					Stop-Control (NB/SB)				Stop-Control (NB/SB)							
Eastbound Left+Through+Right					0'	0'			0'	0'	-	-	-	-	-	-
Westbound Left+Through+Right					0'	0'			0'	0'	-	-	-	-	-	-
Northbound Left+Through+Right					0'	0'			0'	0'	-	-	-	-	-	-
Southbound Left+Through+Right					3'	0'			3'	0'	-	-	-	-	-	-

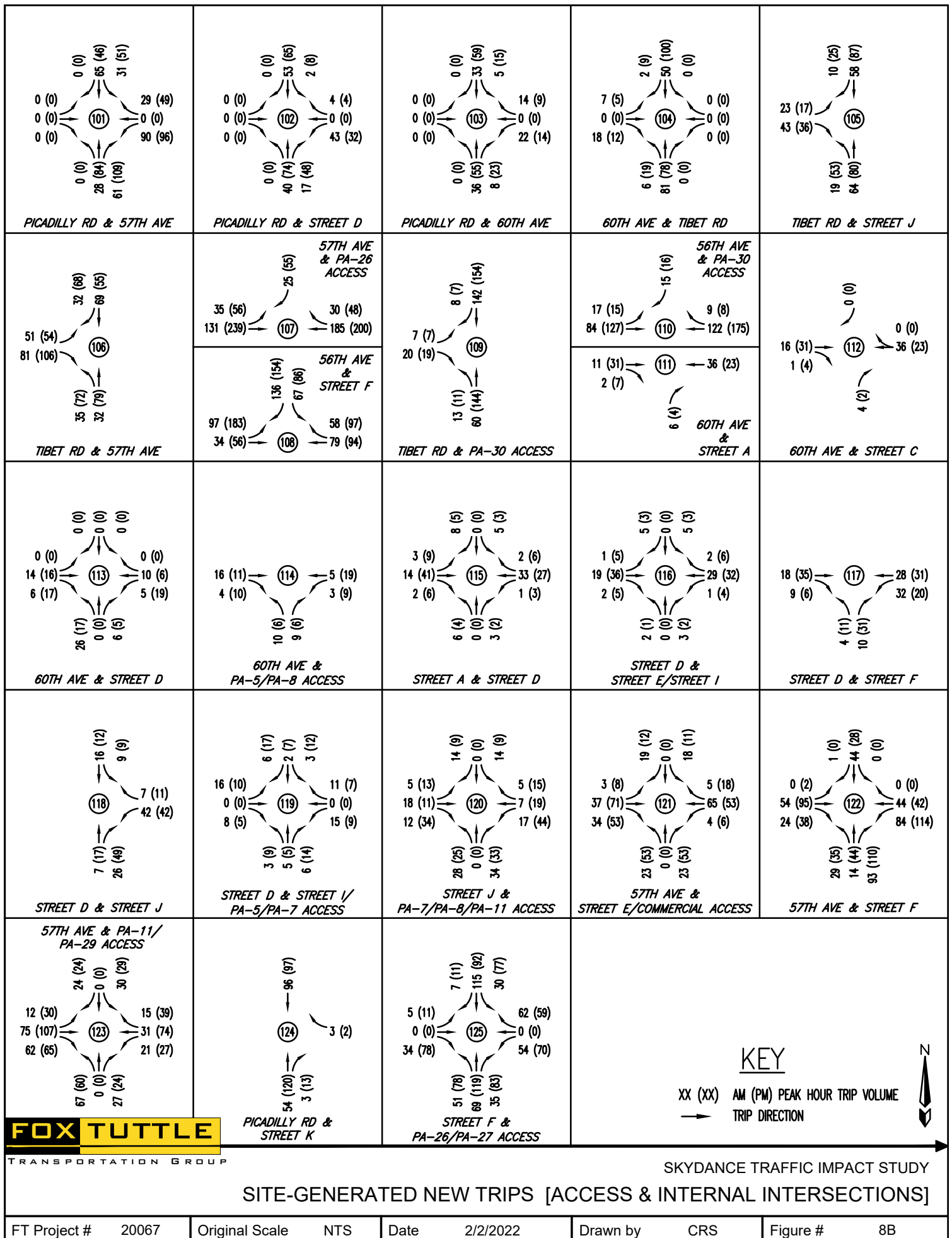


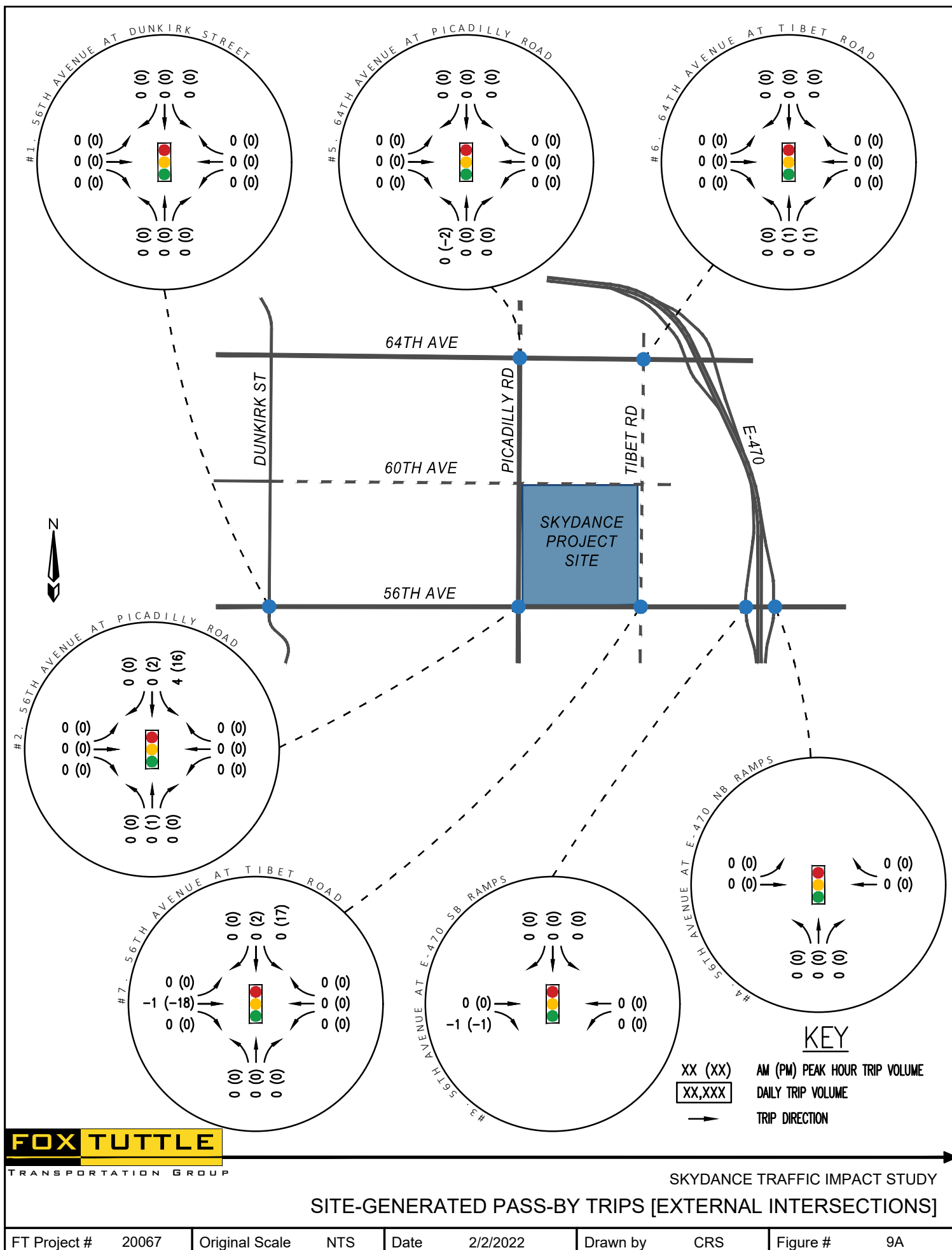
- PA-1 OPEN SPACE
- PA-2 SINGLE FAMILY DETACHED RESIDENTIAL
- PA-3 OPEN SPACE
- PA-4 SINGLE FAMILY DETACHED RESIDENTIAL
- PA-5 MULTI-FAMILY RESIDENTIAL
- PA-6 PARK
- PA-7 MULTI-FAMILY RESIDENTIAL
- PA-8 MULTI-FAMILY RESIDENTIAL
- PA-9 DETENTION
- PA-10 OPEN SPACE
- PA-11 MIXED USE COMMERCIAL
- PA-12 PARK
- PA-13 SINGLE FAMILY ATTACHED RESIDENTIAL
- PA-14 SINGLE FAMILY ATTACHED RESIDENTIAL
- PA-15 OPEN SPACE
- PA-16 PARK
- PA-17 SINGLE FAMILY ATTACHED RESIDENTIAL
- PA-18 SINGLE FAMILY DETACHED RESIDENTIAL
- PA-19 OPEN SPACE
- PA-20 SINGLE FAMILY ATTACHED RESIDENTIAL
- PA-21 SINGLE FAMILY ATTACHED RESIDENTIAL
- PA-22 OPEN SPACE
- PA-23 OPEN SPACE
- PA-24 DETENTION
- PA-25 DETENTION/ OPEN SPACE
- PA-26 COMMERCIAL
- PA-27 MIXED USE COMMERCIAL
- PA-28 PARK
- PA-29 MIXED USE COMMERCIAL
- PA-30 COMMERCIAL

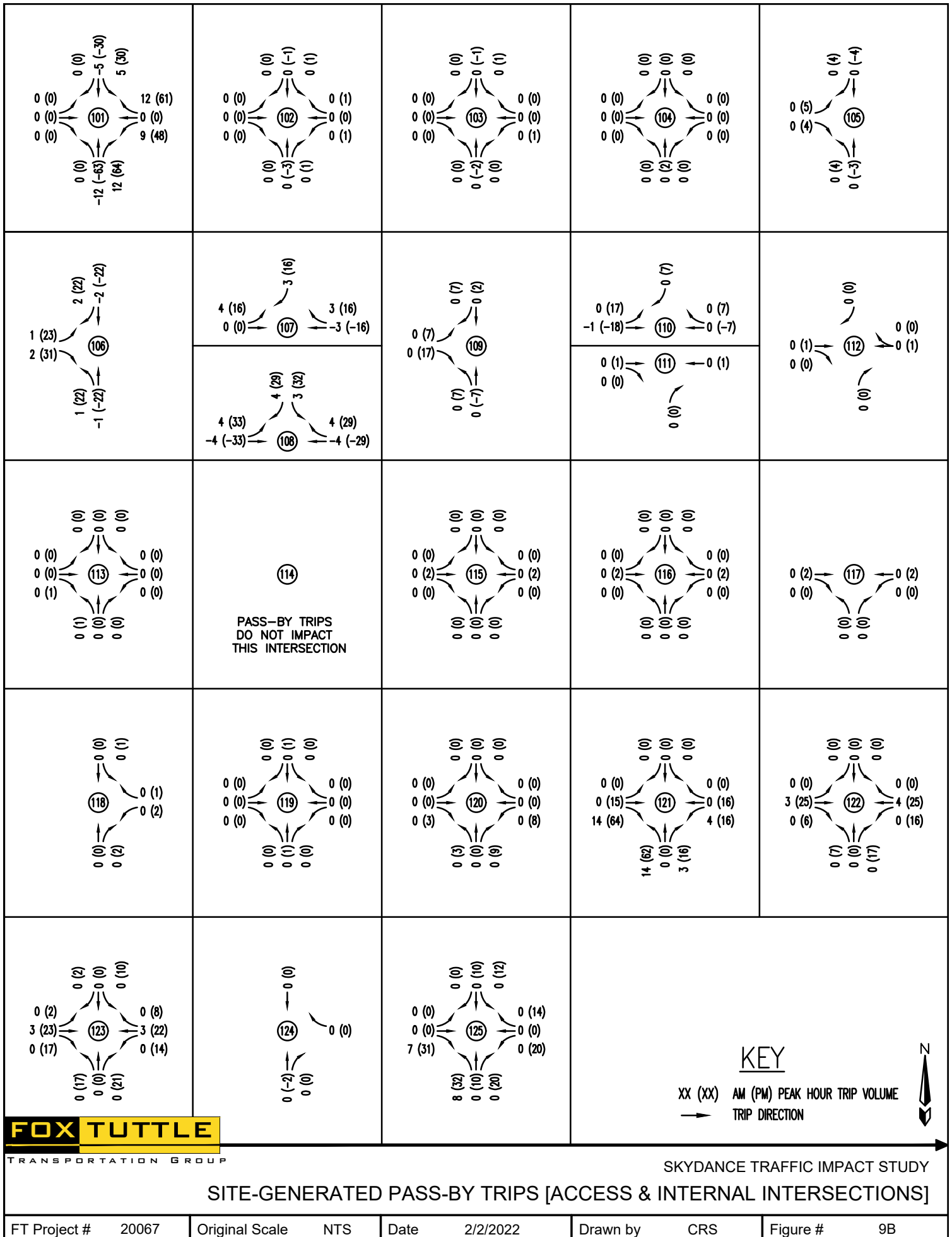
KEY

- # FULL MOVEMENT INTERSECTION
- # 3/4 MOVEMENT INTERSECTION
- # RI/RO MOVEMENT INTERSECTION





















APPENDIX F – Background (without site development) Synchro Outputs

Queues

1: Picadilly Rd & E 56th Ave























09/24/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	95	395	213	264	218	70	98	160	188	90	204	139
v/c Ratio	0.16	0.52	0.28	0.64	0.14	0.09	0.36	0.55	0.46	0.29	0.72	0.36
Control Delay (s/veh)	14.0	32.4	4.9	55.4	25.7	3.7	32.9	54.4	21.5	32.0	61.9	6.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	14.0	32.4	4.9	55.4	25.7	3.7	32.9	54.4	21.5	32.0	61.9	6.5
Queue Length 50th (ft)	31	228	0	102	60	0	63	127	6	51	152	0
Queue Length 95th (ft)	67	388	56	142	105	0	111	196	136	83	222	37
Internal Link Dist (ft)	2771			1527			510			1611		
Turn Bay Length (ft)	400			375		125	250		175	225		
Base Capacity (vph)	658	758	770	516	1610	809	312	434	513	353	434	495
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.52	0.28	0.51	0.14	0.09	0.31	0.37	0.37	0.25	0.47	0.28
Intersection Summary												

HCM 7th Signalized Intersection Summary






1: Picadilly Rd & E 56th Ave

09/24/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	87	363	196	243	201	64	90	147	173	83	188	128
Future Volume (veh/h)	87	363	196	243	201	64	90	147	173	83	188	128
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	95	395	213	264	218	70	98	160	188	90	204	139
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	659	878	744	334	1813	809	205	269	228	223	260	220
Arrive On Green	0.06	0.47	0.47	0.03	0.17	0.17	0.02	0.05	0.05	0.06	0.14	0.14
Sat Flow, veh/h	1781	1870	1585	3456	3554	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	95	395	213	264	218	70	98	160	188	90	204	139
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1728	1777	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	3.2	17.0	9.9	9.1	6.2	4.5	5.6	10.1	14.1	5.1	12.6	9.9
Cycle Q Clear(g_c), s	3.2	17.0	9.9	9.1	6.2	4.5	5.6	10.1	14.1	5.1	12.6	9.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	659	878	744	334	1813	809	205	269	228	223	260	220
V/C Ratio(X)	0.14	0.45	0.29	0.79	0.12	0.09	0.48	0.60	0.83	0.40	0.78	0.63
Avail Cap(c_a), veh/h	753	878	744	518	1813	809	288	436	370	315	436	370
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.99	0.99	0.99	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.3	21.4	19.5	56.9	27.0	26.3	43.1	53.7	55.7	41.3	49.9	48.8
Incr Delay (d2), s/veh	0.1	1.7	1.0	4.5	0.1	0.2	1.7	2.1	7.8	1.2	5.2	3.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	7.5	3.7	4.3	2.7	1.7	2.6	5.1	6.5	2.3	6.2	4.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	14.4	23.1	20.5	61.4	27.2	26.5	44.9	55.9	63.5	42.4	55.1	51.7
LnGrp LOS	B	C	C	E	C	C	D	E	E	D	E	D
Approach Vol, veh/h	703			552			446			433		
Approach Delay, s/veh	21.1			43.4			56.7			51.4		
Approach LOS	C			D			E			D		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	18.6	63.3	14.4	23.7	13.7	68.2	13.9	24.2				
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0				
Max Green Setting (Gmax), s	18.0	33.0	13.0	28.0	13.0	38.0	13.0	28.0				
Max Q Clear Time (g_c+I1), s	11.1	19.0	7.6	14.6	5.2	8.2	7.1	16.1				
Green Ext Time (p_c), s	0.5	2.5	0.1	1.2	0.1	1.5	0.1	1.1				
Intersection Summary												
HCM 7th Control Delay, s/veh	40.5											
HCM 7th LOS	D											

HCM 7th TWSC
2: Picadilly Rd & Maxwell PI

09/24/2024

Intersection						
Int Delay, s/veh	1.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	30	65	23	380	604	23
Future Vol, veh/h	30	65	23	380	604	23
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	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	33	71	25	413	657	25

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1120	657	682	0	-	0
Stage 1	657	-	-	-	-	-
Stage 2	463	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	229	465	911	-	-	-
Stage 1	516	-	-	-	-	-
Stage 2	634	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	222	465	911	-	-	-
Mov Cap-2 Maneuver	222	-	-	-	-	-
Stage 1	502	-	-	-	-	-
Stage 2	634	-	-	-	-	-










Approach	EB	NB	SB
HCM Control Delay, s/v	19.78	0.52	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	911	-	346	-	-
HCM Lane V/C Ratio	0.027	-	0.299	-	-
HCM Control Delay (s/veh)	9.1	-	19.8	-	-
HCM Lane LOS	A	-	C	-	-
HCM 95th %tile Q(veh)	0.1	-	1.2	-	-

Queues

3: Picadilly Rd & E 54th Ave/SW Site Access























09/24/2024

									
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	16	18	9	2	3	420	8	16	711
v/c Ratio	0.11	0.03	0.06	0.00	0.01	0.29	0.01	0.02	0.48
Control Delay (s/veh)	52.9	0.1	51.9	0.0	6.7	9.8	0.0	2.5	7.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	52.9	0.1	51.9	0.0	6.7	9.8	0.0	2.5	7.3
Queue Length 50th (ft)	12	0	7	0	0	68	0	1	109
Queue Length 95th (ft)	35	0	24	0	4	262	0	m3	619
Internal Link Dist (ft)		571		430		580			707
Turn Bay Length (ft)					125				
Base Capacity (vph)	191	675	398	759	586	1447	1266	799	1485
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.03	0.02	0.00	0.01	0.29	0.01	0.02	0.48
Intersection Summary									
m Volume for 95th percentile queue is metered by upstream signal.									

HCM 7th Signalized Intersection Summary

3: Picadilly Rd & E 54th Ave/SW Site Access






09/24/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	0	17	8	0	2	3	386	7	15	641	13
Future Volume (veh/h)	15	0	17	8	0	2	3	386	7	15	641	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	0	18	9	0	2	3	420	8	16	697	14
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	101	0	90	46	0	41	516	1235	1047	642	1241	25
Arrive On Green	0.06	0.00	0.06	0.03	0.00	0.03	0.01	0.66	0.66	0.03	0.90	0.90
Sat Flow, veh/h	1781	0	1585	1781	0	1585	1781	1870	1585	1781	1827	37
Grp Volume(v), veh/h	16	0	18	9	0	2	3	420	8	16	0	711
Grp Sat Flow(s),veh/h/ln	1781	0	1585	1781	0	1585	1781	1870	1585	1781	0	1864
Q Serve(g_s), s	1.0	0.0	1.3	0.6	0.0	0.1	0.1	11.8	0.2	0.3	0.0	9.0
Cycle Q Clear(g_c), s	1.0	0.0	1.3	0.6	0.0	0.1	0.1	11.8	0.2	0.3	0.0	9.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.02
Lane Grp Cap(c), veh/h	101	0	90	46	0	41	516	1235	1047	642	0	1266
V/C Ratio(X)	0.16	0.00	0.20	0.20	0.00	0.05	0.01	0.34	0.01	0.02	0.00	0.56
Avail Cap(c_a), veh/h	193	0	172	401	0	357	699	1235	1047	792	0	1266
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	53.9	0.0	54.0	57.3	0.0	57.0	6.9	8.9	7.0	6.6	0.0	2.3
Incr Delay (d2), s/veh	0.7	0.0	1.1	2.1	0.0	0.5	0.0	0.7	0.0	0.0	0.0	1.8
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(50%),veh/ln	0.5	0.0	0.5	0.3	0.0	0.1	0.0	4.6	0.1	0.1	0.0	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	54.6	0.0	55.1	59.3	0.0	57.5	6.9	9.7	7.0	6.6	0.0	4.1
LnGrp LOS	D		E	E		E	A	A	A	A		A
Approach Vol, veh/h	34			11			431			727		
Approach Delay, s/veh	54.9			59.0			9.6			4.2		
Approach LOS	D			E			A			A		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.9	86.3		13.8	7.7	88.5		10.1				
Change Period (Y+Rc), s	7.0	7.0		7.0	7.0	7.0		7.0				
Max Green Setting (Gmax), s	13.0	39.0		13.0	13.0	39.0		27.0				
Max Q Clear Time (g_c+I1), s	2.3	13.8		3.3	2.1	11.0		2.6				
Green Ext Time (p_c), s	0.0	2.5		0.0	0.0	5.1		0.0				
Intersection Summary												
HCM 7th Control Delay, s/veh	8.0											
HCM 7th LOS	A											

Queues

4: Road A & E 56th Ave

09/24/2024

					
Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	673	88	541	11	20
v/c Ratio	0.18	0.14	0.17	0.07	0.13
Control Delay (s/veh)	1.8	2.6	2.1	52.1	22.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	1.8	2.6	2.1	52.1	22.2
Queue Length 50th (ft)	68	12	42	8	0
Queue Length 95th (ft)	2	21	55	27	25
Internal Link Dist (ft)	1527		1121	547	
Turn Bay Length (ft)		325		75	
Base Capacity (vph)	3749	732	3114	413	384
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.18	0.12	0.17	0.03	0.05
Intersection Summary					

HCM 7th Signalized Intersection Summary

4: Road A & E 56th Ave













09/24/2024

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑		↘	↑↑	↘	↗
Traffic Volume (veh/h)	610	9	81	498	10	18
Future Volume (veh/h)	610	9	81	498	10	18
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	663	10	88	541	11	20
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	3711	56	701	2948	96	85
Arrive On Green	0.95	0.95	0.06	0.83	0.05	0.05
Sat Flow, veh/h	5351	78	1781	3647	1781	1585
Grp Volume(v), veh/h	435	238	88	541	11	20
Grp Sat Flow(s),veh/h/ln	1702	1856	1781	1777	1781	1585
Q Serve(g_s), s	0.9	0.9	1.3	3.7	0.7	1.5
Cycle Q Clear(g_c), s	0.9	0.9	1.3	3.7	0.7	1.5
Prop In Lane		0.04	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2438	1329	701	2948	96	85
V/C Ratio(X)	0.18	0.18	0.13	0.18	0.12	0.24
Avail Cap(c_a), veh/h	2438	1329	869	2948	416	370
HCM Platoon Ratio	1.33	1.33	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.88	0.88	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.8	0.8	2.9	2.1	54.1	54.4
Incr Delay (d2), s/veh	0.1	0.3	0.1	0.1	0.5	1.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.4	0.3	0.7	0.3	0.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	1.0	1.1	3.0	2.2	54.6	55.8
LnGrp LOS	A	A	A	A	D	E
Approach Vol, veh/h	673			629	31	
Approach Delay, s/veh	1.0			2.3	55.4	
Approach LOS	A			A	E	
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	13.6	92.9			106.6	13.4
Change Period (Y+Rc), s	7.0	7.0			7.0	7.0
Max Green Setting (Gmax), s	18.0	53.0			78.0	28.0
Max Q Clear Time (g_c+I1), s	3.3	2.9			5.7	3.5
Green Ext Time (p_c), s	0.1	2.3			1.9	0.1
Intersection Summary						
HCM 7th Control Delay, s/veh			2.9			
HCM 7th LOS			A			

Queues

1: Picadilly Rd & E 56th Ave























09/24/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	164	280	170	330	373	120	124	221	226	54	173	136
v/c Ratio	0.30	0.38	0.23	0.69	0.24	0.15	0.41	0.63	0.47	0.20	0.66	0.37
Control Delay (s/veh)	14.9	30.6	5.5	55.7	25.6	6.0	37.8	57.5	17.8	30.6	60.5	6.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	14.9	30.6	5.5	55.7	25.6	6.0	37.8	57.5	17.8	30.6	60.5	6.5
Queue Length 50th (ft)	55	154	0	127	92	0	72	161	0	30	129	0
Queue Length 95th (ft)	106	273	52	170	184	48	141	265	143	56	191	34
Internal Link Dist (ft)	2771			1527			510			1611		
Turn Bay Length (ft)	400			375		125	250		175	225		
Base Capacity (vph)	586	732	725	534	1564	791	319	434	542	334	434	495
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.38	0.23	0.62	0.24	0.15	0.39	0.51	0.42	0.16	0.40	0.27
Intersection Summary												

HCM 7th Signalized Intersection Summary






1: Picadilly Rd & E 56th Ave

09/24/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	151	258	156	304	343	110	114	203	208	50	159	125
Future Volume (veh/h)	151	258	156	304	343	110	114	203	208	50	159	125
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	164	280	170	330	373	120	124	221	226	54	173	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	533	811	687	399	1708	762	253	316	268	197	267	226
Arrive On Green	0.07	0.43	0.43	0.04	0.16	0.16	0.02	0.06	0.06	0.05	0.14	0.14
Sat Flow, veh/h	1781	1870	1585	3456	3554	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	164	280	170	330	373	120	124	221	226	54	173	136
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1728	1777	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	6.1	12.0	8.2	11.4	11.0	7.8	7.1	13.9	17.0	3.0	10.5	9.7
Cycle Q Clear(g_c), s	6.1	12.0	8.2	11.4	11.0	7.8	7.1	13.9	17.0	3.0	10.5	9.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	533	811	687	399	1708	762	253	316	268	197	267	226
V/C Ratio(X)	0.31	0.35	0.25	0.83	0.22	0.16	0.49	0.70	0.84	0.27	0.65	0.60
Avail Cap(c_a), veh/h	605	811	687	518	1708	762	312	436	370	303	436	370
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.98	0.98	0.98	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.6	22.7	21.6	56.5	30.8	29.5	42.2	53.7	55.1	41.0	48.6	48.2
Incr Delay (d2), s/veh	0.3	1.2	0.9	8.2	0.3	0.4	1.5	2.9	12.1	0.7	2.6	2.6
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(50%),veh/ln	2.4	5.3	3.1	5.6	5.1	3.2	3.3	7.2	8.1	1.4	5.0	3.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	16.9	23.8	22.4	64.7	31.1	29.9	43.6	56.6	67.2	41.7	51.2	50.8
LnGrp LOS	B	C	C	E	C	C	D	E	E	D	D	D
Approach Vol, veh/h	614			823			571			363		
Approach Delay, s/veh	21.6			44.4			58.0			49.7		
Approach LOS	C			D			E			D		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	20.9	59.0	16.0	24.1	15.2	64.7	12.8	27.3				
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0				
Max Green Setting (Gmax), s	18.0	33.0	13.0	28.0	13.0	38.0	13.0	28.0				
Max Q Clear Time (g_c+I1), s	13.4	14.0	9.1	12.5	8.1	13.0	5.0	19.0				
Green Ext Time (p_c), s	0.5	1.9	0.1	1.1	0.2	2.6	0.0	1.3				
Intersection Summary												
HCM 7th Control Delay, s/veh	42.6											
HCM 7th LOS	D											

HCM 7th TWSC
2: Picadilly Rd & Maxwell PI

09/24/2024

Intersection						
Int Delay, s/veh	1.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	26	27	52	499	592	27
Future Vol, veh/h	26	27	52	499	592	27
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	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	28	29	57	542	643	29

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1299	643	673	0	-	0
Stage 1	643	-	-	-	-	-
Stage 2	655	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	178	473	918	-	-	-
Stage 1	523	-	-	-	-	-
Stage 2	517	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	167	473	918	-	-	-
Mov Cap-2 Maneuver	167	-	-	-	-	-
Stage 1	491	-	-	-	-	-
Stage 2	517	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v23.72		0.87	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	918	-	249	-	-
HCM Lane V/C Ratio	0.062	-	0.231	-	-
HCM Control Delay (s/veh)	9.2	-	23.7	-	-
HCM Lane LOS	A	-	C	-	-
HCM 95th %tile Q(veh)	0.2	-	0.9	-	-

Queues

3: Picadilly Rd & E 54th Ave/SW Site Access

09/24/2024



Lane Group	EBL	EBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	8	11	26	591	8	18	655
v/c Ratio	0.05	0.02	0.04	0.36	0.01	0.03	0.42
Control Delay (s/veh)	51.7	0.0	2.1	5.3	0.0	0.6	4.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	51.7	0.0	2.1	5.3	0.0	0.6	4.2
Queue Length 50th (ft)	6	0	0	0	0	0	132
Queue Length 95th (ft)	22	0	9	267	0	m1	133
Internal Link Dist (ft)		571		580			707
Turn Bay Length (ft)			125				
Base Capacity (vph)	191	698	719	1627	1403	789	1558
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.02	0.04	0.36	0.01	0.02	0.42























Intersection Summary

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

HCM 7th Signalized Intersection Summary

3: Picadilly Rd & E 54th Ave/SW Site Access






09/24/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	0	10	0	0	0	24	544	7	17	593	9
Future Volume (veh/h)	7	0	10	0	0	0	24	544	7	17	593	9
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	0	11	0	0	0	26	591	8	18	645	10
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	70	0	62	1	2	0	705	1421	1204	638	1381	21
Arrive On Green	0.04	0.00	0.04	0.00	0.00	0.00	0.03	0.76	0.76	0.04	1.00	1.00
Sat Flow, veh/h	1781	0	1585	1781	1870	0	1781	1870	1585	1781	1837	28
Grp Volume(v), veh/h	8	0	11	0	0	0	26	591	8	18	0	655
Grp Sat Flow(s),veh/h/ln	1781	0	1585	1781	1870	0	1781	1870	1585	1781	0	1865
Q Serve(g_s), s	0.5	0.0	0.8	0.0	0.0	0.0	0.4	13.3	0.1	0.3	0.0	0.0
Cycle Q Clear(g_c), s	0.5	0.0	0.8	0.0	0.0	0.0	0.4	13.3	0.1	0.3	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	1.00		0.02
Lane Grp Cap(c), veh/h	70	0	62	1	2	0	705	1421	1204	638	0	1403
V/C Ratio(X)	0.11	0.00	0.18	0.00	0.00	0.00	0.04	0.42	0.01	0.03	0.00	0.47
Avail Cap(c_a), veh/h	193	0	172	401	421	0	838	1421	1204	784	0	1403
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	55.6	0.0	55.8	0.0	0.0	0.0	2.8	5.1	3.5	3.6	0.0	0.0
Incr Delay (d2), s/veh	0.7	0.0	1.3	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	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(50%),veh/ln	0.2	0.0	0.3	0.0	0.0	0.0	0.1	4.4	0.0	0.1	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	56.4	0.0	57.1	0.0	0.0	0.0	2.8	6.0	3.5	3.6	0.0	1.1
LnGrp LOS	E		E				A	A	A	A		A
Approach Vol, veh/h	19			0			625			673		
Approach Delay, s/veh	56.8			0.0			5.8			1.2		
Approach LOS	E						A			A		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.2	98.1		11.7	11.1	97.3		0.0				
Change Period (Y+Rc), s	7.0	7.0		7.0	7.0	7.0		7.0				
Max Green Setting (Gmax), s	13.0	39.0		13.0	13.0	39.0		27.0				
Max Q Clear Time (g_c+I1), s	2.3	15.3		2.8	2.4	2.0		0.0				
Green Ext Time (p_c), s	0.0	3.8		0.0	0.0	4.7		0.0				
Intersection Summary												
HCM 7th Control Delay, s/veh	4.2											
HCM 7th LOS	A											

Queues

4: Road A & E 56th Ave

09/24/2024

					
Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	561	98	822	1	1
v/c Ratio	0.14	0.13	0.24	0.01	0.01
Control Delay (s/veh)	0.9	1.4	1.0	51.0	39.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	0.9	1.4	1.0	51.0	39.0
Queue Length 50th (ft)	8	1	0	1	0
Queue Length 95th (ft)	7	23	88	7	6
Internal Link Dist (ft)	1527		1121	547	
Turn Bay Length (ft)		325		75	
Base Capacity (vph)	4031	834	3397	413	370
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.14	0.12	0.24	0.00	0.00
Intersection Summary					

HCM 7th Signalized Intersection Summary

4: Road A & E 56th Ave













09/24/2024

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑		↘	↑↑	↘	↗
Traffic Volume (veh/h)	506	10	90	756	1	1
Future Volume (veh/h)	506	10	90	756	1	1
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	550	11	98	822	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	3934	78	808	3120	10	9
Arrive On Green	1.00	1.00	0.06	0.88	0.01	0.01
Sat Flow, veh/h	5321	103	1781	3647	1781	1585
Grp Volume(v), veh/h	363	198	98	822	1	1
Grp Sat Flow(s),veh/h/ln	1702	1852	1781	1777	1781	1585
Q Serve(g_s), s	0.0	0.0	1.1	4.4	0.1	0.1
Cycle Q Clear(g_c), s	0.0	0.0	1.1	4.4	0.1	0.1
Prop In Lane		0.06	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2599	1414	808	3120	10	9
V/C Ratio(X)	0.14	0.14	0.12	0.26	0.10	0.12
Avail Cap(c_a), veh/h	2599	1414	975	3120	416	370
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.92	0.92	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	1.7	1.2	59.4	59.4
Incr Delay (d2), s/veh	0.1	0.2	0.1	0.2	4.7	6.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.1	0.2	0.4	0.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	0.1	0.2	1.8	1.4	64.1	65.4
LnGrp LOS	A	A	A	A	E	E
Approach Vol, veh/h	561			920	2	
Approach Delay, s/veh	0.1			1.4	64.7	
Approach LOS	A			A	E	
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	13.7	98.6			112.4	7.6
Change Period (Y+Rc), s	7.0	7.0			7.0	7.0
Max Green Setting (Gmax), s	18.0	53.0			78.0	28.0
Max Q Clear Time (g_c+I1), s	3.1	2.0			6.4	2.1
Green Ext Time (p_c), s	0.2	1.9			3.1	0.0
Intersection Summary						
HCM 7th Control Delay, s/veh			1.0			
HCM 7th LOS			A			

Queues

1: Picadilly Rd & E 56th Ave

09/24/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	372	1248	622	716	791	158	290	516	542	214	664	567
v/c Ratio	0.56	0.87	0.82	0.91	0.49	0.27	0.71	0.55	0.69	0.71	0.76	0.80
Control Delay (s/veh)	53.3	56.3	39.5	87.3	33.1	7.1	62.0	61.8	40.5	48.9	61.5	38.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	53.3	56.3	39.5	87.3	33.1	7.1	62.0	61.8	40.5	48.9	61.5	38.5
Queue Length 50th (ft)	157	408	436	356	113	6	131	172	242	143	213	379
Queue Length 95th (ft)	197	#496	619	#477	175	54	182	225	483	208	254	476
Internal Link Dist (ft)		2771			802			510			1611	
Turn Bay Length (ft)	400			375		125	250		175	225		
Base Capacity (vph)	858	1427	773	790	1608	596	441	1089	782	306	980	790
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.43	0.87	0.80	0.91	0.49	0.27	0.66	0.47	0.69	0.70	0.68	0.72

Intersection Summary























95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

HCM 7th Signalized Intersection Summary





1: Picadilly Rd & E 56th Ave

09/24/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	342	1148	572	659	728	145	267	475	499	197	611	522
Future Volume (veh/h)	342	1148	572	659	728	145	267	475	499	197	611	522
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	372	1248	622	716	791	158	290	516	542	214	664	567
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	442	1350	579	741	1792	556	347	1094	679	304	1127	552
Arrive On Green	0.13	0.26	0.26	0.36	0.59	0.59	0.03	0.07	0.07	0.11	0.22	0.22
Sat Flow, veh/h	3456	5106	1585	3456	5106	1585	3456	5106	1585	1781	5106	1585
Grp Volume(v), veh/h	372	1248	622	716	791	158	290	516	542	214	664	567
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1702	1585	1728	1702	1585	1781	1702	1585
Q Serve(g_s), s	14.7	33.3	37.0	28.5	12.1	6.9	11.7	13.6	30.0	13.0	16.3	30.9
Cycle Q Clear(g_c), s	14.7	33.3	37.0	28.5	12.1	6.9	11.7	13.6	30.0	13.0	16.3	30.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	442	1350	579	741	1792	556	347	1094	679	304	1127	552
V/C Ratio(X)	0.84	0.92	1.08	0.97	0.44	0.28	0.83	0.47	0.80	0.70	0.59	1.03
Avail Cap(c_a), veh/h	864	1350	579	741	1792	556	444	1094	679	305	1127	552
HCM Platoon Ratio	1.00	1.00	1.00	1.67	1.67	1.67	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.7	50.1	44.4	44.5	21.3	20.2	66.5	57.4	39.5	37.8	48.9	45.6
Incr Delay (d2), s/veh	4.4	12.0	59.2	25.1	0.8	1.3	10.5	0.3	6.7	7.1	0.8	45.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.6	15.3	29.0	13.0	4.2	2.6	5.9	6.3	16.6	6.2	7.0	25.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	64.1	62.1	103.7	69.5	22.1	21.5	77.0	57.7	46.2	44.8	49.7	90.8
LnGrp LOS	E	E	F	E	C	C	E	E	D	D	D	F
Approach Vol, veh/h	2242			1665			1348			1445		
Approach Delay, s/veh	74.0			42.5			57.2			65.1		
Approach LOS	E			D			E			E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	37.0	44.0	21.1	37.9	24.9	56.1	22.0	37.0				
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0				
Max Green Setting (Gmax), s	30.0	37.0	18.0	27.0	35.0	32.0	15.0	30.0				
Max Q Clear Time (g_c+I1), s	30.5	39.0	13.7	32.9	16.7	14.1	15.0	32.0				
Green Ext Time (p_c), s	0.0	0.0	0.4	0.0	1.2	5.2	0.0	0.0				
Intersection Summary												
HCM 7th Control Delay, s/veh	60.9											
HCM 7th LOS	E											

HCM 7th TWSC
2: Picadilly Rd & Maxwell PI

09/24/2024

Intersection						
Int Delay, s/veh	13.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	30	65	23	1211	1819	23
Future Vol, veh/h	30	65	23	1211	1819	23
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	33	71	25	1316	1977	25

Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	2566	1001	2002	0	-	0
Stage 1	1990	-	-	-	-	-
Stage 2	577	-	-	-	-	-
Critical Hdwy	5.74	7.14	5.34	-	-	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-	-
Follow-up Hdwy	3.82	3.92	3.12	-	-	-
Pot Cap-1 Maneuver	46	207	125	-	-	-
Stage 1	58	-	-	-	-	-
Stage 2	479	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	34	207	125	-	-	-
Mov Cap-2 Maneuver	34	-	-	-	-	-
Stage 1	42	-	-	-	-	-
Stage 2	479	-	-	-	-	-









Approach	EB	NB	SB
HCM Control Delay, s/297.19		10.8	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	95	-	79	-	-
HCM Lane V/C Ratio	0.2	-	1.307	-	-
HCM Control Delay (s/veh)	41	10.2	297.2	-	-
HCM Lane LOS	E	B	F	-	-
HCM 95th %tile Q(veh)	0.7	-	7.9	-	-

Queues

3: Picadilly Rd & E 54th Ave/SW Site Access

























09/24/2024

								
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	16	18	9	2	3	1331	16	2031
v/c Ratio	0.13	0.04	0.07	0.00	0.02	0.32	0.05	0.48
Control Delay (s/veh)	63.5	0.1	62.1	0.0	6.0	7.7	3.9	5.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	63.5	0.1	62.1	0.0	6.0	7.7	3.9	5.7
Queue Length 50th (ft)	14	0	8	0	0	82	2	99
Queue Length 95th (ft)	39	0	27	0	4	258	m4	415
Internal Link Dist (ft)		571		430		580		707
Turn Bay Length (ft)					125			
Base Capacity (vph)	164	531	341	556	265	4107	405	4209
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.10	0.03	0.03	0.00	0.01	0.32	0.04	0.48
Intersection Summary								
m Volume for 95th percentile queue is metered by upstream signal.								

HCM 7th Signalized Intersection Summary

3: Picadilly Rd & E 54th Ave/SW Site Access










09/24/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations								  			  	
Traffic Volume (veh/h)	15	0	17	8	0	2	3	1217	7	15	1856	13
Future Volume (veh/h)	15	0	17	8	0	2	3	1217	7	15	1856	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	0	18	9	0	2	3	1323	8	16	2017	14
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	93	0	83	44	0	39	203	3664	22	339	3752	26
Arrive On Green	0.05	0.00	0.05	0.02	0.00	0.02	0.01	0.70	0.70	0.03	0.95	0.95
Sat Flow, veh/h	1781	0	1585	1781	0	1585	1781	5237	32	1781	5232	36
Grp Volume(v), veh/h	16	0	18	9	0	2	3	860	471	16	1312	719
Grp Sat Flow(s),veh/h/ln	1781	0	1585	1781	0	1585	1781	1702	1865	1781	1702	1864
Q Serve(g_s), s	1.2	0.0	1.5	0.7	0.0	0.2	0.1	14.2	14.2	0.4	5.1	5.1
Cycle Q Clear(g_c), s	1.2	0.0	1.5	0.7	0.0	0.2	0.1	14.2	14.2	0.4	5.1	5.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.02	1.00		0.02
Lane Grp Cap(c), veh/h	93	0	83	44	0	39	203	2381	1304	339	2442	1337
V/C Ratio(X)	0.17	0.00	0.22	0.20	0.00	0.05	0.01	0.36	0.36	0.05	0.54	0.54
Avail Cap(c_a), veh/h	165	0	147	344	0	306	359	2381	1304	463	2442	1337
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33
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	63.4	0.0	63.6	66.9	0.0	66.6	6.1	8.5	8.5	6.1	1.0	1.0
Incr Delay (d2), s/veh	0.9	0.0	1.3	2.2	0.0	0.5	0.0	0.4	0.8	0.1	0.9	1.6
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(50%),veh/ln	0.6	0.0	0.6	0.3	0.0	0.1	0.0	4.9	5.5	0.1	1.2	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	64.3	0.0	64.9	69.1	0.0	67.2	6.2	8.9	9.2	6.2	1.9	2.6
LnGrp LOS	E		E	E		E	A	A	A	A	A	A
Approach Vol, veh/h	34			11			1334			2047		
Approach Delay, s/veh	64.6			68.8			9.0			2.2		
Approach LOS	E			E			A			A		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.2	104.9		14.3	7.8	107.4		10.5				
Change Period (Y+Rc), s	7.0	7.0		7.0	7.0	7.0		7.0				
Max Green Setting (Gmax), s	13.0	59.0		13.0	13.0	59.0		27.0				
Max Q Clear Time (g_c+I1), s	2.4	16.2		3.5	2.1	7.1		2.7				
Green Ext Time (p_c), s	0.0	11.2		0.0	0.0	23.9		0.0				
Intersection Summary												
HCM 7th Control Delay, s/veh	5.7											
HCM 7th LOS	A											

Queues

4: Road A & E 56th Ave

09/24/2024

									
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	110	1852	88	1508	67	11	20	76	152
v/c Ratio	0.42	0.58	0.43	0.47	0.06	0.08	0.06	0.40	0.32
Control Delay (s/veh)	17.1	14.7	16.0	15.4	0.1	46.4	0.3	55.6	1.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	17.1	14.7	16.0	15.4	0.1	46.4	0.3	55.6	1.8
Queue Length 50th (ft)	34	286	23	281	0	8	0	58	0
Queue Length 95th (ft)	m52	350	55	357	0	26	0	105	0
Internal Link Dist (ft)		645		1121			547		102
Turn Bay Length (ft)	325		325		200	75			
Base Capacity (vph)	314	3213	254	3220	1054	217	529	211	583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.35	0.58	0.35	0.47	0.06	0.05	0.04	0.36	0.26

























Intersection Summary

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

HCM 7th Signalized Intersection Summary






4: Road A & E 56th Ave

09/24/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  							
Traffic Volume (veh/h)	101	1695	9	81	1387	62	10	0	18	70	0	140
Future Volume (veh/h)	101	1695	9	81	1387	62	10	0	18	70	0	140
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	110	1842	10	88	1508	67	11	0	20	76	0	152
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	290	3266	18	292	3177	986	103	0	123	234	0	176
Arrive On Green	0.10	1.00	1.00	0.05	0.62	0.62	0.02	0.00	0.08	0.05	0.00	0.11
Sat Flow, veh/h	1781	5241	28	1781	5106	1585	1781	0	1585	1781	0	1585
Grp Volume(v), veh/h	110	1196	656	88	1508	67	11	0	20	76	0	152
Grp Sat Flow(s),veh/h/ln	1781	1702	1865	1781	1702	1585	1781	0	1585	1781	0	1585
Q Serve(g_s), s	3.1	0.0	0.0	2.4	22.2	2.3	0.8	0.0	1.7	5.4	0.0	13.2
Cycle Q Clear(g_c), s	3.1	0.0	0.0	2.4	22.2	2.3	0.8	0.0	1.7	5.4	0.0	13.2
Prop In Lane	1.00		0.02	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	290	2121	1162	292	3177	986	103	0	123	234	0	176
V/C Ratio(X)	0.38	0.56	0.56	0.30	0.47	0.07	0.11	0.00	0.16	0.33	0.00	0.86
Avail Cap(c_a), veh/h	368	2121	1162	372	3177	986	238	0	317	309	0	317
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	10.1	0.0	0.0	8.0	14.2	10.4	57.9	0.0	60.3	55.6	0.0	61.2
Incr Delay (d2), s/veh	0.8	1.1	2.0	0.6	0.5	0.1	0.4	0.0	0.6	0.8	0.0	11.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.3	0.6	0.9	8.1	0.9	0.4	0.0	0.7	2.5	0.0	5.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	10.9	1.1	2.0	8.6	14.7	10.6	58.4	0.0	60.9	56.4	0.0	72.9
LnGrp LOS	B	A	A	A	B	B	E		E	E		E
Approach Vol, veh/h	1962			1663			31			228		
Approach Delay, s/veh	1.9			14.2			60.0			67.4		
Approach LOS	A			B			E			E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.8	94.2	14.1	17.9	13.9	94.1	9.4	22.5				
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0				
Max Green Setting (Gmax), s	13.0	58.0	13.0	28.0	13.0	58.0	13.0	28.0				
Max Q Clear Time (g_c+I1), s	4.4	2.0	7.4	3.7	5.1	24.2	2.8	15.2				
Green Ext Time (p_c), s	0.1	9.3	0.1	0.0	0.1	7.2	0.0	0.3				
Intersection Summary												
HCM 7th Control Delay, s/veh	11.5											
HCM 7th LOS	B											

HCM 7th TWSC
5: E 56th Ave & Skydance Access

09/24/2024

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	39	1805	1504	33	0	28
Future Vol, veh/h	39	1805	1504	33	0	28
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	250	-	-	200	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	42	1962	1635	36	0	30

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	1671	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	5.34	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	3.12	-	-
Pot Cap-1 Maneuver	183	-	0
Stage 1	-	-	0
Stage 2	-	-	0
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	183	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-













Approach	EB	WB	SB
HCM Control Delay, s/v	0.64	0	19.76
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	183	-	-	-	274
HCM Lane V/C Ratio	0.231	-	-	-	0.111
HCM Control Delay (s/veh)	30.5	-	-	-	19.8
HCM Lane LOS	D	-	-	-	C
HCM 95th %tile Q(veh)	0.9	-	-	-	0.4

Queues

1: Picadilly Rd & E 56th Ave

09/25/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	676	1042	489	850	1324	296	368	785	677	143	573	547
v/c Ratio	0.88	0.87	0.66	0.90	0.91	0.54	0.83	0.78	0.77	0.64	0.70	0.71
Control Delay (s/veh)	66.5	61.2	28.3	82.9	53.5	27.1	69.6	71.5	27.8	46.2	60.2	29.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	66.5	61.2	28.3	82.9	53.5	27.1	69.6	71.5	27.8	46.2	60.2	29.6
Queue Length 50th (ft)	310	343	262	422	337	70	169	271	277	92	182	306
Queue Length 95th (ft)	#460	#427	394	#553	#508	243	#235	326	366	141	219	453
Internal Link Dist (ft)	2771			762			510			1611		
Turn Bay Length (ft)	400				375	125	250				175	225
Base Capacity (vph)	767	1191	746	944	1454	552	465	1125	877	251	980	766
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.88	0.87	0.66	0.90	0.91	0.54	0.79	0.70	0.77	0.57	0.58	0.71

Intersection Summary























95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

HCM 7th Signalized Intersection Summary




1: Picadilly Rd & E 56th Ave

09/25/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	622	959	450	782	1218	272	339	722	623	132	527	503
Future Volume (veh/h)	622	959	450	782	1218	272	339	722	623	132	527	503
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	676	1042	489	850	1324	296	368	785	677	143	573	547
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	666	1199	566	864	1491	463	423	1209	772	223	985	611
Arrive On Green	0.19	0.23	0.23	0.08	0.10	0.10	0.04	0.08	0.08	0.08	0.19	0.19
Sat Flow, veh/h	3456	5106	1585	3456	5106	1585	3456	5106	1585	1781	5106	1585
Grp Volume(v), veh/h	676	1042	489	850	1324	296	368	785	677	143	573	547
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1702	1585	1728	1702	1585	1781	1702	1585
Q Serve(g_s), s	27.0	27.5	32.9	34.4	35.9	25.2	14.8	20.9	33.2	8.9	14.3	27.0
Cycle Q Clear(g_c), s	27.0	27.5	32.9	34.4	35.9	25.2	14.8	20.9	33.2	8.9	14.3	27.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	666	1199	566	864	1491	463	423	1209	772	223	985	611
V/C Ratio(X)	1.01	0.87	0.86	0.98	0.89	0.64	0.87	0.65	0.88	0.64	0.58	0.89
Avail Cap(c_a), veh/h	666	1199	566	864	1491	463	469	1209	772	274	985	611
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.5	51.5	41.8	63.9	61.0	56.2	66.1	58.9	36.2	41.7	51.4	40.3
Incr Delay (d2), s/veh	38.5	8.7	16.0	26.6	8.2	6.6	15.0	1.2	11.2	3.5	0.9	15.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.0	12.4	17.8	19.1	17.5	11.6	7.8	9.7	20.5	4.1	6.1	19.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	95.0	60.2	57.8	90.5	69.2	62.8	81.1	60.1	47.4	45.2	52.2	56.0
LnGrp LOS	F	E	E	F	E	E	F	E	D	D	D	E
Approach Vol, veh/h	2207			2470			1830			1263		
Approach Delay, s/veh	70.3			75.8			59.6			53.1		
Approach LOS	E			E			E			D		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	42.0	39.9	24.1	34.0	34.0	47.9	18.0	40.2				
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0				
Max Green Setting (Gmax), s	35.0	31.0	19.0	27.0	27.0	39.0	15.0	31.0				
Max Q Clear Time (g_c+I1), s	36.4	34.9	16.8	29.0	29.0	37.9	10.9	35.2				
Green Ext Time (p_c), s	0.0	0.0	0.3	0.0	0.0	0.9	0.1	0.0				
Intersection Summary												
HCM 7th Control Delay, s/veh	66.7											
HCM 7th LOS	E											

HCM 7th TWSC
2: Picadilly Rd & Maxwell PI

09/25/2024

Intersection						
Int Delay, s/veh	25.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	26	27	52	1658	1732	27
Future Vol, veh/h	26	27	52	1658	1732	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	28	29	57	1802	1883	29

Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	2731	956	1912	0	-	0
Stage 1	1897	-	-	-	-	-
Stage 2	834	-	-	-	-	-
Critical Hdwy	5.74	7.14	5.34	-	-	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-	-
Follow-up Hdwy	3.82	3.92	3.12	-	-	-
Pot Cap-1 Maneuver	37	222	139	-	-	-
Stage 1	66	-	-	-	-	-
Stage 2	350	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 15	222	139	-	-	-
Mov Cap-2 Maneuver	~ 15	-	-	-	-	-
Stage 1	~ 26	-	-	-	-	-
Stage 2	350	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/veh	202.81	27.24	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	93	-	28	-	-
HCM Lane V/C Ratio	0.408	-	2.08	-	-
HCM Control Delay (s/veh)	47.8	26.6	802.8	-	-
HCM Lane LOS	E	D	F	-	-
HCM 95th %tile Q(veh)	1.8	-	6.9	-	-

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

Queues

3: Picadilly Rd & E 54th Ave/SW Site Access

09/25/2024



Lane Group	EBL	EBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	8	11	26	1859	18	1894
v/c Ratio	0.06	0.02	0.11	0.43	0.08	0.45
Control Delay (s/veh)	62.0	0.1	3.1	4.8	1.8	2.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	62.0	0.1	3.1	4.8	1.8	2.7
Queue Length 50th (ft)	7	0	3	134	2	81
Queue Length 95th (ft)	25	0	8	268	m2	111
Internal Link Dist (ft)		571		580		707
Turn Bay Length (ft)			125			
Base Capacity (vph)	126	600	299	4354	309	4253
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.06	0.02	0.09	0.43	0.06	0.45


























Intersection Summary

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

HCM 7th Signalized Intersection Summary

3: Picadilly Rd & E 54th Ave/SW Site Access










09/25/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations								  			  	
Traffic Volume (veh/h)	7	0	10	0	0	0	24	1703	7	17	1733	9
Future Volume (veh/h)	7	0	10	0	0	0	24	1703	7	17	1733	9
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	0	11	0	0	0	26	1851	8	18	1884	10
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	66	0	59	1	1	0	265	4133	18	262	4093	22
Arrive On Green	0.04	0.00	0.04	0.00	0.00	0.00	0.03	0.79	0.79	0.03	0.78	0.78
Sat Flow, veh/h	1781	0	1585	1781	1870	0	1781	5248	23	1781	5242	28
Grp Volume(v), veh/h	8	0	11	0	0	0	26	1201	658	18	1223	671
Grp Sat Flow(s),veh/h/ln	1781	0	1585	1781	1870	0	1781	1702	1866	1781	1702	1865
Q Serve(g_s), s	0.6	0.0	0.9	0.0	0.0	0.0	0.4	16.2	16.2	0.3	17.2	17.2
Cycle Q Clear(g_c), s	0.6	0.0	0.9	0.0	0.0	0.0	0.4	16.2	16.2	0.3	17.2	17.2
Prop In Lane	1.00		1.00	1.00		0.00	1.00		0.01	1.00		0.01
Lane Grp Cap(c), veh/h	66	0	59	1	1	0	265	2681	1470	262	2658	1457
V/C Ratio(X)	0.12	0.00	0.19	0.00	0.00	0.00	0.10	0.45	0.45	0.07	0.46	0.46
Avail Cap(c_a), veh/h	127	0	113	458	481	0	374	2681	1470	383	2658	1457
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	0.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	65.2	0.0	65.3	0.0	0.0	0.0	3.7	4.9	4.9	3.6	5.2	5.2
Incr Delay (d2), s/veh	0.8	0.0	1.5	0.0	0.0	0.0	0.2	0.5	1.0	0.1	0.6	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(50%),veh/ln	0.3	0.0	0.4	0.0	0.0	0.0	0.1	4.8	5.4	0.1	5.2	5.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	66.0	0.0	66.8	0.0	0.0	0.0	3.8	5.4	5.9	3.7	5.8	6.3
LnGrp LOS	E		E				A	A	A	A	A	A
Approach Vol, veh/h	19			0			1885			1912		
Approach Delay, s/veh	66.5			0.0			5.6			6.0		
Approach LOS	E						A			A		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.5	117.3		12.2	11.5	116.3		0.0				
Change Period (Y+Rc), s	7.0	7.0		7.0	7.0	7.0		7.0				
Max Green Setting (Gmax), s	13.0	53.0		10.0	13.0	53.0		36.0				
Max Q Clear Time (g_c+I1), s	2.3	18.2		2.9	2.4	19.2		0.0				
Green Ext Time (p_c), s	0.0	17.4		0.0	0.0	17.6		0.0				
Intersection Summary												
HCM 7th Control Delay, s/veh	6.1											
HCM 7th LOS	A											

Queues

4: Road A & E 56th Ave

09/25/2024

									
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	235	1550	98	2262	137	1	1	128	199
v/c Ratio	0.77	0.46	0.36	0.74	0.14	0.01	0.00	0.73	0.42
Control Delay (s/veh)	45.8	11.7	10.1	24.0	3.1	52.0	0.0	81.4	2.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	45.8	11.7	10.1	24.0	3.1	52.0	0.0	81.4	2.7
Queue Length 50th (ft)	158	174	15	493	0	1	0	116	0
Queue Length 95th (ft)	m214	280	47	#856	37	6	0	163	0
Internal Link Dist (ft)		685		1121			547		331
Turn Bay Length (ft)	325		325		200	75			
Base Capacity (vph)	307	3399	345	3038	1002	191	531	183	607
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.77	0.46	0.28	0.74	0.14	0.01	0.00	0.70	0.33

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.






















Queue shown is maximum after two cycles.

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

HCM 7th Signalized Intersection Summary

4: Road A & E 56th Ave

09/25/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	216	1416	10	90	2081	126	1	0	1	118	0	183
Future Volume (veh/h)	216	1416	10	90	2081	126	1	0	1	118	0	183
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	235	1539	11	98	2262	137	1	0	1	128	0	199
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	255	3143	22	322	2817	874	86	0	113	292	0	235
Arrive On Green	0.20	1.00	1.00	0.05	0.55	0.55	0.00	0.00	0.07	0.08	0.00	0.15
Sat Flow, veh/h	1781	5230	37	1781	5106	1585	1781	0	1585	1781	0	1585
Grp Volume(v), veh/h	235	1002	548	98	2262	137	1	0	1	128	0	199
Grp Sat Flow(s),veh/h/ln	1781	1702	1864	1781	1702	1585	1781	0	1585	1781	0	1585
Q Serve(g_s), s	11.7	0.0	0.0	3.3	49.9	5.9	0.1	0.0	0.1	9.1	0.0	17.1
Cycle Q Clear(g_c), s	11.7	0.0	0.0	3.3	49.9	5.9	0.1	0.0	0.1	9.1	0.0	17.1
Prop In Lane	1.00		0.02	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	255	2045	1120	322	2817	874	86	0	113	292	0	235
V/C Ratio(X)	0.92	0.49	0.49	0.30	0.80	0.16	0.01	0.00	0.01	0.44	0.00	0.85
Avail Cap(c_a), veh/h	271	2045	1120	426	2817	874	248	0	317	317	0	317
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	35.8	0.0	0.0	11.8	25.3	15.4	60.3	0.0	60.4	52.7	0.0	58.1
Incr Delay (d2), s/veh	34.0	0.8	1.5	0.5	2.5	0.4	0.1	0.0	0.0	1.0	0.0	14.5
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(50%),veh/ln	9.6	0.2	0.5	1.3	19.4	2.3	0.0	0.0	0.0	4.2	0.0	7.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	69.8	0.8	1.5	12.3	27.8	15.8	60.3	0.0	60.4	53.7	0.0	72.6
LnGrp LOS	E	A	A	B	C	B	E		E	D		E
Approach Vol, veh/h	1785			2497			2			327		
Approach Delay, s/veh	10.1			26.5			60.4			65.2		
Approach LOS	B			C			E			E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.8	91.1	18.0	17.0	20.7	84.2	7.3	27.8				
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0				
Max Green Setting (Gmax), s	15.0	56.0	13.0	28.0	15.0	56.0	13.0	28.0				
Max Q Clear Time (g_c+I1), s	5.3	2.0	11.1	2.1	13.7	51.9	2.1	19.1				
Green Ext Time (p_c), s	0.1	6.8	0.1	0.0	0.1	3.3	0.0	0.4				
Intersection Summary												
HCM 7th Control Delay, s/veh	22.9											
HCM 7th LOS	C											

HCM 7th TWSC
5: E 56th Ave & Skydance Access

09/25/2024













Intersection						
Int Delay, s/veh	5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑↑	↑↑↑	↰		↰
Traffic Vol, veh/h	72	1642	2201	64	0	71
Future Vol, veh/h	72	1642	2201	64	0	71
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	50	-	-	200	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	78	1785	2392	70	0	77
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	2462	0	-	0	-	1196
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	5.34	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	3.12	-	-	-	-	3.92
Pot Cap-1 Maneuver	~ 72	-	-	-	0	153
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	~ 72	-	-	-	-	153
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	WB	SB			
HCM Control Delay, s/v	9.63	0	50.24			
HCM LOS			F			
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	~ 72	-	-	-	153	
HCM Lane V/C Ratio	1.08	-	-	-	0.504	
HCM Control Delay (s/veh)	229.2	-	-	-	50.2	
HCM Lane LOS	F	-	-	-	F	
HCM 95th %tile Q(veh)	5.8	-	-	-	2.4	
Notes						
~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon						

APPENDIX G – Future (with site development) Synchro Outputs

Queues

1: Picadilly Rd & E 56th Ave

09/24/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	95	412	230	282	183	70	155	171	186	99	213	139
v/c Ratio	0.16	0.56	0.30	0.65	0.08	0.09	0.51	0.21	0.45	0.29	0.72	0.36
Control Delay (s/veh)	14.6	34.7	5.1	56.2	24.2	3.2	45.9	37.6	14.6	31.2	61.1	6.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	14.6	34.7	5.1	56.2	24.2	3.2	45.9	37.6	14.6	31.2	61.1	6.3
Queue Length 50th (ft)	31	245	0	110	31	0	60	45	44	56	159	0
Queue Length 95th (ft)	68	#441	60	151	57	0	83	69	115	89	227	36
Internal Link Dist (ft)	2771			652			510			1611		
Turn Bay Length (ft)	400				375	125	250				225	
Base Capacity (vph)	654	732	762	520	2270	797	371	1186	511	381	434	495
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.56	0.30	0.54	0.08	0.09	0.42	0.14	0.36	0.26	0.49	0.28

Intersection Summary
























95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

HCM 7th Signalized Intersection Summary

1: Picadilly Rd & E 56th Ave

09/24/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	87	379	212	259	168	64	143	157	171	91	196	128
Future Volume (veh/h)	87	379	212	259	168	64	143	157	171	91	196	128
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	95	412	230	282	183	70	155	171	186	99	213	139
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	677	860	728	352	2581	801	216	733	227	284	267	226
Arrive On Green	0.06	0.46	0.46	0.03	0.17	0.17	0.02	0.05	0.05	0.06	0.14	0.14
Sat Flow, veh/h	1781	1870	1585	3456	5106	1585	3456	5106	1585	1781	1870	1585
Grp Volume(v), veh/h	95	412	230	282	183	70	155	171	186	99	213	139
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1728	1702	1585	1728	1702	1585	1781	1870	1585
Q Serve(g_s), s	3.3	18.3	11.0	9.7	3.6	4.5	5.4	3.9	14.0	5.6	13.2	9.9
Cycle Q Clear(g_c), s	3.3	18.3	11.0	9.7	3.6	4.5	5.4	3.9	14.0	5.6	13.2	9.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	677	860	728	352	2581	801	216	733	227	284	267	226
V/C Ratio(X)	0.14	0.48	0.32	0.80	0.07	0.09	0.72	0.23	0.82	0.35	0.80	0.61
Avail Cap(c_a), veh/h	771	860	728	518	2581	801	374	1191	370	367	436	370
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.9	22.5	20.5	56.8	26.2	26.6	57.7	50.8	55.6	40.3	49.8	48.3
Incr Delay (d2), s/veh	0.1	1.9	1.1	5.6	0.1	0.2	4.4	0.2	7.2	0.7	5.4	2.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	8.1	4.2	4.7	1.4	1.7	2.5	1.7	6.4	2.5	6.5	4.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	15.0	24.4	21.6	62.3	26.3	26.8	62.1	51.0	62.8	41.0	55.2	51.0
LnGrp LOS	B	C	C	E	C	C	E	D	E	D	E	D
Approach Vol, veh/h	737			535			512			451		
Approach Delay, s/veh	22.3			45.4			58.6			50.8		
Approach LOS	C			D			E			D		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	19.2	62.1	14.5	24.1	13.7	67.7	14.4	24.2				
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0				
Max Green Setting (Gmax), s	18.0	33.0	13.0	28.0	13.0	38.0	13.0	28.0				
Max Q Clear Time (g_c+I1), s	11.7	20.3	7.4	15.2	5.3	6.5	7.6	16.0				
Green Ext Time (p_c), s	0.5	2.5	0.2	1.3	0.1	1.3	0.1	1.3				
Intersection Summary												
HCM 7th Control Delay, s/veh	41.9											
HCM 7th LOS	D											

HCM 7th TWSC

2: Picadilly Rd & Maxwell PI/NW Site Access

09/24/2024

Intersection												
Int Delay, s/veh	2.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗			↗	↗↑↑↑↗			↗	↑	↗
Traffic Vol, veh/h	0	0	95	0	0	148	23	323	227	44	600	23
Future Vol, veh/h	0	0	95	0	0	148	23	323	227	44	600	23
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	-	-	0	-	-	0	250	-	-	0	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	103	0	0	161	25	351	247	48	652	25
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	-	-	652	-	-	299	677	0	0	598	0	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.23	-	-	7.13	4.13	-	-	5.33	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.319	-	-	3.919	2.219	-	-	3.119	-	-
Pot Cap-1 Maneuver	0	0	467	0	0	595	913	-	-	610	-	-
Stage 1	0	0	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	0	0	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	467	-	-	595	913	-	-	610	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s/v14.89			13.27		0.36		0.75					
HCM LOS	B		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	913	-	-	467	595	610	-	-				
HCM Lane V/C Ratio	0.027	-	-	0.221	0.27	0.078	-	-				
HCM Control Delay (s/veh)	9.1	-	-	14.9	13.3	11.4	-	-				
HCM Lane LOS	A	-	-	B	B	B	-	-				
HCM 95th %tile Q(veh)	0.1	-	-	0.8	1.1	0.3	-	-				

Queues

3: Picadilly Rd & E 54th Ave/SW Site Access

09/24/2024



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	16	18	175	22	3	582	38	58	698
v/c Ratio	0.11	0.04	0.69	0.04	0.01	0.56	0.04	0.14	0.59
Control Delay (s/veh)	52.9	0.2	62.8	0.1	12.0	24.3	0.1	5.2	14.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	52.9	0.2	62.8	0.1	12.0	24.3	0.1	5.2	14.6
Queue Length 50th (ft)	12	0	131	0	1	330	0	8	500
Queue Length 95th (ft)	35	0	196	0	6	524	0	m20	#728
Internal Link Dist (ft)		571		430		580			317
Turn Bay Length (ft)					125			300	
Base Capacity (vph)	191	481	398	677	453	1038	954	475	1174
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.04	0.44	0.03	0.01	0.56	0.04	0.12	0.59

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.





















Queue shown is maximum after two cycles.

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

HCM 7th Signalized Intersection Summary

3: Picadilly Rd & E 54th Ave/SW Site Access

09/24/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	15	0	17	161	0	20	3	535	35	30	23	629
Future Volume (veh/h)	15	0	17	161	0	20	3	535	35	30	23	629
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0		0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Ped-Bike Adj(A_pbT)	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
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
Adj Flow Rate, veh/h	16	0	18	175	0	22	3	582	38		25	684
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2		2	2
Cap, veh/h	101	0	90	208	0	185	252	1048	888		410	1074
Arrive On Green	0.06	0.00	0.06	0.12	0.00	0.12	0.01	0.56	0.56		0.01	0.19
Sat Flow, veh/h	1781	0	1585	1781	0	1585	1781	1870	1585		1781	1826
Grp Volume(v), veh/h	16	0	18	175	0	22	3	582	38		25	0
Grp Sat Flow(s),veh/h/ln	1781	0	1585	1781	0	1585	1781	1870	1585		1781	0
Q Serve(g_s), s	1.0	0.0	1.3	11.5	0.0	1.5	0.1	23.8	1.3		0.7	0.0
Cycle Q Clear(g_c), s	1.0	0.0	1.3	11.5	0.0	1.5	0.1	23.8	1.3		0.7	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00		1.00	
Lane Grp Cap(c), veh/h	101	0	90	208	0	185	252	1048	888		410	0
V/C Ratio(X)	0.16	0.00	0.20	0.84	0.00	0.12	0.01	0.56	0.04		0.06	0.00
Avail Cap(c_a), veh/h	193	0	172	401	0	357	435	1048	888		544	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		0.33	0.33
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00		1.00	0.00
Uniform Delay (d), s/veh	53.9	0.0	54.0	51.9	0.0	47.5	17.4	16.8	11.9		12.8	0.0
Incr Delay (d2), s/veh	0.7	0.0	1.1	8.8	0.0	0.3	0.0	2.1	0.1		0.1	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.5	5.7	0.0	0.6	0.0	10.2	0.5		0.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	54.6	0.0	55.1	60.7	0.0	47.8	17.4	19.0	12.0		12.9	0.0
LnGrp LOS	D		E	E		D	B	B	B		B	
Approach Vol, veh/h	34			197			623			723		
Approach Delay, s/veh	54.9			59.3			18.5			38.5		
Approach LOS	D			E			B			D		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.0	74.3		13.8	7.7	77.5		21.0				
Change Period (Y+Rc), s	7.0	7.0		7.0	7.0	7.0		7.0				
Max Green Setting (Gmax), s	13.0	39.0		13.0	13.0	39.0		27.0				
Max Q Clear Time (g_c+I1), s	2.7	25.8		3.3	2.1	43.3		13.5				
Green Ext Time (p_c), s	0.0	3.1		0.0	0.0	0.0		0.5				
Intersection Summary												
HCM 7th Control Delay, s/veh				33.6								
HCM 7th LOS				C								
Notes												
User approved ignoring U-Turning movement.												

HCM 7th Signalized Intersection Summary 3: Picadilly Rd & E 54th Ave/SW Site Access

09/24/2024








Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	13
Future Volume (veh/h)	13
Initial Q (Qb), veh	0
Lane Width Adj.	1.00
Ped-Bike Adj(A_pbT)	1.00
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1870
Adj Flow Rate, veh/h	14
Peak Hour Factor	0.92
Percent Heavy Veh, %	2
Cap, veh/h	22
Arrive On Green	0.19
Sat Flow, veh/h	37
Grp Volume(v), veh/h	698
Grp Sat Flow(s),veh/h/ln	1864
Q Serve(g_s), s	41.3
Cycle Q Clear(g_c), s	41.3
Prop In Lane	0.02
Lane Grp Cap(c), veh/h	1096
V/C Ratio(X)	0.64
Avail Cap(c_a), veh/h	1096
HCM Platoon Ratio	0.33
Upstream Filter(I)	1.00
Uniform Delay (d), s/veh	36.6
Incr Delay (d2), s/veh	2.8
Initial Q Delay(d3), s/veh	0.0
%ile BackOfQ(50%),veh/ln	21.4
Unsig. Movement Delay, s/veh	
LnGrp Delay(d), s/veh	39.4
LnGrp LOS	D
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	

Queues

4: Road A & E 56th Ave

09/24/2024

					
Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	698	257	478	55	74
v/c Ratio	0.20	0.42	0.11	0.35	0.36
Control Delay (s/veh)	3.8	4.9	2.6	57.8	16.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	3.8	4.9	2.6	57.8	16.3
Queue Length 50th (ft)	67	38	24	41	0
Queue Length 95th (ft)	22	65	36	83	46
Internal Link Dist (ft)	795		1121	547	
Turn Bay Length (ft)		325		75	
Base Capacity (vph)	3474	698	4245	413	426
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.20	0.37	0.11	0.13	0.17
Intersection Summary					

HCM 7th Signalized Intersection Summary

4: Road A & E 56th Ave

09/24/2024

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑		↘	↑↑↑	↘	↗
Traffic Volume (veh/h)	633	9	236	440	51	68
Future Volume (veh/h)	633	9	236	440	51	68
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	688	10	257	478	55	74
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	3532	51	598	4091	146	130
Arrive On Green	0.22	0.22	0.06	0.80	0.08	0.08
Sat Flow, veh/h	5354	75	1781	5274	1781	1585
Grp Volume(v), veh/h	451	247	257	478	55	74
Grp Sat Flow(s),veh/h/ln	1702	1857	1781	1702	1781	1585
Q Serve(g_s), s	12.9	12.9	4.9	2.5	3.5	5.4
Cycle Q Clear(g_c), s	12.9	12.9	4.9	2.5	3.5	5.4
Prop In Lane		0.04	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2319	1265	598	4091	146	130
V/C Ratio(X)	0.19	0.20	0.43	0.12	0.38	0.57
Avail Cap(c_a), veh/h	2319	1265	756	4091	416	370
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.8	19.8	5.5	2.6	52.2	53.0
Incr Delay (d2), s/veh	0.2	0.3	0.5	0.1	1.6	3.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.9	6.5	1.4	0.6	1.6	2.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	20.0	20.2	6.0	2.7	53.7	56.9
LnGrp LOS	C	C	A	A	D	E
Approach Vol, veh/h	698			735	129	
Approach Delay, s/veh	20.1			3.8	55.5	
Approach LOS	C			A	E	
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	14.4	88.7			103.1	16.9
Change Period (Y+Rc), s	7.0	7.0			7.0	7.0
Max Green Setting (Gmax), s	18.0	53.0			78.0	28.0
Max Q Clear Time (g_c+I1), s	6.9	14.9			4.5	7.4
Green Ext Time (p_c), s	0.5	5.2			3.3	0.3
Intersection Summary						
HCM 7th Control Delay, s/veh			15.4			
HCM 7th LOS			B			

HCM 7th TWSC
5: N Site Access & E 56th Ave

09/24/2024

Intersection						
Int Delay, s/veh	0.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑↱			↑↑↑↑		↱
Traffic Vol, veh/h	592	49	0	491	0	50
Future Vol, veh/h	592	49	0	491	0	50
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	643	53	0	534	0	54
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	348
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	-	-	0	-	0	553
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	553
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		WB		NB	
HCM Control Delay, s/v	0		0		12.22	
HCM LOS					B	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT		
Capacity (veh/h)	553	-	-	-		
HCM Lane V/C Ratio	0.098	-	-	-		
HCM Control Delay (s/veh)	12.2	-	-	-		
HCM Lane LOS	B	-	-	-		
HCM 95th %tile Q(veh)	0.3	-	-	-		

HCM 7th TWSC
6: Picadilly Rd & W Site Access













09/24/2024

Intersection						
Int Delay, s/veh	0.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗ ↘ ↗ ↘	↗ ↘ ↗ ↘			↗
Traffic Vol, veh/h	0	30	543	57	0	695
Future Vol, veh/h	0	30	543	57	0	695
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	33	590	62	0	755
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	-	326	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.13	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.919	-	-	-	-
Pot Cap-1 Maneuver	0	572	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	572	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s/v	11.67	0		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBT		
Capacity (veh/h)	-	572		-		
HCM Lane V/C Ratio	-	0.057		-		
HCM Control Delay (s/veh)	-	11.7		-		
HCM Lane LOS	-	B		-		
HCM 95th %tile Q(veh)	-	0.2		-		

Queues

1: Picadilly Rd & E 56th Ave

09/24/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	164	304	193	354	333	120	215	246	227	66	185	136
v/c Ratio	0.30	0.43	0.27	0.71	0.15	0.15	0.63	0.25	0.47	0.23	0.69	0.37
Control Delay (s/veh)	15.3	32.5	5.4	54.9	26.7	8.7	48.4	34.2	11.9	30.9	62.0	6.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	15.3	32.5	5.4	54.9	26.7	8.7	48.4	34.2	11.9	30.9	62.0	6.4
Queue Length 50th (ft)	57	175	0	138	63	0	83	66	50	37	138	0
Queue Length 95th (ft)	104	298	55	182	101	41	m97	m83	m118	66	205	35
Internal Link Dist (ft)	2771			652			510			1611		
Turn Bay Length (ft)	400			375		125	250		175	225		
Base Capacity (vph)	580	705	719	544	2203	778	371	1186	543	350	434	495
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.43	0.27	0.65	0.15	0.15	0.58	0.21	0.42	0.19	0.43	0.27
























Intersection Summary

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

HCM 7th Signalized Intersection Summary

1: Picadilly Rd & E 56th Ave

09/24/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	151	280	178	326	306	110	198	226	209	61	170	125
Future Volume (veh/h)	151	280	178	326	306	110	198	226	209	61	170	125
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	164	304	193	354	333	120	215	246	227	66	185	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	576	788	668	422	2421	752	278	875	272	268	267	226
Arrive On Green	0.07	0.42	0.42	0.04	0.16	0.16	0.03	0.06	0.06	0.05	0.14	0.14
Sat Flow, veh/h	1781	1870	1585	3456	5106	1585	3456	5106	1585	1781	1870	1585
Grp Volume(v), veh/h	164	304	193	354	333	120	215	246	227	66	185	136
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1728	1702	1585	1728	1702	1585	1781	1870	1585
Q Serve(g_s), s	6.2	13.5	9.6	12.2	6.7	7.9	7.4	5.5	17.0	3.7	11.3	9.7
Cycle Q Clear(g_c), s	6.2	13.5	9.6	12.2	6.7	7.9	7.4	5.5	17.0	3.7	11.3	9.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	576	788	668	422	2421	752	278	875	272	268	267	226
V/C Ratio(X)	0.28	0.39	0.29	0.84	0.14	0.16	0.77	0.28	0.84	0.25	0.69	0.60
Avail Cap(c_a), veh/h	645	788	668	518	2421	752	374	1191	370	368	436	370
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.1	24.0	22.9	56.4	29.5	29.9	57.3	49.5	54.9	40.4	48.9	48.2
Incr Delay (d2), s/veh	0.3	1.4	1.1	9.8	0.1	0.5	6.9	0.2	11.5	0.5	3.2	2.5
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(50%),veh/ln	2.5	6.0	3.7	6.2	2.8	3.2	3.6	2.4	8.1	1.6	5.4	3.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	17.4	25.4	24.0	66.2	29.6	30.4	64.3	49.7	66.5	40.9	52.1	50.8
LnGrp LOS	B	C	C	E	C	C	E	D	E	D	D	D
Approach Vol, veh/h	661			807			688			387		
Approach Delay, s/veh	23.0			45.8			59.8			49.7		
Approach LOS	C			D			E			D		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	21.7	57.6	16.6	24.1	15.3	63.9	13.2	27.6				
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0				
Max Green Setting (Gmax), s	18.0	33.0	13.0	28.0	13.0	38.0	13.0	28.0				
Max Q Clear Time (g_c+I1), s	14.2	15.5	9.4	13.3	8.2	9.9	5.7	19.0				
Green Ext Time (p_c), s	0.5	2.1	0.2	1.2	0.2	2.4	0.1	1.5				
Intersection Summary												
HCM 7th Control Delay, s/veh	44.2											
HCM 7th LOS	D											

HCM 7th TWSC

2: Picadilly Rd & Maxwell PI/NW Site Access

09/24/2024

Intersection												
Int Delay, s/veh	3.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗			↗	↗↑↑↑↗			↗	↑	↗
Traffic Vol, veh/h	0	0	53	0	0	216	52	417	310	60	587	27
Future Vol, veh/h	0	0	53	0	0	216	52	417	310	60	587	27
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	-	-	0	-	-	0	250	-	-	0	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	58	0	0	235	57	453	337	65	638	29

Major/Minor	Minor2		Minor1		Major1		Major2	
Conflicting Flow All	-	-	638	-	-	395	667	0
Stage 1	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.23	-	-	7.13	4.13	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.319	-	-	3.919	2.219	-
Pot Cap-1 Maneuver	0	0	476	0	0	517	920	-
Stage 1	0	0	-	0	0	-	-	-
Stage 2	0	0	-	0	0	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	476	-	-	517	920	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v13.61		17.63	0.61	1.19
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	920	-	-	476	517	495	-
HCM Lane V/C Ratio	0.061	-	-	0.121	0.454	0.132	-
HCM Control Delay (s/veh)	9.2	-	-	13.6	17.6	13.4	-
HCM Lane LOS	A	-	-	B	C	B	-
HCM 95th %tile Q(veh)	0.2	-	-	0.4	2.3	0.5	-

Queues

3: Picadilly Rd & E 54th Ave/SW Site Access

09/24/2024



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	8	11	295	30	26	816	49	58	637
v/c Ratio	0.05	0.03	0.81	0.05	0.08	0.84	0.05	0.32	0.62
Control Delay (s/veh)	51.7	0.1	62.7	0.1	13.9	37.8	0.1	20.8	20.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	51.7	0.1	62.7	0.1	13.9	37.8	0.1	20.8	20.3
Queue Length 50th (ft)	6	0	218	0	6	477	0	6	476
Queue Length 95th (ft)	22	0	306	0	26	#1025	0	m40	#720
Internal Link Dist (ft)		571		430		580			317
Turn Bay Length (ft)					125			300	
Base Capacity (vph)	191	428	411	665	417	971	903	257	1022
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.03	0.72	0.05	0.06	0.84	0.05	0.23	0.62

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.






















Queue shown is maximum after two cycles.

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

HCM 7th Signalized Intersection Summary

3: Picadilly Rd & E 54th Ave/SW Site Access

09/24/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	7	0	10	271	0	28	24	751	45	26	28	577
Future Volume (veh/h)	7	0	10	271	0	28	24	751	45	26	28	577
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0		0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Ped-Bike Adj(A_pbT)	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
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
Adj Flow Rate, veh/h	8	0	11	295	0	30	26	816	49		30	627
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2		2	2
Cap, veh/h	70	0	62	326	0	290	271	949	804		206	937
Arrive On Green	0.04	0.00	0.04	0.18	0.00	0.18	0.03	0.51	0.51		0.01	0.17
Sat Flow, veh/h	1781	0	1585	1781	0	1585	1781	1870	1585		1781	1836
Grp Volume(v), veh/h	8	0	11	295	0	30	26	816	49		30	0
Grp Sat Flow(s),veh/h/ln	1781	0	1585	1781	0	1585	1781	1870	1585		1781	0
Q Serve(g_s), s	0.5	0.0	0.8	19.5	0.0	1.9	0.8	45.7	1.9		0.9	0.0
Cycle Q Clear(g_c), s	0.5	0.0	0.8	19.5	0.0	1.9	0.8	45.7	1.9		0.9	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00		1.00	
Lane Grp Cap(c), veh/h	70	0	62	326	0	290	271	949	804		206	0
V/C Ratio(X)	0.11	0.00	0.18	0.90	0.00	0.10	0.10	0.86	0.06		0.15	0.00
Avail Cap(c_a), veh/h	193	0	172	401	0	357	404	949	804		334	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		0.33	0.33
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00		1.00	0.00
Uniform Delay (d), s/veh	55.6	0.0	55.8	48.0	0.0	40.8	19.0	25.8	15.0		22.4	0.0
Incr Delay (d2), s/veh	0.7	0.0	1.3	20.6	0.0	0.2	0.2	10.0	0.1		0.3	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.3	10.5	0.0	0.8	0.3	21.6	0.7		0.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	56.4	0.0	57.1	68.6	0.0	41.0	19.2	35.9	15.2		22.7	0.0
LnGrp LOS	E		E	E		D	B	D	B		C	
Approach Vol, veh/h	19				325				891			
Approach Delay, s/veh	56.8				66.0				34.2			
Approach LOS	E				E				C			
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.4	67.9		11.7	11.1	68.3		29.0				
Change Period (Y+Rc), s	7.0	7.0		7.0	7.0	7.0		7.0				
Max Green Setting (Gmax), s	13.0	39.0		13.0	13.0	39.0		27.0				
Max Q Clear Time (g_c+I1), s	2.9	47.7		2.8	2.8	40.4		21.5				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	0.0		0.5				
Intersection Summary												
HCM 7th Control Delay, s/veh	43.0											
HCM 7th LOS	D											
Notes												
User approved ignoring U-Turning movement.												

HCM 7th Signalized Intersection Summary 3: Picadilly Rd & E 54th Ave/SW Site Access

09/24/2024



Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	9
Future Volume (veh/h)	9
Initial Q (Qb), veh	0
Lane Width Adj.	1.00
Ped-Bike Adj(A_pbT)	1.00
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1870
Adj Flow Rate, veh/h	10
Peak Hour Factor	0.92
Percent Heavy Veh, %	2
Cap, veh/h	15
Arrive On Green	0.17
Sat Flow, veh/h	29
Grp Volume(v), veh/h	637
Grp Sat Flow(s),veh/h/ln	1865
Q Serve(g_s), s	38.4
Cycle Q Clear(g_c), s	38.4
Prop In Lane	0.02
Lane Grp Cap(c), veh/h	952
V/C Ratio(X)	0.67
Avail Cap(c_a), veh/h	952
HCM Platoon Ratio	0.33
Upstream Filter(I)	1.00
Uniform Delay (d), s/veh	40.4
Incr Delay (d2), s/veh	3.7
Initial Q Delay(d3), s/veh	0.0
%ile BackOfQ(50%),veh/ln	20.1
Unsig. Movement Delay, s/veh	
LnGrp Delay(d), s/veh	44.1
LnGrp LOS	D
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	

Queues

4: Road A & E 56th Ave

09/24/2024

	→	↘	←	↙	↗
Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	620	326	739	67	95
v/c Ratio	0.19	0.50	0.18	0.41	0.41
Control Delay (s/veh)	5.9	6.1	3.2	59.0	15.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	5.9	6.1	3.2	59.0	15.3
Queue Length 50th (ft)	65	50	39	50	0
Queue Length 95th (ft)	53	88	59	95	51
Internal Link Dist (ft)	795		1121	547	
Turn Bay Length (ft)		325		75	
Base Capacity (vph)	3239	709	4024	413	442
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.19	0.46	0.18	0.16	0.21
Intersection Summary					

HCM 7th Signalized Intersection Summary

4: Road A & E 56th Ave

09/24/2024

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑		↘	↑↑↑	↘	↗
Traffic Volume (veh/h)	560	10	300	680	62	87
Future Volume (veh/h)	560	10	300	680	62	87
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	609	11	326	739	67	95
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	3438	62	654	4087	148	131
Arrive On Green	0.22	0.22	0.08	0.80	0.08	0.08
Sat Flow, veh/h	5333	93	1781	5274	1781	1585
Grp Volume(v), veh/h	401	219	326	739	67	95
Grp Sat Flow(s),veh/h/ln	1702	1854	1781	1702	1781	1585
Q Serve(g_s), s	11.5	11.5	6.5	4.1	4.3	7.0
Cycle Q Clear(g_c), s	11.5	11.5	6.5	4.1	4.3	7.0
Prop In Lane		0.05	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2266	1234	654	4087	148	131
V/C Ratio(X)	0.18	0.18	0.50	0.18	0.45	0.72
Avail Cap(c_a), veh/h	2266	1234	785	4087	416	370
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.1	20.1	5.6	2.8	52.4	53.7
Incr Delay (d2), s/veh	0.2	0.3	0.6	0.1	2.2	7.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	5.8	1.9	0.9	2.0	3.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	20.3	20.5	6.1	2.9	54.6	61.0
LnGrp LOS	C	C	A	A	D	E
Approach Vol, veh/h	620			1065	162	
Approach Delay, s/veh	20.4			3.9	58.3	
Approach LOS	C			A	E	
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	16.2	86.9			103.0	17.0
Change Period (Y+Rc), s	7.0	7.0			7.0	7.0
Max Green Setting (Gmax), s	18.0	53.0			78.0	28.0
Max Q Clear Time (g_c+I1), s	8.5	13.5			6.1	9.0
Green Ext Time (p_c), s	0.7	4.5			5.4	0.4
Intersection Summary						
HCM 7th Control Delay, s/veh			14.2			
HCM 7th LOS			B			

HCM 7th TWSC
5: N Site Access & E 56th Ave

09/24/2024

Intersection						
Int Delay, s/veh	0.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑↓			↑↑↑↑		↑
Traffic Vol, veh/h	484	66	0	742	0	86
Future Vol, veh/h	484	66	0	742	0	86
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	526	72	0	807	0	93
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	299
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	-	-	0	-	0	595
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	595
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		WB		NB	
HCM Control Delay, s/v	0		0		12.18	
HCM LOS	B					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT		
Capacity (veh/h)	595	-	-	-		
HCM Lane V/C Ratio	0.157	-	-	-		
HCM Control Delay (s/veh)	12.2	-	-	-		
HCM Lane LOS	B	-	-	-		
HCM 95th %tile Q(veh)	0.6	-	-	-		

HCM 7th TWSC
6: Picadilly Rd & W Site Access













09/24/2024

Intersection						
Int Delay, s/veh	0.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗ ↘ ↗ ↘	↗ ↘ ↗ ↘			↗
Traffic Vol, veh/h	0	45	734	78	0	640
Future Vol, veh/h	0	45	734	78	0	640
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	49	798	85	0	696
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	-	441	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.13	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.919	-	-	-	-
Pot Cap-1 Maneuver	0	483	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	483	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s/v	13.3	0		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBT		
Capacity (veh/h)	-	- 483		-		
HCM Lane V/C Ratio	-	- 0.101		-		
HCM Control Delay (s/veh)	-	- 13.3		-		
HCM Lane LOS	-	- B		-		
HCM 95th %tile Q(veh)	-	- 0.3		-		

Queues

1: Picadilly Rd & E 56th Ave

09/24/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	372	1265	639	734	755	158	348	527	540	223	673	567
v/c Ratio	0.56	0.91	0.85	0.92	0.48	0.27	0.82	0.54	0.68	0.73	0.77	0.80
Control Delay (s/veh)	53.6	60.4	41.9	90.1	33.1	7.0	58.8	57.8	49.0	49.9	61.6	38.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	53.6	60.4	41.9	90.1	33.1	7.0	58.8	57.8	49.0	49.9	61.6	38.5
Queue Length 50th (ft)	157	415	458	365	113	4	160	183	445	150	216	379
Queue Length 95th (ft)	197	#508	#692	#496	163	49	#227	225	580	217	258	476
Internal Link Dist (ft)		2771			652			510			1611	
Turn Bay Length (ft)	400			375		125	250		175	225		
Base Capacity (vph)	858	1384	760	795	1581	588	441	1089	794	310	980	792
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.43	0.91	0.84	0.92	0.48	0.27	0.79	0.48	0.68	0.72	0.69	0.72

Intersection Summary
































95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

HCM 7th Signalized Intersection Summary

1: Picadilly Rd & E 56th Ave

09/24/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  		 	  		 	  		 		
Traffic Volume (veh/h)	342	1164	588	675	695	145	320	485	497	205	619	522
Future Volume (veh/h)	342	1164	588	675	695	145	320	485	497	205	619	522
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	372	1265	639	734	755	158	348	527	540	223	673	567
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	442	1349	603	741	1791	556	402	1094	679	303	1047	528
Arrive On Green	0.13	0.26	0.26	0.36	0.59	0.59	0.04	0.07	0.07	0.11	0.21	0.21
Sat Flow, veh/h	3456	5106	1585	3456	5106	1585	3456	5106	1585	1781	5106	1585
Grp Volume(v), veh/h	372	1265	639	734	755	158	348	527	540	223	673	567
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1702	1585	1728	1702	1585	1781	1702	1585
Q Serve(g_s), s	14.7	33.9	37.0	29.6	11.4	6.9	14.0	13.9	30.0	13.8	16.9	28.7
Cycle Q Clear(g_c), s	14.7	33.9	37.0	29.6	11.4	6.9	14.0	13.9	30.0	13.8	16.9	28.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	442	1349	603	741	1791	556	402	1094	679	303	1047	528
V/C Ratio(X)	0.84	0.94	1.06	0.99	0.42	0.28	0.87	0.48	0.79	0.74	0.64	1.07
Avail Cap(c_a), veh/h	864	1349	603	741	1791	556	444	1094	679	303	1047	528
HCM Platoon Ratio	1.00	1.00	1.00	1.67	1.67	1.67	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.7	50.4	43.4	44.8	21.2	20.3	66.2	57.6	39.5	38.8	50.9	46.7
Incr Delay (d2), s/veh	4.4	13.5	53.3	30.8	0.7	1.3	15.2	0.3	6.5	9.0	1.3	60.6
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(50%),veh/ln	6.6	15.7	29.1	14.0	4.0	2.6	7.4	6.4	16.5	6.7	7.2	26.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	64.1	63.9	96.7	75.6	21.9	21.5	81.5	57.9	46.0	47.8	52.3	107.3
LnGrp LOS	E	E	F	E	C	C	F	E	D	D	D	F
Approach Vol, veh/h	2276			1647			1415			1463		
Approach Delay, s/veh	73.1			45.8			59.2			72.9		
Approach LOS	E			D			E			E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	37.0	44.0	23.3	35.7	24.9	56.1	22.0	37.0				
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0				
Max Green Setting (Gmax), s	30.0	37.0	18.0	27.0	35.0	32.0	15.0	30.0				
Max Q Clear Time (g_c+I1), s	31.6	39.0	16.0	30.7	16.7	13.4	15.8	32.0				
Green Ext Time (p_c), s	0.0	0.0	0.3	0.0	1.2	5.1	0.0	0.0				
Intersection Summary												
HCM 7th Control Delay, s/veh	63.6											
HCM 7th LOS	E											

HCM 7th TWSC
2: Picadilly Rd & Maxwell PI/NW Site Access

09/24/2024

Intersection												
Int Delay, s/veh	2.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗			↗	↖ ↗ ↘			↖ ↗ ↘		
Traffic Vol, veh/h	0	0	95	0	0	148	23	1154	227	44	1815	23
Future Vol, veh/h	0	0	95	0	0	148	23	1154	227	44	1815	23
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	-	-	0	-	-	0	250	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	103	0	0	161	25	1254	247	48	1973	25

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	-	-	999	-	-	751	1998	0	0	1501	0	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7.14	-	-	7.14	5.34	-	-	5.34	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.92	-	-	3.92	3.12	-	-	3.12	-	-
Pot Cap-1 Maneuver	0	0	208	0	0	303	125	-	-	223	-	-
Stage 1	0	0	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	0	0	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	-	-	208	-	-	303	125	-	-	223	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

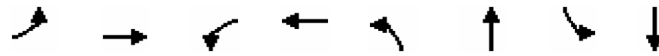
Approach	EB	WB	NB	SB
HCM Control Delay, s/v38.32		29.51	0.67	0.6
HCM LOS	E	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	125	-	-	208	303	223	-
HCM Lane V/C Ratio	0.199	-	-	0.497	0.53	0.215	-
HCM Control Delay (s/veh)	40.7	-	-	38.3	29.5	25.5	-
HCM Lane LOS	E	-	-	E	D	D	-
HCM 95th %tile Q(veh)	0.7	-	-	2.5	2.9	0.8	-

Queues

3: Picadilly Rd & E 54th Ave/SW Site Access

09/24/2024



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	16	18	175	22	3	1523	58	2018
v/c Ratio	0.13	0.05	0.73	0.05	0.02	0.50	0.25	0.59
Control Delay (s/veh)	63.5	0.3	74.7	0.2	11.3	19.1	8.3	13.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	63.5	0.3	74.7	0.2	11.3	19.1	8.3	13.0
Queue Length 50th (ft)	14	0	155	0	1	321	10	368
Queue Length 95th (ft)	39	0	226	0	5	420	m18	690
Internal Link Dist (ft)		571		430		580		317
Turn Bay Length (ft)					125		300	
Base Capacity (vph)	164	361	341	518	233	3072	289	3408
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.10	0.05	0.51	0.04	0.01	0.50	0.20	0.59





















Intersection Summary

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

HCM 7th Signalized Intersection Summary

3: Picadilly Rd & E 54th Ave/SW Site Access

09/24/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	15	0	17	161	0	20	3	1366	35	30	23	1844
Future Volume (veh/h)	15	0	17	161	0	20	3	1366	35	30	23	1844
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0		0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Ped-Bike Adj(A_pbT)	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
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
Adj Flow Rate, veh/h	16	0	18	175	0	22	3	1485	38		25	2004
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2		2	2
Cap, veh/h	93	0	83	203	0	181	167	3085	79		257	3286
Arrive On Green	0.05	0.00	0.05	0.11	0.00	0.11	0.01	0.60	0.60		0.04	0.84
Sat Flow, veh/h	1781	0	1585	1781	0	1585	1781	5120	131		1781	5231
Grp Volume(v), veh/h	16	0	18	175	0	22	3	987	536		25	1304
Grp Sat Flow(s),veh/h/ln	1781	0	1585	1781	0	1585	1781	1702	1847		1781	1702
Q Serve(g_s), s	1.2	0.0	1.5	13.5	0.0	1.7	0.1	22.7	22.7		0.7	18.0
Cycle Q Clear(g_c), s	1.2	0.0	1.5	13.5	0.0	1.7	0.1	22.7	22.7		0.7	18.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.07		1.00	
Lane Grp Cap(c), veh/h	93	0	83	203	0	181	167	2051	1113		257	2138
V/C Ratio(X)	0.17	0.00	0.22	0.86	0.00	0.12	0.02	0.48	0.48		0.10	0.61
Avail Cap(c_a), veh/h	165	0	147	344	0	306	323	2051	1113		368	2138
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.33	1.33
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
Uniform Delay (d), s/veh	63.4	0.0	63.6	60.9	0.0	55.7	11.5	15.6	15.6		11.4	5.8
Incr Delay (d2), s/veh	0.9	0.0	1.3	10.9	0.0	0.3	0.0	0.8	1.5		0.2	1.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.6	6.7	0.0	0.7	0.0	8.7	9.6		0.3	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	64.3	0.0	64.9	71.9	0.0	56.0	11.6	16.4	17.1		11.6	7.1
LnGrp LOS	E		E	E		E	B	B	B		B	A
Approach Vol, veh/h	34			197			1526			2043		
Approach Delay, s/veh	64.6			70.1			16.6			7.5		
Approach LOS	E			E			B			A		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.4	91.4		14.3	7.8	94.9		22.9				
Change Period (Y+Rc), s	7.0	7.0		7.0	7.0	7.0		7.0				
Max Green Setting (Gmax), s	13.0	59.0		13.0	13.0	59.0		27.0				
Max Q Clear Time (g_c+I1), s	2.7	24.7		3.5	2.1	20.0		15.5				
Green Ext Time (p_c), s	0.0	13.0		0.0	0.0	20.8		0.4				
Intersection Summary												
HCM 7th Control Delay, s/veh	14.9											
HCM 7th LOS	B											
Notes												
User approved ignoring U-Turning movement.												

HCM 7th Signalized Intersection Summary 3: Picadilly Rd & E 54th Ave/SW Site Access

09/24/2024












Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	13
Future Volume (veh/h)	13
Initial Q (Qb), veh	0
Lane Width Adj.	1.00
Ped-Bike Adj(A_pbT)	1.00
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1870
Adj Flow Rate, veh/h	14
Peak Hour Factor	0.92
Percent Heavy Veh, %	2
Cap, veh/h	23
Arrive On Green	0.84
Sat Flow, veh/h	37
Grp Volume(v), veh/h	714
Grp Sat Flow(s),veh/h/ln	1864
Q Serve(g_s), s	18.0
Cycle Q Clear(g_c), s	18.0
Prop In Lane	0.02
Lane Grp Cap(c), veh/h	1171
V/C Ratio(X)	0.61
Avail Cap(c_a), veh/h	1171
HCM Platoon Ratio	1.33
Upstream Filter(I)	1.00
Uniform Delay (d), s/veh	5.8
Incr Delay (d2), s/veh	2.4
Initial Q Delay(d3), s/veh	0.0
%ile BackOfQ(50%),veh/ln	5.0
Unsig. Movement Delay, s/veh	
LnGrp Delay(d), s/veh	8.1
LnGrp LOS	A
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	

Queues

4: Road A & E 56th Ave

09/24/2024

									
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	110	1877	257	1445	67	55	74	76	152
v/c Ratio	0.41	0.79	0.62	0.47	0.07	0.32	0.20	0.38	0.38
Control Delay (s/veh)	15.0	26.0	40.5	16.7	0.1	51.8	1.2	53.2	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	15.0	26.0	40.5	16.7	0.1	51.8	1.2	53.2	2.8
Queue Length 50th (ft)	26	340	164	260	0	42	0	59	0
Queue Length 95th (ft)	m34	394	261	342	0	81	0	105	0
Internal Link Dist (ft)		795		1121			547		506
Turn Bay Length (ft)	325		325		200	75			
Base Capacity (vph)	315	2383	417	3097	1019	218	535	226	551
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.35	0.79	0.62	0.47	0.07	0.25	0.14	0.34	0.28

























Intersection Summary

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

HCM 7th Signalized Intersection Summary

4: Road A & E 56th Ave

09/24/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  							
Traffic Volume (veh/h)	101	1718	9	236	1329	62	51	0	68	70	0	140
Future Volume (veh/h)	101	1718	9	236	1329	62	51	0	68	70	0	140
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	110	1867	10	257	1445	67	55	0	74	76	0	152
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	289	2972	16	324	3031	941	153	0	170	224	0	179
Arrive On Green	0.10	1.00	1.00	0.08	0.59	0.59	0.04	0.00	0.11	0.05	0.00	0.11
Sat Flow, veh/h	1781	5241	28	1781	5106	1585	1781	0	1585	1781	0	1585
Grp Volume(v), veh/h	110	1212	665	257	1445	67	55	0	74	76	0	152
Grp Sat Flow(s),veh/h/ln	1781	1702	1865	1781	1702	1585	1781	0	1585	1781	0	1585
Q Serve(g_s), s	3.6	0.0	0.0	8.4	22.5	2.5	3.8	0.0	6.1	5.3	0.0	13.2
Cycle Q Clear(g_c), s	3.6	0.0	0.0	8.4	22.5	2.5	3.8	0.0	6.1	5.3	0.0	13.2
Prop In Lane	1.00		0.02	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	289	1930	1058	324	3031	941	153	0	170	224	0	179
V/C Ratio(X)	0.38	0.63	0.63	0.79	0.48	0.07	0.36	0.00	0.43	0.34	0.00	0.85
Avail Cap(c_a), veh/h	367	1930	1058	355	3031	941	240	0	317	301	0	317
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	12.1	0.0	0.0	11.7	16.1	12.1	52.6	0.0	58.5	52.1	0.0	60.9
Incr Delay (d2), s/veh	0.8	1.6	2.8	10.8	0.5	0.1	1.4	0.0	1.7	0.9	0.0	10.5
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(50%),veh/ln	1.4	0.4	0.8	4.1	8.4	0.9	1.8	0.0	2.6	2.4	0.0	5.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	12.9	1.6	2.8	22.5	16.7	12.2	54.0	0.0	60.2	53.0	0.0	71.5
LnGrp LOS	B	A	A	C	B	B	D		E	D		E
Approach Vol, veh/h	1987			1769			129			228		
Approach Delay, s/veh	2.6			17.3			57.6			65.3		
Approach LOS	A			B			E			E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.6	86.4	13.9	22.1	13.9	90.1	13.2	22.8				
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0				
Max Green Setting (Gmax), s	13.0	58.0	13.0	28.0	13.0	58.0	13.0	28.0				
Max Q Clear Time (g_c+I1), s	10.4	2.0	7.3	8.1	5.6	24.5	5.8	15.2				
Green Ext Time (p_c), s	0.2	23.8	0.1	0.3	0.1	12.7	0.0	0.6				
Intersection Summary												
HCM 7th Control Delay, s/veh	14.1											
HCM 7th LOS	B											

Intersection

Int Delay, s/veh 0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↱ ↑↑↑				↑↑↑	↱			↱			↱
Traffic Vol, veh/h	39	1778	49	0	1487	33	0	0	50	0	0	28
Future Vol, veh/h	39	1778	49	0	1487	33	0	0	50	0	0	28
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	50	-	-	-	-	200	-	-	0	-	-	0
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	42	1933	53	0	1616	36	0	0	54	0	0	30

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	1652	0	0	993
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	5.34	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	3.12	-	-	3.92
Pot Cap-1 Maneuver	187	0	0	210
Stage 1	-	0	0	-
Stage 2	-	0	0	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	187	-	-	210
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.62	0	28.07	19.53
HCM LOS			D	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	210	187	-	-	-	-	278
HCM Lane V/C Ratio	0.259	0.226	-	-	-	-	0.109
HCM Control Delay (s/veh)	28.1	29.8	-	-	-	-	19.5
HCM Lane LOS	D	D	-	-	-	-	C
HCM 95th %tile Q(veh)	1	0.8	-	-	-	-	0.4

HCM 7th TWSC
6: Picadilly Rd & W Site Access













09/24/2024

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗ ↘ ↘ ↘	↗ ↘ ↘ ↘			↗ ↘ ↘ ↘
Traffic Vol, veh/h	0	30	1374	57	0	1910
Future Vol, veh/h	0	30	1374	57	0	1910
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	33	1493	62	0	2076
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	-	778	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.14	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.92	-	-	-	-
Pot Cap-1 Maneuver	0	291	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	291	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s/v18.92		0		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBT		
Capacity (veh/h)	-	-	291	-		
HCM Lane V/C Ratio	-	-	0.112	-		
HCM Control Delay (s/veh)	-	-	18.9	-		
HCM Lane LOS	-	-	C	-		
HCM 95th %tile Q(veh)	-	-	0.4	-		

Queues

1: Picadilly Rd & E 56th Ave

09/25/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	676	1066	513	874	1284	296	460	810	678	155	585	547
v/c Ratio	0.90	0.94	0.70	0.92	0.90	0.54	0.99	0.77	0.77	0.68	0.70	0.72
Control Delay (s/veh)	69.7	69.9	30.6	73.1	68.5	41.7	73.3	54.6	48.1	47.6	59.4	29.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	69.7	69.9	30.6	73.1	68.5	41.7	73.3	54.6	48.1	47.6	59.4	29.7
Queue Length 50th (ft)	314	353	287	435	345	147	219	284	595	99	184	306
Queue Length 95th (ft)	#460	#443	429	m#560	#420	m204	#324	331	726	151	223	453
Internal Link Dist (ft)	2771			652			510			1611		
Turn Bay Length (ft)	400				375	125	250				175	225
Base Capacity (vph)	749	1129	728	949	1426	544	465	1125	886	251	980	765
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.90	0.94	0.70	0.92	0.90	0.54	0.99	0.72	0.77	0.62	0.60	0.72

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

























Queue shown is maximum after two cycles.

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

HCM 7th Signalized Intersection Summary

1: Picadilly Rd & E 56th Ave

09/25/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	622	981	472	804	1181	272	423	745	624	143	538	503
Future Volume (veh/h)	622	981	472	804	1181	272	423	745	624	143	538	503
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	676	1066	513	874	1284	296	460	810	678	155	585	547
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	666	1131	566	864	1422	442	469	1250	784	233	985	611
Arrive On Green	0.19	0.22	0.22	0.08	0.09	0.09	0.04	0.08	0.08	0.08	0.19	0.19
Sat Flow, veh/h	3456	5106	1585	3456	5106	1585	3456	5106	1585	1781	5106	1585
Grp Volume(v), veh/h	676	1066	513	874	1284	296	460	810	678	155	585	547
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1702	1585	1728	1702	1585	1781	1702	1585
Q Serve(g_s), s	27.0	28.8	31.0	35.0	34.9	25.3	18.6	21.5	34.3	9.7	14.6	27.0
Cycle Q Clear(g_c), s	27.0	28.8	31.0	35.0	34.9	25.3	18.6	21.5	34.3	9.7	14.6	27.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	666	1131	566	864	1422	442	469	1250	784	233	985	611
V/C Ratio(X)	1.01	0.94	0.91	1.01	0.90	0.67	0.98	0.65	0.86	0.67	0.59	0.89
Avail Cap(c_a), veh/h	666	1131	566	864	1422	442	469	1250	784	274	985	611
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.5	53.6	42.8	64.2	61.7	57.3	66.7	58.5	35.4	41.4	51.5	40.3
Incr Delay (d2), s/veh	38.5	16.1	20.6	33.5	9.6	7.9	36.5	1.2	9.9	4.7	1.0	15.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.0	13.7	19.7	20.3	17.2	11.8	11.0	10.0	20.2	4.5	6.3	19.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	95.0	69.8	63.4	97.8	71.3	65.2	103.1	59.7	45.3	46.1	52.5	56.0
LnGrp LOS	F	E	E	F	E	E	F	E	D	D	D	E
Approach Vol, veh/h	2255			2454			1948			1287		
Approach Delay, s/veh	75.9			80.0			64.9			53.2		
Approach LOS	E			E			E			D		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	42.0	38.0	26.0	34.0	34.0	46.0	18.7	41.3				
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0				
Max Green Setting (Gmax), s	35.0	31.0	19.0	27.0	27.0	39.0	15.0	31.0				
Max Q Clear Time (g_c+I1), s	37.0	33.0	20.6	29.0	29.0	36.9	11.7	36.3				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	1.6	0.1	0.0				
Intersection Summary												
HCM 7th Control Delay, s/veh				70.8								
HCM 7th LOS				E								

HCM 7th TWSC

2: Picadilly Rd & Maxwell PI/NW Site Access

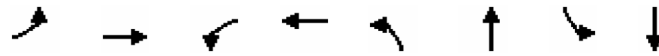
09/25/2024

Intersection												
Int Delay, s/veh	11											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↱			↱	↱↱↱			↱↱↱		
Traffic Vol, veh/h	0	0	53	0	0	216	52	1576	310	60	1727	27
Future Vol, veh/h	0	0	53	0	0	216	52	1576	310	60	1727	27
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	-	-	0	-	-	0	250	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	58	0	0	235	57	1713	337	65	1877	29
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	-	-	953	-	-	1025	1907	0	0	2050	0	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7.14	-	-	7.14	5.34	-	-	5.34	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.92	-	-	3.92	3.12	-	-	3.12	-	-
Pot Cap-1 Maneuver	0	0	223	0	0	~ 200	139	-	-	118	-	-
Stage 1	0	0	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	0	0	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	223	-	-	~ 200	139	-	-	118	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s/v	26.7		168.12		1.27		2.25					
HCM LOS	D		F									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	139	-	-	223	200	118	-	-				
HCM Lane V/C Ratio	0.405	-	-	0.259	1.176	0.553	-	-				
HCM Control Delay (s/veh)	47.4	-	-	26.7	168.1	68	-	-				
HCM Lane LOS	E	-	-	D	F	F	-	-				
HCM 95th %tile Q(veh)	1.7	-	-	1	11.8	2.6	-	-				
Notes												
~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon												

Queues

3: Picadilly Rd & E 54th Ave/SW Site Access

09/25/2024



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	8	11	295	30	26	2125	58	1876
v/c Ratio	0.06	0.03	0.81	0.05	0.17	0.77	0.38	0.65
Control Delay (s/veh)	62.0	0.2	70.4	0.2	16.7	30.8	21.2	19.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	62.0	0.2	70.4	0.2	16.7	30.8	21.2	19.2
Queue Length 50th (ft)	7	0	259	0	9	613	12	515
Queue Length 95th (ft)	25	0	339	0	27	#856	m29	677
Internal Link Dist (ft)		571		430		580		317
Turn Bay Length (ft)					125		300	
Base Capacity (vph)	151	342	459	619	224	2762	217	2896
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.03	0.64	0.05	0.12	0.77	0.27	0.65

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.





















Queue shown is maximum after two cycles.

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

HCM 7th Signalized Intersection Summary

3: Picadilly Rd & E 54th Ave/SW Site Access

09/25/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	7	0	10	271	0	28	24	1910	45	26	28	1717
Future Volume (veh/h)	7	0	10	271	0	28	24	1910	45	26	28	1717
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0		0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Ped-Bike Adj(A_pbT)	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
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
Adj Flow Rate, veh/h	8	0	11	295	0	30	26	2076	49		30	1866
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2		2	2
Cap, veh/h	66	0	59	325	0	289	174	2874	68		162	2950
Arrive On Green	0.04	0.00	0.04	0.18	0.00	0.18	0.03	0.56	0.56		0.02	0.38
Sat Flow, veh/h	1781	0	1585	1781	0	1585	1781	5132	121		1781	5241
Grp Volume(v), veh/h	8	0	11	295	0	30	26	1376	749		30	1212
Grp Sat Flow(s),veh/h/ln	1781	0	1585	1781	0	1585	1781	1702	1849		1781	1702
Q Serve(g_s), s	0.6	0.0	0.9	22.7	0.0	2.2	0.8	41.8	42.0		1.0	40.8
Cycle Q Clear(g_c), s	0.6	0.0	0.9	22.7	0.0	2.2	0.8	41.8	42.0		1.0	40.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.07		1.00	
Lane Grp Cap(c), veh/h	66	0	59	325	0	289	174	1907	1035		162	1916
V/C Ratio(X)	0.12	0.00	0.19	0.91	0.00	0.10	0.15	0.72	0.72		0.18	0.63
Avail Cap(c_a), veh/h	153	0	136	458	0	408	283	1907	1035		266	1916
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		0.67	0.67
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
Uniform Delay (d), s/veh	65.2	0.0	65.3	56.1	0.0	47.7	18.4	22.7	22.8		19.4	31.8
Incr Delay (d2), s/veh	0.8	0.0	1.5	17.1	0.0	0.2	0.4	2.4	4.4		0.5	1.6
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
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.4	11.8	0.0	0.9	0.3	16.5	18.6		0.4	17.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	66.0	0.0	66.8	73.2	0.0	47.9	18.8	25.1	27.2		19.9	33.4
LnGrp LOS	E		E	E		D	B	C	C		B	C
Approach Vol, veh/h	19				325				2151			
Approach Delay, s/veh	66.5				70.8				25.8			
Approach LOS	E				E				C			
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.8	85.4		10.2	11.5	85.8		32.5				
Change Period (Y+Rc), s	7.0	7.0		5.0	7.0	7.0		7.0				
Max Green Setting (Gmax), s	13.0	53.0		12.0	13.0	53.0		36.0				
Max Q Clear Time (g_c+I1), s	3.0	44.0		2.9	2.8	42.8		24.7				
Green Ext Time (p_c), s	0.0	7.5		0.0	0.0	7.7		0.8				
Intersection Summary												
HCM 7th Control Delay, s/veh	32.7											
HCM 7th LOS	C											
Notes												
User approved ignoring U-Turning movement.												

HCM 7th Signalized Intersection Summary 3: Picadilly Rd & E 54th Ave/SW Site Access

09/25/2024












Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	9
Future Volume (veh/h)	9
Initial Q (Qb), veh	0
Lane Width Adj.	1.00
Ped-Bike Adj(A_pbT)	1.00
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1870
Adj Flow Rate, veh/h	10
Peak Hour Factor	0.92
Percent Heavy Veh, %	2
Cap, veh/h	16
Arrive On Green	0.38
Sat Flow, veh/h	28
Grp Volume(v), veh/h	664
Grp Sat Flow(s),veh/h/ln	1865
Q Serve(g_s), s	40.8
Cycle Q Clear(g_c), s	40.8
Prop In Lane	0.02
Lane Grp Cap(c), veh/h	1050
V/C Ratio(X)	0.63
Avail Cap(c_a), veh/h	1050
HCM Platoon Ratio	0.67
Upstream Filter(I)	1.00
Uniform Delay (d), s/veh	31.8
Incr Delay (d2), s/veh	2.9
Initial Q Delay(d3), s/veh	0.0
%ile BackOfQ(50%),veh/ln	20.0
Unsig. Movement Delay, s/veh	
LnGrp Delay(d), s/veh	34.7
LnGrp LOS	C
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	

Queues

4: Road A & E 56th Ave






















09/25/2024

									
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	235	1609	326	2179	137	67	95	128	199
v/c Ratio	0.70	0.79	0.67	0.89	0.16	0.39	0.26	0.53	0.46
Control Delay (s/veh)	42.5	32.0	41.7	38.7	3.7	52.6	1.7	55.8	3.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	42.5	32.0	41.7	38.7	3.7	52.6	1.7	55.8	3.5
Queue Length 50th (ft)	151	345	215	656	0	50	0	100	0
Queue Length 95th (ft)	m193	m377	328	#813	37	95	0	163	0
Internal Link Dist (ft)		795		1121			547		506
Turn Bay Length (ft)	325		325		200	75			
Base Capacity (vph)	336	2032	483	2457	837	211	535	250	553
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.70	0.79	0.67	0.89	0.16	0.32	0.18	0.51	0.36
Intersection Summary									
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.									
m Volume for 95th percentile queue is metered by upstream signal.									

HCM 7th Signalized Intersection Summary







4: Road A & E 56th Ave

09/25/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	216	1470	10	300	2005	126	62	0	87	118	0	183
Future Volume (veh/h)	216	1470	10	300	2005	126	62	0	87	118	0	183
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	235	1598	11	326	2179	137	67	0	95	128	0	199
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	2664	18	394	2605	809	157	0	177	260	0	226
Arrive On Green	0.20	1.00	1.00	0.10	0.51	0.51	0.05	0.00	0.11	0.08	0.00	0.14
Sat Flow, veh/h	1781	5232	36	1781	5106	1585	1781	0	1585	1781	0	1585
Grp Volume(v), veh/h	235	1040	569	326	2179	137	67	0	95	128	0	199
Grp Sat Flow(s),veh/h/ln	1781	1702	1864	1781	1702	1585	1781	0	1585	1781	0	1585
Q Serve(g_s), s	12.1	0.0	0.0	12.2	51.1	6.5	4.6	0.0	7.9	8.8	0.0	17.2
Cycle Q Clear(g_c), s	12.1	0.0	0.0	12.2	51.1	6.5	4.6	0.0	7.9	8.8	0.0	17.2
Prop In Lane	1.00		0.02	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	254	1733	949	394	2605	809	157	0	177	260	0	226
V/C Ratio(X)	0.92	0.60	0.60	0.83	0.84	0.17	0.43	0.00	0.54	0.49	0.00	0.88
Avail Cap(c_a), veh/h	265	1733	949	403	2605	809	240	0	317	289	0	317
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	34.9	0.0	0.0	13.6	29.3	18.4	52.2	0.0	58.7	49.9	0.0	58.9
Incr Delay (d2), s/veh	34.9	1.5	2.8	13.2	3.4	0.5	1.8	0.0	2.5	1.4	0.0	18.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.7	0.4	0.7	6.1	20.4	2.5	2.2	0.0	3.3	4.1	0.0	8.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	69.8	1.5	2.8	26.8	32.7	18.8	54.0	0.0	61.2	51.3	0.0	77.1
LnGrp LOS	E	A	A	C	C	B	D		E	D		E
Approach Vol, veh/h	1844			2642			162			327		
Approach Delay, s/veh	10.6			31.2			58.2			67.0		
Approach LOS	B			C			E			E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	21.3	78.3	17.8	22.7	21.1	78.4	13.5	27.0				
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0				
Max Green Setting (Gmax), s	15.0	56.0	13.0	28.0	15.0	56.0	13.0	28.0				
Max Q Clear Time (g_c+I1), s	14.2	2.0	10.8	9.9	14.1	53.1	6.6	19.2				
Green Ext Time (p_c), s	0.1	17.9	0.1	0.4	0.1	2.7	0.1	0.7				
Intersection Summary												
HCM 7th Control Delay, s/veh	26.8											
HCM 7th LOS	C											

Intersection

Int Delay, s/veh 5.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	72	1610	66	0	2186	64	0	0	86	0	0	71
Future Vol, veh/h	72	1610	66	0	2186	64	0	0	86	0	0	71
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	50	-	-	-	-	200	-	-	0	-	-	0
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	78	1750	72	0	2376	70	0	0	93	0	0	77

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	2446	0	0	911
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	5.34	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	3.12	-	-	3.92
Pot Cap-1 Maneuver	~ 74	0	0	238
Stage 1	-	0	0	-
Stage 2	-	0	0	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	~ 74	-	-	238
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	9.07	0	29.62	49.22
HCM LOS			D	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	238	~ 74	-	-	-	-	155
HCM Lane V/C Ratio	0.393	1.059	-	-	-	-	0.497
HCM Control Delay (s/veh)	29.6	220.1	-	-	-	-	49.2
HCM Lane LOS	D	F	-	-	-	-	E
HCM 95th %tile Q(veh)	1.8	5.7	-	-	-	-	2.4

Notes

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

HCM 7th TWSC
6: Picadilly Rd & W Site Access

09/25/2024

Intersection						
Int Delay, s/veh	0.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗ ↘ ↘ ↘	↗ ↘ ↘ ↘			↗ ↘ ↘ ↘
Traffic Vol, veh/h	0	45	1893	78	0	1780
Future Vol, veh/h	0	45	1893	78	0	1780
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	49	2058	85	0	1935
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	-	1071	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.14	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.92	-	-	-	-
Pot Cap-1 Maneuver	0	186	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	186	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s/v31.14		0		0		
HCM LOS	D					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBT		
Capacity (veh/h)	-	- 186		-		
HCM Lane V/C Ratio	-	- 0.263		-		
HCM Control Delay (s/veh)	-	- 31.1		-		
HCM Lane LOS	-	- D		-		
HCM 95th %tile Q(veh)	-	- 1		-		

APPENDIX H – Signal Warrant Analysis Tables & Figures

Timeframe	Existing		
	Major	Minor - NB	Minor - SB
7:00 AM - 8:00 AM	791	338	320
8:00 AM - 9:00 AM	749	289	236
9:00 AM - 10:00 AM	539	185	175
10:00 AM - 11:00 AM	477	176	180
11:00 AM - 12:00 PM	598	195	182
12:00 PM - 1:00 PM	621	218	196
1:00 PM - 2:00 PM	674	235	217
2:00 PM - 3:00 PM	716	267	257
3:00 PM - 4:00 PM	853	349	283
4:00 PM - 5:00 PM	867	355	279
5:00 PM - 6:00 PM	919	400	254
6:00 PM - 7:00 PM	689	279	212

INTERSECTION: E 56th Ave & Picadilly Rd

Table 4C-1. Warrant 1, Eight-Hour Vehicular Volume

Condition A—Minimum Vehicular Volume

Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)			
Major Street	Minor Street	100% ^a	80% ^b	70% ^c	56% ^d	100% ^a	80% ^b	70% ^c	56% ^d
1	1	500	400	350	280	150	120	105	84
2 or more	1	600	480	420	336	150	120	105	84
2 or more	2 or more	600	480	420	336	200	160	140	112
1	2 or more	500	400	350	280	200	160	140	112

Condition B—Interruption of Continuous Traffic

Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)			
Major Street	Minor Street	100% ^a	80% ^b	70% ^c	56% ^d	100% ^a	80% ^b	70% ^c	56% ^d
1	1	750	600	525	420	75	60	53	42
2 or more	1	900	720	630	504	75	60	53	42
2 or more	2 or more	900	720	630	504	100	80	70	56
1	2 or more	750	600	525	420	100	80	70	56

^a Basic minimum hourly volume

^b Used for combination of Conditions A and B after adequate trial of other remedial measures

^c May be used when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000

^d May be used for combination of Conditions A and B after adequate trial of other remedial measures when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000

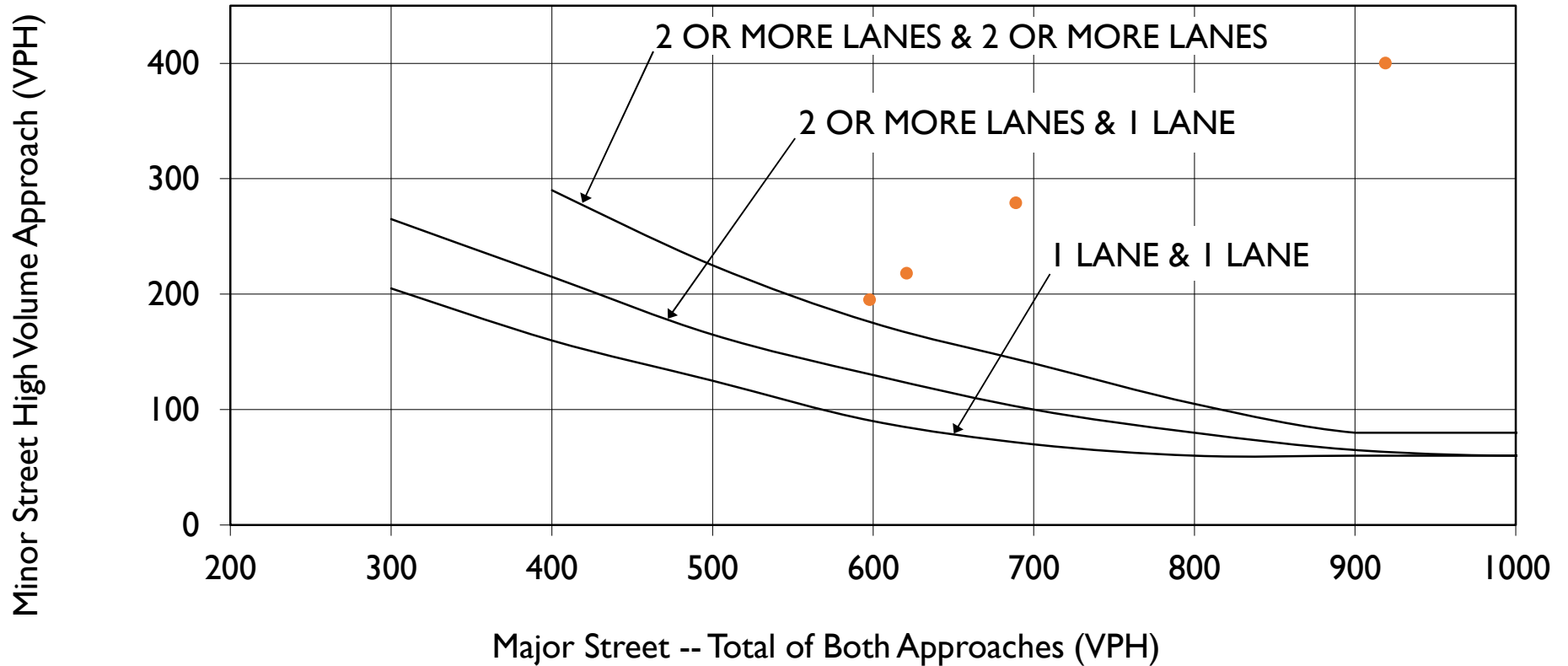
INPUT VOLUMES

Condition	Major Street (total of both approaches)	Minor Street (high volume approach)	Lane Types
Existing 11 am - 12 pm	598	195	1 Lane & 1 Lane
Existing 12 pm - 1 pm	621	218	1 Lane & 1 Lane
Existing 5pm - 6 pm	919	400	1 Lane & 1 Lane
Existing 6 pm - 7 pm	689	279	1 Lane & 1 Lane

INTERSECTION: E 56th Ave & Picadilly Rd

● Existing

Figure 4C-2. Warrant 2, Four-Hour Vehicular Volume (70% Factor)

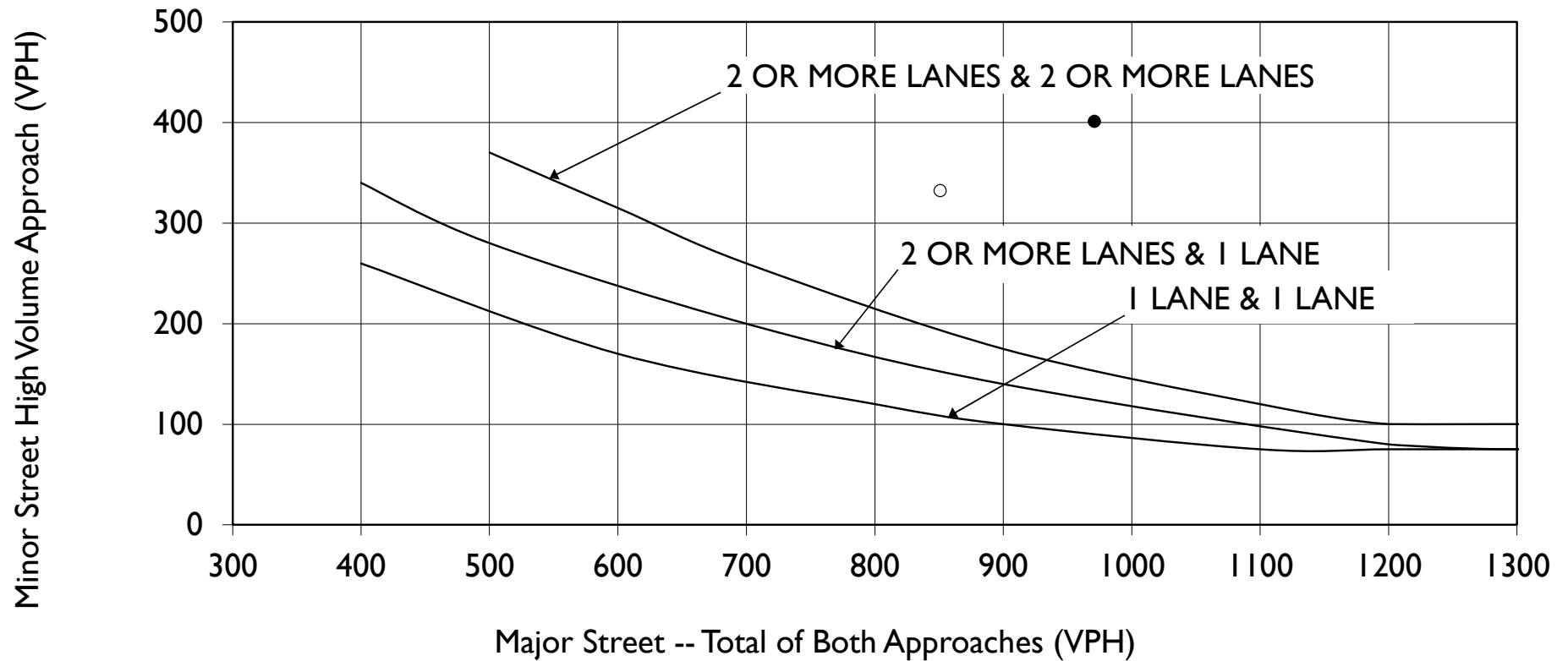


INPUT VOLUMES

Condition	Major Street (total of both approaches)	Minor Street (high volume approach)	Lane Types
○ Existing - AM	851	332	2 or More Lanes & 1 Lane
● Existing - PM	971	401	2 or More Lanes & 1 Lane

INTERSECTION: E 56th Ave & Picadilly Rd

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)



Timeframe	Total Future 2026			Total Future 2050		
	Major	Minor - EB	Minor - WB	Major	Minor - EB	Minor - WB
7:00 AM - 8:00 AM	897	37	47	2,782	121	47
8:00 AM - 9:00 AM	838	32	70	2,532	103	70
9:00 AM - 10:00 AM	548	13	118	1,480	39	118
10:00 AM - 11:00 AM	604	8	179	1,513	25	179
11:00 AM - 12:00 PM	724	20	231	1,774	64	231
12:00 PM - 1:00 PM	784	25	271	1,869	78	271
1:00 PM - 2:00 PM	763	18	260	1,830	57	260
2:00 PM - 3:00 PM	948	19	241	2,469	60	241
3:00 PM - 4:00 PM	1,214	16	242	3,324	53	242
4:00 PM - 5:00 PM	1,210	16	254	3,282	50	254
5:00 PM - 6:00 PM	1,215	16	258	3,290	49	258
6:00 PM - 7:00 PM	903	28	227	2,360	89	227

INTERSECTION: E 54th Ave & Picadilly Rd

Table 4C-1. Warrant 1, Eight-Hour Vehicular Volume

Condition A—Minimum Vehicular Volume

Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)			
Major Street	Minor Street	100% ^a	80% ^b	70% ^c	56% ^d	100% ^a	80% ^b	70% ^c	56% ^d
1	1	500	400	350	280	150	120	105	84
2 or more	1	600	480	420	336	150	120	105	84
2 or more	2 or more	600	480	420	336	200	160	140	112
1	2 or more	500	400	350	280	200	160	140	112

Condition B—Interruption of Continuous Traffic

Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)			
Major Street	Minor Street	100% ^a	80% ^b	70% ^c	56% ^d	100% ^a	80% ^b	70% ^c	56% ^d
1	1	750	600	525	420	75	60	53	42
2 or more	1	900	720	630	504	75	60	53	42
2 or more	2 or more	900	720	630	504	100	80	70	56
1	2 or more	750	600	525	420	100	80	70	56

^a Basic minimum hourly volume

^b Used for combination of Conditions A and B after adequate trial of other remedial measures

^c May be used when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000

^d May be used for combination of Conditions A and B after adequate trial of other remedial measures when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000

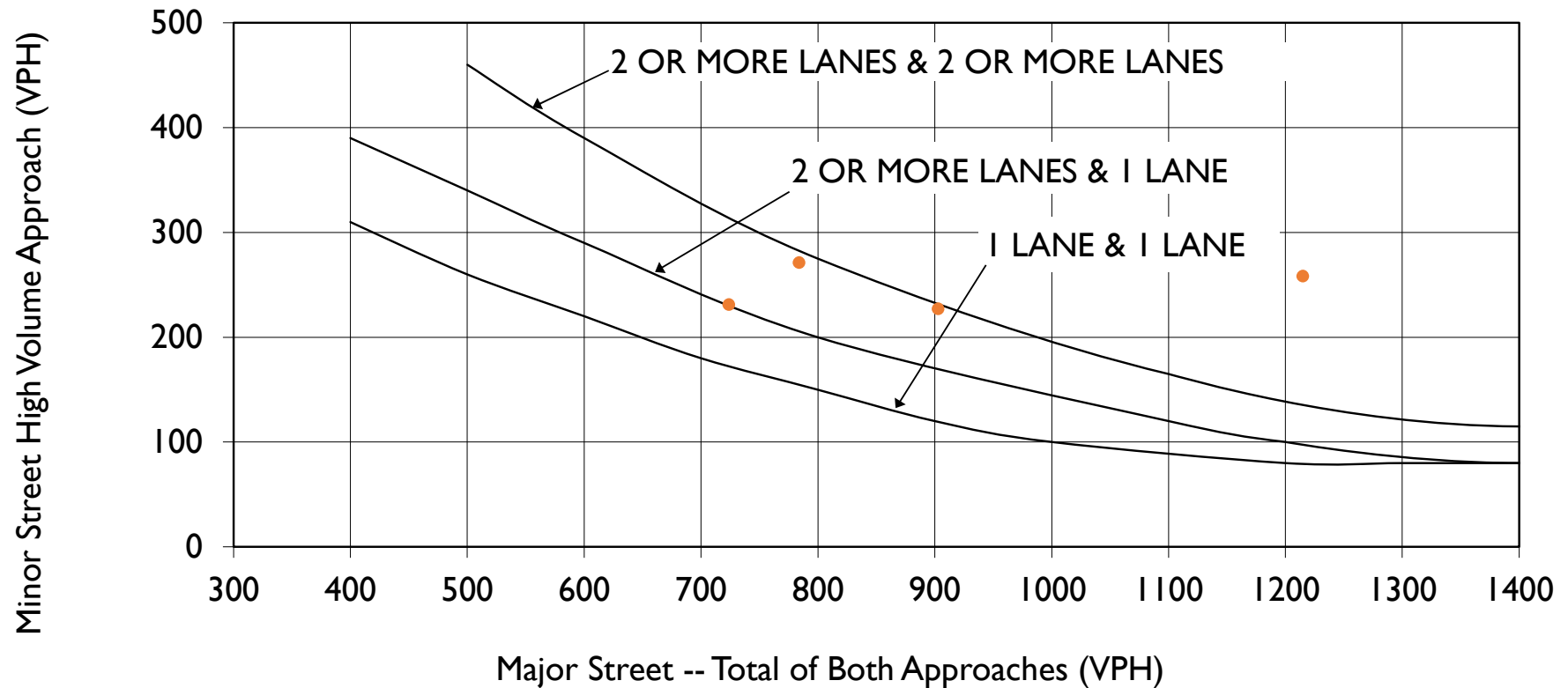
INPUT VOLUMES

Condition	Major Street (total of both approaches)	Minor Street (high volume approach)	Lane Types
TF 2026 11am - 12 pm	724	231	1 Lane & 1 Lane
TF 2026 12 pm - 1 pm	784	271	1 Lane & 1 Lane
TF 2026 5pm - 6 pm	1,215	258	1 Lane & 1 Lane
TF 2026 6 pm - 7 pm	903	227	1 Lane & 1 Lane
TF 2050 11am - 12 pm	1,774	231	2 or More Lanes & 1 Lane
TF 2050 12pm - 1 pm	1,869	271	2 or More Lanes & 1 Lane
TF 2050 5 pm - 6 pm	3,290	258	2 or More Lanes & 1 Lane
TF 2050 6 pm - 7 pm	2,360	227	2 or More Lanes & 1 Lane

INTERSECTION: E 54th Ave & Picadilly Rd

- TF 2026
- TF 2050

Figure 4C-1. Warrant 2, Four-Hour Vehicular Volume

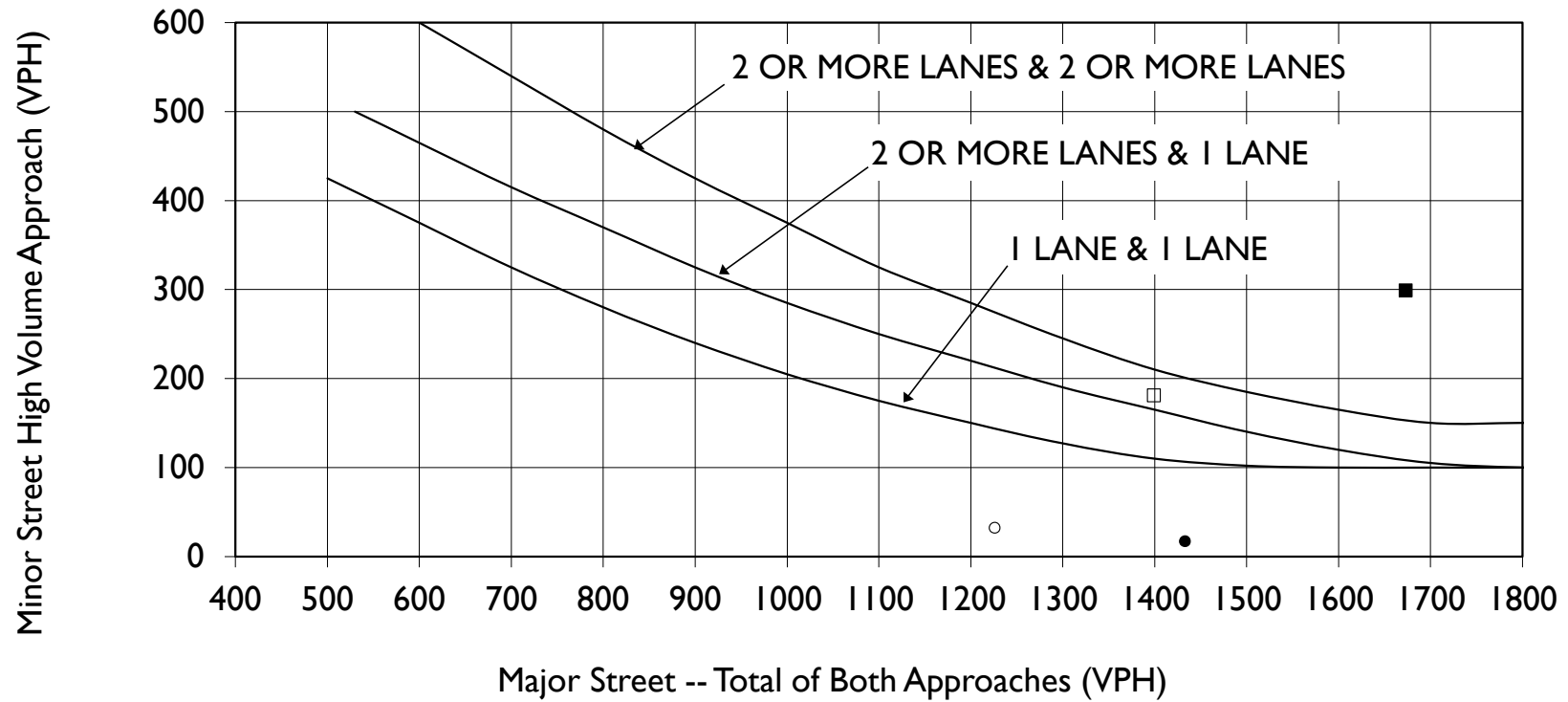


INPUT VOLUMES

Condition	Major Street (total of both approaches)	Minor Street (high volume approach)	Lane Types
○ 2026 BG - AM	1226	32	1 Lane & 1 Lane
● 2026 BG - PM	1,433	17	1 Lane & 1 Lane
◇ 2050 BG - AM	3,111	32	2 or More Lanes & 1 Lane
◆ 2050 BG - PM	3,493	17	2 or More Lanes & 1 Lane
□ 2026 TF - AM	1,399	181	1 Lane & 1 Lane
■ 2026 TF - PM	1,673	299	1 Lane & 1 Lane
△ 2050 TF - AM	3,314	181	2 or More Lanes & 1 Lane
▲ 2050 TF - PM	3,759	299	2 or More Lanes & 1 Lane

INTERSECTION: E 54th Ave & Picadilly Rd

Figure 4C-3.Warrant 3, Peak Hour



Timeframe	Total Future 2026		Total Future 2050	
	Major	Minor - NB	Major	Minor - NB
7:00 AM - 8:00 AM	958	29	2,798	29
8:00 AM - 9:00 AM	889	43	2,435	43
9:00 AM - 10:00 AM	866	74	2,058	74
10:00 AM - 11:00 AM	976	112	2,033	112
11:00 AM - 12:00 PM	1,245	144	2,580	144
12:00 PM - 1:00 PM	1,356	169	2,691	169
1:00 PM - 2:00 PM	1,400	161	2,899	161
2:00 PM - 3:00 PM	1,355	151	2,867	151
3:00 PM - 4:00 PM	1,487	151	3,288	151
4:00 PM - 5:00 PM	1,541	159	3,388	159
5:00 PM - 6:00 PM	1,609	161	3,578	161
6:00 PM - 7:00 PM	1,226	142	2,540	142

INTERSECTION: E 56th Ave & Road A

Table 4C-1. Warrant 1, Eight-Hour Vehicular Volume
Condition A—Minimum Vehicular Volume

Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)			
Major Street	Minor Street	100% ^a	80% ^b	70% ^c	56% ^d	100% ^a	80% ^b	70% ^c	56% ^d
1	1	500	400	350	280	150	120	105	84
2 or more	1	600	480	420	336	150	120	105	84
2 or more	2 or more	600	480	420	336	200	160	140	112
1	2 or more	500	400	350	280	200	160	140	112

Condition B—Interruption of Continuous Traffic

Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)			
Major Street	Minor Street	100% ^a	80% ^b	70% ^c	56% ^d	100% ^a	80% ^b	70% ^c	56% ^d
1	1	750	600	525	420	75	60	53	42
2 or more	1	900	720	630	504	75	60	53	42
2 or more	2 or more	900	720	630	504	100	80	70	56
1	2 or more	750	600	525	420	100	80	70	56

^a Basic minimum hourly volume

^b Used for combination of Conditions A and B after adequate trial of other remedial measures

^c May be used when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000

^d May be used for combination of Conditions A and B after adequate trial of other remedial measures when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000

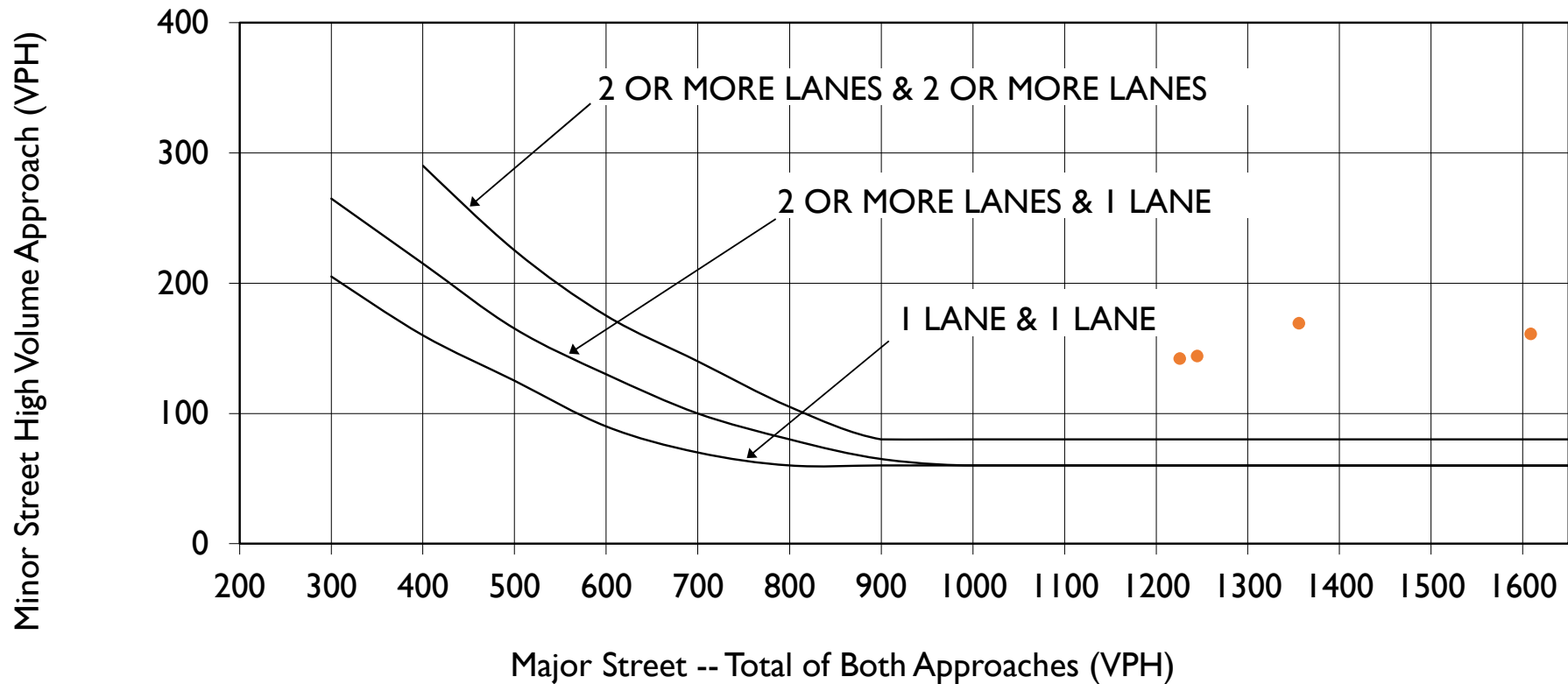
INPUT VOLUMES

Condition	Major Street (total of both approaches)	Minor Street (high volume approach)	Lane Types
TF 2026 11am - 12 pm	1,245	144	2 or More Lanes & 2 or More Lanes
TF 2026 12 pm - 1 pm	1,356	169	2 or More Lanes & 2 or More Lanes
TF 2026 5pm - 6 pm	1,609	161	2 or More Lanes & 2 or More Lanes
TF 2026 6 pm - 7 pm	1,226	142	2 or More Lanes & 2 or More Lanes
TF 2050 11am - 12 pm	2,580	144	2 or More Lanes & 2 or More Lanes
TF 2050 12pm - 1 pm	2,691	169	2 or More Lanes & 2 or More Lanes
TF 2050 5 pm - 6 pm	3,578	161	2 or More Lanes & 2 or More Lanes
TF 2050 6 pm - 7 pm	2,540	142	2 or More Lanes & 2 or More Lanes

INTERSECTION: E 56th Ave & Road A

- TF 2026
- TF 2050

Figure 4C-2. Warrant 2, Four-Hour Vehicular Volume (70% Factor)



INPUT VOLUMES

Condition	Major Street (total of both approaches)	Minor Street (high volume approach)	Lane Types
○ 2026 BG - AM	1,466	210	2 or More Lanes & 2 or More Lanes
● 2026 BG - PM	1,793	301	2 or More Lanes & 2 or More Lanes
◇ 2050 BG - AM	3,335	210	2 or More Lanes & 2 or More Lanes
◆ 2050 BG - PM	3,939	301	2 or More Lanes & 2 or More Lanes
□ 2026 TF - AM	1,586	210	2 or More Lanes & 2 or More Lanes
■ 2026 TF - PM	1,981	301	2 or More Lanes & 2 or More Lanes
△ 2050 TF - AM	3,455	210	2 or More Lanes & 2 or More Lanes
▲ 2050 TF - PM	4,127	301	2 or More Lanes & 2 or More Lanes

INTERSECTION: E 56th Ave & Road A

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

