WELLS + ASSOCIATES

ARLINGTON YMCA

MULTI-MODAL TRANSPORTATION ASSESSMENT

August 1, 2022

ARLINGTON YMCA

Multi-Modal Transportation Assessment

Arlington County, Virginia

August 1, 2022

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SECTION 1:
INTRODUCTION

This report presents the results of a Multimodal Transportation Assessment (MMTA) for the proposed redevelopment of the Arlington YMCA and a new multifamily building in Arlington, Virginia.

The subject site is located on the south side of 13th Street North bounded by single-family homes to the west, townhomes to the north and east, and commercial uses and the APAH/American Legion mixed use building and Mill Creek multi-family building (under construction) to the south. The site is located in the southwest quadrant of North Kirkwood Road and 13th Street North, as shown on Figure 1, and is currently occupied by the Arlington YMCA. Vehicular access to surface parking and pick-up/drop-off areas is currently provided via four (4) driveways on 13th Street North and one (1) driveway on North Kirkwood Road.

A new YMCA building will be constructed on the west side of the site to include an array of uses including a Diversity, Equity, and Inclusion center, tennis and pickle ball courts, an aquatics center, STEM and maker-space for children, and community health amenities within approximately 95,140 S.F. served by approximately 203 parking spaces in a four-level underground parking garage. The main entrance to the YMCA will be off 13th Street N. and parking and loading will occur from a new shared access drive on the west side of the building extending from the new segment of N. Kansas Street on the west side of APAH's American Legion development. The new, north-south shared access drive will provide access to both 13th Street N. and Washington Boulevard. With the redevelopment of the YMCA site, the number of curb cuts on 13th Street N. will be reduced from four (4) existing to one (1) curb cut for the new shared access drive.

The east side of the site will be redeveloped with a 374 unit multi-family residential building and 295 parking spaces. The main entrance for residents will be on the North Kirkwood Road frontage. Vehicular access to the parking garage and loading docks will be from an alley on the south side that connects to North Kirkwood Road and Washington Boulevard. A layby lane, or short term parking, is proposed on North Kirkwood Road in front of the main lobby. The driveway on North Kirkwood Road serving the existing YMCA facility will be removed.

A rendered site plan is shown on Figure 2.

The properties are identified as Arlington County RCP #15-086-023, 15-086-024, and 15-086-022 with an R-5 zoning designation. The subject parcels are designated as Semi-Public and Low Residential according to the General Land Use Plan (GLUP) of Arlington. The Applicants propose to change the GLUP classification to Low Office-Apartment-Hotel and rezone the parcels to C-O-1.5., consistent with the Washington Boulevard and Kirkwood Road Special GLUP Study.

Tasks undertaken in conjunction with this study include the following:

1. Reviewed the proposed development plans, traffic impact studies conducted in the vicinity of the site, the Master Transportation Plan, the GLUP, the Washington Boulevard and Kirkwood Road Special General Land Use Plan Study "Plus" and Concept Plan and other background materials.
2. Conducted a field reconnaissance of the subject site, adjacent properties, surrounding public roadways, and traffic conditions.
3. Completed comprehensive multimodal analysis of the site including transit, walkability, and bicycle facilities. The study determined what options, other than vehicular, are available to all users of the site. The study includes bus ridership information, metro ridership information, bike sharing facilities and an inventory of pedestrian infrastructure.

4. Established a study scope and specific analysis parameters for the MMTA with Arlington County Department of Environmental Services (DES) staff (See Appendix A)
5. Collected vehicular, pedestrian and bicycle counts at the study intersections during the weekday AM and PM peak periods.
6. Conducted operational analyses of existing levels of service (LOS) and vehicle queues at the study intersection based on existing peak hour traffic volumes and the existing intersection geometries and traffic controls.
7. Forecasted traffic volumes for the year 2025 without the proposed redevelopment based on existing traffic volumes, regional traffic growth and trips generated by approved pipeline developments.
8. Analyzed 2025 future LOS and queues without the proposed redevelopment at the study intersections based on the future forecast without redevelopment and existing intersection geometries and traffic controls.
9. Estimated the number of AM and PM peak hour person and vehicle trips that will be generated by the buildout of the proposed re-development based on standard Institute of Transportation Engineers (ITE) Trip Generation Manual, 11th Edition and Arlington County mode split percentages.
10. Prepared AM and PM peak hour traffic forecasts with the proposed redevelopment based on background traffic volumes and traffic associated with the proposed redeveloped YMCA and new residential building.
11. Analyzed future LOS and vehicle queues with the proposed redevelopment at the study intersections and site driveways, based on the future traffic forecasts and future intersection geometries and traffic controls.
12. Identified traffic improvements/ enhancements necessary to mitigate the impact of the proposed redevelopment.

Sources of data for this analysis include traffic counts collected by Wells + Associates Inc. (W+A); the Arlington County Department of Environmental Services (DES); the Arlington County General Land Use Plan (GLUP); ITE; Capital Bikeshare; the YMCA, Bowman Consulting Group, Walter L Phillips, Perkins Eastman, Lab LLC, and Lee and Associates.

The principal findings of this traffic impact analysis are as follows

1. The subject site is located in a walkable multimodal rich environment with a connected network of sidewalks and nearby bike amenities. Access to/from the site is provided by a combination of local streets and arterial roadways. Further, the site is located within a short walking distance to bus lines and approximately 1/3 of a mile to the Clarendon and Virginia Square Metro Stations.

2. The study intersections currently operate at overall LOS “C” or better during the AM and PM peak hours, and each approach operates with an LOS “D” or better.

3. The six (6) pipeline developments are estimated to generate 261 AM peak hour vehicle trips and 456 PM peak hour vehicle trips.

4. In the future with the addition of the pipeline developments and regional growth, the study intersections will continue to operate at overall LOS “C” or better during both the AM and PM peak hours, and each approach at the intersections will operate at LOS “D” or better.

5. The redeveloped YMCA and the new residential building will add 155 AM peak hour, 221 PM peak hour, and 3,135 daily vehicles trips to the adjacent road network.

6. In the future with the redeveloped YMCA and new residential building, the study intersections will continue to operate at an overall LOS of “C” or better during AM and PM peak hours. However, certain approaches will operate with LOS “E” with tolerable delays in urban areas.

7. With the redevelopment of the Arlington YMCA site, a new shared access drive on the west side of the site will create a new north-south connection tying into the new North Kansas Street segment on the APAH site, the east-west pedestrian/bicycle connection between North Kirkwood Road with upgrades to the streetscape along the property frontages.

8. On North Kirkwood Road, at the alley intersection between Washington Boulevard and 13th Street N., signage and pavement markings should be considered to manage vehicle queueing on southbound North Kirkwood Road.

9. A Transportation Management Plan will be developed individually for the YMCA and proposed residential building that will be geared, respectively, towards encouraging use of alternative modes of transportation rather than private automobiles.

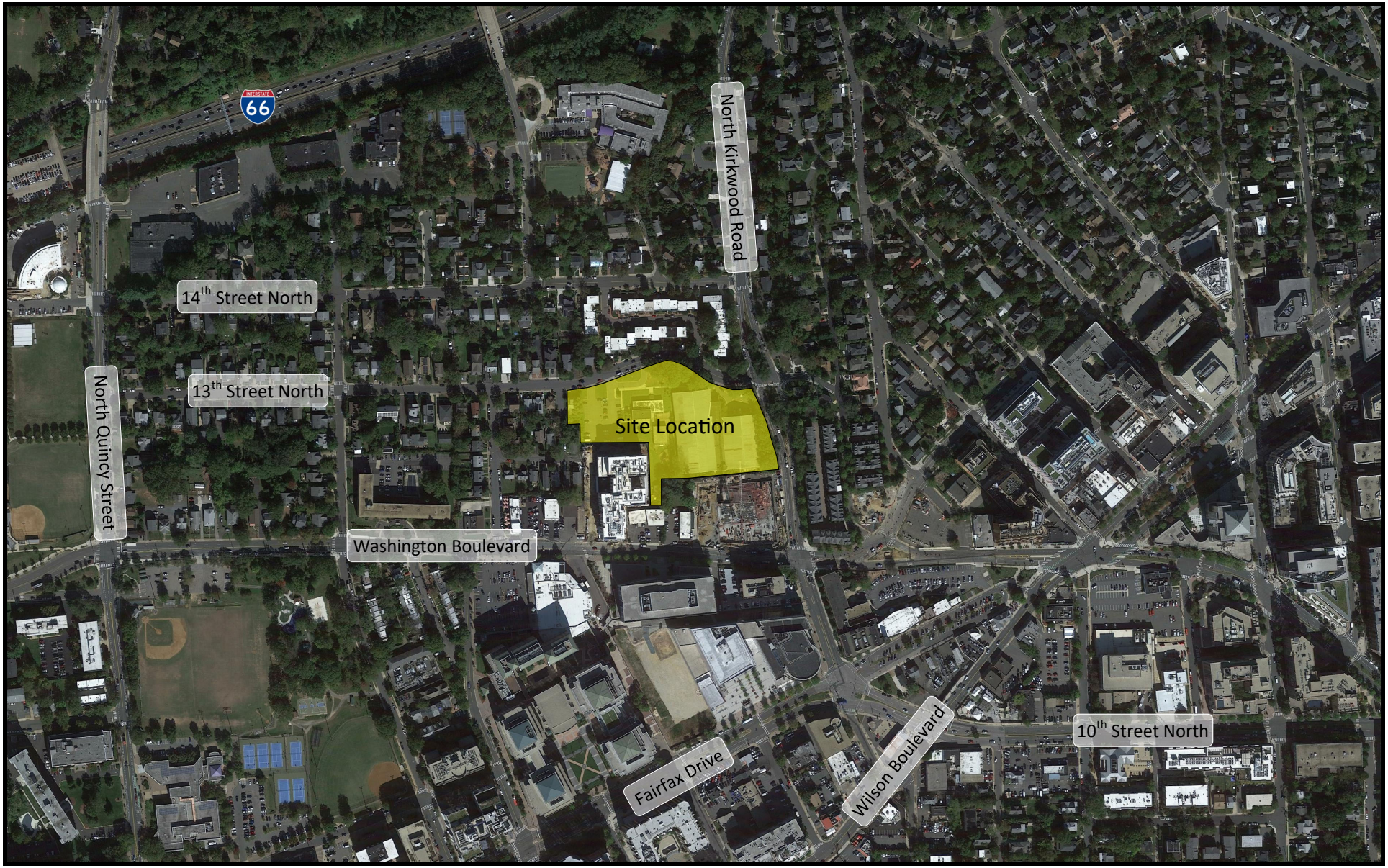


Figure 1
Site Location

NORTH

Arlington YMCA
Arlington, VA

Figure 2
Site Plan

NORTH

Arlington YMCA
Arlington, VA

SECTION 2:
MULTIMODAL FACILITIES

Public Road Network

Existing Network

Vehicular access to the site is currently provided via four (4) existing driveways located on 13th Street N, and one (1) RIRO (Right-In, Right-Out) driveway on North Kirkwood Road. Regional access to the site is provided via Langston Boulevard (US 29), Arlington Boulevard (US 50), Custis Memorial Parkway (I-66) and the George Washington Memorial Parkway. Local access to the site is provide via 13th Street N, North Kirkwood Road, Washington Boulevard, North Quincy Street, 10th Street N, and Fairfax Drive. Existing lane use and traffic controls at key study intersections are shown on Figure 3. A description of each roadway in the vicinity of the site is provided below:

Washington Boulevard Washington Boulevard is classified as an Urban Minor Arterial according to the Arlington County 2005 Classification Map. The posted speed limit within the vicinity is 30 mph and is generally oriented east-west within the study area. Along Washington Boulevard, within the vicinity of the site, there are no bike lanes and parking spaces (though the Washington at Kirkwood project will provide on-street parking along their frontage). Washington Boulevard connects with Falls Church towards the west and I-395 towards the east.

North Kirkwood Road North Kirkwood Road is classified as a Minor Arterial according to the Arlington County 2005 Classification Map. The posted speed limit within the vicinity is 30 mph and is generally oriented north-south within the study area. On-street parking is permitted on both sides of the street; and there are bike lanes on both sides of the street within the vicinity of the YMCA site. North Kirkwood Road intersects with Langston Boulevard to the north and Fairfax Drive to the south.

Fairfax Drive/10th Street N (VA 237) Fairfax Drive/10th Street N is classified as a Minor Arterial according to the Arlington County 2005 Classification Map. The posted speed limit, within the vicinity, is 25 mph and is generally oriented east-west within the study area. On-street parking is not permitted on both sides of the street near the site. Fairfax Drive provides a connection to I-66 towards the west and I-395 to the east. Fairfax Drive merges into 10th Street N after passing the five legged intersection of Fairfax Drive and North Kirkwood Road.

13th Street N 13th Street N is classified as a Local Road according to the Arlington County 2005 Classification Map. The posted speed limit, within the vicinity, is 25 mph and is generally oriented east-west within the study area. On-street parking is only permitted on the southern side of the street near the site. West of the subject site, on-street parking is permitted on both sides of the street. 13th Street N provides local connection between North Quincy Street and North Kirkwood Road.

North Quincy Street North Quincy Street is classified as a Minor Arterial with a posted speed limit of 25 mph in the site vicinity. Oriented in a north-south direction, North Quincy Street intersects with arterial roadways including North Glebe Road (VA 120) to the south and Langston Boulevard/Old Dominion Drive (US 29) to the north. North Quincy Street continues south of North Glebe Road as Henderson Road, which intersects with Arlington Boulevard (US 50). North Quincy Street continues to the north of US 29 as Military Road, which ultimately intersects with North Glebe Road (VA 120) near the Arlington County line with Fairfax County and Washington, DC.

Figure 3 shows the existing lane use and traffic control at each of the study intersections.

On-Street Parking

Adjacent to the site, on-street parking is available on 13th Street N and North Kirkwood Road. Figure 4 reflects parking restrictions on the adjacent roads.

Road Improvements

In conjunction with the Washington at Kirkwood project, North Kirkwood Road is being improved to extend the existing bike lane to the north to the Washington Boulevard intersection. Ultimately, the southbound bike lane will continue across Washington Boulevard to the Fairfax Drive intersection. The lane group on southbound North Kirkwood Road will change from a shared thru/right lane and shared thru/left lane to a single, shared thru/right lane and a separate left turn lane, by removing the median. The traffic signal at the Washington Boulevard/North Kirkwood Road intersection is also being upgraded as part of the Washington at Kirkwood project.

The Washington Boulevard intersection with 13th Street N and North Johnson Street is being reconstructed as part of the former Red Cab site redevelopment.

The APAH – American Legion project built a new segment of North Kansas Street that will connect with the new shared access drive that the Arlington YMCA redevelopment will construct. This new North Kansas Street segment and the shared access drive will provide vehicular, as well as a bicycle and pedestrian connection between 13th Street N. and Washington Boulevard. The new North Kansas Street intersection with Washington Boulevard, will operate under signal control. The existing traffic signal on Washington Boulevard at the Founders Way N intersection is being modified by the APAH project to accommodate the fourth leg, i.e. the North Kansas Street approach.

Non-Auto Facilities and Services

Overview

The subject site is served by multiple public transportation options including regional and local bus service; the Washington Metropolitan Area Transit Authority (WMATA) Metrorail system; a connected network of sidewalks and pedestrian crosswalks; bike sharing services; and on-street and trail bicycle facilities. The subject site is located in the Virginia Square neighborhood within Arlington County.

Metrorail

There are two Metrorail Stations close to the site, located approximately 1/3 of a mile away. The Virginia Square-GMU station is located southwest of the site and provides access to the Orange and Silver lines. The Clarendon Station is located east of the site and also provides access to the Orange and Silver lines. The Orange Line runs between the New Carrollton station in Prince George's County, Maryland and the Vienna/Fairfax-GMU station in Fairfax County. The Silver Line runs between the Largo Town Center station in Prince George's County and the Wiehle-Reston East in Fairfax County. The expansion of the Silver Line, currently under construction, will extend the line to Loudoun County via Washington Dulles International Airport. Riders can take the Orange or Silver line to the Rosslyn, Metro Center, L'Enfant Plaza, and Stadium-Armory stations for access to other lines.

The WMATA Metrorail system operates seven (7) days a week from 5:00 AM to 12:00 AM on Mondays through Thursdays, 5:00 AM to 1:00 AM on Fridays, 7:00 AM to 1:00 AM on Saturdays, and 7:00 AM to 12:00 AM on Sundays. The train headways at the Virginia Square-GMU and Clarendon stations vary from 20 minutes during weekdays to 24 minutes during weekends. The Virginia Square-GMU station provides 12 bike racks and 32 bike lockers and the Clarendon Station provides 12 bike racks and 6 bike lockers.

Bus Service

The site is served by bus routes operated by Arlington Rapid Transit (ART), WMATA, and a commuter bus service. Below are summaries of the routes that operate in close proximity to the site. Figure 5 shows the bus stop locations proximate to the site.

ART Route 41 (Columbia Pike – Ballston – Court House) serves the site via bus stops along Wilson Boulevard. This route runs between Columbia Heights West and Court House Metrorail Station. ART Route 41 stops at four (4) Metrorail stations including Ballston, Virginia Square-GMU, Clarendon, and Court House. This bus line operates on weekdays from 5:30 AM to 12:50 AM, Saturdays from 6:10 AM to 12:48 AM, and Sundays from 6:55 AM to 11:35 PM. The typical headway during the AM and PM peak hours is 15 minutes.

ART Route 42 (Ballston – Pentagon) serves the site via bus stops along Wilson Boulevard. This route runs between the Ballston Metrorail Station and Pentagon Metrorail Station. There are five (5) Metrorail stations within the route which includes Ballston, Virginia Square-GMU, Clarendon, Pentagon City, and Pentagon. This bus line operates on weekdays from 6:00 AM to 8:08 PM, Saturdays from 6:45 AM to 7:45 PM, and Sundays from 7:00 AM to 7:00 PM. The typical headway during the AM and PM peak hours is 18 minutes.

ART Route 62 (Ballston – Court House) serves the site via bus stops along North Kirkwood Road. This route runs between the Ballston-MU Metrorail Station, past Washington-Liberty High School and H-B Woodlawn Secondary School, up to Arlington Boulevard. This bus line operates on weekdays from 6:37 AM to 6:40 PM. It does not operate on the weekend. The closest station servicing this bus line is located approximately 425 feet north of the site along North Kirkwood Road. The typical headway during the AM and PM peak hours is around 27 to 33 minutes.

WMATA Metrobus 38B (Ballston-Farragut Square Line) has stops located south of the site along Washington Boulevard. This route runs between the Ballston-MU Metrorail Station and the Farragut North/West Metrorail Station. It operates along Washington Boulevard before merging with Clarendon Boulevard. The bus line operates everyday from 5:32 AM to 2:01 AM. The typical headway during the AM and PM peak hours is15 minutes.

Omnibus – D200 (Dale City-Pentagon/Rosslyn/Ballston Express) serves the Virginia Square area with a stop along Fairfax Drive.

Bikeshare

Capital Bikeshare stations within the vicinity of the site are in the following locations.

1. GMU at Fairfax Drive and North Kenmore Street
2. Virginia Square Metro at North Monroe Street and 9th Street N
3. Washington Boulevard and 10th Street N
4. Clarendon Metro at Wilson Boulevard and North Highland Street
5. Fairfax Drive and Wilson Boulevard

Table 1 summarizes the average daily usage per month based on 2019data provided by Capital Bikeshare as well as data from May 2020 through April 2021.

Capital Bikeshare also provides electric bicycles in Arlington County. The electric bikes are dock-less and can be parked and locked at the user's destination. User's can go the Capital Bikeshare App to find electric bike locations.

Table 1
Arlington YMCA
Capital Bikeshare Ridership

Month	Origin	Destination	Total Trips
Station 31040 – GMU / Fairfax Dr & Kenmore St			
Jan-19	113	84	197
Feb-19	118	100	218
Mar-19	151	130	281
Apr-19	195	177	372
May-19	183	169	352
Jun-19	214	191	405
Jul-19	220	209	429
Aug-19	198	163	361
Sep-19	212	185	397
Oct-19	212	187	399
Nov-19	123	113	236
Dec-19	98	88	186
Station 31024 – Virginia Square Metro / Monroe St & 9th St N			
Jan-19	250	201	451
Feb-19	240	217	457
Mar-19	406	382	788
Apr-19	551	462	1013
May-19	601	499	1100
Jun-19	606	508	1114
Jul-19	604	494	1098
Aug-19	601	532	1133
Sep-19	656	533	1189
Oct-19	568	510	1078
Nov-19	367	326	693
Dec-19	223	185	408
Station 31026 – Washington Blvd & 10th St N			
Jan-19	119	70	189
Feb-19	142	97	239
Mar-19	267	174	441
Apr-19	299	209	508
May-19	325	263	588
Jun-19	365	250	615
Jul-19	350	249	599
Aug-19	347	212	559
Sep-19	349	243	592
Oct-19	294	181	475
Nov-19	164	107	271
Dec-19	134	78	212
Station 31022 – Clarendon Metro / Wilson Blvd & N Highland St			
Jan-19	264	204	468
Feb-19	261	206	467
Mar-19	400	308	708
Apr-19	515	363	878
May-19	531	382	913
Jun-19	620	470	1090
Jul-19	575	390	965
Aug-19	545	373	918
Sep-19	636	423	1059
Oct-19	531	326	857
Nov-19	365	247	612
Dec-19	278	171	449
Station 31023 – Fairfax Dr & Wilson Blvd			
Jan-19	140	118	258
Feb-19	144	136	280
Mar-19	197	174	371
Apr-19	286	229	515
May-19	348	283	631
Jun-19	374	327	701
Jul-19	343	275	618
Aug-19	341	282	623
Sep-19	307	271	578
Oct-19	300	245	545
Nov-19	174	149	323
Dec-19	144	109	253

Month	Origin	Destination	Total Trips
Station 31040 – GMU / Fairfax Dr & Kenmore St			
May-20	111	98	209
Jun-20	118	122	240
Jul-20	130	107	237
Aug-20	169	143	312
Sep-20	181	149	330
Oct-20	172	157	329
Nov-20	152	122	274
Dec-20	83	87	170
Jan-21	56	50	106
Feb-21	109	80	189
Mar-21	151	134	285
Apr-21	187	125	312
Station 31024 – Virginia Square Metro / Monroe St & 9th St N			
May-20	368	307	675
Jun-20	373	310	683
Jul-20	358	301	659
Aug-20	327	279	606
Sep-20	371	281	652
Oct-20	359	288	647
Nov-20	288	242	530
Dec-20	188	180	368
Jan-21	124	110	234
Feb-21	185	143	328
Mar-21	244	177	421
Apr-21	205	204	409
Station 31026 – Washington Blvd & 10th St N			
May-20	176	167	343
Jun-20	187	144	331
Jul-20	210	134	344
Aug-20	218	178	396
Sep-20	233	176	409
Oct-20	252	175	427
Nov-20	177	138	315
Dec-20	130	103	233
Jan-21	89	68	157
Feb-21	132	72	204
Mar-21	169	121	290
Apr-21	209	166	375
Station 31022 – Clarendon Metro / Wilson Blvd & N Highland St			
May-20	498	308	806
Jun-20	487	385	872
Jul-20	468	400	868
Aug-20	570	440	1010
Sep-20	595	453	1048
Oct-20	615	497	1112
Nov-20	437	334	771
Dec-20	329	283	612
Jan-21	170	163	333
Feb-21	291	208	499
Mar-21	419	368	787
Apr-21	557	435	992
Station 31023 – Fairfax Dr & Wilson Blvd			
May-20	161	158	319
Jun-20	211	199	410
Jul-20	227	223	450
Aug-20	235	171	406
Sep-20	283	227	510
Oct-20	250	217	467
Nov-20	147	142	289
Dec-20	127	115	242
Jan-21	84	76	160
Feb-21	94	78	172
Mar-21	135	117	252
Apr-21	231	184	415

Bicycle Facilities

In addition to the Capital Bikeshare stations and their electric bikes, the site is served by other facilities. 13th Street N is an on-street bike route between North Quincy Street and North Kirkwood Road. North Kirkwood Road has separated bike lanes to the north that will extend to the Washington Boulevard intersection with the Washington at Kirkwood development. North Quincy Street has marked bike lanes between Fairfax Drive and the Cherrydale neighborhood. There is also a bike lane that runs along Fairfax Drive that extends from North Wakefield Street to Wilson Boulevard. Per the Arlington County Bike Map, a planned bike lane will run along Washington Boulevard.

Figure 6 shows a ½ mile bikeshed from the corners of the site. The combination of on-street routes, dedicated bike lanes, and the nearby bikeshare stations create a bicycle friendly environment and encourage use as a non-auto mode.

Carshare

Carsharing operates in Arlington County providing a vehicular option for people without a car. Zipcar offers carsharing throughout the County.

Pedestrian Facilities

A majority of the streets in the Virginia Square neighborhood near the site contain sidewalks and marked crosswalks at signalized intersections.

The site frontages along North Kirkwood Road and 13th Street N have sidewalks on both sides of the street. A marked crosswalk is present on the south, east and west legs of the North Kirkwood intersection with 13th Street N. Prior to construction of the adjacent Washington at Kirkwood site, the signalized intersection of North Kirkwood Road and Washington Boulevard has marked crosswalks on all four (4) legs of the intersection, pedestrian countdown heads, and ramps serving each crosswalk. The pedestrian facilities are being upgraded as part of the traffic signal modification, frontage improvement per the Washington at Kirkwood site development and the County improvement project. There are marked crosswalks, pedestrian countdown heads, and ramps provided for each leg of the five (5) legged, signalized intersection at Fairfax Drive and North Kirkwood Road. Median refuges are provided on four (4) out of five (5) of the legs. The median refuges on the north leg and northeast leg, however, do not contain a ramp. The signalized intersection of North Quincy Street and Washington Boulevard has marked crosswalks on all four (4) legs of the intersection, pedestrian countdown heads, and ramps serving each crosswalk.

Figure 7 shows a ¼ mile walkshed from the corners of the site.

The combination of sidewalks, marked crosswalks at the intersections near the site, on-street parking, planting buffers, and the proposed new pedestrian/bicycle connections, as well as with the APAH and Washington at Kirkwood developments, will enhance the pedestrian experience around the site and encourage alternative modes of transportation.

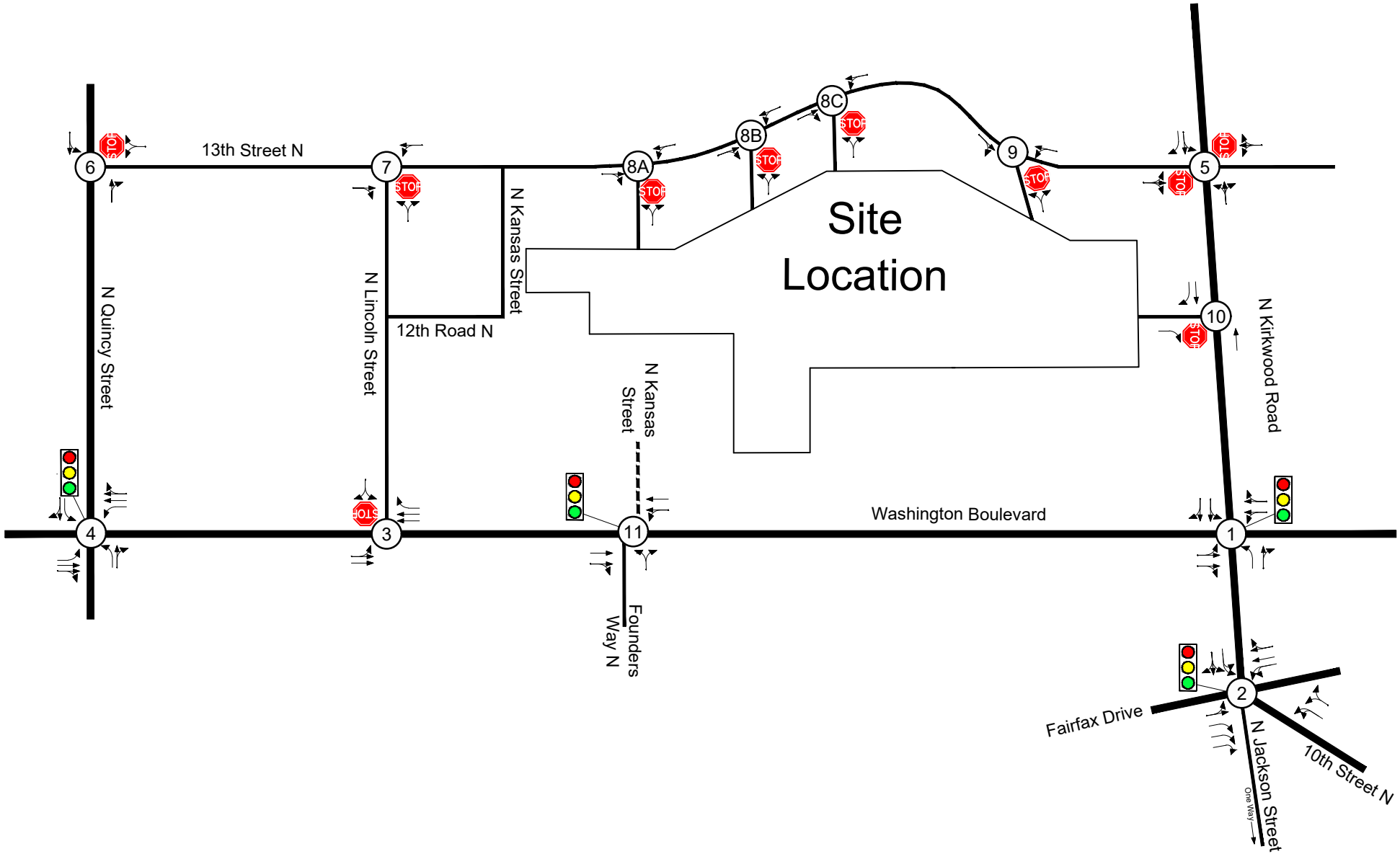


Figure 3
Existing Lane Use and Traffic Control

Represents One Travel Lane
Signalized Intersection
Stop Sign

NORTH
Arlington YMCA
Arlington, VA

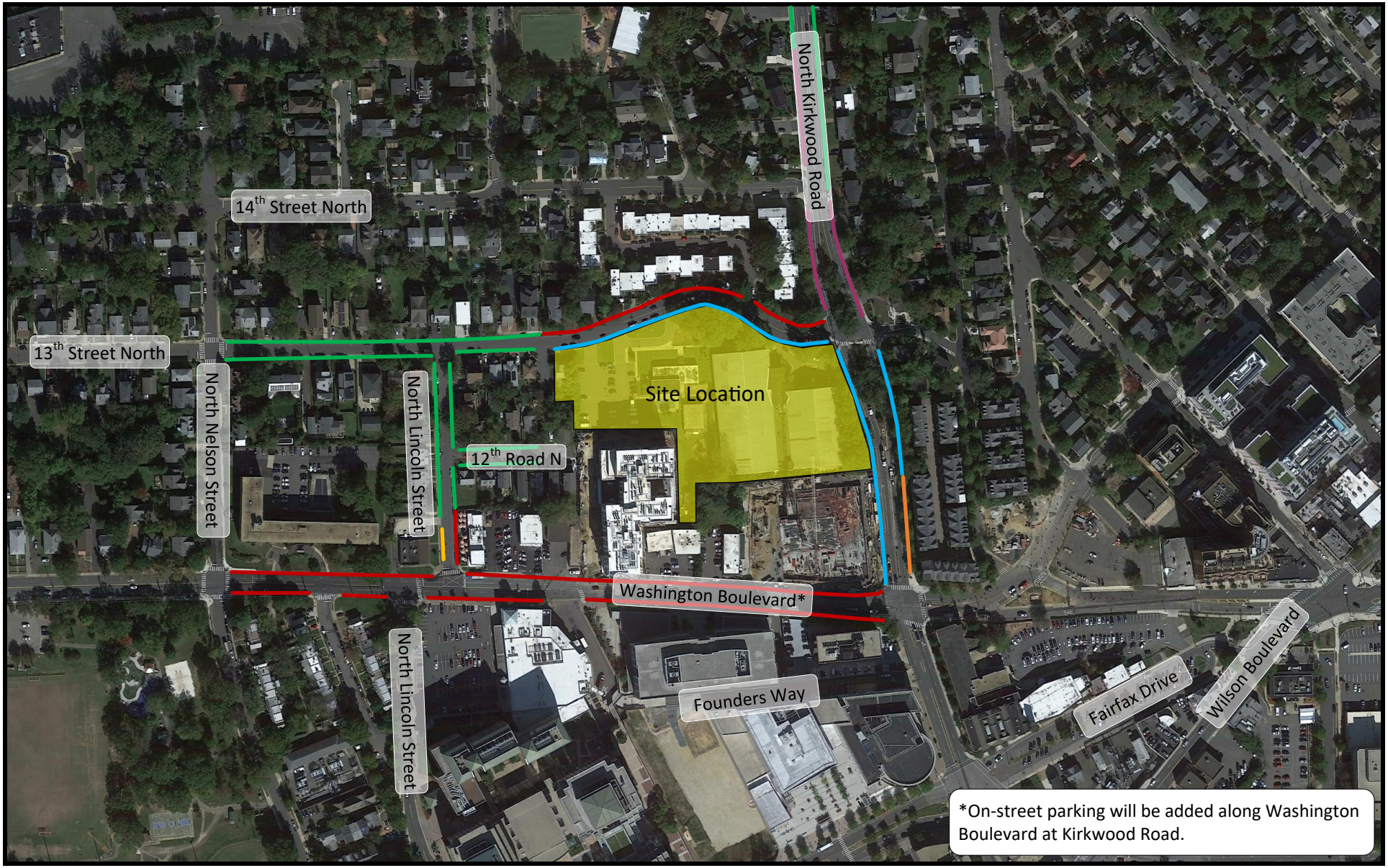


Figure 4
On-Street Parking Restrictions

- Zone 6—Permit Parking Only 8AM-5PM Weekdays
- No Parking
- 2 Hour 8AM-6PM M-F
- On-Street—No Restriction
- Metered Parking
- 2 Hour Parking 8AM-5PM weekdays—Zone 6 Permits Excepted

NORTH
Arlington YMCA
Arlington, VA

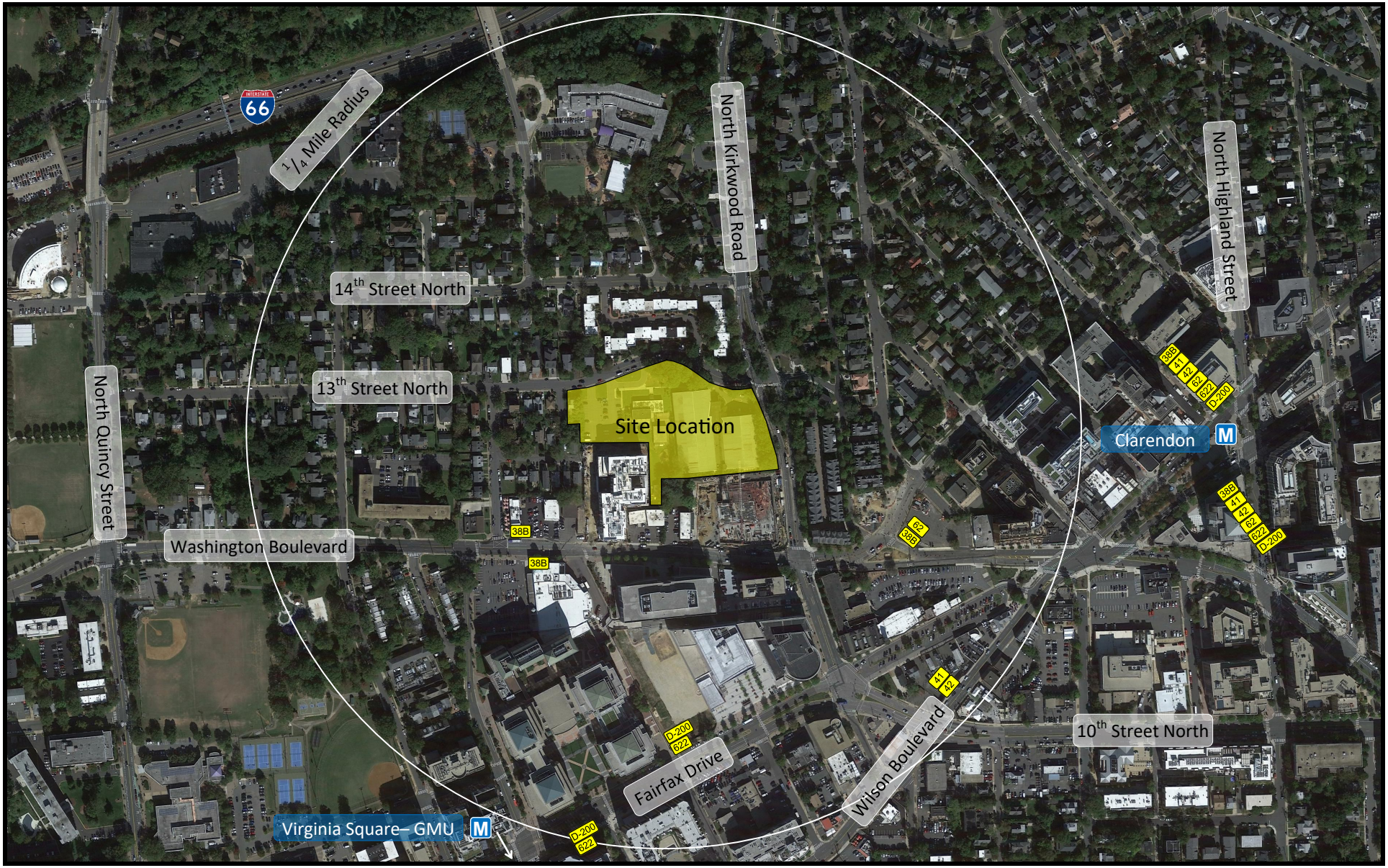


Figure 5
Arlington County Bus Map

XX Bus Stop (route number)

Metro Rail Station

NORTH

Arlington YMCA
Arlington, VA

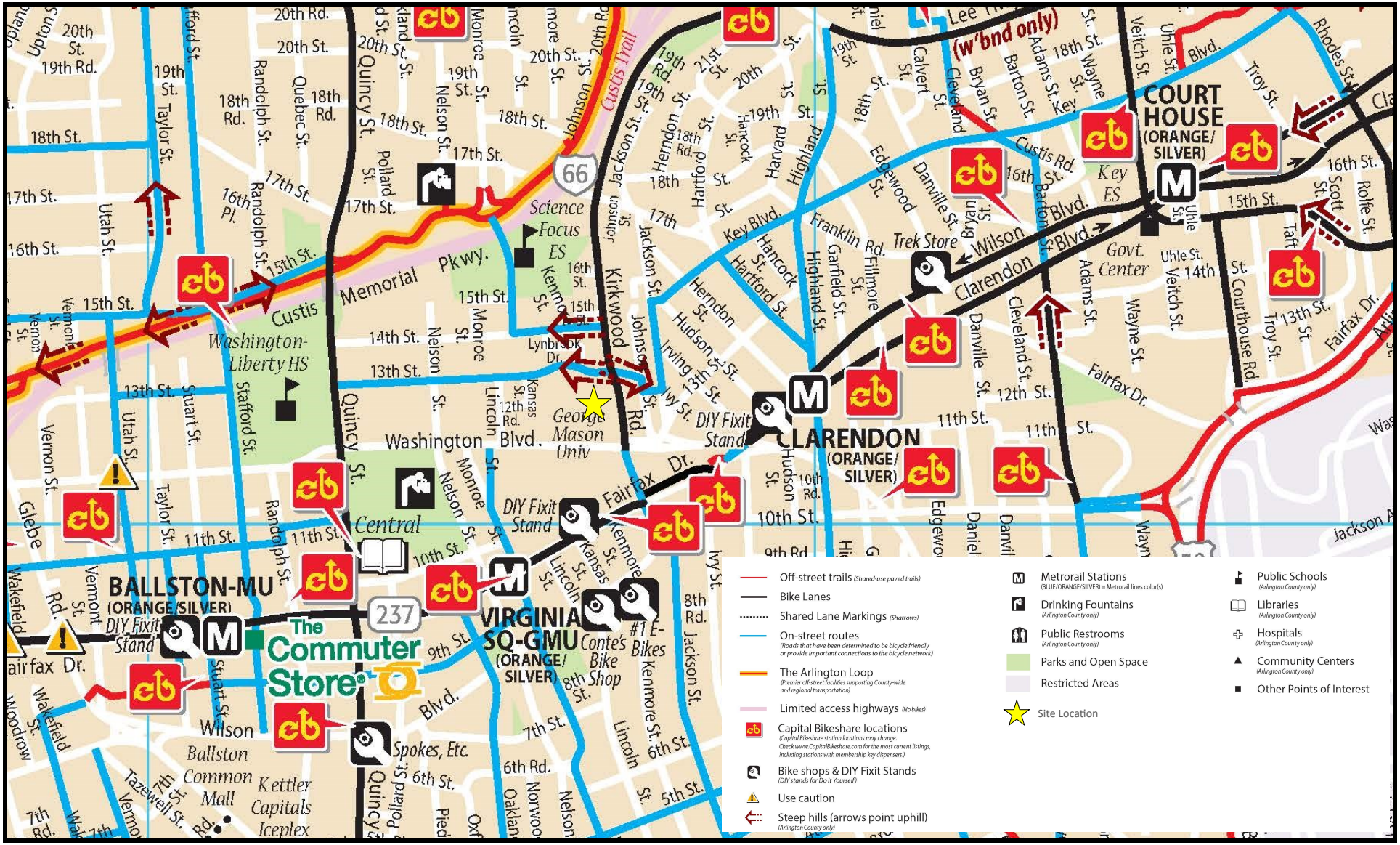


Figure 6
Bike Facilities Map

NORTH

Arlington YMCA
Arlington, VA

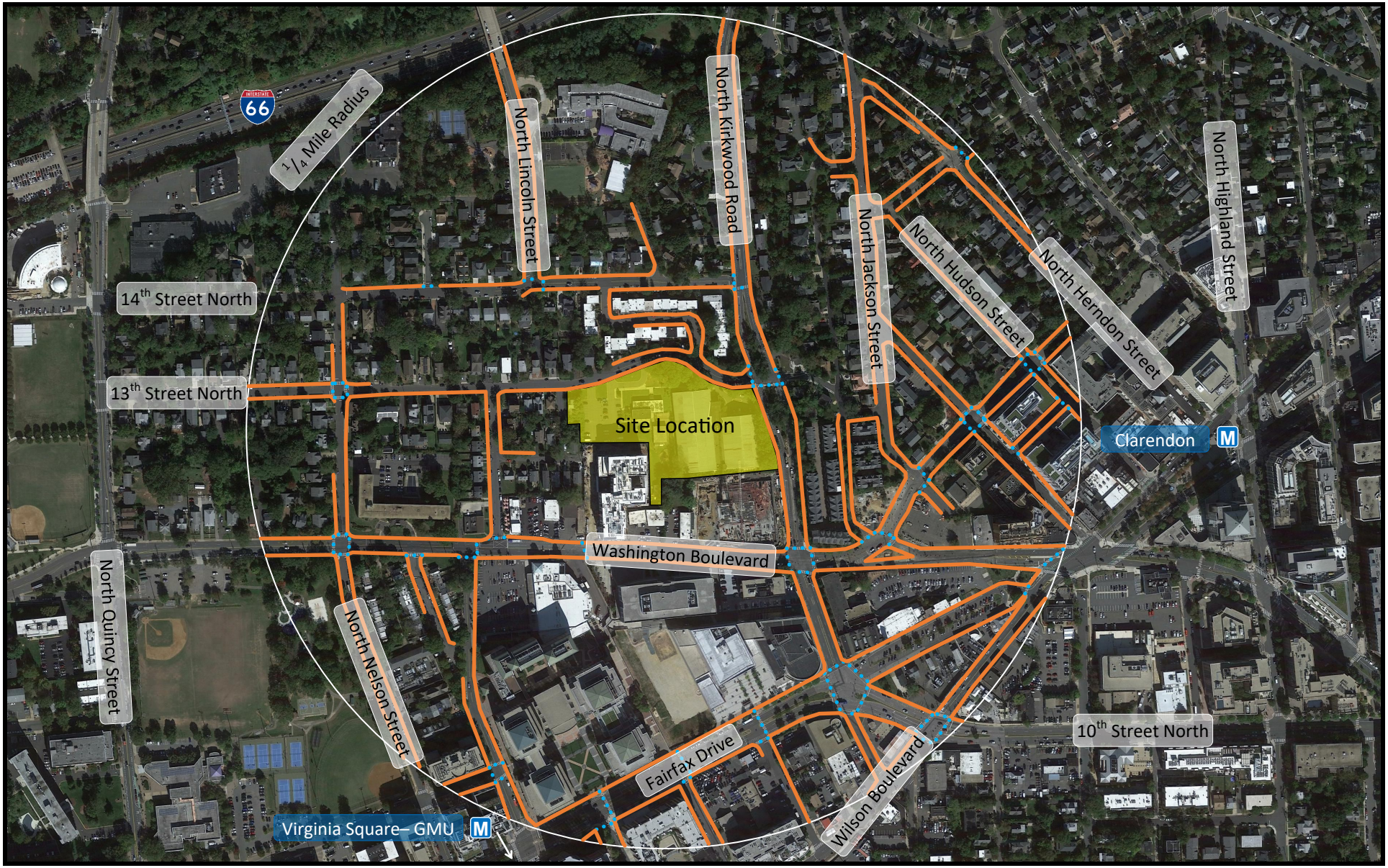


Figure 7
Pedestrian Infrastructure

SECTION 3:
TRANSPORTATION IMPACT ANALYSIS

Study Scope

Based on the scoping meeting held with Arlington County staff, the Arlington MMTA includes (8) off-site study intersections. Vehicular traffic volumes at the five (5) existing site driveways are also provided. A copy of the approved scoping agreement is included in Appendix A. For purposes of this study, the build-out year was assumed to be 2025.

Existing Traffic Counts

Existing AM and PM peak hour counts of vehicular, pedestrian, and bicycle traffic were collected by Wells and Associates.

Data was collected on Wednesday, January 26, 2022, at the following intersections:

1. Washington Boulevard/North Kirkwood Road
2. Fairfax Drive/North Kirkwood Road/10th Street N/North Jackson Street
3. Washington Boulevard/North Lincoln Street
4. Washington Boulevard/North Quincy Street
5. 13th Street N/North Kirkwood Street
6. 13th Street N/North Quincy Street
7. 13th Street N/North Lincoln Street
8. 13th Street N/YMCA driveways
9. 13th Street N/YMCA driveway (tennis)
10. North Kirkwood Road/YMCA driveway (tennis)
11. Washington Boulevard/Founders Way N

The traffic counts are included in Appendix B. The existing AM and PM peak hour vehicular, pedestrian, and bicycle traffic counts are summarized on Figures 8, 9, and 10, respectively. The vehicular traffic counts were reviewed for consistency throughout the network. For purposes on this study individual peaks were utilized at the study intersections to provide a more conservative analysis.

Figure 8 indicates that 13th Street N carries 136 AM peak hour vehicle trips and 158 PM peak hour vehicle trips along the site frontage. North Kirkwood Road carries 630 AM peak hour vehicle trips and 364 PM peak hour vehicle trips. Washington Boulevard, west of North Kirkwood Road carries 765 AM peak hour vehicle trips and 967 PM peak hour vehicle trips.

Figure 9 indicates that at the North Kirkwood Road/13th Street N intersection, 16 and 19 pedestrian crossed North Kirkwood Road and 16 and 31 pedestrians crossed 13th Street N during the AM and PM peak hours, respectively. At the Washington Boulevard/North Kirkwood Road intersection, 12 and 36 pedestrians crossed Washington Boulevard and 17 and 48 pedestrians crossed North Kirkwood Road during the AM and PM peak hours, respectively. All pedestrian crossing counts are based on the counts done at the study intersections and have not been adjusted.

Figure 10 indicates that a nominal number of bicyclists were observed during the peak hours traveling through the study intersections. This could be attributed to the January count and construction occurring along Washington Boulevard in the site vicinity.

Existing Conditions Operational Analysis

Existing peak hour levels of service (LOS) and queues were estimated at the study intersections based on the existing lane use and traffic control shown on Figure 3 and existing vehicular, pedestrian, and bicycle traffic counts shown on Figures 8 through 10; and the Highway Capacity Manual (HCM) 2010 methodologies, using Synchro.

Descriptions of LOS "A" through "F" for unsignalized and signalized intersections are included in Appendix C. The results of the existing conditions analysis are presented in Appendix D and summarized in Tables 2 and 3.. As noted in the scoping form, field measured Peak Hour Factors (PHFs) will be used if between 0.85 and 1, if lower, a 0.85 PHF will be used. For future conditions, a PHF of 0.92 or higher will be used.

Levels of Service

As shown in Table 2, each of the signalized study intersections operate with an overall LOS "C" or better during the AM and PM peak hours. Each approach of the intersections operates with an LOS "D" or better.

The east and westbound 13th Street N approaches at the North Kirkwood Road intersection operate at LOS "C" under stop sign control. The westbound 13th Street N approach at the North Quincy Street intersection operates at LOS "B" during the AM peak hour and LOS "D" during the PM peak hour. The North Lincoln Street approach at the 13th Street N intersection operates at an LOS "A" during the AM and PM peak hours, under stop sign control.

Queues

Existing peak hour 50th and 95th percentile queues for study intersections were estimated by Synchro. The queues of existing conditions are used to establish a datum against which to compare future conditions. The 95th percentile queue is defined as the maximum back of queue with 95th percentile traffic volumes. The 95th percentile queue is not necessarily ever observed, it is simply based on statistical calculations. The 50th percentile queue is also reported for the signalized intersections. The results are presented in Appendix D and summarized in Table 3.

As shown in Table 3, most of the 95th percentile queues are accommodated in the available storage for the respective movement. The eastbound right and southbound through turn queues at the North Kirkwood Road/Fairfax Drive intersection exceed the available storage length during the PM peak hour.

The 50th percentile queues at the signalized intersections are accommodated within the available storage lengths.

Table 2
Arlington YMCA
Future Conditions with Development Levels of Service Summary[1]

Approach/ Lane Group	Existing Conditions				2025 Future Conditions without Development				2025 Future Conditions with Development			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	LOS	Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS	Delay (s)
1: North Kirkwood Road/Washington Boulevard												
EB	B	17.2	B	18.5	NA							
WB	A	9.4	B	10.0								
NB	C	25.3	C	25.3								
SB	D	36.7	D	41.6								
TOTAL	B	19.9	C	22.2								
1: North Kirkwood Road/Washington Boulevard (2)												
EB	NA				B	18.6	C	20.4	B	18.2	C	20.6
WB					A	9.7	B	10.4	A	9.8	B	10.5
NB					C	25.8	C	28.1	C	26.5	C	24.3
SB					D	38.0	D	53.6	D	39.7	E	57.2
TOTAL					C	20.6	C	26.1	C	21.2	C	26.5
2: North Kirkwood Road/Fairfax Drive												
EB	C	21.5	C	25.6	C	21.8	C	26.1	C	22.3	C	26.5
WB	C	34.6	C	34.8	C	34.7	D	35.0	C	34.7	D	35.0
NB	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0
SB	C	33.1	D	36.1	D	35.2	D	36.6	D	45.9	E	61.2
NWB	C	24.5	C	23.3	C	24.8	C	24.0	C	25.1	C	24.8
TOTAL	C	25.4	C	27.3	C	26.0	C	27.8	C	27.7	C	32.8
3: North Lincoln St/Washington Boulevard												
EB	A	0.3	A	0.2	A	0.3	A	0.2	A	0.3	A	0.2
WB	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0
NB	A	9.8	B	10.7	A	9.8	B	10.6	A	9.8	B	10.9
TOTAL	A	0.4	A	0.0	A	0.4	A	0.4	A	0.4	A	0.4
4: Washington Boulevard/North Quincy Street												
EB	B	16.0	B	15.5	B	16.2	B	15.9	B	16.4	B	16.1
WB	B	15.3	B	15.9	B	15.7	B	16.2	B	15.8	B	16.4
NB	D	36.9	D	36.9	D	37.8	D	38.6	D	38.0	D	38.8
SB	C	34.8	D	41.4	D	35.4	D	42.9	D	35.1	D	42.2
TOTAL	C	25.7	C	27.7	C	26.0	C	28.2	C	25.8	C	27.9
5: North Kirkwood Road/13th Street North												
EB	C	21.3	C	18.3	C	23.5	C	20.4	C	24.6	C	23.6
WB	C	16.2	C	16.3	C	17.2	C	17.7	C	17.4	C	17.8
NB	A	0.8	A	1.1	A	0.7	A	1.1	A	0.7	A	1.1
SB	A	1.3	A	0.5	A	1.4	A	0.4	A	1.1	A	0.2
TOTAL	A	4.1	A	3.3	A	4.3	A	3.3	A	4.0	A	3.9
6: North Quincy Street/13th Street North												
WB	B	14.8	D	26.1	C	15.2	D	28.3	B	12.8	D	28.0
NB	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0
SB	A	1.3	A	0.8	A	1.3	A	0.8	A	1.5	A	1.1
TOTAL	A	1.2	A	5.1	A	1.3	A	5.5	A	1.2	A	5.6
7: North Lincoln Street/13th Street North												
EB	A	7.4	A	7.4	A	7.4	A	7.4	A	7.3	A	7.3
WB	A	7.5	A	7.7	A	7.5	A	7.7	A	7.5	A	7.7
NB	A	7.0	A	7.4	A	7.0	A	7.4	A	7.0	A	7.4
TOTAL	A	7.3	A	7.5	A	7.4	A	7.5	A	7.3	A	7.5

Approach/ Lane Group	Existing Conditions				2025 Future Conditions without Development				2025 Future Conditions with Development			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	LOS	Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS	Delay (s)
8A: Site Driveway/13th Street North												
EB	A	0.0	A	0.0	A	0.0	A	0.0				
WB	A	0.3	A	0.1	A	0.3	A	0.1				
NB	A	0.0	A	0.0	A	0.0	A	0.0				
TOTAL	A	0.2	A	0.1	A	0.2	A	0.0				
8B: Site Driveway/13th Street North												
EB	A	0.0	A	0.0	A	0.0	A	0.0				
WB	A	0.8	A	0.6	A	0.8	A	0.6				
NB	A	9.0	A	9.0	A	9.0	A	9.0				
TOTAL	A	1.0	A	0.7	A	1.0	A	0.7				
8C: Site Driveway/13th Street North												
EB	A	0.0	A	0.0	A	0.0	A	0.0				
WB	A	0.5	A	0.0	A	0.5	A	0.0				
NB	A	8.8	A	0.0	A	8.9	A	0.0				
TOTAL	A	0.5	A	0.0	A	0.5	A	0.0				
9: Driveway 4/13th Street North												
EB	A	0.0	A	0.0	A	0.0	A	0.0				
WB	A	0.2	A	0.4	A	0.2	A	0.4				
NB	A	9.2	A	9.0	A	9.2	A	9.0				
TOTAL	A	0.6	A	0.4	A	0.6	A	0.4				
10: North Kirkwood Road/Site Driveway												
EB	B	10.4	A	9.4	B	10.4	A	9.4				
NB	A	0.0	A	0.0	A	0.0	A	0.0				
SB	A	0.0	A	0.0	A	0.0	A	0.0				
TOTAL	A	0.1	A	0.1	A	0.1	A	0.1				
11: Founders Way North/Washington Boulevard/North Kansas Street												
EB	A	18.0	A	6.0	B	18.2	B	19.1	B	18.8	B	18.9
WB	A	16.7	A	8.0	B	17.2	B	18.8	B	17.7	B	18.5
NB	C	40.5	C	31.3	D	40.5	D	41.3	D	40.5	D	41.0
SB	NA				D	50.7	D	49.8	D	52.3	E	56.4
TOTAL	A	17.9	A	8.3	B	18.9	C	20.7	C	20.1	C	22.9
12: 13th Street North/New Shared Access Drive												
EB									A	0.0	A	0.0
WB									A	2.8	A	2.2
NB									A	8.8	A	8.9
TOTAL									A	2.2	A	3.0
13: Driveway from Kirkwood/Future Site Driveway (South)												
EB									A	8.4	A	A
WB									B	15.9	C	C
SB									A	8.6	A	A
TOTAL									A	9.8	B	14.9
14: North Kirkwood Road/Extended Driveway												
EB									B	19.0	B	16.2
NB									B	13.7	B	12.5
SB									B	10.5	B	13.3
TOTAL									B	12.9	B	12.9

Notes:

1. Capacity analysis based on Highway Capacity Manual 2000 methodology, using Synchro 10 unless otherwise noted.
2. Different SB Lane Use (a bike lane will be added to SB)

Table 3
Arlington YMCA
Future Conditions with Development Queuing Summary[1,2,3,4]

Approach/ Lane Group	Storage Length (ft)	Existing Conditions				2025 Future Conditions without Development				2025 Future Conditions with Development			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		50th Percentile	95th Percentile	50th Percentile	95th Percentile	50th Percentile	95th Percentile	50th Percentile	95th Percentile	50th Percentile	95th Percentile	50th Percentile	95th Percentile
1: North Kirkwood Street/Washington Boulevard													
EBT	615	117	148	142	178	NA							
WBT	165	42	64	66	93								
NBL	305	26	m49	20	m43								
NBT	305	126	190	109	168								
SBT	215	80	113	129	171								
1: North Kirkwood Street/Washington Boulevard (5)													
EBT	615	NA				132	165	173	215	135	170	180	221
WBT	165					50	74	76	105	56	82	80	110
NBL	305					31	m57	39	81	44	m78	41	m79
NBT	305					134	200	113	173	142	209	138	199
SBL						44	84	63	112	45	86	63	113
SBT	215					121	182	225	#342	134	199	238	#365
2: North Kirkwood Road/Fairfax Drive													
EBT	245	33	74	39	82	34	77	40	84	40	89	52	108
EBR	245	89	127	194	261	94	135	202	270	94	135	202	270
WBL	205	18	46	15	40	19	47	19	48	19	48	19	48
WBT	205	19	43	26	50	20	43	26	51	20	43	26	51
SBL	170	49	98	89	m147	63	117	101	m137	66	122	116	#216
SBT	170	37	92	108	189	44	101	114	m176	37	91	104	189
NWL		169	227	126	177	176	237	140	194	182	244	153	211
3: North Lincoln St/Washington Boulevard													
EB1	NA	NA	1	NA	1	NA	1	NA	1	NA	1	NA	1
EB2	NA		0		0		0		0		0		0
WB1	230		0		0		0		0		0		0
WB2	230		0		0		0		0		0		0
WB3	230		0		0		0		0		0		0
SB1	245		3		3		2		3		2		4
4: Washington Boulevard/North Quincy Street													
EBL	130	27	56	22	48	29	58	23	49	29	59	23	49
EBT	490	110	145	90	123	115	152	104	140	120	157	109	146
WBL	85	8	22	10	27	10	27	11	29	10	28	16	38
WBT	700	76	108	101	137	88	123	112	151	93	128	116	156
NBL	120	58	109	55	#114	61	116	58	#129	61	114	57	#127
NBT	570	246	338	221	306	252	346	231	319	256	350	236	326
SBL	155	64	120	52	100	67	125	57	108	67	126	57	109
SBT	450	239	325	312	#434	243	329	321	#467	237	322	317	#459
5: North Kirkwood Road/13th Street North													
EB	100	NA	29	NA	20	NA	33	NA	23	NA	32	NA	36
WB	185		14		14		15		15		15		15
NB	285		2		2		2		2		2		2
SB	300		3		1		3		1		2		1
6: North Quincy Street/13th Street North													
WB1	730	NA	10	NA	86	NA	11	NA	94	NA	8	NA	94
NB1	400		0		0		0		0		0		0
SB1	220		4		2		4		2		5		3
7: North Lincoln Street/13th Street North													
EB	460												
WB	200												
NB	210												
SB													
8A: Site Driveway/13th Street North													
EB		NA	0	NA	0	NA	0	NA	0				
NB			0		0		0		0				
SB			0		0		0		0				
8B: Site Driveway/13th Street North													
EB		NA	0	NA	0	NA	0	NA	0				
WB			0		0		0		0				
NB			0		0		0		0				

Approach/ Lane Group	Storage Length (ft)	Existing Conditions				2025 Future Conditions without Development				2025 Future Conditions with Development			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		50th Percentile	95th Percentile	50th Percentile	95th Percentile	50th Percentile	95th Percentile	50th Percentile	95th Percentile	50th Percentile	95th Percentile	50th Percentile	95th Percentile
8C: Site Driveway/13th Street North													
EB		NA	0	NA	0	NA	0	NA	0				
WB			0		0		0		0				
NB			0		0		0		0				
9: Driveway 4/13th Street North													
EB1		NA	0	NA	0	NA	0	NA	0				
WB1			0		0		0		0				
NB1			0		0		0		0				
10: North Kirkwood Road/Site Driveway													
EB1		NA	0	NA	0	NA	0	NA	0				
NB1			0		0		0		0				
SB1			0		0		0		0				
SB2			0		0		0		0				
11: Founders Way North/Washington Boulevard/North Kansas Street													
EBT	250			0	0	0	0	0	0	149	192	157	201
WBT	650			0	0	0	0	0	0	111	147	142	184
NBT	230			0	0	0	0	0	0	0	0	0	35
SBT	200			0	0	0	0	0	0	22	64	42	106
12: 13th Street North/New Shared Access Drive													
EB		NA								NA	0	NA	0
WB											0		0
NB											0		0
13: Driveway from Kirkwood/Future Site Driveway (South)													
EBT		NA								0	0		
NBT										0	0		
SBL										0	0		
14: North Kirkwood Road/Extended Driveway													
EBL		NA								5	22	2	14
NBL										0	0	5	19
NBT										81	149	66	122
SBT										41	80	76	142

Notes:

1. Capacity analysis based on Highway Capacity Manual methodology, using Synchro 10.
2. "~" - 50th percentile volume exceeds capacity, queue may be longer.
3. "#" - 95th percentile volume exceeds capacity, queue may be longer.
4. "m" - Volume for 95th percentile queue is metered by upstream signal.
5. Different SB Lane Use (a bike lane will be added to SB)

PIPELINE DEVELOPMENT

As determined during the scoping process with Arlington County staff, the traffic impacts of six (6) pipeline developments were considered in this study. The location of each is shown on Figure 11.

1. Market Common
2. APAH - American Legion
3. Alexan
4. 4201 Fairfax Drive
5. Washington Blvd at Kirkwood (Mill Creek)
6. 1200 N Hudson Street (remaining part of Red Cab site)

Trip Generation Analysis

The number of peak hour trips that will be generated by the six (6) pipeline developments was based on previously approved traffic studies and include non-auto mode split estimates based on proximity to transit and other non-auto modes of transportation in the vicinity. As shown in Table 4, it is estimated that these projects will generate 261 AM peak hour trips and 456 PM peak hour trips upon completion and full occupancy.

Background Development Trip Distribution Analysis

The distribution of peak hour trips that will be generated by the pipeline developments was determined based on previously approved traffic impact studies. The trips generated by the pipeline developments shown in Table 4 were assigned to the public road network and the resulting traffic assignments are shown on Figure 12. The peak hour traffic forecasts for each individual pipeline development are included in Appendix E.

Background Traffic Growth

As agreed during scoping, increases in traffic associated with regional growth were estimated at a half (0.5) percent per year, compounded annually, for each of the study intersections. This growth rate accounts for increases in traffic resulting from potential developments not specifically included herein. Increases in traffic as a result of regional growth are shown on Figure 13.

Future Peak Hour Traffic Forecasts without Development (2025)

In order to arrive at the future peak hour traffic forecasts without redevelopment of the Arlington YMCA site, summarized on Figure 14, the combined peak hour traffic forecasts of the pipeline developments (Figure 12) and regional growth (Figure 13) were added to the existing peak hour traffic counts (Figure 8).

Operational Analysis of Future Conditions without Development (2025)

Future peak hour levels of service and queues without the redevelopment of the Arlington YMCA site were estimated at the study intersections based on the existing lane use and traffic control shown on Figure 3, with the exception of the southbound North Kirkwood Road approach at the Washington Boulevard intersection; the future traffic forecasts without development shown on Figure 14; and the HCM 2010 methodologies, using Synchro. The future condition without development takes into account the adjusted peak hour factors as explained in the scoping form and noted in the Existing Conditions Operational Analysis section. The southbound North Kirkwood Road approach at the Washington Boulevard intersection is being repurposed to extend the separate bike lane on North Kirkwood Road. The two thru lanes will be reduced to one thru lane sharing the right turn movement. The median is being removed to provide a separate left turn lane. The LOS and queue results are presented in Appendix F and summarized in Tables 2 and 3.

Table 4
Arlington YMCA
Pipeline Trip Generation[1]

Land Use		Land Use Code	Size	Units	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
Market Common Clarendon										
2801 N Clarendon Blvd	Office at Full Occpancy	710	118273	SF	193	26	219	36	175	211
	Internal Capture with Residential (5% AM, 10% PM, 15% ADT)				(4)	-	(4)	-	(3)	(3)
	External Commercial Trips				189	26	215	36	172	208
	40% NonAuto Reduction 2				76	10	86	14	69	83
	Office Trips				113	16	129	22	103	125
	Retail at Full Occpancy 3	820	297331	SF	188	116	304	597	647	1,244
	Internal Capture with Residential (5% AM, 10% PM, 15% ADT)				(4)	(2)	(6)	(8)	(13)	(21)
	External Commercial Trips				184	114	298	589	634	1,223
	40% NonAuto Reduction 2				(74)	(46)	(120)	(236)	(254)	(490)
	Commercial Retail Trips				110	68	178	353	380	733
	Residential 4	220/230	300/87	D.U.	22	91	113	83	44	127
	Total Existing Trips				245	175	420	458	527	985
							-			-
							-			-
	Office 5	710	61019	SF	114	15	129	25	122	147
	Internal Capture with Residential (5% AM, 10% PM, 15% ADT)				(3)	-	(3)	-	(2)	(2)
	External Commercial Trips				111	15	126	25	120	145
	40% NonAuto Reduction 2				(44)	(6)	(50)	(10)	(48)	(58)
	Office Trips				67	9	76	15	72	87
							-			-
	Retail	820	377858	SF	218	133	351	701	759	1,460
	Internal Capture with Residential (5% AM, 10% PM, 15% ADT)				(5)	(2)	(7)	(8)	(14)	(22)
	External Commercial Trips				213	131	344	693	745	1,438
	40% NonAuto Reduction 2				(85)	(52)	(137)	(277)	(298)	(575)
	Commercial Retail Trips				128	79	207	416	447	863
	Residential 4	220/230	300/87	D.U.	22	91	113	83	44	127
	Total Proposed Trips				217	179	396	514	563	1,077
	Comparison (Proposed minus Existing)				**(28)**	**4**	**(24)**	**56**	**36**	**92**
APAH - American Legion										
3445 Washington Blvd		Multi-Family			10	2	12	3	12	15
		221			7	19	26	19	12	31
					17	**21**	**38**	**22**	**24**	**46**
Alexan		230	143	DU	**6**	**29**	**35**	**29**	**14**	**43**
3901 Fairfax Dr										
APAH - Central United Methodist Church Site										
4201 Fairfax Dr		220	138	DU	14	57	71	61	33	94
				53% Red	8	30	38	28	16	44
					6	**27**	**33**	**33**	**17**	**50**
Washington Blvd at Kirkwood										
		220	254	DU	26	102	128	102	55	157
		Non-Auto Mod Split	44%		(11)	(45)	(56)	(45)	(24)	(69)
		Transit Trips	34%		(9)	(35)	(44)	(34)	(19)	(53)
		Bicycle Trips	7%		(2)	(7)	(9)	(7)	(4)	(11)
		Pedestrian Trips	3%		-	(3)	(3)	(4)	(1)	(5)
		Vehicle Trips			**15**	**57**	**72**	**57**	**31**	**88**
Red Top Cab Site										
1200 N Hudson St										
		220	247	DU	25	100	125	97	57	154
		220	234	DU	24	94	118	92	54	146
		220	103	DU	11	43	54	47	27	74
		826	1295	SF	6	7	13	11	14	25
					66	**244**	**310**	**247**	**152**	**399**
		65%			*-39*	*-154*	*-193*	*-153*	*-90*	*-243*
		75%			*-5*	*-5*	*-10*	*-8*	*-11*	*-19*
					22	**85**	**107**	**86**	**51**	**137**
Total Pipeline Trips					**38**	**223**	**261**	**283**	**173**	**456**

Notes:
1. Trip generation based on previously approved traffic impact studies, statements, or staff reports, unless otherwise stated.

Levels of Service. As shown in Table 2, with the addition of trips generated by the six (6) pipeline developments and regional growth, the approaches at the study intersections will operate at acceptable levels of service during the AM and PM peak hours, similar to existing conditions. Delay on the southbound North Kirkwood Road approach at Washington Boulevard increases by 1.3 seconds during the AM peak hour and 12.0 seconds because of the increased traffic and reduction from two thru lanes to one.

The Washington Boulevard intersection of Founders Way N and the new, north-south, shared access drive will operate at overall LOS "B" during the AM peak hour and LOS "C" during the PM peak hour, under traffic signal control. The new southbound approach is forecast to operate at LOS D during the AM and PM peak hours.

Queues. With the projected growth in regional traffic and the local pipeline developments, queues will be maintained within storage lengths during the AM peak hour. During the PM peak hour, while the 50th percentile queues will be maintained with the available storage, certain 95th percentile queues will exceed storage lengths, such as the eastbound right and southbound through movement at the North Kirkwood/Fairfax Drive intersection, the southbound through on North Quincy Street at the Washington Boulevard intersection and the southbound queue on North Kirkwood Road at Washington Boulevard. The southbound queue on North Quincy Street is estimated to extend to 13th Street N intersection during the PM peak hour. The southbound queue on North Kirkwood Road at Washington Boulevard will extend past the new east-west alley that serves the Washington at Kirkwood multi-family building and proposed residential building on the YMCA site. Consideration for signage and pavement markings at the alley intersection on North Kirkwood Road should be considered to maintain space for turning vehicles.

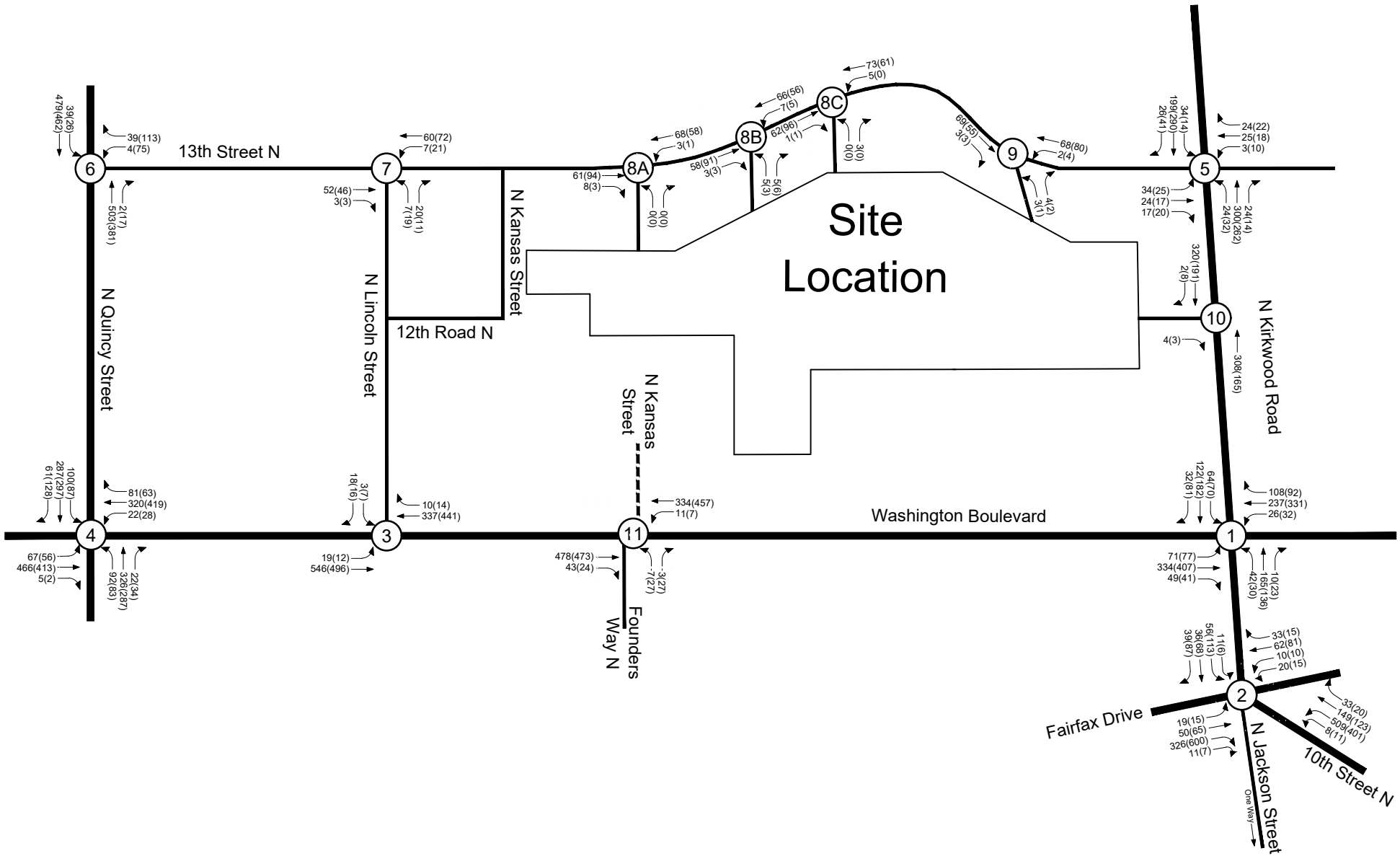


Figure 8
Existing Peak Hour Vehicular Traffic Volumes

Arlington YMCA
Arlington, VA

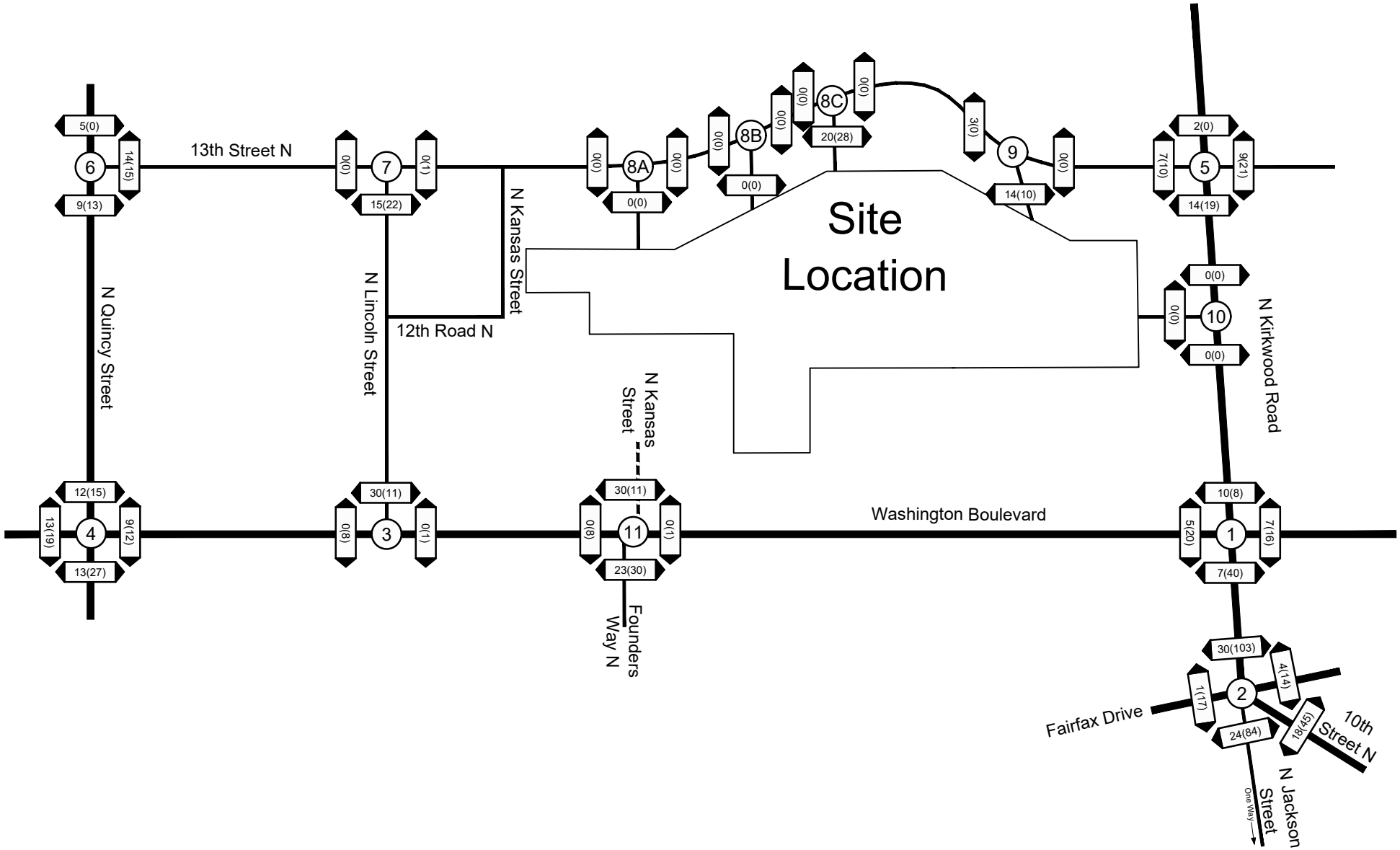


Figure 9
Existing Peak Hour Pedestrian Volumes

AM PEAK HOUR
PM PEAK HOUR
000(000)

NORTH
Arlington YMCA
Arlington, VA

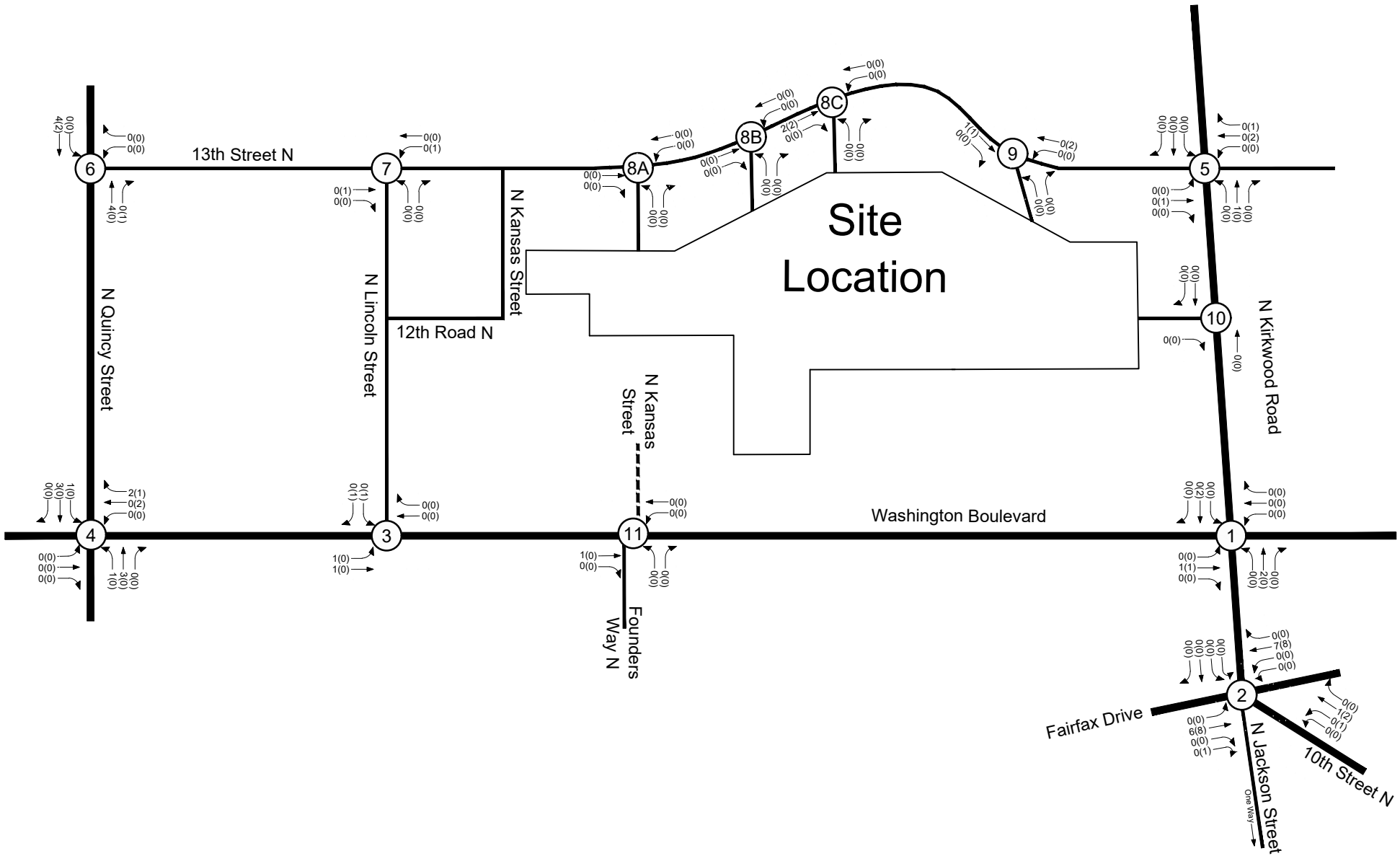


Figure 10
Existing Peak Hour Bicycle Volumes

Arlington YMCA
Arlington, VA

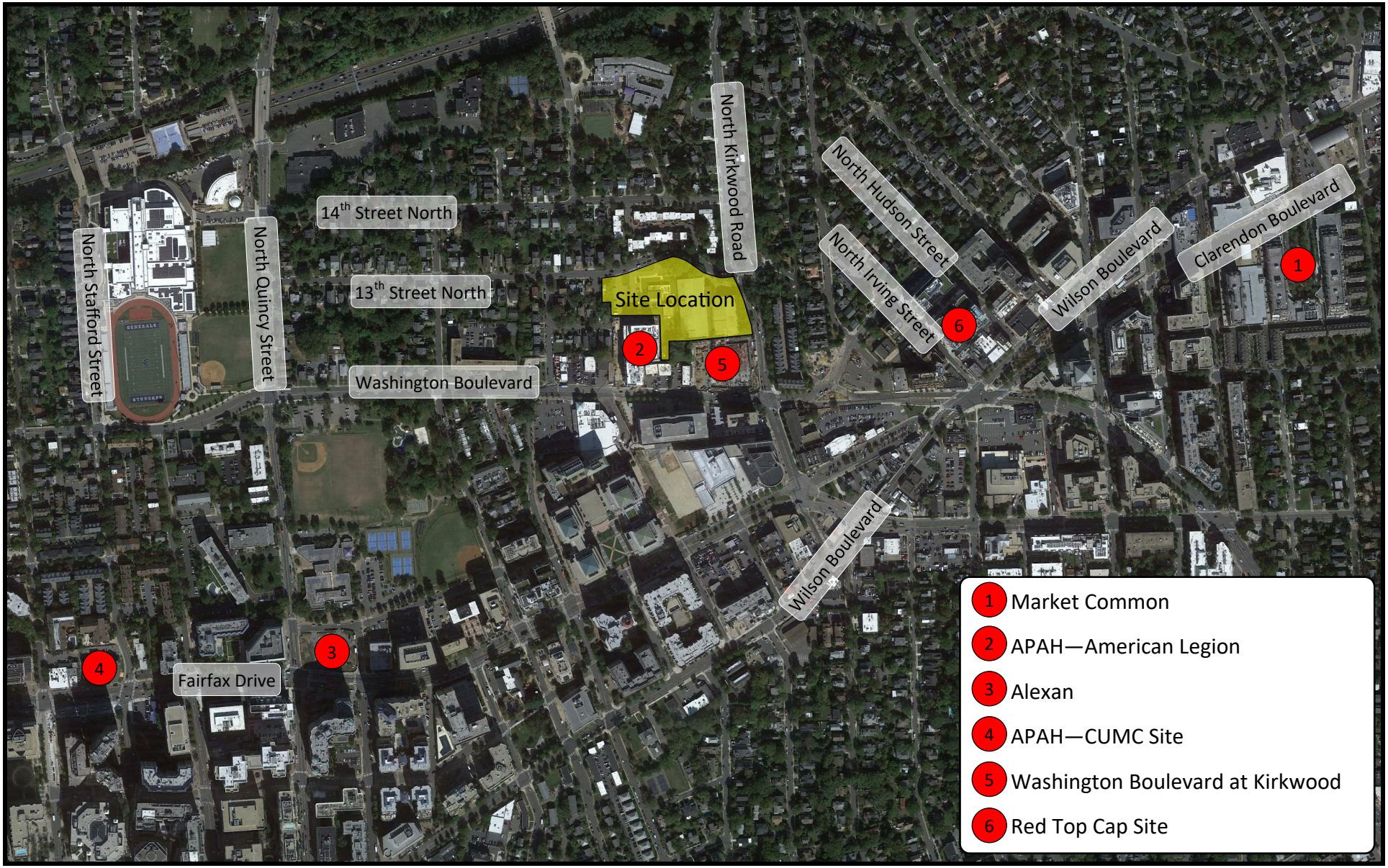


Figure 11
Pipeline Development Map

NORTH
Arlington YMCA
Arlington, VA

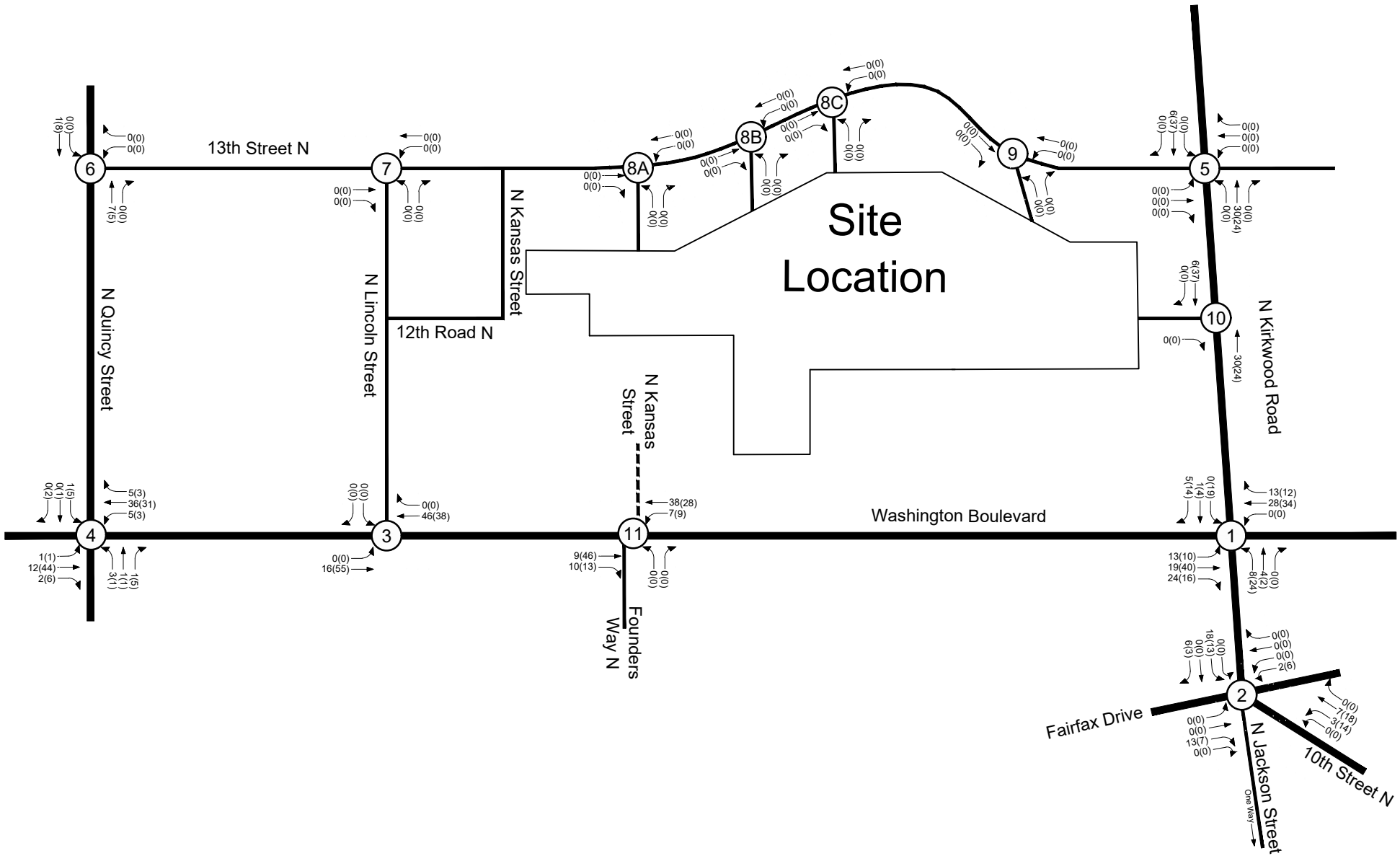


Figure 12
Combined Pipeline Development Peak Hour Traffic Assignments

Arlington YMCA
Arlington, VA

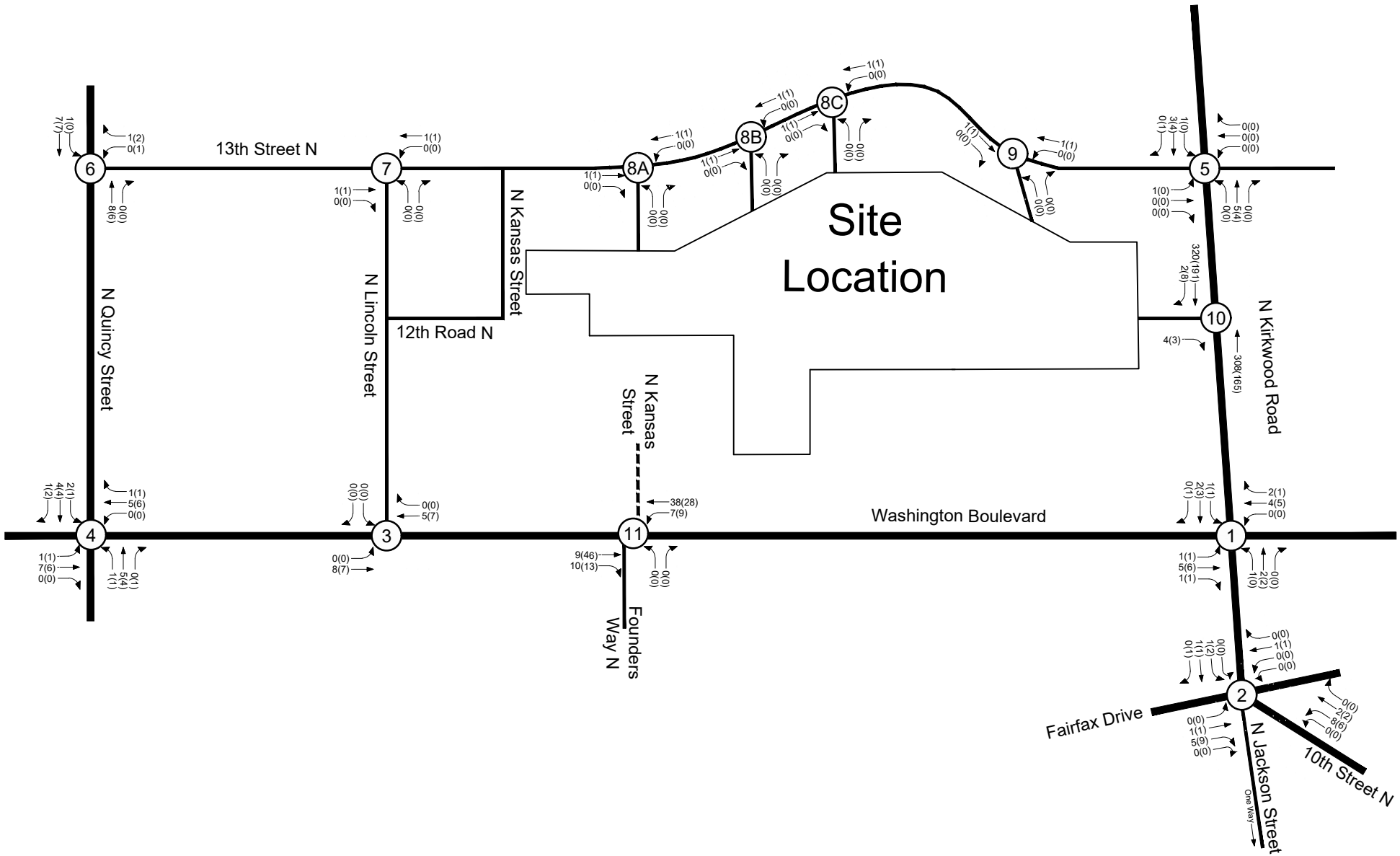
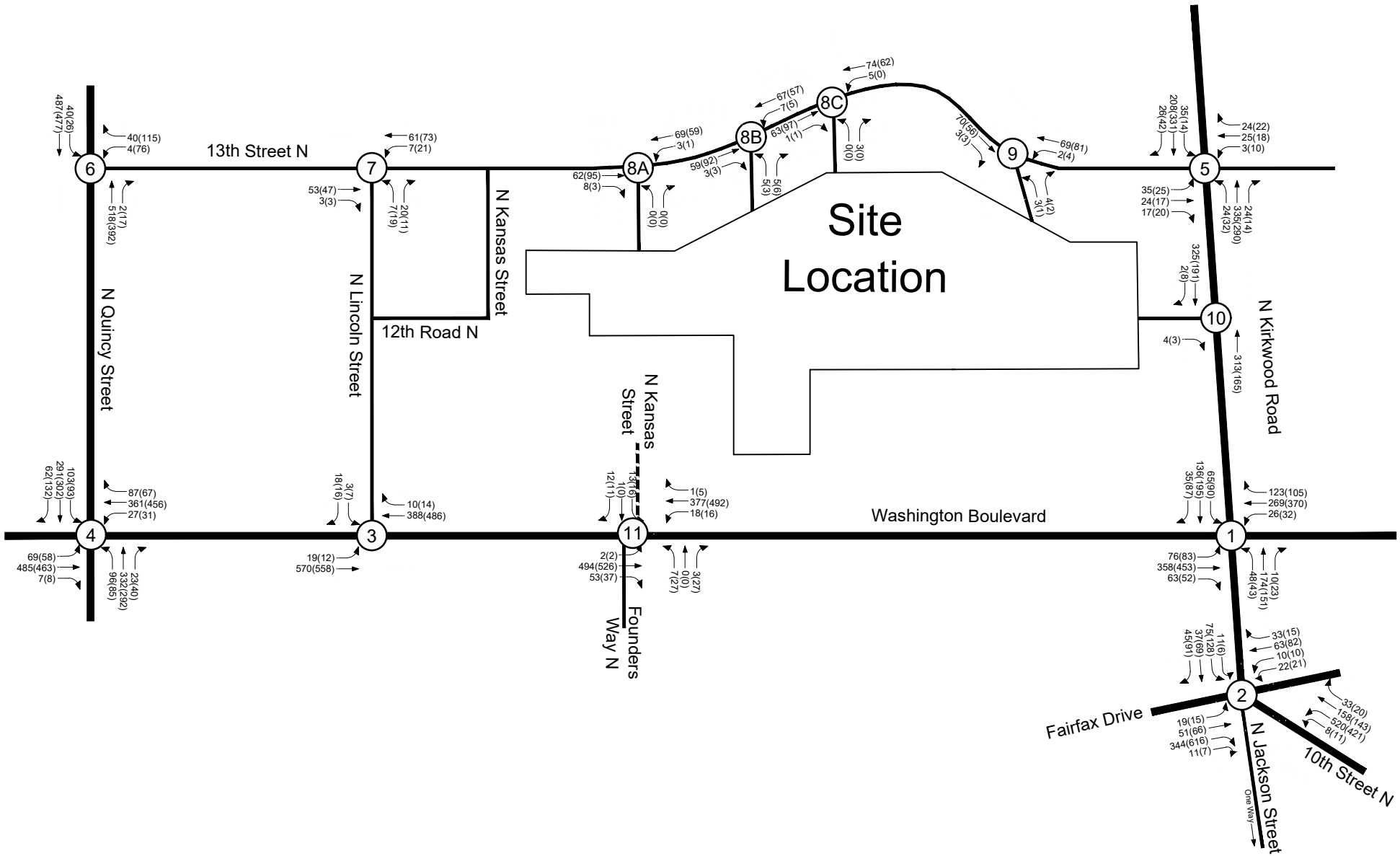


Figure 13
Regional Growth

Arlington YMCA
Arlington, VA



AM PEAK HOUR
PM PEAK HOUR
000(000)

NORTH

Figure 14
Future Peak Hour Traffic Forecasts without Development (2025)

Arlington YMCA
Arlington, VA

Site Trip Generation Analysis

The number of person and vehicle-trips that will be generated by the proposed redevelopment was estimated based on rates/equations included in the ITE Trip Generation Manual, 11th Edition and Arlington County mode share assumptions for Productions (residential) and Attractions (recreational). As agreed during the scoping process, a 61% non-auto mode share for the residential use and a 40% non-auto mode share for the YMCA recreational use was applied per the MMTA Mode Share Assumptions Summary.

As shown in Table 5, the proposed development is estimated to add 329 AM peak hour person-trips, 435 PM peak hour person-trips and 7,095 daily person-trips to the adjacent transportation network. Of these person trips, 155 AM peak hour vehicle-trips, 221 PM peak-hour vehicle trips, and 3,321 daily vehicle-trips will be added to the road network.

The proposed redevelopment will add 145 AM peak hour, 175 PM peak hour and 3,135 daily transit trips and 30 AM peak hour, 39 PM peak hour and 638 daily active person trips to the adjacent transportation system.

Site Access

Access for vehicles, trucks and pedestrians for each site is described below.

The main entrance to the proposed YMCA building will be off 13th Street N. and parking and loading will occur from a new shared access drive on the west side of the building providing access from both 13th Street N and Washington Boulevard via the new North Kansas Street segment on the west side of the APAH site. The new North Kansas Street segment will operate under traffic signal control at Washington Boulevard and under STOP sign control at 13th Street N.

The multi-family residential building's main entrance for residents will be on the North Kirkwood Road frontage. Vehicular access to the parking garage and loading docks will be from an alley on the south side that connects to North Kirkwood Road and Washington Boulevard, which also serves the Washington at Kirkwood residential site. A pick-up/dop-off lane (or layby lane) is proposed on North Kirkwood Road adjacent to the residential lobby.

Table 5
Arlington YMCA
Trip Generation Analysis [1]

Land Use	ITE Land Use Code	Size	Units	Rate (AM/PM)	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Weekday ADT
Existing Uses [2]											
Recreational Community Center					55	38	93	48	38	87	*1,932*
**Vehicle (60%)*	*Observed trip generation*				*33*	*23*	*56*	*29*	*23*	*52*	*1,159*
**Transit (31%)*					*17*	*12*	*29*	*15*	*12*	*27*	*599*
**Active (9%)*					*5*	*3*	*8*	*4*	*4*	*8*	*174*
Proposed Program											
Multifamily Housing (Mid Rise) - Dense Multi-Use Urban [3]	221	374	DU	.48/.39	46	155	201	132	58	190	4,456
****Vehicle (39%)***					18	60	*78*	51	23	*74*	1,738
**Transit (52%)*					24	81	*105*	69	30	*99*	*2,317*
**Active (9%)*					4	14	*18*	12	5	*17*	*401*
Recreational Community Center	495	95,140	SF	2.32/3.49	164	57	221	143	189	332	*4,570*
**Vehicle (60%)*					*98*	*34*	*133*	*86*	*113*	*199*	*2,742*
**Transit (31%)*					*51*	*18*	*69*	*44*	*59*	*103*	*1,417*
**Active (9%)*					*15*	*5*	*20*	*13*	*17*	*30*	*411*
Total Person Trips					210	212	422	275	247	522	*9,026*
**Vehicle*					*116*	*94*	*211*	*137*	*136*	*273*	*4,480*
**Transit*					*75*	*99*	*174*	*113*	*89*	*202*	*3,734*
**Active*					*19*	*19*	*38*	*25*	*22*	*47*	*812*
Difference: Proposed minus Existing					155	174	329	227	209	435	*7,094*
**Vehicle*					***83***	***71***	***155***	***108***	***113***	***221***	***3,321***
**Transit*					*58*	*87*	*145*	*98*	*77*	*175*	*3,135*
**Active*					*14*	*16*	*30*	*21*	*18*	*39*	*638*

Notes:
1. Trip Generation based on the Institute of Transportation Engineers' (ITE) Trip Generation Manual, 11th Edition.
2. Based on Existing Driveway Counts (Person trips calculated based on the vehicular counts)
3. Arlington County mode splits were applied to vehicle trips to caluclate the total amount of trips.

Future Peak Hour Traffic Forecast with Development

To arrive at the future peak hour traffic forecasts with redevelopment of the Arlington YMCA site, the existing YMCA trips were removed from the road network, as shown on Figure 15. Vehicle trips generated by the new YMCA and residential building were added to the study intersections, as shown on Figure 16. The volumes shown on Figures 15 and 16 were combined with the future peak hour traffic forecast shown on Figure 14 resulting in the future peak hour traffic forecast with the redevelopment of the Arlington YMCA site, shown on Figure 17.

Operational Analysis of Future Conditions with Development

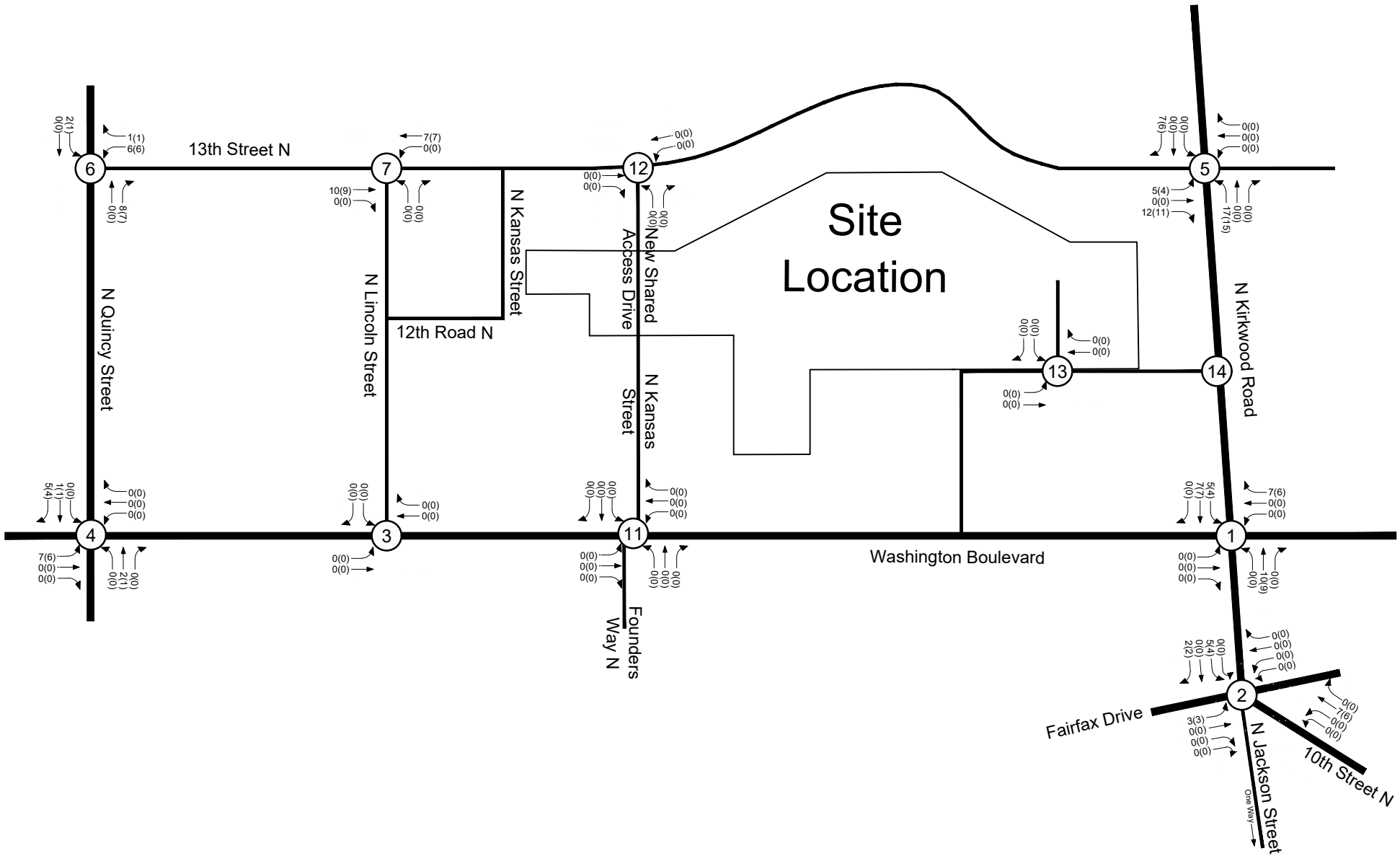
Future peak hour levels of service and queues with the development in year 2025 were estimated at the study intersections based on the future lane use and traffic controls shown on Figure 18; the future traffic forecasts with development shown on Figure 17; and the HCM 2010 methodologies, using Synchro. The results are presented in Appendix G and summarized in Tables 2 and 3.

Levels of Service. As shown in Table 2, with the addition of the proposed YMCA redevelopment and residential development, the study intersections will continue to operate with an overall LOS "C" or better during both the AM and PM peak hours. Each approach of the study intersections will operate with an LOS "D" or better during the AM peak hour. However, during the PM peak hour, some approaches will degrade to an LOS "E".

- Southbound North Kirkwood Road at Washington Boulevard – E (57.2 sec) – Signal
- Southbound North Kirkwood Road at Fairfax Drive – (61.2 sec) - Signal
- Southbound new north-south shared access drive at Washington Boulevard – E (56.4 sec) – Signal

The anticipated delay for these respective approaches is expected in urban areas where road use is balanced for multiple users, i.e. bicyclists, pedestrian, passenger vehicles and busses.

Queues. As shown in Table 3, with the addition of the proposed redevelopment, the projected 50th percentile queues will continue to be maintained within the available storage lengths during both the AM and PM peak hours. The 95th percentile queues will remain within the available storage during the AM peak hour, however as noted under existing and background conditions certain queues will extend beyond the storage or through an adjacent intersection. The queue on southbound North Kirkwood at Washington Boulevard will increase by approximately 1 vehicle during the PM peak hour, not reaching 13th Street N, but adding to the queue through the alley intersection on North Kirkwood Road. The queueing at the North Kirkwood Road intersection with Fairfax Drive will remain consistent with existing and background (future without redevelopment) conditions. On Quincy Street, at the Washington Boulevard intersection the southbound queue will remain consistent with background (future without the redevelopment) conditions.



AM PEAK HOUR
PM PEAK HOUR
000(000)

NORTH

Figure 15
Existing YMCA Peak Hour Site Trips

Arlington YMCA
Arlington, VA

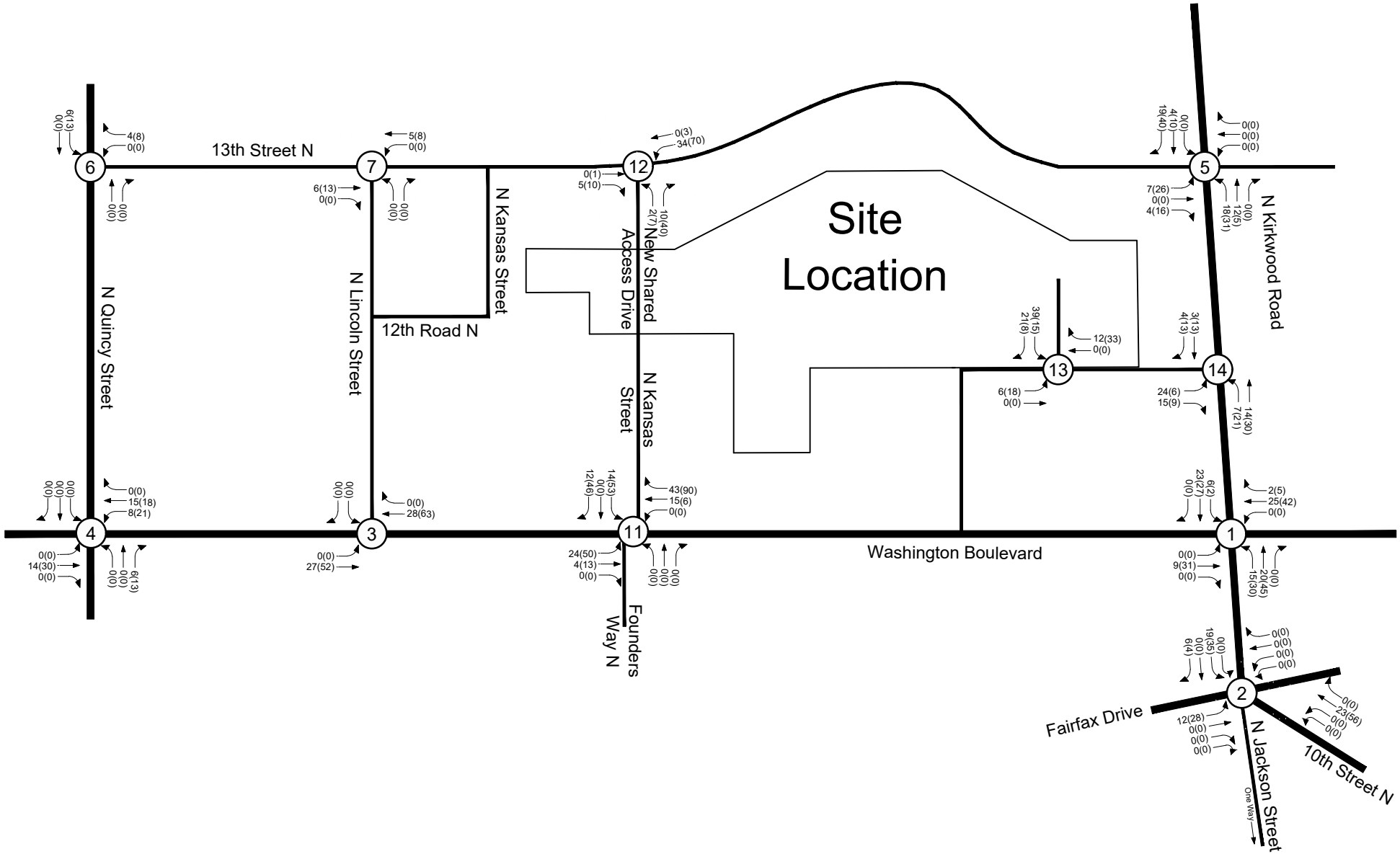


Figure 16
Development Peak Hour Site Trip Assignments

Arlington YMCA
Arlington, VA

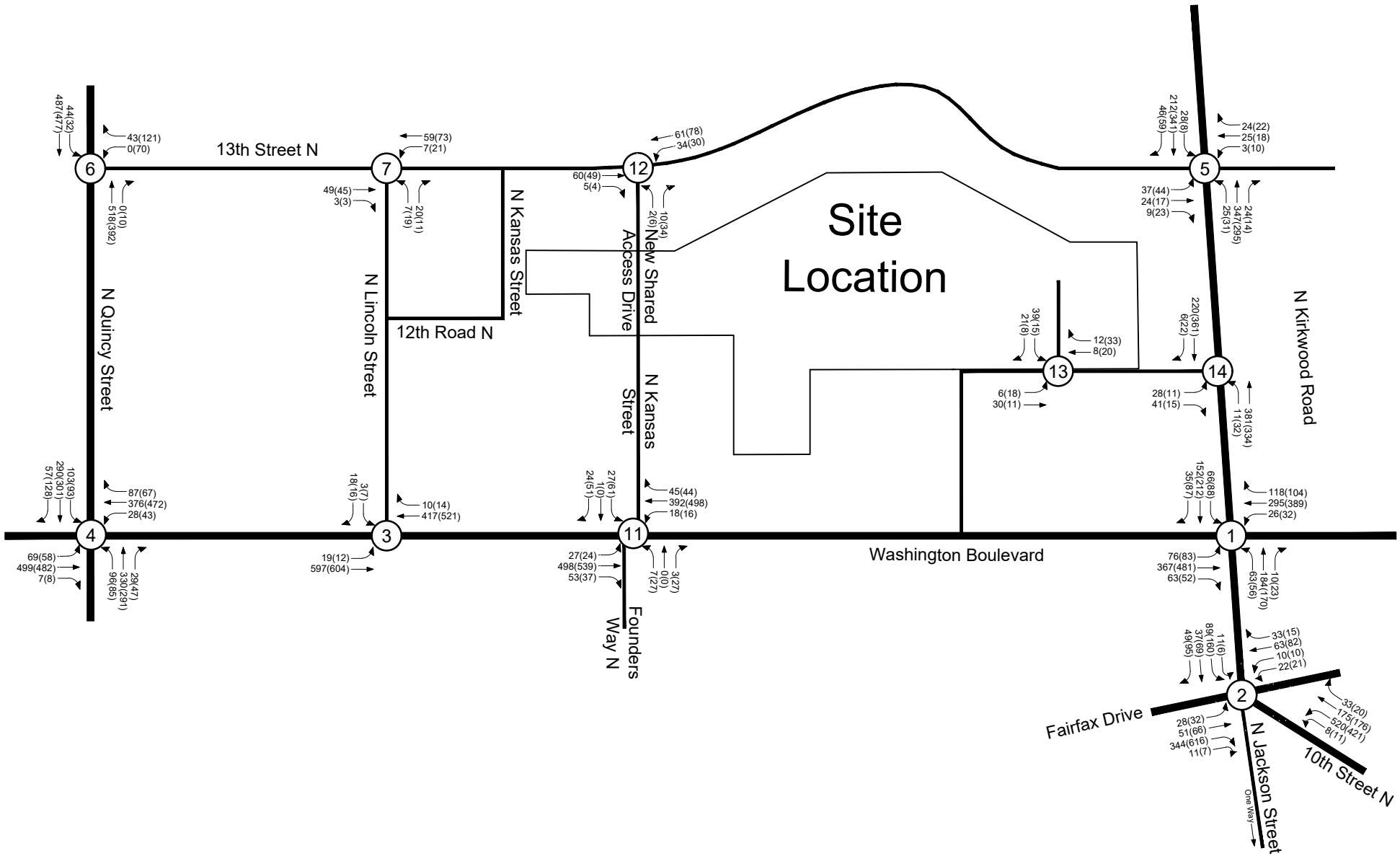


Figure 17
Future Peak Hour Traffic Forecasts with Development (2025)

Arlington YMCA
Arlington, VA

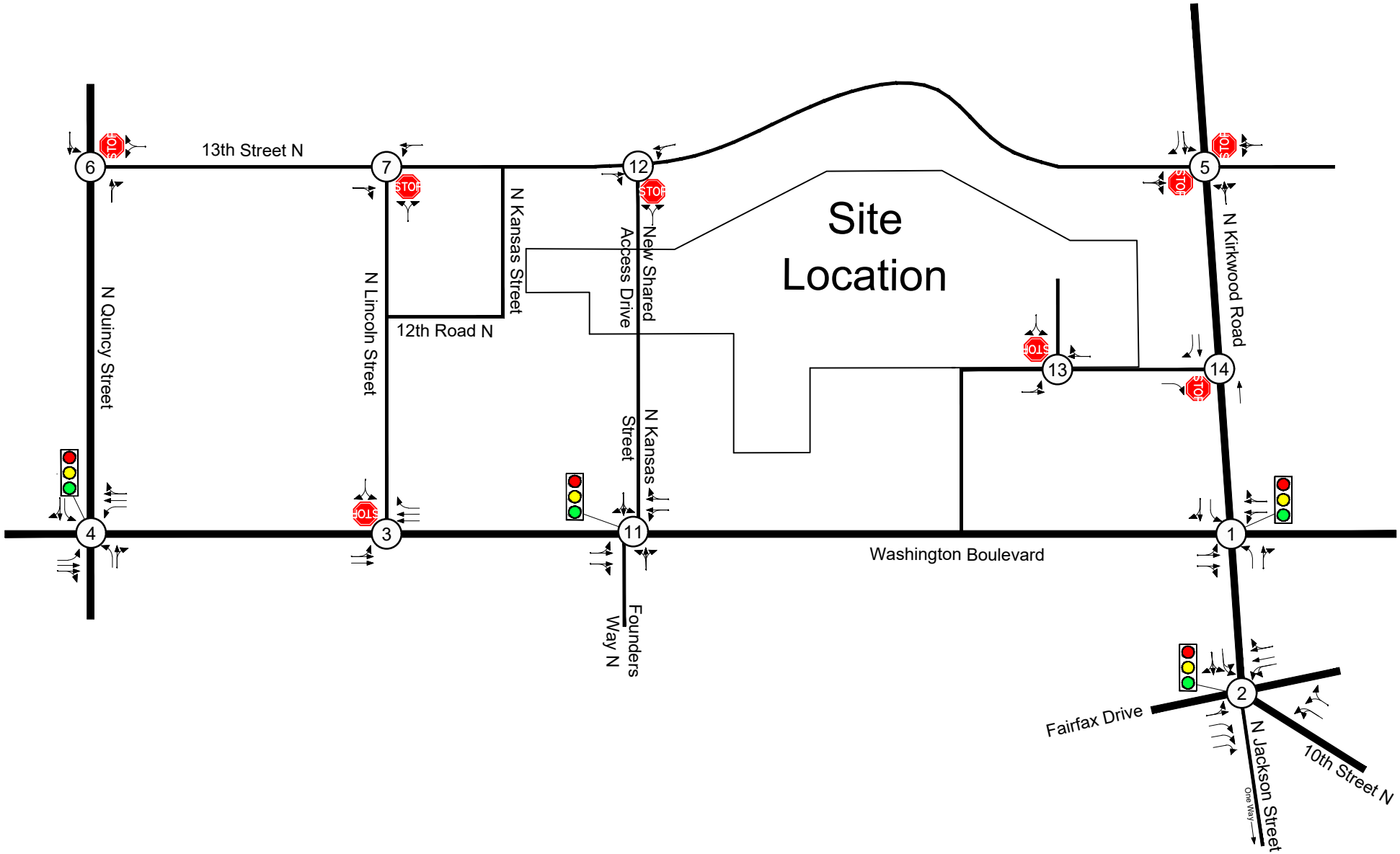


Figure 18

Future Lane Use and Traffic Control

Arlington YMCA
Arlington, VA

SECTION 4:
CONCLUSIONS

The principal findings of this traffic impact analysis are as follows

1. The subject site is located in a walkable multimodal rich environment with a connected network of sidewalks and nearby bike amenities. Access to/from the site is provided by a combination of local streets and arterial roadways. Further, the site is located within a short walking distance to bus lines and approximately 1/3 of a mile to the Clarendon and Virginia Square Metro Stations.

2. The study intersections currently operate at overall LOS "C" or better during the AM and PM peak hours, and each approach operates with an LOS "D" or better.

3. The six (6) pipeline developments are estimated to generate 261 AM peak hour vehicle trips and 456 PM peak hour vehicle trips.

4. In the future with the addition of the pipeline developments and regional growth, the study intersections will continue to operate at overall LOS "C" or better during both the AM and PM peak hours, and each approach at the intersections will operate at LOS "D" or better.

5. The redeveloped YMCA and the new residential building will add 155 AM peak hour, 221 PM peak hour, and 3,135 daily vehicles trips to the adjacent road network.

6. In the future with the redeveloped YMCA and new residential building, the study intersections will continue to operate at an overall LOS of "C" or better during AM and PM peak hours. However, certain approaches will operate with LOS "E" with tolerable delays in urban areas.

7. With the redevelopment of the Arlington YMCA site, a new shared access drive on the west side of the site will be completed connecting to a new segment of North Kansas Street on the APAH site, the east-west pedestrian/bicycle connection between North Kirkwood Road and the new segment of North Kansas Street , and upgrades to the streetscape will be made along the property frontages.

8. On North Kirkwood Road, at the alley intersection between Washington Boulevard and 13th Street N., signage and pavement markings should be considered to manage vehicle queueing on southbound North Kirkwood Road.

9. A Transportation Management Plan will be developed individually for the YMCA and proposed residential building that will be geared, respectively, towards encouraging use of alternative modes of transportation opposed to a private automobile.

Appendix A

SCOPING FORM

SCOPE OF WORK MEETING FORM
Arlington YMCA
Multimodal Transportation Assessment Base Assumptions

Contact Information	
Consultant Name: Tele: E-mail:	Chris L. Kabatt, PE 301.971.3416 clkabatt@wellsandassociates.com
Developer/Owner Name: Tele: E-mail:	YMCA c/o B. Kerem Demirci Orr Partners 814-404-3175 kerem.demirci@orrpartners.com

Project Information	
Project Name:	Arlington YMCA
Project Location:	The subject site is located on the south side of 13th Street North bounded by single family residences to the west, N. Kirkwood Road to the east, and commercial uses and residential building (under construction) to the south. The site is located in the southwest quadrant of N. Kirkwood Road and 13th Street North and is currently occupied by the Arlington YMCA. Vehicular access is currently provided via four (4) driveways on 13th Street North. It includes access to surface parking and a drop-off/pick-up area in front of the main building. The site location is shown on **Figure 1**.
Project Description:	The YMCA building will be consolidated on the west side of the site to include fitness uses and tennis courts within approximately 88,815 S.F. and will be served by approximately 200 parking spaces. The east side of the site will be redeveloped with 374 residential apartments and served by approximately 300 parking spaces. Both buildings will be served by below-grade parking garages. Vehicular access to the YMCA would be provided via a driveway on 13th Street along the west side of the site. Pedestrians would access the YMCA via a main lobby entrance on the driveway. A secondary pedestrian access is located on the 13th Street frontage. Vehicular access to the residential building would be provided from a shared alley being constructed as part of the 11th Street residential development that connects N. Kirkwood Road and Washington Boulevard. A secondary drop-off/pick-up area is planned on N. Kirkwood Road,

<table>
<tr><td></td><td colspan="4">in front of the residential lobby, which is located in the southeast corner of the building.
A copy of the concept plan, showing the proposed access scheme, is shown on Figure 2.</td></tr>
<tr><td>Proposed Use:</td><td>Residential ☐</td><td>Commercial ☐</td><td>Mixed Use <u>X</u></td><td>Other ☐</td></tr>
<tr><td>Proposed Use /
Trip Generation</td><td colspan="2">See Table 1 for Trip Generation Table

<u>Existing YMCA</u>
88,815 S.F. Recreational (fitness uses & tennis courts)

<u>Proposed Residential</u>
374 DU Multifamily Housing
<u>Proposed YMCA</u>
88,815 S.F. Recreational (fitness uses & tennis courts)</td><td colspan="2"><u>ITE Land Uses</u>

Residential – 221

Note: The proposed redevelopment <u>would not</u> exceed the VDOT Chapter 870 thresholds of 5,000 new daily trips (see Table 1).</td></tr>
<tr><td colspan="5">Traffic Impact Analysis Assumptions</td></tr>
<tr><td>Study Period</td><td>Existing Year: <u>2022</u></td><td colspan="2">Build-out Year: <u>2025</u></td><td>Design Year: <u>N/A</u></td></tr>
<tr><td rowspan="2">Study Area Boundaries
(Attach map)

See Figure 1</td><td colspan="2">North: 13th Street North</td><td colspan="2">South: Fairfax Drive</td></tr>
<tr><td colspan="2">East: North Kirkwood Road</td><td colspan="2">West: North Quincy Street</td></tr>
<tr><td>Consistency With Comprehensive Plan</td><td colspan="4">Development would be consistent with the General Land Use Plan (GLUP) for medium density office and apartment development.</td></tr>
<tr><td>Available Traffic Data
(Historical, forecasts)</td><td colspan="4"><u>Published VDOT Average Annual Daily Traffic (AADT) Data:</u>

<table>
<tr><th>Road Name</th><th>2016 AADT</th><th>2017 AADT</th><th>2018 AADT</th><th>2019 AADT</th><th>2020 AADT</th></tr>
<tr><td>Washington Blvd</td><td>18000</td><td>19000</td><td>18000</td><td>16000</td><td>12000</td></tr>
<tr><td>N Kirkwood Rd</td><td>8300</td><td>8400</td><td>8300</td><td>8600</td><td>6500</td></tr>
<tr><td>N Quincy St</td><td>11000</td><td>11000</td><td>11000</td><td>11000</td><td>8600</td></tr>
<tr><td>10th St N</td><td>12000</td><td>12000</td><td>12000</td><td>14000</td><td>10000</td></tr>
<tr><td>Fairfax Drive</td><td>17000</td><td>17000</td><td>17000</td><td>20000</td><td>15000</td></tr>
</table></td></tr>
<tr><td>Trip Distribution</td><td>Road Name:
Fairfax Dr</td><td>North:</td><td>South:</td><td>East:</td><td>West: 10%</td></tr>
</table>

<table>
<tr><td rowspan="4">See Figure 1

*Existing driveway counts will be reviewed to verify the distributions and/or modified accordingly.</td><td>Road Name:
N. Kirkwood Rd/10th St</td><td>North: 20%</td><td>South: 20%</td><td>East:</td><td>West:</td></tr>
<tr><td>Road Name:
N Quincy St</td><td>North: 5%</td><td>South: 5%</td><td>East:</td><td>West:</td></tr>
<tr><td>Road Name:
Washington Blvd</td><td>North:</td><td>South:</td><td>East: 20%</td><td>West: 20%</td></tr>
<tr><td>Road Name:</td><td>North:</td><td>South:</td><td>East:</td><td>West:</td></tr>
<tr><td>Annual Vehicle Trip Growth Rate:</td><td colspan="2">Consistent with other studies, a rate of 0.5 - percent will be used, compounded annually.</td><td colspan="2">Peak Period for Study
(Circle all that apply)</td><td>AM
PM</td></tr>
<tr><td rowspan="8">Study Intersections

See Figure 1</td><td colspan="2">1. Washington Boulevard/North Kirkwood Street</td><td colspan="3">7. 13th Street North/North Lincoln Street</td></tr>
<tr><td colspan="2">2. Fairfax Drive/North Kirkwood Road/North Jackson Street/10th Street North</td><td colspan="3">8. Existing YMCA driveways - 3 on 13th Street</td></tr>
<tr><td colspan="2">3. Washington Boulevard/North Lincoln Street</td><td colspan="3">9. Existing YMCA driveway on 13th Street (tennis near Kirkwood)</td></tr>
<tr><td colspan="2">4. Washington Boulevard/North Quincy Street</td><td colspan="3">10. Existing YMCA driveway on N. Kirkwood</td></tr>
<tr><td colspan="2">5. North Kirkwood Road/13th Street North</td><td colspan="3">11. Washington Boulevard / N Founders Way (Giant Loading)</td></tr>
<tr><td colspan="2">6. 13th Street North/North Quincy Street</td><td colspan="3"></td></tr>
<tr><td colspan="5">**Based on a review of peak hour traffic counts in the area, traffic count data have been collected between 7am-10am and 4pm-7pm at all site driveways and off-site study intersection on a typical weekday when public schools were in session.</td></tr>
<tr><td>Trip Adjustment Factors</td><td colspan="2">Internal allowance: ☐ Yes <u>X</u> No
Reduction:</td><td colspan="3">Pass-by allowance: ☐ Yes <u>X</u> No
Reduction:</td></tr>
<tr><td>Software Methodology</td><td colspan="5">Synchro version 10 software will be used for intersection analysis.</td></tr>
<tr><td>Improvement(s) Assumed</td><td colspan="5">N/A</td></tr>
<tr><td>Background Traffic Studies Considered</td><td colspan="5">1. 1200 N Hudson St – 247 Residential Units
2. 3401 Fairfax Dr – 284,000 SF Mixed Use
3. 3901 Fairfax Dr – 201,627 SF Mixed Use
4. 4223 N Fairfax Drive – 23,499 SF Other + 119 Residential Units
5. 2801 Clarendon Blvd – 27,945 Retail
6. 3445 Washington Blvd – 6,000 SF Office + 160 Affordable Housing</td></tr>
</table>

	7. Washington Boulevard at Kirkwood – 254 Residential Units
Plan Submission	**X** 4.1 Site Plan Submission ☐ Form Based Code Use Permit ☐ Preliminary/Sketch Plan
Additional Issues to be Addressed	**X** Queuing analysis ☐ Actuation/Coordination ☐ Weaving analysis ☐ Merge analysis **X** Bike/Ped Accommodations **X** Intersection(LOS) **X** TDM Measures
Site Forecast Assumptions	Existing site traffic will be removed from the road network based on observed traffic counts. New site traffic will be assigned to the network using the proposed site trip generation table along with the site distributions.

ADDITIONAL NOTES:

- This 4.1 Site Plan proposal does ***not*** trigger VDOT 870 trip thresholds of 5,000 total daily trips, as shown in **Table 1.**

- Field measured PHF's will be used if between 0.85 and higher, if lower, a 0.85 PHF will be used. For future conditions a PHF of 0.92 or higher will be used.

- Level of service calculations for existing and future conditions without and with development shall be in accordance with the Highway Capacity Manual (HCM) 2000 methodologies, as computed by Synchro 10 software. Typical Synchro parameters to be utilized in this analysis will be consistent with VDOT's TOSAM and Arlington County standards.

- Queue Analysis will be provided for key lane groups at the N. Kirkwood Road/13th Street N and N. Kirkwood Road/Washington Boulevard intersections.

- Study will include a comprehensive discussion of the multimodal transportation options available in the vicinity of the site including Metrorail, bus, capital bikeshare, bikes, and pedestrians.

- Study will include a discussion of the safety analysis of the site, such as crash data obtained from Arlington County.

- Include discussion and calculation of person trips generated by the proposal broken out into the various mode shares based on census data.

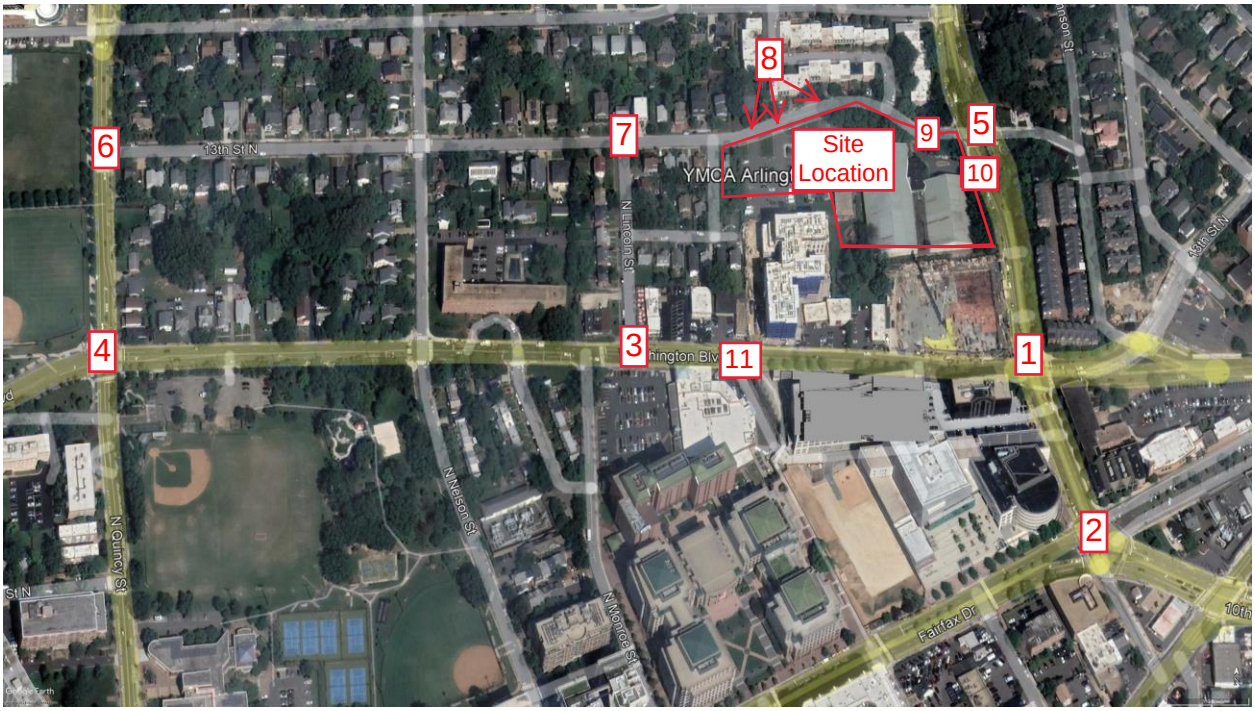
SIGNED: _____ DATE: _____
Applicant or Consultant

PRINT NAME: Christopher L. Kabatt, P.E.
Applicant or Consultant

SIGNED: _____ DATE: _____
Local Government Representative

PRINT NAME: _____
Local Government Representative

Figure 1 - Site Location & Study Intersections



Study Intersections

1 Washington Boulevard/North Kirkwood Street

2 Fairfax Drive/North Kirkwood Road/North Jackson Street/10th Street North

3 Washington Boulevard/North Lincoln Street

4 Washington Boulevard/North Quincy Street

5 North Kirkwood Road/13th Street North

6 13th Street North/North Quincy Street

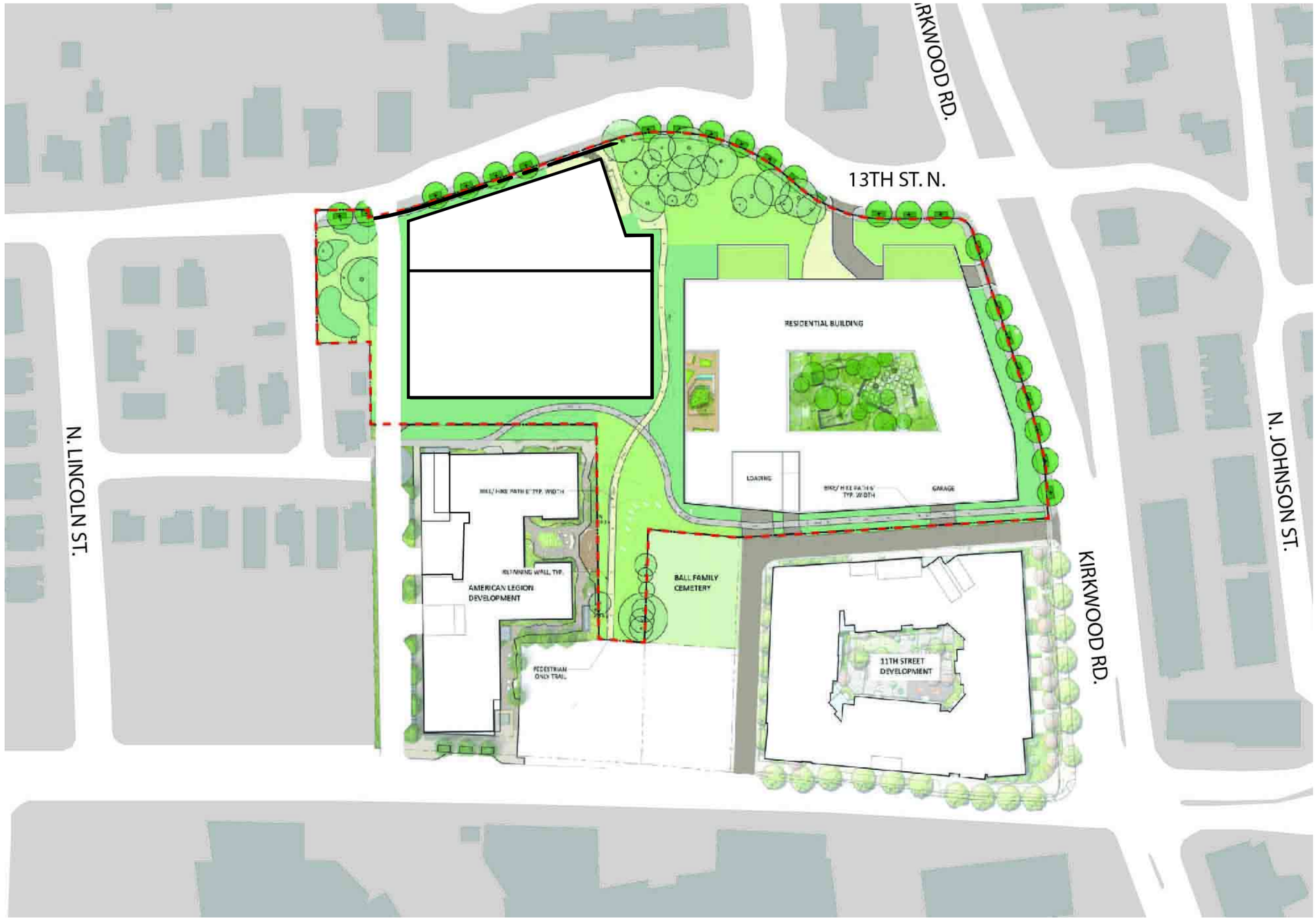
7 13th Street North/North Lincoln Street

8 Existing YMCA driveways - 3 on 13th Street

9 Existing YMCA driveway on 13th Street (tennis near Kirkwood)

10 Existing YMCA driveway on N. Kirkwood

11 Washington Boulevard / N Founders Way (Giant Loading)


RKWOOD RD.
13TH ST. N.
N. LINCOLN ST.
N. JOHNSON ST.
KIRKWOOD RD.
RESIDENTIAL BUILDING
LOADING
GARAGE
AMERICAN LEGION
DEVELOPMENT
BALL FAMILY
CEMETERY
11TH STREET
DEVELOPMENT
PEDESTRIAN
ONLY TRAIL

1"=100'

Appendix B

Existing Traffic Counts

Wells + Associates, Inc.

Tysons, Virginia

Turning Movement Count - Bicycles

PROJECT: Arlington YMCA
W+A JOB NO: 8687
INTERSECTION: N. Kirkwood Rd. & 13th street N.
LOCATION: Arlington County,VA
DATE: 1/26/2022
DAY: Wednesday
WEATHER: clear
COUNTED BY: Agan
INPUTED BY: agan
SOUTHBOUND ROAD: North Kirkwood Road
NORTHBOUND ROAD: North Kirkwood Road
WESTBOUND ROAD: 13th Street North
EASTBOUND ROAD: 13th Street North

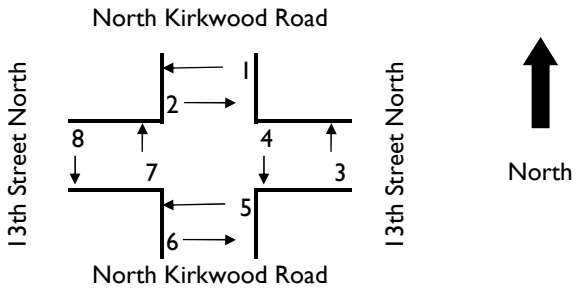
Time Period	Southbound North Kirkwood Road				Westbound 13th Street North				Northbound North Kirkwood Road				Eastbound 13th Street North				North & South	East & West	Total
	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total			
One Hour Volumes																			
7:00 AM - 8:00 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	0	1
7:15 AM - 8:15 AM	0	0	0	0	0	2	0	2	0	1	0	1	0	1	0	1	1	3	4
7:30 AM - 8:30 AM	0	1	0	1	1	4	0	5	0	1	0	1	0	3	0	3	2	8	10
7:45 AM - 8:45 AM	0	1	0	1	1	5	0	6	0	0	0	0	0	3	0	3	1	9	10
8:00 AM - 9:00 AM	0	1	0	1	1	6	0	7	0	0	0	0	1	3	0	4	1	11	12
8:15 AM - 9:15 AM	0	1	1	2	1	5	0	6	0	0	0	0	1	2	0	3	2	9	11
8:30 AM - 9:30 AM	0	0	1	1	0	3	0	3	0	0	0	0	1	0	0	1	1	4	5
8:45 AM - 9:45 AM	0	0	1	1	0	2	0	2	0	0	0	0	1	0	0	1	1	3	4
9:00 AM - 10:00 AM	0	0	1	1	0	1	0	1	0	0	0	0	0	0	0	0	1	1	2
9:15 AM - 10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM - 10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM - 10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM - 11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM - 11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM - 11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM - 11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM - 12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM - 12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM - 12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM - 12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM - 1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM - 1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM - 1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM - 1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM - 2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM - 2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM - 2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM - 2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM - 3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM - 3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM - 3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM - 3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM - 4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM - 4:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1	1
3:30 PM - 4:30 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1	1
3:45 PM - 4:45 PM	0	0	0	0	1	1	0	2	0	0	0	0	0	0	0	0	0	2	2
4:00 PM - 5:00 PM	0	0	0	0	1	1	0	2	0	0	0	0	0	1	0	1	0	3	3
4:15 PM - 5:15 PM	0	0	0	0	1	0	0	1	0	0	0	0	0	2	0	2	0	3	3
4:30 PM - 5:30 PM	0	0	0	0	1	1	0	2	0	0	0	0	0	2	0	2	0	4	4
4:45 PM - 5:45 PM	0	0	0	0	1	2	0	3	0	0	0	0	0	2	0	2	0	5	5
5:00 PM - 6:00 PM	0	0	0	0	1	2	0	3	0	0	0	0	0	1	0	1	0	4	4
5:15 PM - 6:15 PM	0	0	0	0	1	2	0	3	0	0	0	0	0	0	0	0	0	3	3
5:30 PM - 6:30 PM	0	0	0	0	1	1	0	2	0	0	0	0	0	0	0	0	0	2	2
5:45 PM - 6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM - 7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	1

Wells + Associates, Inc.

Tysons, Virginia

Pedestrian Volume Survey

PROJECT: Arlington YMCA
W + A JOB NO: 8687
INTERSECTION: N. Kirkwood Rd. & 13th street N.
LOCATION: Arlington County,VA
DATE: 1/26/2022
DAY: Wednesday
WEATHER: clear
COUNTED BY: Agan
INPUTED BY: agan



Time Period		Movement 1	2	3	4	5	6	7	8	1 + 2	3 + 4	5 + 6	7+ 8	Total
One Hour Volumes														
7:00 AM	- 8:00 AM	0	2	1	8	11	3	1	6	2	9	14	7	32
7:15 AM	- 8:15 AM	0	2	5	15	18	2	1	3	2	20	20	4	46
7:30 AM	- 8:30 AM	0	4	5	17	21	2	0	5	4	22	23	5	54
7:45 AM	- 8:45 AM	0	5	4	18	28	5	0	7	5	22	33	7	67
8:00 AM	- 9:00 AM	0	5	4	10	29	13	3	13	5	14	42	16	77
8:15 AM	- 9:15 AM	2	5	0	6	21	17	4	16	7	6	38	20	71
8:30 AM	- 9:30 AM	3	3	1	4	23	17	7	13	6	5	40	20	71
8:45 AM	- 9:45 AM	3	0	1	3	15	18	7	12	3	4	33	19	59
9:00 AM	- 10:00 AM	3	0	2	3	10	9	5	6	3	5	19	11	38
9:15 AM	- 10:15 AM	1	0	2	0	9	4	4	2	1	2	13	6	22
9:30 AM	- 10:30 AM	0	0	1	0	3	4	1	2	0	1	7	3	11
9:45 AM	- 10:45 AM	0	0	1	0	1	0	1	1	0	1	1	2	4
3:15 PM	- 4:15 PM	0	0	0	0	2	3	3	3	0	0	5	6	11
3:30 PM	- 4:30 PM	0	0	0	0	4	6	4	5	0	0	10	9	19
3:45 PM	- 4:45 PM	0	1	0	2	7	8	5	7	1	2	15	12	30
4:00 PM	- 5:00 PM	0	1	0	3	12	12	7	11	1	3	24	18	46
4:15 PM	- 5:15 PM	0	1	0	3	11	14	6	9	1	3	25	15	44
4:30 PM	- 5:30 PM	0	1	3	6	12	13	6	8	1	9	25	14	49
4:45 PM	- 5:45 PM	0	0	6	11	11	15	5	8	0	17	26	13	56
5:00 PM	- 6:00 PM	0	0	9	12	7	12	4	6	0	21	19	10	50
5:15 PM	- 6:15 PM	0	0	10	13	7	8	3	5	0	23	15	8	46
5:30 PM	- 6:30 PM	0	0	8	11	4	8	2	4	0	19	12	6	37
5:45 PM	- 6:45 PM	0	0	5	5	5	7	3	2	0	10	12	5	27
6:00 PM	- 7:00 PM	0	0	2	3	4	6	3	0	0	5	10	3	18
6:15 PM	- 7:15 PM	0	0	1	2	3	5	2	0	0	3	8	2	13
6:30 PM	- 7:30 PM	0	0	0	1	3	3	2	0	0	1	6	2	9
6:45 PM	- 7:45 PM	0	0	0	0	0	0	1	0	0	0	0	1	1

Wells + Associates, Inc.

Tysons, Virginia

Turning Movement Count - Total Vehicles

PROJECT: Arlington YMCA
W+A JOB NO: 8687
INTERSECTION: N. Kirkwood Rd. & 13th street N.
LOCATION: Arlington County,VA

DATE: 1/26/2022
DAY: Wednesday
WEATHER: clear
COUNTED BY: Agan
INPUTED BY: agan

SOUTHBOUND ROAD: North Kirkwood Road
NORTHBOUND ROAD: North Kirkwood Road
WESTBOUND ROAD: 13th Street North
EASTBOUND ROAD: 13th Street North

Time Period		Southbound North Kirkwood Road						Westbound 13th Street North						Northbound North Kirkwood Road						Eastbound 13th Street North						North & South	East & West	Total
		Right	Thru	Left	U-Turn	Total	PHF	Right	Thru	Left	U-Turn	Total	PHF	Right	Thru	Left	U-Turn	Total	PHF	Right	Thru	Left	U-Turn	Total	PHF			
One Hour Volumes																												
7:00 AM	- 8:00 AM	21	100	4	0	125	0.6378	13	8	7	0	28	0.7778	16	199	17	5	237	0.7406	10	1	17	0	28	0.5833	362	56	418
7:15 AM	- 8:15 AM	22	135	6	0	163	0.6468	14	17	6	0	37	0.7708	22	229	22	3	276	0.8625	12	7	25	0	44	0.6111	439	81	520
7:30 AM	- 8:30 AM	25	153	13	0	191	0.7579	18	19	6	0	43	0.8269	23	279	25	1	328	0.8119	15	13	31	0	59	0.7024	519	102	621
7:45 AM	- 8:45 AM	27	175	25	0	227	0.9008	23	21	5	0	49	0.8167	23	300	25	2	350	0.8663	17	20	28	0	65	0.7738	577	114	691
8:00 AM	- 9:00 AM	26	199	34	0	259	0.7994	24	25	3	0	52	0.8667	24	300	24	2	350	0.8663	17	24	34	0	75	0.8523	609	127	736
8:15 AM	- 9:15 AM	25	178	35	0	238	0.7346	23	16	5	0	44	0.7333	24	293	20	2	339	0.8391	19	21	32	0	72	0.8182	577	116	693
8:30 AM	- 9:30 AM	27	180	28	0	235	0.7253	18	12	5	0	35	0.5833	22	252	26	3	303	0.8417	16	17	29	0	62	0.7045	538	97	635
8:45 AM	- 9:45 AM	26	176	20	0	222	0.6852	11	8	6	0	25	0.5208	21	213	29	2	265	0.8281	20	10	27	0	57	0.6477	487	82	569
9:00 AM	- 10:00 AM	23	153	9	0	185	0.8894	6	5	7	0	18	0.9	21	176	26	3	226	0.8309	18	10	18	0	46	0.7667	411	64	475
9:15 AM	- 10:15 AM	20	118	5	0	143	0.6875	5	4	5	0	14	0.7	14	118	23	3	158	0.6077	13	7	11	0	31	0.7045	301	45	346
9:30 AM	- 10:30 AM	12	75	4	0	91	0.484	3	3	4	0	10	0.5	12	67	12	2	93	0.4471	10	5	5	0	20	0.4545	184	30	214
9:45 AM	- 10:45 AM	7	37	0	0	44	0.25	2	2	1	0	5	0.25	7	28	4	2	41	0.25	3	5	3	0	11	0.25	85	16	101
3:15 PM	- 4:15 PM	6	69	3	0	78	0.25	3	4	1	0	8	0.25	0	61	7	0	68	0.25	10	1	6	0	17	0.25	146	25	171
3:30 PM	- 4:30 PM	15	141	7	0	163	0.4794	8	8	2	0	18	0.45	1	126	13	0	140	0.4861	15	4	11	0	30	0.4412	303	48	351
3:45 PM	- 4:45 PM	17	199	15	0	231	0.6794	9	11	4	0	24	0.6	2	180	19	0	201	0.6979	18	7	13	0	38	0.5588	432	62	494
4:00 PM	- 5:00 PM	29	257	19	0	305	0.8971	14	17	8	0	39	0.65	3	237	27	0	267	0.9271	23	10	17	0	50	0.7353	572	89	661
4:15 PM	- 5:15 PM	29	267	17	0	313	0.9099	16	16	7	0	39	0.65	7	245	32	0	284	0.8353	20	11	21	0	52	0.6842	597	91	688
4:30 PM	- 5:30 PM	29	281	18	0	328	0.82	18	14	9	0	41	0.6833	9	248	34	0	291	0.8559	21	14	22	0	57	0.75	619	98	717
4:45 PM	- 5:45 PM	41	290	14	0	345	0.8625	22	18	10	0	50	0.8333	14	262	32	0	308	0.9059	20	17	25	0	62	0.8158	653	112	765
5:00 PM	- 6:00 PM	35	301	16	0	352	0.88	19	16	8	0	43	0.7167	14	263	29	0	306	0.9	18	16	24	0	58	0.7632	658	101	759
5:15 PM	- 6:15 PM	37	307	19	0	363	0.9075	16	14	9	0	39	0.65	15	239	22	0	276	0.8734	15	19	22	0	56	0.7778	639	95	734
5:30 PM	- 6:30 PM	30	266	16	0	312	0.8041	11	14	11	0	36	0.6	16	230	18	0	264	0.8462	13	14	20	0	47	0.6912	576	83	659
5:45 PM	- 6:45 PM	26	263	16	0	305	0.7861	9	12	11	0	32	0.7273	11	219	15	0	245	0.9142	12	11	17	0	40	0.5882	550	72	622
6:00 PM	- 7:00 PM	24	254	16	0	294	0.7577	8	12	9	0	29	0.6591	12	230	17	0	259	0.8301	12	10	22	0	44	0.6471	553	73	626
6:15 PM	- 7:15 PM	16	169	12	0	197	0.6314	6	11	8	0	25	0.5682	7	185	12	0	204	0.6538	8	5	14	0	27	0.5625	401	52	453
6:30 PM	- 7:30 PM	14	124	10	0	148	0.4744	4	9	3	0	16	0.3636	3	126	8	0	137	0.4391	4	4	10	0	18	0.375	285	34	319
6:45 PM	- 7:45 PM	4	60	6	0	70	0.25	1	4	0	0	5	0.25	2	69	7	0	78	0.25	3	1	8	0	12	0.25	148	17	165

Wells + Associates, Inc.

Tysons, Virginia

Turning Movement Count - Bicycles

PROJECT:	Arlington YMCA	**DATE:**	1/26/2022	**SOUTHBOUND ROAD:**	North Lincoln Street
W+A JOB NO:	8687	**DAY:**	Wednesday	**NORTHBOUND ROAD:**	North Lincoln Street
INTERSECTION:	N. Lincoln St. & 13th street N.	**WEATHER:**	clear	**WESTBOUND ROAD:**	13th Street North
LOCATION:	Arlington County,VA	**COUNTED BY:**	Agan	**EASTBOUND ROAD:**	13th Street North
		INPUTED BY:	agan		

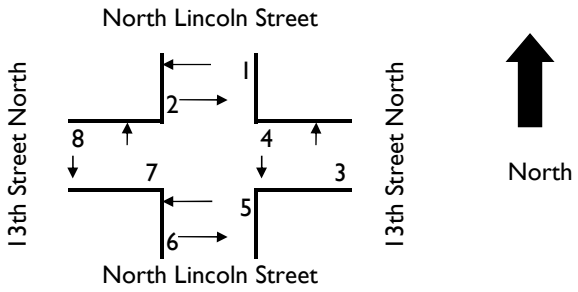
Time Period	Southbound North Lincoln Street				Westbound 13th Street North				Northbound North Lincoln Street				Eastbound 13th Street North				North & South	East & West	Total
	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total			
One Hour Volumes																			
7:00 AM - 8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM - 8:15 AM	0	0	0	0	0	2	0	2	2	0	0	2	0	1	0	1	2	3	5
7:30 AM - 8:30 AM	0	0	0	0	0	3	0	3	2	0	0	2	0	1	0	1	2	4	6
7:45 AM - 8:45 AM	0	0	0	0	0	4	0	4	2	0	0	2	0	1	0	1	2	5	7
8:00 AM - 9:00 AM	0	0	0	0	0	4	0	4	2	0	0	2	0	1	0	1	2	5	7
8:15 AM - 9:15 AM	0	0	0	0	0	3	0	3	0	0	0	0	0	0	0	0	0	3	3
8:30 AM - 9:30 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	2	2
8:45 AM - 9:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1	1
9:00 AM - 10:00 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	2	2
9:15 AM - 10:15 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1	1
9:30 AM - 10:30 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1	1
9:45 AM - 10:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1	1
10:00 AM - 11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM - 11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM - 11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM - 11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM - 12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM - 12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM - 12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM - 12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM - 1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM - 1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM - 1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM - 1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM - 2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM - 2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM - 2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM - 2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM - 3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM - 3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM - 3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM - 3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM - 4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM - 4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	1
3:30 PM - 4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	1
3:45 PM - 4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	1
4:00 PM - 5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	2	2
4:15 PM - 5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	2	2
4:30 PM - 5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	2	2
4:45 PM - 5:45 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	2	0	2	0	3	3
5:00 PM - 6:00 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	1	0	1	0	2	2
5:15 PM - 6:15 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	1	1
5:30 PM - 6:30 PM	0	0	0	0	0	0	1	1	0	0	1	1	0	1	0	1	1	2	3
5:45 PM - 6:45 PM	0	0	0	0	0	0	1	1	0	0	1	1	0	1	0	1	1	2	3
6:00 PM - 7:00 PM	0	0	0	0	0	0	1	1	0	0	1	1	0	2	0	2	1	3	4

Wells + Associates, Inc.

Tysons, Virginia

Pedestrian Volume Survey

PROJECT: Arlington YMCA
W + A JOB NO: 8687
INTERSECTION: N. Lincoln St. & 13th street N.
LOCATION: Arlington County,VA
DATE: 1/26/2022
DAY: Wednesday
WEATHER: clear
COUNTED BY: Agan
INPUTED BY: agan



Time Period		Movement												
		1	2	3	4	5	6	7	8	1 + 2	3 + 4	5 + 6	7+ 8	Total
One Hour Volumes														
7:00 AM	- 8:00 AM	0	0	0	0	8	7	0	0	0	0	15	0	15
7:15 AM	- 8:15 AM	0	1	0	0	17	9	0	0	1	0	26	0	27
7:30 AM	- 8:30 AM	0	1	0	0	17	8	0	0	1	0	25	0	26
7:45 AM	- 8:45 AM	0	1	0	0	16	7	0	0	1	0	23	0	24
8:00 AM	- 9:00 AM	0	1	0	0	16	6	0	0	1	0	22	0	23
8:15 AM	- 9:15 AM	0	0	0	0	9	5	0	0	0	0	14	0	14
8:30 AM	- 9:30 AM	0	0	0	0	7	5	0	0	0	0	12	0	12
8:45 AM	- 9:45 AM	0	0	0	0	7	4	0	0	0	0	11	0	11
9:00 AM	- 10:00 AM	0	0	0	0	5	7	0	0	0	0	12	0	12
9:15 AM	- 10:15 AM	0	0	0	0	3	5	0	0	0	0	8	0	8
9:30 AM	- 10:30 AM	0	0	0	0	2	3	0	0	0	0	5	0	5
9:45 AM	- 10:45 AM	0	0	0	0	1	3	0	0	0	0	4	0	4
3:15 PM	- 4:15 PM	0	1	0	0	6	4	0	0	1	0	10	0	11
3:30 PM	- 4:30 PM	0	2	0	0	8	5	0	0	2	0	13	0	15
3:45 PM	- 4:45 PM	0	2	0	0	12	8	0	0	2	0	20	0	22
4:00 PM	- 5:00 PM	0	2	0	0	14	12	0	0	2	0	26	0	28
4:15 PM	- 5:15 PM	0	2	1	0	11	12	0	0	2	1	23	0	26
4:30 PM	- 5:30 PM	0	1	1	0	12	11	0	0	1	1	23	0	25
4:45 PM	- 5:45 PM	0	1	1	0	14	11	0	0	1	1	25	0	27
5:00 PM	- 6:00 PM	0	1	1	0	14	8	0	0	1	1	22	0	24
5:15 PM	- 6:15 PM	0	0	0	0	13	6	0	0	0	0	19	0	19
5:30 PM	- 6:30 PM	0	0	0	0	11	8	0	0	0	0	19	0	19
5:45 PM	- 6:45 PM	0	0	0	0	7	7	0	0	0	0	14	0	14
6:00 PM	- 7:00 PM	0	0	0	0	8	6	0	0	0	0	14	0	14

Wells + Associates,Inc

Tysons, Virginia

Turning Movement Count - Total Vehicles

PROJECT: Arlington YMCA
W+A JOB NO: 8687
INTERSECTION: N. Lincoln St. & 13th street N.
LOCATION: Arlington County,VA

DATE: 1/26/2022
DAY: Wednesday
WEATHER: clear
COUNTED BY: Agan
INPUTED BY: agan

SOUTHBOUND ROAD: North Lincoln Street
NORTHBOUND ROAD: North Lincoln Street
WESTBOUND ROAD: 13th Street North
EASTBOUND ROAD: 13th Street North

Time Period	Southbound North Lincoln Street						Westbound 13th Street North						Northbound North Lincoln Street						Eastbound 13th Street North						North & South	East & West	Total
	Right	Thru	Left	U-Turn	Total	PHF	Right	Thru	Left	U-Turn	Total	PHF	Right	Thru	Left	U-Turn	Total	PHF	Right	Thru	Left	U-Turn	Total	PHF			
One Hour Volumes																											
7:00 AM - 8:00 AM	0	0	0	0	0		0	25	12	0	37	0.5139	12	0	5	0	17	0.4722	5	19	0	0	24	0.5	17	61	78
7:15 AM - 8:15 AM	0	0	0	0	0		0	47	8	0	55	0.55	16	0	8	0	24	0.6667	6	35	0	0	41	0.6029	24	96	120
7:30 AM - 8:30 AM	0	0	0	0	0		0	57	6	0	63	0.63	17	0	9	0	26	0.7222	6	42	0	0	48	0.7059	26	111	137
7:45 AM - 8:45 AM	0	0	0	0	0		0	57	10	0	67	0.67	16	0	9	0	25	0.6944	5	46	0	0	51	0.75	25	118	143
8:00 AM - 9:00 AM	0	0	0	0	0		0	60	7	0	67	0.67	20	0	7	0	27	0.6136	3	52	0	0	55	0.8088	27	122	149
8:15 AM - 9:15 AM	0	0	0	0	0		0	40	10	0	50	0.6944	19	0	6	0	25	0.5682	2	43	0	0	45	0.7031	25	95	120
8:30 AM - 9:30 AM	0	0	0	0	0		0	35	13	0	48	0.6667	22	0	4	0	26	0.5909	3	40	0	0	43	0.6719	26	91	117
8:45 AM - 9:45 AM	0	0	0	0	0		0	37	12	0	49	0.6806	22	0	4	0	26	0.5909	4	35	0	0	39	0.6094	26	88	114
9:00 AM - 10:00 AM	0	0	0	0	0		0	32	9	0	41	0.7321	15	0	4	0	19	0.7917	3	34	0	0	37	0.6607	19	78	97
9:15 AM - 10:15 AM	0	0	0	0	0		0	27	6	0	33	0.5893	12	0	2	0	14	0.5833	3	27	0	0	30	0.5357	14	63	77
9:30 AM - 10:30 AM	0	0	0	0	0		0	21	3	0	24	0.4286	6	0	2	0	8	0.5	1	19	0	0	20	0.3571	8	44	52
9:45 AM - 10:45 AM	0	0	0	0	0		0	10	0	0	10	0.25	3	0	1	0	4	0.25	0	14	0	0	14	0.25	4	24	28
3:15 PM - 4:15 PM	0	0	0	0	0		0	13	4	0	17	0.25	3	0	4	0	7	0.25	1	11	0	0	12	0.25	7	29	36
3:30 PM - 4:30 PM	0	0	0	0	0		0	29	10	0	39	0.4432	6	0	6	0	12	0.4286	1	17	0	0	18	0.375	12	57	69
3:45 PM - 4:45 PM	0	0	0	0	0		0	35	15	0	50	0.5682	8	0	7	0	15	0.5357	1	24	0	0	25	0.5208	15	75	90
4:00 PM - 5:00 PM	0	0	0	0	0		0	54	22	0	76	0.7308	9	0	11	0	20	0.7143	1	38	0	0	39	0.6964	20	115	135
4:15 PM - 5:15 PM	0	0	0	0	0		0	62	23	0	85	0.8173	10	0	13	0	23	0.575	1	39	0	0	40	0.7143	23	125	148
4:30 PM - 5:30 PM	0	0	0	0	0		0	58	23	0	81	0.7788	9	0	15	0	24	0.6	1	46	0	0	47	0.8393	24	128	152
4:45 PM - 5:45 PM	0	0	0	0	0		0	72	21	0	93	0.8942	11	0	19	0	30	0.75	3	46	0	0	49	0.875	30	142	172
5:00 PM - 6:00 PM	0	0	0	0	0		0	67	16	0	83	0.7981	12	0	15	0	27	0.675	6	49	0	0	55	0.6875	27	138	165
5:15 PM - 6:15 PM	0	0	0	0	0		0	55	17	0	72	0.7826	10	0	11	0	21	0.5833	6	46	0	0	52	0.65	21	124	145
5:30 PM - 6:30 PM	0	0	0	0	0		0	52	14	0	66	0.7174	11	0	8	0	19	0.5278	9	39	0	0	48	0.6	19	114	133
5:45 PM - 6:45 PM	0	0	0	0	0		0	39	21	0	60	0.8824	10	0	3	0	13	0.8125	8	35	0	0	43	0.5375	13	103	116
6:00 PM - 7:00 PM	0	0	0	0	0		0	33	24	0	57	0.8382	9	0	3	0	12	0.75	5	31	0	0	36	0.6923	12	93	105
6:15 PM - 7:15 PM	0	0	0	0	0		0	24	18	0	42	0.6176	7	0	1	0	8	0.5	4	22	0	0	26	0.5	8	68	76
6:30 PM - 7:30 PM	0	0	0	0	0		0	15	15	0	30	0.4412	4	0	0	0	4	0.3333	1	16	0	0	17	0.3269	4	47	51
6:45 PM - 7:45 PM	0	0	0	0	0		0	8	5	0	13	0.25	1	0	0	0	1	0.25	0	13	0	0	13	0.25	1	26	27

Wells + Associates, Inc.

Tysons, Virginia

Turning Movement Count - Bicycles

PROJECT:	Arlington YMCA	**DATE:**	1/26/2022	**SOUTHBOUND ROAD:**	North Quincy Street
W+A JOB NO:	8687	**DAY:**	Wednesday	**NORTHBOUND ROAD:**	North Quincy Street
INTERSECTION:	N. Quincy St. & 13th street N.	**WEATHER:**	clear	**WESTBOUND ROAD:**	13th Street North
LOCATION:	Arlington County,VA	**COUNTED BY:**	Agan	**EASTBOUND ROAD:**	13th Street North
		INPUTED BY:	agan		

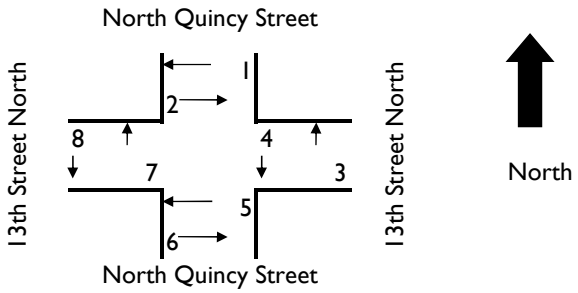
Time Period		Southbound North Quincy Street				Westbound 13th Street North				Northbound North Quincy Street				Eastbound 13th Street North				North & South	East & West	Total
		Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total			
One Hour Volumes																				
7:00 AM	- 8:00 AM	0	4	0	4	0	0	0	0	0	4	0	4	0	0	0	0	8	0	8
7:15 AM	- 8:15 AM	0	4	0	4	0	0	1	1	1	2	0	3	0	0	0	0	7	1	8
7:30 AM	- 8:30 AM	0	5	1	6	0	0	1	1	1	2	0	3	0	0	0	0	9	1	10
7:45 AM	- 8:45 AM	0	3	1	4	0	0	1	1	1	1	0	2	0	0	0	0	6	1	7
8:00 AM	- 9:00 AM	0	3	1	4	0	0	1	1	1	1	0	2	0	0	0	0	6	1	7
8:15 AM	- 9:15 AM	0	3	1	4	1	0	1	2	0	1	0	1	0	0	0	0	5	2	7
8:30 AM	- 9:30 AM	0	2	0	2	1	0	1	2	0	1	0	1	0	0	0	0	3	2	5
8:45 AM	- 9:45 AM	0	2	0	2	1	0	1	2	0	1	0	1	0	0	0	0	3	2	5
9:00 AM	- 10:00 AM	0	2	0	2	1	0	2	3	0	0	0	0	0	0	0	0	2	3	5
9:15 AM	- 10:15 AM	0	1	0	1	0	0	1	1	0	0	0	0	0	0	0	0	1	1	2
9:30 AM	- 10:30 AM	0	1	0	1	0	0	1	1	0	0	0	0	0	0	0	0	1	1	2
9:45 AM	- 10:45 AM	0	1	0	1	0	0	1	1	0	0	0	0	0	0	0	0	1	1	2
10:00 AM	- 11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	- 11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	- 11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	- 11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	- 12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	- 12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	- 12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	- 12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	- 1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	- 1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	- 1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	- 1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	- 2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	- 2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	- 2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	- 2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	- 3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	- 3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	- 3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	- 3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	- 4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	- 4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	- 4:30 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
3:45 PM	- 4:45 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
4:00 PM	- 5:00 PM	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2	0	2
4:15 PM	- 5:15 PM	0	2	0	2	0	0	0	0	1	1	0	2	0	0	0	0	4	0	4
4:30 PM	- 5:30 PM	0	1	0	1	0	0	0	0	1	1	0	2	0	0	0	0	3	0	3
4:45 PM	- 5:45 PM	0	2	0	2	0	0	0	0	1	1	0	2	0	0	0	0	4	0	4
5:00 PM	- 6:00 PM	0	2	0	2	0	0	0	0	1	0	0	1	0	0	0	0	3	0	3
5:15 PM	- 6:15 PM	0	2	0	2	0	0	0	0	0	1	0	1	0	0	0	0	3	0	3
5:30 PM	- 6:30 PM	0	2	0	2	0	0	0	0	0	3	0	3	0	0	0	0	5	0	5
5:45 PM	- 6:45 PM	0	1	0	1	0	0	0	0	1	4	0	5	0	0	0	0	6	0	6
6:00 PM	- 7:00 PM	0	1	0	1	0	0	0	0	2	5	0	7	0	0	0	0	8	0	8
6:15 PM	- 7:15 PM	0	0	0	0	0	0	0	0	2	4	0	6	0	0	0	0	6	0	6
6:30 PM	- 7:30 PM	0	0	0	0	0	0	0	0	2	2	0	4	0	0	0	0	4	0	4
6:45 PM	- 7:45 PM	0	0	0	0	0	0	0	0	1	1	0	2	0	0	0	0	2	0	2

Wells + Associates, Inc.

Tysons, Virginia

Pedestrian Volume Survey

PROJECT: Arlington YMCA
W + A JOB NO: 8687
INTERSECTION: N. Quincy St. & 13th street N.
LOCATION: Arlington County,VA
DATE: 1/26/2022
DAY: Wednesday
WEATHER: clear
COUNTED BY: Agan
INPUTED BY: agan



Time Period		Movement												
		1	2	3	4	5	6	7	8	1 + 2	3 + 4	5 + 6	7+ 8	Total
One Hour Volumes														
7:00 AM	- 8:00 AM	3	2	7	7	8	1	3	3	5	14	9	6	34
7:15 AM	- 8:15 AM	3	3	7	7	18	0	8	2	6	14	18	10	48
7:30 AM	- 8:30 AM	4	1	7	8	20	1	10	4	5	15	21	14	55
7:45 AM	- 8:45 AM	4	1	5	6	14	1	10	8	5	11	15	18	49
8:00 AM	- 9:00 AM	2	1	6	5	14	1	10	9	3	11	15	19	48
8:15 AM	- 9:15 AM	1	0	5	6	5	1	5	12	1	11	6	17	35
8:30 AM	- 9:30 AM	0	0	5	6	3	0	5	14	0	11	3	19	33
8:45 AM	- 9:45 AM	0	0	6	7	3	0	5	14	0	13	3	19	35
9:00 AM	- 10:00 AM	0	0	5	8	3	0	4	17	0	13	3	21	37
9:15 AM	- 10:15 AM	0	0	4	6	1	0	3	14	0	10	1	17	28
9:30 AM	- 10:30 AM	0	0	2	4	0	0	1	10	0	6	0	11	17
9:45 AM	- 10:45 AM	0	0	0	2	0	0	0	5	0	2	0	5	7
3:15 PM	- 4:15 PM	0	1	3	3	1	1	2	1	1	6	2	3	12
3:30 PM	- 4:30 PM	0	1	6	4	2	1	9	6	1	10	3	15	29
3:45 PM	- 4:45 PM	0	1	6	8	2	2	16	9	1	14	4	25	44
4:00 PM	- 5:00 PM	1	1	8	9	3	3	16	17	2	17	6	33	58
4:15 PM	- 5:15 PM	1	0	8	6	2	5	19	19	1	14	7	38	60
4:30 PM	- 5:30 PM	1	0	6	9	1	5	17	16	1	15	6	33	55
4:45 PM	- 5:45 PM	1	0	7	5	4	7	17	15	1	12	11	32	56
5:00 PM	- 6:00 PM	0	0	7	8	5	8	18	9	0	15	13	27	55
5:15 PM	- 6:15 PM	0	0	5	8	8	6	14	6	0	13	14	20	47
5:30 PM	- 6:30 PM	0	0	6	4	10	6	9	4	0	10	16	13	39
5:45 PM	- 6:45 PM	1	0	6	8	11	5	3	4	1	14	16	7	38
6:00 PM	- 7:00 PM	1	0	5	4	11	3	2	2	1	9	14	4	28

Wells + Associates,Inc

Tysons, Virginia

Turning Movement Count - Total Vehicles

PROJECT: Arlington YMCA
W+A JOB NO: 8687
INTERSECTION: N. Quincy St. & 13th street N.
LOCATION: Arlington County,VA

DATE: 1/26/2022
DAY: Wednesday
WEATHER: clear
COUNTED BY: Agan
INPUTED BY: agan

SOUTHBOUND ROAD: North Quincy Street
NORTHBOUND ROAD: North Quincy Street
WESTBOUND ROAD: 13th Street North
EASTBOUND ROAD: 13th Street North

Time Period	Southbound North Quincy Street						Westbound 13th Street North						Northbound North Quincy Street						Eastbound 13th Street North						North & South	East & West	Total
	Right	Thru	Left	U-Turn	Total	PHF	Right	Thru	Left	U-Turn	Total	PHF	Right	Thru	Left	U-Turn	Total	PHF	Right	Thru	Left	U-Turn	Total	PHF			
One Hour Volumes																											
7:00 AM - 8:00 AM	0	290	16	0	306	0.5667	22	0	3	0	25	0.5682	7	394	0	0	401	0.7832	0	0	0	0	0		707	25	732
7:15 AM - 8:15 AM	0	394	26	0	420	0.6522	35	0	4	0	39	0.5735	6	475	0	0	481	0.7516	0	0	0	0	0		901	39	940
7:30 AM - 8:30 AM	0	459	34	0	493	0.7655	43	0	4	0	47	0.6912	5	488	0	0	493	0.7703	0	0	0	0	0		986	47	1033
7:45 AM - 8:45 AM	0	479	39	0	518	0.8043	39	0	4	0	43	0.6324	2	503	0	0	505	0.7891	0	0	0	0	0		1023	43	1066
8:00 AM - 9:00 AM	0	419	40	0	459	0.7127	37	0	4	0	41	0.6029	4	459	0	0	463	0.7234	0	0	0	0	0		922	41	963
8:15 AM - 9:15 AM	0	338	32	0	370	0.752	28	0	3	0	31	0.8611	6	378	0	0	384	0.8571	0	0	0	0	0		754	31	785
8:30 AM - 9:30 AM	0	302	26	0	328	0.8283	26	0	6	0	32	0.8	7	344	0	0	351	0.7835	0	0	0	0	0		679	32	711
8:45 AM - 9:45 AM	0	284	21	0	305	0.9414	29	0	7	0	36	0.9	8	295	0	0	303	0.8808	0	0	0	0	0		608	36	644
9:00 AM - 10:00 AM	0	273	17	0	290	0.8951	26	0	7	0	33	0.825	10	289	0	0	299	0.9116	0	0	0	0	0		589	33	622
9:15 AM - 10:15 AM	0	203	15	0	218	0.6728	19	0	7	0	26	0.65	8	210	0	0	218	0.6646	0	0	0	0	0		436	26	462
9:30 AM - 10:30 AM	0	127	10	0	137	0.4507	12	0	4	0	16	0.4	6	140	0	0	146	0.4451	0	0	0	0	0		283	16	299
9:45 AM - 10:45 AM	0	56	5	0	61	0.25	5	0	1	0	6	0.25	5	77	0	0	82	0.25	0	0	0	0	0		143	6	149
3:15 PM - 4:15 PM	0	128	9	0	137	0.25	8	0	2	0	10	0.25	5	92	0	0	97	0.25	0	0	0	0	0		234	10	244
3:30 PM - 4:30 PM	0	231	14	0	245	0.4471	21	0	5	0	26	0.4063	6	165	0	0	171	0.4407	0	0	0	0	0		416	26	442
3:45 PM - 4:45 PM	0	321	17	0	338	0.6168	23	0	6	0	29	0.4531	9	280	0	0	289	0.6123	0	0	0	0	0		627	29	656
4:00 PM - 5:00 PM	0	444	26	0	470	0.8577	42	0	19	0	61	0.4766	12	368	0	0	380	0.8051	0	0	0	0	0		850	61	911
4:15 PM - 5:15 PM	0	445	22	0	467	0.8713	83	0	45	0	128	0.4156	11	368	0	0	379	0.803	0	0	0	0	0		846	128	974
4:30 PM - 5:30 PM	0	455	24	0	479	0.8937	103	0	69	0	172	0.5584	15	401	0	0	416	0.8814	0	0	0	0	0		895	172	1067
4:45 PM - 5:45 PM	0	462	26	0	488	0.9104	113	0	75	0	188	0.6104	17	381	0	0	398	0.8964	0	0	0	0	0		886	188	1074
5:00 PM - 6:00 PM	0	463	22	0	485	0.9049	101	0	64	0	165	0.5357	21	398	0	0	419	0.9353	0	0	0	0	0		904	165	1069
5:15 PM - 6:15 PM	0	446	25	0	471	0.9128	59	0	40	0	99	0.4125	22	377	0	0	399	0.8906	0	0	0	0	0		870	99	969
5:30 PM - 6:30 PM	0	411	23	0	434	0.8411	29	0	17	0	46	0.6053	24	346	0	0	370	0.8259	0	0	0	0	0		804	46	850
5:45 PM - 6:45 PM	0	399	20	0	419	0.812	20	0	11	0	31	0.7045	19	336	0	0	355	0.7924	0	0	0	0	0		774	31	805
6:00 PM - 7:00 PM	0	338	22	0	360	0.75	19	0	12	0	31	0.7045	14	297	0	0	311	0.9147	0	0	0	0	0		671	31	702

Wells + Associates, Inc.

Tysons, Virginia

Turning Movement Count - Bicycles

PROJECT: Arlington YMCA
W+A JOB NO: 8687
INTERSECTION: 13th street N. & YMCA Driveway - Tennis
LOCATION: Arlington County,VA
DATE: 1/26/2022
DAY: Wednesday
WEATHER: clear
COUNTED BY: Agan
INPUTED BY: agan
SOUTHBOUND ROAD: 0
NORTHBOUND ROAD: YMCA Driveway - Tennis
WESTBOUND ROAD: 13th Street North
EASTBOUND ROAD: 13th Street North

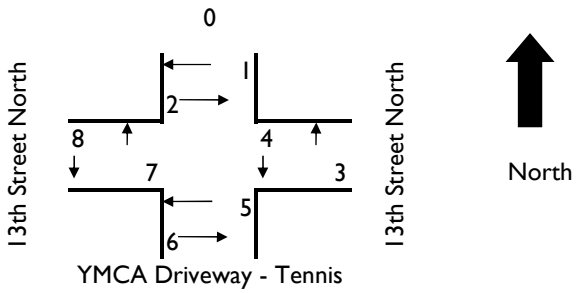
Time Period	Southbound 0				Westbound 13th Street North				Northbound YMCA Driveway - Tennis				Eastbound 13th Street North				North & South	East & West	Total
	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total			
One Hour Volumes																			
7:00 AM - 8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	1
7:15 AM - 8:15 AM	0	0	0	0	0	3	0	3	0	0	0	0	0	2	0	2	0	5	5
7:30 AM - 8:30 AM	0	0	0	0	0	4	0	4	0	0	0	0	0	1	0	1	0	5	5
7:45 AM - 8:45 AM	0	0	0	0	0	5	0	5	0	0	0	0	0	1	0	1	0	6	6
8:00 AM - 9:00 AM	0	0	0	0	0	5	0	5	0	0	0	0	0	1	0	1	0	6	6
8:15 AM - 9:15 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	2	2
8:30 AM - 9:30 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1	1
8:45 AM - 9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM - 10:00 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1	1
9:15 AM - 10:15 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1	1
9:30 AM - 10:30 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1	1
9:45 AM - 10:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1	1
3:15 PM - 4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	1
3:30 PM - 4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	2	2
3:45 PM - 4:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	3	0	3	0	4	4
4:00 PM - 5:00 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	5	0	5	0	6	6
4:15 PM - 5:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	5	0	5	0	6	6
4:30 PM - 5:30 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	4	0	4	0	5	5
4:45 PM - 5:45 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	3	0	3	0	5	5
5:00 PM - 6:00 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	1	0	1	0	3	3
5:15 PM - 6:15 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	2	2
5:30 PM - 6:30 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	2	2
5:45 PM - 6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM - 7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM - 7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM - 7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM - 7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Wells + Associates, Inc.

Tysons, Virginia

Pedestrian Volume Survey

PROJECT: Arlington YMCA
W + A JOB NO: 8687
INTERSECTION: 13th street N. & YMCA Driveway -
LOCATION: Arlington County,VA
DATE: 1/26/2022
DAY: Wednesday
WEATHER: clear
COUNTED BY: Agan
INPUTED BY: agan



Time Period		Movement												
		1	2	3	4	5	6	7	8	1 + 2	3 + 4	5 + 6	7+ 8	Total
One Hour Volumes														
7:00 AM	- 8:00 AM	0	2	0	0	5	9	1	2	2	0	14	3	19
7:15 AM	- 8:15 AM	0	2	0	0	6	13	1	0	2	0	19	1	22
7:30 AM	- 8:30 AM	0	0	0	0	5	14	1	0	0	0	19	1	20
7:45 AM	- 8:45 AM	0	0	0	1	4	16	1	0	0	1	20	1	22
8:00 AM	- 9:00 AM	1	0	0	2	6	9	0	0	1	2	15	0	18
8:15 AM	- 9:15 AM	2	0	0	2	3	5	0	0	2	2	8	0	12
8:30 AM	- 9:30 AM	2	0	0	2	4	7	0	0	2	2	11	0	15
8:45 AM	- 9:45 AM	2	0	0	1	4	6	0	0	2	1	10	0	13
9:00 AM	- 10:00 AM	1	0	0	0	3	6	0	0	1	0	9	0	10
9:15 AM	- 10:15 AM	0	0	0	0	3	5	0	0	0	0	8	0	8
9:30 AM	- 10:30 AM	0	0	0	0	2	2	0	0	0	0	4	0	4
9:45 AM	- 10:45 AM	0	0	0	0	1	1	0	0	0	0	2	0	2
3:15 PM	- 4:15 PM	0	1	0	0	1	3	0	0	1	0	4	0	5
3:30 PM	- 4:30 PM	0	1	0	0	1	3	0	0	1	0	4	0	5
3:45 PM	- 4:45 PM	0	1	0	1	3	4	0	0	1	1	7	0	9
4:00 PM	- 5:00 PM	0	1	0	1	9	8	0	0	1	1	17	0	19
4:15 PM	- 5:15 PM	0	1	0	1	11	5	0	0	1	1	16	0	18
4:30 PM	- 5:30 PM	0	2	0	1	14	5	0	0	2	1	19	0	22
4:45 PM	- 5:45 PM	0	2	0	0	13	7	0	0	2	0	20	0	22
5:00 PM	- 6:00 PM	0	2	0	0	7	3	0	0	2	0	10	0	12
5:15 PM	- 6:15 PM	0	1	0	0	6	5	0	0	1	0	11	0	12
5:30 PM	- 6:30 PM	0	0	0	0	6	7	0	0	0	0	13	0	13
5:45 PM	- 6:45 PM	0	0	0	0	9	4	0	0	0	0	13	0	13
6:00 PM	- 7:00 PM	0	0	0	0	9	6	0	0	0	0	15	0	15

Wells + Associates,Inc

Tysons, Virginia

Turning Movement Count - Total Vehicles

PROJECT: Arlington YMCA
W+A JOB NO: 8687
INTERSECTION: 13th street N. & YMCA Driveway - Tennis
LOCATION: Arlington County,VA

DATE: 1/26/2022
DAY: Wednesday
WEATHER: clear
COUNTED BY: Agan
INPUTED BY: agan

SOUTHBOUND ROAD: 0
NORTHBOUND ROAD: YMCA Driveway - Tennis
WESTBOUND ROAD: 13th Street North
EASTBOUND ROAD: 13th Street North

Time Period	Southbound 0						Westbound 13th Street North						Northbound YMCA Driveway - Tennis						Eastbound 13th Street North						North & South	East & West	Total
	Right	Thru	Left	U-Turn	Total	PHF	Right	Thru	Left	U-Turn	Total	PHF	Right	Thru	Left	U-Turn	Total	PHF	Right	Thru	Left	U-Turn	Total	PHF			
One Hour Volumes																											
7:00 AM - 8:00 AM	0	0	0	0	0		0	42	2	0	44	0.55	0	0	0	0	0		1	29	0	0	30	0.625	0	74	74
7:15 AM - 8:15 AM	0	0	0	0	0		0	55	3	0	58	0.6591	1	0	0	0	1	0.25	1	43	0	0	44	0.6875	1	102	103
7:30 AM - 8:30 AM	0	0	0	0	0		0	62	3	0	65	0.7386	1	0	1	0	2	0.5	3	58	0	0	61	0.663	2	126	128
7:45 AM - 8:45 AM	0	0	0	0	0		0	68	2	0	70	0.7955	2	0	2	0	4	0.5	3	62	0	0	65	0.7065	4	135	139
8:00 AM - 9:00 AM	0	0	0	0	0		0	68	2	0	70	0.7955	4	0	3	0	7	0.5833	3	69	0	0	72	0.7826	7	142	149
8:15 AM - 9:15 AM	0	0	0	0	0		0	53	1	0	54	0.675	5	0	4	0	9	0.75	3	65	0	0	68	0.7391	9	122	131
8:30 AM - 9:30 AM	0	0	0	0	0		0	58	1	0	59	0.7375	5	0	3	0	8	0.6667	1	55	0	0	56	0.7368	8	115	123
8:45 AM - 9:45 AM	0	0	0	0	0		0	53	2	0	55	0.6875	6	0	3	0	9	0.75	0	50	0	0	50	0.6579	9	105	114
9:00 AM - 10:00 AM	0	0	0	0	0		0	46	1	0	47	0.6912	4	0	2	0	6	0.5	0	41	0	0	41	0.8542	6	88	94
9:15 AM - 10:15 AM	0	0	0	0	0		0	40	1	0	41	0.6029	2	0	1	0	3	0.25	0	29	0	0	29	0.6591	3	70	73
9:30 AM - 10:30 AM	0	0	0	0	0		0	23	1	0	24	0.5	2	0	1	0	3	0.25	0	18	0	0	18	0.45	3	42	45
9:45 AM - 10:45 AM	0	0	0	0	0		0	12	0	0	12	0.25	0	0	0	0	0		0	10	0	0	10	0.25	0	22	22
3:15 PM - 4:15 PM	0	0	0	0	0		0	16	2	0	18	0.25	2	0	0	0	2	0.25	3	13	0	0	16	0.25	2	34	36
3:30 PM - 4:30 PM	0	0	0	0	0		0	35	3	0	38	0.475	6	0	0	0	6	0.375	4	23	0	0	27	0.4219	6	65	71
3:45 PM - 4:45 PM	0	0	0	0	0		0	45	5	0	50	0.625	6	0	0	0	6	0.375	5	31	0	0	36	0.5625	6	86	92
4:00 PM - 5:00 PM	0	0	0	0	0		0	71	5	0	76	0.7308	6	0	1	0	7	0.4375	6	44	0	0	50	0.7813	7	126	133
4:15 PM - 5:15 PM	0	0	0	0	0		0	79	3	0	82	0.7885	5	0	1	0	6	0.375	3	50	0	0	53	0.6974	6	135	141
4:30 PM - 5:30 PM	0	0	0	0	0		0	80	4	0	84	0.8077	2	0	1	0	3	0.75	3	55	0	0	58	0.7632	3	142	145
4:45 PM - 5:45 PM	0	0	0	0	0		0	93	3	0	96	0.9231	4	0	1	0	5	0.625	3	54	0	0	57	0.75	5	153	158
5:00 PM - 6:00 PM	0	0	0	0	0		0	81	6	0	87	0.9063	6	0	2	0	8	0.5	3	53	0	0	56	0.7368	8	143	151
5:15 PM - 6:15 PM	0	0	0	0	0		0	72	7	0	79	0.8229	8	0	2	0	10	0.625	4	46	0	0	50	0.7813	10	129	139
5:30 PM - 6:30 PM	0	0	0	0	0		0	60	7	0	67	0.6979	7	0	2	0	9	0.5625	4	39	0	0	43	0.8269	9	110	119
5:45 PM - 6:45 PM	0	0	0	0	0		0	52	6	0	58	0.8529	5	0	2	0	7	0.4375	4	40	0	0	44	0.8462	7	102	109
6:00 PM - 7:00 PM	0	0	0	0	0		0	49	7	0	56	0.875	3	0	1	0	4	0.3333	5	40	0	0	45	0.8036	4	101	105
6:15 PM - 7:15 PM	0	0	0	0	0		0	34	6	0	40	0.6667	0	0	1	0	1	0.25	4	28	0	0	32	0.5714	1	72	73
6:30 PM - 7:30 PM	0	0	0	0	0		0	26	4	0	30	0.5	0	0	1	0	1	0.25	3	20	0	0	23	0.4107	1	53	54
6:45 PM - 7:45 PM	0	0	0	0	0		0	11	4	0	15	0.25	0	0	1	0	1	0.25	2	12	0	0	14	0.25	1	29	30

Wells + Associates, Inc.

Tysons, Virginia

Turning Movement Count - Bicycles

PROJECT: Arlington YMCA
W+A JOB NO: 8687
INTERSECTION: 13th Street N. & YMCA Driveway - East
LOCATION: Arlington County,VA
DATE: 1/26/2022
DAY: Wednesday
WEATHER: clear
COUNTED BY: Agan
INPUTED BY: agan
SOUTHBOUND ROAD: 0
NORTHBOUND ROAD: YMCA Driveway - East
WESTBOUND ROAD: 13th Street North
EASTBOUND ROAD: 13th Street North

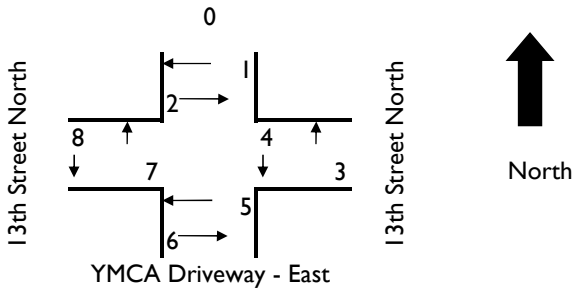
Time Period	Southbound 0				Westbound 13th Street North				Northbound YMCA Driveway - East				Eastbound 13th Street North				North & South	East & West	Total
	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total			
One Hour Volumes																			
7:00 AM - 8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	2	2
7:15 AM - 8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	0	3	3
7:30 AM - 8:30 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	4	0	4	0	5	5
7:45 AM - 8:45 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	5	0	5	0	7	7
8:00 AM - 9:00 AM	0	0	0	0	0	3	0	3	0	0	0	0	0	6	0	6	0	9	9
8:15 AM - 9:15 AM	0	0	0	0	0	4	0	4	0	0	0	0	0	5	0	5	0	9	9
8:30 AM - 9:30 AM	0	0	0	0	0	3	0	3	0	0	0	0	0	3	0	3	0	6	6
8:45 AM - 9:45 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	2	0	2	0	4	4
9:00 AM - 10:00 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	2	2
4:00 PM - 5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	2	2
4:15 PM - 5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	0	3	3
4:30 PM - 5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	4	0	4	4
4:45 PM - 5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	4	0	4	4
5:00 PM - 6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	2	2
5:15 PM - 6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	1
5:30 PM - 6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM - 6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM - 7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Wells + Associates, Inc.

Tysons, Virginia

Pedestrian Volume Survey

PROJECT: Arlington YMCA
W + A JOB NO: 8687
INTERSECTION: 13th Street N. & YMCA Driveway -
LOCATION: Arlington County,VA
DATE: 1/26/2022
DAY: Wednesday
WEATHER: clear
COUNTED BY: Agan
INPUTED BY: agan



Time Period		Movement												
		1	2	3	4	5	6	7	8	1 + 2	3 + 4	5 + 6	7+ 8	Total
One Hour Volumes														
7:00 AM	- 8:00 AM	1	5	0	0	14	6	0	0	6	0	20	0	26
7:15 AM	- 8:15 AM	2	5	0	0	18	8	0	0	7	0	26	0	33
7:30 AM	- 8:30 AM	3	5	0	0	19	7	0	0	8	0	26	0	34
7:45 AM	- 8:45 AM	10	5	3	0	17	8	0	2	15	3	25	2	45
8:00 AM	- 9:00 AM	16	11	4	0	10	10	0	3	27	4	20	3	54
8:15 AM	- 9:15 AM	15	10	4	0	5	7	0	4	25	4	12	4	45
8:30 AM	- 9:30 AM	16	10	4	0	5	10	1	5	26	4	15	6	51
8:45 AM	- 9:45 AM	8	9	1	0	8	10	2	3	17	1	18	5	41
9:00 AM	- 10:00 AM	2	1	0	0	7	7	2	2	3	0	14	4	21
4:00 PM	- 5:00 PM	8	7	0	0	13	11	0	2	15	0	24	2	41
4:15 PM	- 5:15 PM	8	7	0	0	22	13	0	2	15	0	35	2	52
4:30 PM	- 5:30 PM	8	6	0	0	24	11	0	2	14	0	35	2	51
4:45 PM	- 5:45 PM	4	6	0	0	27	8	0	1	10	0	35	1	46
5:00 PM	- 6:00 PM	3	2	0	0	21	7	0	0	5	0	28	0	33
5:15 PM	- 6:15 PM	2	0	0	1	17	4	0	0	2	1	21	0	24
5:30 PM	- 6:30 PM	1	1	0	1	14	5	0	0	2	1	19	0	22
5:45 PM	- 6:45 PM	0	1	0	1	11	7	0	0	1	1	18	0	20
6:00 PM	- 7:00 PM	0	1	0	1	9	4	0	0	1	1	13	0	15

Wells + Associates,Inc

Tysons, Virginia

Turning Movement Count - Total Vehicles

PROJECT: Arlington YMCA
W+A JOB NO: 8687
INTERSECTION: 13th Street N. & YMCA Driveway - East
LOCATION: Arlington County,VA

DATE: 1/26/2022
DAY: Wednesday
WEATHER: clear
COUNTED BY: Agan
INPUTED BY: agan

SOUTHBOUND ROAD: 0
NORTHBOUND ROAD: YMCA Driveway - East
WESTBOUND ROAD: 13th Street North
EASTBOUND ROAD: 13th Street North

Time Period	Southbound 0						Westbound 13th Street North						Northbound YMCA Driveway - East						Eastbound 13th Street North						North & South	East & West	Total
	Right	Thru	Left	U-Turn	Total	PHF	Right	Thru	Left	U-Turn	Total	PHF	Right	Thru	Left	U-Turn	Total	PHF	Right	Thru	Left	U-Turn	Total	PHF			
One Hour Volumes																											
7:00 AM - 8:00 AM	0	0	0	0	0		0	40	1	0	41	0.5395	1	0	0	0	1	0.25	0	26	0	0	26	0.65	1	67	68
7:15 AM - 8:15 AM	0	0	0	0	0		0	54	2	0	56	0.5833	2	0	0	0	2	0.5	0	43	0	0	43	0.5972	2	99	101
7:30 AM - 8:30 AM	0	0	0	0	0		0	64	2	0	66	0.6875	2	0	0	0	2	0.5	0	53	0	0	53	0.7361	2	119	121
7:45 AM - 8:45 AM	0	0	0	0	0		0	74	2	0	76	0.7917	2	0	0	0	2	0.5	1	55	0	0	56	0.7778	2	132	134
8:00 AM - 9:00 AM	0	0	0	0	0		0	73	5	0	78	0.8125	3	0	0	0	3	0.75	1	62	0	0	63	0.875	3	141	144
8:15 AM - 9:15 AM	0	0	0	0	0		0	57	5	0	62	0.7381	2	0	0	0	2	0.5	1	55	0	0	56	0.8235	2	118	120
8:30 AM - 9:30 AM	0	0	0	0	0		0	61	4	0	65	0.7738	1	0	0	0	1	0.25	1	48	0	0	49	0.7206	1	114	115
8:45 AM - 9:45 AM	0	0	0	0	0		0	56	5	0	61	0.7262	1	0	0	0	1	0.25	0	46	0	0	46	0.6765	1	107	108
9:00 AM - 10:00 AM	0	0	0	0	0		0	51	3	0	54	0.7941	0	0	0	0	0		0	39	0	0	39	0.8864	0	93	93
9:15 AM - 10:15 AM	0	0	0	0	0		0	44	2	0	46	0.6765	0	0	0	0	0		0	28	0	0	28	0.7	0	74	74
9:30 AM - 10:30 AM	0	0	0	0	0		0	27	2	0	29	0.4833	0	0	0	0	0		0	18	0	0	18	0.45	0	47	47
9:45 AM - 10:45 AM	0	0	0	0	0		0	13	1	0	14	0.25	0	0	0	0	0		0	10	0	0	10	0.25	0	24	24
3:15 PM - 4:15 PM	0	0	0	0	0		0	15	0	0	15	0.25	0	0	0	0	0		0	15	0	0	15	0.25	0	30	30
3:30 PM - 4:30 PM	0	0	0	0	0		0	35	0	0	35	0.4375	0	0	0	0	0		0	24	0	0	24	0.4	0	59	59
3:45 PM - 4:45 PM	0	0	0	0	0		0	47	0	0	47	0.5875	0	0	1	0	1	0.25	0	32	0	0	32	0.5333	1	79	80
4:00 PM - 5:00 PM	0	0	0	0	0		0	73	0	0	73	0.7019	0	0	1	0	1	0.25	0	47	0	0	47	0.7833	1	120	121
4:15 PM - 5:15 PM	0	0	0	0	0		0	82	0	0	82	0.7885	0	0	1	0	1	0.25	0	51	0	0	51	0.6711	1	133	134
4:30 PM - 5:30 PM	0	0	0	0	0		0	83	0	0	83	0.7981	0	0	1	0	1	0.25	0	58	0	0	58	0.7632	1	141	142
4:45 PM - 5:45 PM	0	0	0	0	0		0	96	1	0	97	0.9327	0	0	0	0	0		0	61	0	0	61	0.8026	0	158	158
5:00 PM - 6:00 PM	0	0	0	0	0		0	86	1	0	87	0.8365	0	0	0	0	0		0	61	0	0	61	0.8026	0	148	148
5:15 PM - 6:15 PM	0	0	0	0	0		0	76	1	0	77	0.7404	0	0	0	0	0		1	55	0	0	56	0.875	0	133	133
5:30 PM - 6:30 PM	0	0	0	0	0		0	66	1	0	67	0.6442	0	0	0	0	0		1	49	0	0	50	0.8333	0	117	117
5:45 PM - 6:45 PM	0	0	0	0	0		0	58	0	0	58	0.8529	0	0	0	0	0		1	43	0	0	44	0.7333	0	102	102
6:00 PM - 7:00 PM	0	0	0	0	0		0	54	1	0	55	0.8088	0	0	0	0	0		1	41	0	0	42	0.75	0	97	97

Wells + Associates, Inc.

Tysons, Virginia

Turning Movement Count - Bicycles

PROJECT: Arlington YMCA
W+A JOB NO: 8687
INTERSECTION: 13th Street N. & YMCA Driveway - Middle
LOCATION: Arlington County,VA
DATE: 1/26/2022
DAY: Wednesday
WEATHER: clear
COUNTED BY: Agan
INPUTED BY: agan
SOUTHBOUND ROAD: 0
NORTHBOUND ROAD: YMCA Driveway - Middle
WESTBOUND ROAD: 13th Street North
EASTBOUND ROAD: 13th Street North

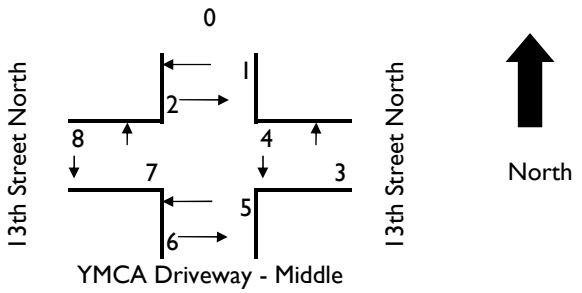
Time Period	Southbound 0				Westbound 13th Street North				Northbound YMCA Driveway - Middle				Eastbound 13th Street North				North & South	East & West	Total
	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total			
One Hour Volumes																			
7:00 AM - 8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM - 8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM - 8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM - 8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM - 9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM - 9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM - 9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM - 9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM - 10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM - 5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM - 5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM - 5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM - 5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM - 6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM - 6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM - 6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM - 6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM - 7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Wells + Associates, Inc.

Tysons, Virginia

Pedestrian Volume Survey

PROJECT: Arlington YMCA
W + A JOB NO: 8687
INTERSECTION: 13th Street N. & YMCA Driveway -
LOCATION: Arlington County,VA
DATE: 1/26/2022
DAY: Wednesday
WEATHER: clear
COUNTED BY: Agan
INPUTED BY: agan



Time Period		Movement 1	2	3	4	5	6	7	8	1 + 2	3 + 4	5 + 6	7+ 8	Total
One Hour Volumes														
7:00 AM	- 8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	- 8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	- 8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	- 8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	- 9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	- 9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	- 9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	- 9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	- 10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	- 5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	- 5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	- 5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	- 5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	- 6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	- 6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	- 6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	- 6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	- 7:00 PM	0	0	0	0	0	1	0	0	0	0	1	0	1

Wells + Associates,Inc

Tysons, Virginia

Turning Movement Count - Total Vehicles

PROJECT: Arlington YMCA
W+A JOB NO: 8687
INTERSECTION: 13th Street N. & YMCA Driveway - Middle
LOCATION: Arlington County,VA

DATE: 1/26/2022
DAY: Wednesday
WEATHER: clear
COUNTED BY: Agan
INPUTED BY: agan

SOUTHBOUND ROAD: 0
NORTHBOUND ROAD: YMCA Driveway - Middle
WESTBOUND ROAD: 13th Street North
EASTBOUND ROAD: 13th Street North

Time Period	Southbound 0						Westbound 13th Street North						Northbound YMCA Driveway - Middle						Eastbound 13th Street North						North & South	East & West	Total
	Right	Thru	Left	U-Turn	Total	PHF	Right	Thru	Left	U-Turn	Total	PHF	Right	Thru	Left	U-Turn	Total	PHF	Right	Thru	Left	U-Turn	Total	PHF			
One Hour Volumes																											
7:00 AM - 8:00 AM	0	0	0	0	0		0	0	2	0	2	0.5	2	0	1	0	3	0.75	3	0	0	0	3	0.375	3	5	8
7:15 AM - 8:15 AM	0	0	0	0	0		0	0	3	0	3	0.75	2	0	2	0	4	1	3	0	0	0	3	0.375	4	6	10
7:30 AM - 8:30 AM	0	0	0	0	0		0	0	4	0	4	0.5	2	0	2	0	4	1	3	0	0	0	3	0.375	4	7	11
7:45 AM - 8:45 AM	0	0	0	0	0		0	0	7	0	7	0.5833	2	0	3	0	5	0.625	4	0	0	0	4	0.3333	5	11	16
8:00 AM - 9:00 AM	0	0	0	0	0		0	0	7	0	7	0.5833	5	0	5	0	10	0.4167	3	0	0	0	3	0.25	10	10	20
8:15 AM - 9:15 AM	0	0	0	0	0		0	0	7	0	7	0.5833	5	0	7	0	12	0.5	3	0	0	0	3	0.25	12	10	22
8:30 AM - 9:30 AM	0	0	0	0	0		0	0	6	0	6	0.5	4	0	8	0	12	0.5	6	0	0	0	6	0.5	12	12	24
8:45 AM - 9:45 AM	0	0	0	0	0		0	0	4	0	4	1	5	0	11	0	16	0.6667	8	0	0	0	8	0.4	16	12	28
9:00 AM - 10:00 AM	0	0	0	0	0		0	0	6	0	6	0.5	4	0	12	0	16	0.6667	8	0	0	0	8	0.4	16	14	30
9:15 AM - 10:15 AM	0	0	0	0	0		0	0	5	0	5	0.4167	4	0	9	0	13	0.5417	8	0	0	0	8	0.4	13	13	26
9:30 AM - 10:30 AM	0	0	0	0	0		0	0	4	0	4	0.3333	4	0	8	0	12	0.5	5	0	0	0	5	0.25	12	9	21
9:45 AM - 10:45 AM	0	0	0	0	0		0	0	3	0	3	0.25	2	0	4	0	6	0.25	0	0	0	0	0		6	3	9
3:15 PM - 4:15 PM	0	0	0	0	0		0	0	1	0	1	0.25	2	0	1	0	3	0.25	0	0	0	0	0		3	1	4
3:30 PM - 4:30 PM	0	0	0	0	0		0	0	1	0	1	0.25	3	0	4	0	7	0.4375	0	0	0	0	0		7	1	8
3:45 PM - 4:45 PM	0	0	0	0	0		0	0	1	0	1	0.25	4	0	4	0	8	0.5	0	0	0	0	0		8	1	9
4:00 PM - 5:00 PM	0	0	0	0	0		0	0	2	0	2	0.5	5	0	5	0	10	0.625	1	0	0	0	1	0.25	10	3	13
4:15 PM - 5:15 PM	0	0	0	0	0		0	0	1	0	1	0.25	6	0	5	0	11	0.6875	2	0	0	0	2	0.5	11	3	14
4:30 PM - 5:30 PM	0	0	0	0	0		0	0	3	0	3	0.375	7	0	3	0	10	0.625	3	0	0	0	3	0.75	10	6	16
4:45 PM - 5:45 PM	0	0	0	0	0		0	0	3	0	3	0.375	6	0	3	0	9	0.5625	4	0	0	0	4	1	9	7	16
5:00 PM - 6:00 PM	0	0	0	0	0		0	0	5	0	5	0.4167	6	0	3	0	9	0.5625	6	0	0	0	6	0.5	9	11	20
5:15 PM - 6:15 PM	0	0	0	0	0		0	0	7	0	7	0.5833	4	0	5	0	9	0.5625	5	0	0	0	5	0.4167	9	12	21
5:30 PM - 6:30 PM	0	0	0	0	0		0	0	6	0	6	0.5	3	0	6	0	9	0.5625	4	0	0	0	4	0.3333	9	10	19
5:45 PM - 6:45 PM	0	0	0	0	0		0	0	6	0	6	0.5	3	0	6	0	9	0.5625	3	0	0	0	3	0.25	9	9	18
6:00 PM - 7:00 PM	0	0	0	0	0		0	0	4	0	4	0.5	3	0	7	0	10	0.625	1	0	0	0	1	0.25	10	5	15
6:15 PM - 7:15 PM	0	0	0	0	0		0	0	2	0	2	0.5	2	0	4	0	6	0.5	1	0	0	0	1	0.25	6	3	9
6:30 PM - 7:30 PM	0	0	0	0	0		0	0	1	0	1	0.25	1	0	2	0	3	0.25	1	0	0	0	1	0.25	3	2	5
6:45 PM - 7:45 PM	0	0	0	0	0		0	0	1	0	1	0.25	1	0	2	0	3	0.25	1	0	0	0	1	0.25	3	2	5

Wells + Associates, Inc.

Tysons, Virginia

Turning Movement Count - Bicycles

PROJECT: Arlington YMCA
W+A JOB NO: 8687
INTERSECTION: 13th Street N. & YMCA Driveway - West
LOCATION: Arlington County,VA
DATE: 1/26/2022
DAY: Wednesday
WEATHER: clear
COUNTED BY: Agan
INPUTED BY: agan
SOUTHBOUND ROAD: 0
NORTHBOUND ROAD: YMCA Driveway - West
WESTBOUND ROAD: 13th Street North
EASTBOUND ROAD: 13th Street North

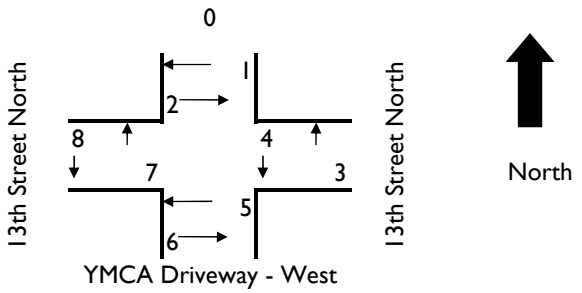
Time Period	Southbound 0				Westbound 13th Street North				Northbound YMCA Driveway - West				Eastbound 13th Street North				North & South	East & West	Total
	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total			
One Hour Volumes																			
7:00 AM - 8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM - 8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM - 8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM - 8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM - 9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM - 9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM - 9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM - 9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM - 10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM - 5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM - 5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM - 5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM - 5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM - 6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM - 6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM - 6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM - 6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM - 7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Wells + Associates, Inc.

Tysons, Virginia

Pedestrian Volume Survey

PROJECT: Arlington YMCA
W + A JOB NO: 8687
INTERSECTION: 13th Street N. & YMCA Driveway -
LOCATION: Arlington County,VA
DATE: 1/26/2022
DAY: Wednesday
WEATHER: clear
COUNTED BY: Agan
INPUTED BY: agan



Time Period		Movement 1	2	3	4	5	6	7	8	1 + 2	3 + 4	5 + 6	7+ 8	Total
One Hour Volumes														
7:00 AM	- 8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	- 8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	- 8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	- 8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	- 9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	- 9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	- 9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	- 9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	- 10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	- 5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	- 5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	- 5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	- 5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	- 6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	- 6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	- 6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	- 6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	- 7:00 PM	0	0	0	0	0	1	0	0	0	0	1	0	1

Wells + Associates,Inc

Tysons, Virginia

Turning Movement Count - Total Vehicles

PROJECT: Arlington YMCA
W+A JOB NO: 8687
INTERSECTION: 13th Street N. & YMCA Driveway - West
LOCATION: Arlington County,VA

DATE: 1/26/2022
DAY: Wednesday
WEATHER: clear
COUNTED BY: Agan
INPUTED BY: agan

SOUTHBOUND ROAD: 0
NORTHBOUND ROAD: YMCA Driveway - West
WESTBOUND ROAD: 13th Street North
EASTBOUND ROAD: 13th Street North

Time Period	Southbound 0						Westbound 13th Street North						Northbound YMCA Driveway - West						Eastbound 13th Street North						North & South	East & West	Total
	Right	Thru	Left	U-Turn	Total	PHF	Right	Thru	Left	U-Turn	Total	PHF	Right	Thru	Left	U-Turn	Total	PHF	Right	Thru	Left	U-Turn	Total	PHF			
One Hour Volumes																											
7:00 AM - 8:00 AM	0	0	0	0	0		0	0	1	0	1	0.25	0	0	0	0	0		5	0	0	0	5	0.3125	0	6	6
7:15 AM - 8:15 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		7	0	0	0	7	0.4375	0	7	7
7:30 AM - 8:30 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		7	0	0	0	7	0.4375	0	7	7
7:45 AM - 8:45 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		8	0	0	0	8	0.5	0	8	8
8:00 AM - 9:00 AM	0	0	0	0	0		0	0	3	0	3	0.25	0	0	0	0	0		8	0	0	0	8	0.5	0	11	11
8:15 AM - 9:15 AM	0	0	0	0	0		0	0	4	0	4	0.3333	0	0	0	0	0		6	0	0	0	6	0.375	0	10	10
8:30 AM - 9:30 AM	0	0	0	0	0		0	0	11	0	11	0.3929	0	0	0	0	0		10	0	0	0	10	0.625	0	21	21
8:45 AM - 9:45 AM	0	0	0	0	0		0	0	13	0	13	0.4643	2	0	2	0	4	0.25	8	0	0	0	8	0.5	4	21	25
9:00 AM - 10:00 AM	0	0	0	0	0		0	0	16	0	16	0.5714	3	0	6	0	9	0.45	6	0	0	0	6	0.375	9	22	31
9:15 AM - 10:15 AM	0	0	0	0	0		0	0	15	0	15	0.5357	3	0	6	0	9	0.45	6	0	0	0	6	0.375	9	21	30
9:30 AM - 10:30 AM	0	0	0	0	0		0	0	8	0	8	0.3333	3	0	6	0	9	0.45	2	0	0	0	2	0.25	9	10	19
9:45 AM - 10:45 AM	0	0	0	0	0		0	0	6	0	6	0.25	1	0	4	0	5	0.25	2	0	0	0	2	0.25	5	8	13
3:30 PM - 4:30 PM	0	0	0	0	0		0	0	1	0	1	0.25	0	0	0	0	0		1	0	0	0	1	0.25	0	2	2
3:45 PM - 4:45 PM	0	0	0	0	0		0	0	2	0	2	0.5	0	0	0	0	0		3	0	0	0	3	0.375	0	5	5
4:00 PM - 5:00 PM	0	0	0	0	0		0	0	2	0	2	0.5	0	0	0	0	0		3	0	0	0	3	0.375	0	5	5
4:15 PM - 5:15 PM	0	0	0	0	0		0	0	3	0	3	0.75	0	0	0	0	0		3	0	0	0	3	0.375	0	6	6
4:30 PM - 5:30 PM	0	0	0	0	0		0	0	2	0	2	0.5	0	0	0	0	0		3	0	0	0	3	0.375	0	5	5
4:45 PM - 5:45 PM	0	0	0	0	0		0	0	1	0	1	0.25	0	0	0	0	0		2	0	0	0	2	0.5	0	3	3
5:00 PM - 6:00 PM	0	0	0	0	0		0	0	1	0	1	0.25	0	0	0	0	0		3	0	0	0	3	0.75	0	4	4
5:15 PM - 6:15 PM	0	0	0	0	0		0	0	0	0	0		1	0	0	0	1	0.25	3	0	0	0	3	0.75	1	3	4
5:30 PM - 6:30 PM	0	0	0	0	0		0	0	1	0	1	0.25	3	0	2	0	5	0.3125	4	0	0	0	4	0.5	5	5	10
5:45 PM - 6:45 PM	0	0	0	0	0		0	0	1	0	1	0.25	3	0	3	0	6	0.375	4	0	0	0	4	0.5	6	5	11
6:00 PM - 7:00 PM	0	0	0	0	0		0	0	1	0	1	0.25	3	0	4	0	7	0.4375	5	0	0	0	5	0.625	7	6	13

Wells + Associates,Inc

McLean, Virginia

Existing Traffic Count

PROJECT: Washington & Kirkwood
W & A JOB NO.: 6886
INTERSECTION: N. Kirkwood Rd. & 10th Street N. & Fairfax Dr.
LOCATION: Arlington County,VA

DATE: 1/26/2022
DAY: Wednesday
WEATHER: clear
COUNTED BY: Majda & Agan
INPUTTED BY: agan

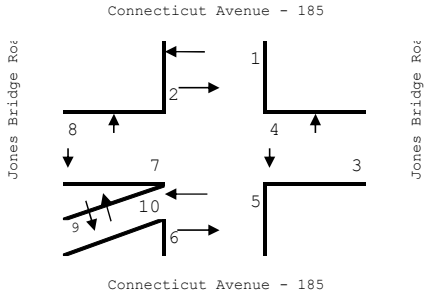
BIKES

SOUTHBOUND ROAD: North Kirkwood Road
NORTHBOUND ROAD: 10th Streeet North
WESTBOUND ROAD: Fairfax Drive - 237
EASTBOUND ROAD: Fairfax Drive - 237
NORTHWESTBOUND ROAD: North Jackson Street

	Turning Movements																											
	Southbound North Kirkwood Road					Westbound Fairfax Drive - 237					Northwestbound North Jackson Street					Northbound 10th Streeet North					Eastbound Fairfax Drive - 237					Total	PHF	Time Period
Time Period	1 Hard Right	2 Right	3 Thru	4 Left	Total	5 Right	6 Thru	7 Left	8 Hard Left	Total	9 Hard Right	10 Right	11 Left	12 Hard Left	Total	13 Right	14 Thru	15 Left	16 Hard Left	Total	17 Hard Right	18 Right	19 Thru	20 Left	Total			
AM 1 Hour Totals																												
7:00-8:00	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	3	0	0	3	1	0	1	0	2	9	0.75	7:00-8:00
7:15-8:15	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	3	0	0	3	1	0	6	0	7	12	0.60	7:15-8:15
7:30-8:30	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	3	0	0	3	1	0	6	0	7	13	0.65	7:30-8:30
7:45-8:45	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	0	1	0	0	1	0	0	6	0	6	14	0.70	7:45-8:45
8:00-9:00	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	0	0	0	0	0	1	0	6	0	7	14	0.70	8:00-9:00
8:15-9:15	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	9	0.56	8:15-9:15
8:30-9:30	0	0	1	0	1	0	5	0	0	5	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	8	0.50	8:30-9:30
8:45-9:45	0	0	1	0	1	0	3	0	0	3	0	0	0	0	0	0	1	0	0	1	2	0	0	0	2	7	0.58	8:45-9:45
9:00-10:00	0	0	1	0	1	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	5	0.42	9:00-10:00
AM Peak 7:45-8:45	**0**	**0**	**0**	**0**	**0**	**0**	**7**	**0**	**0**	**7**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**1**	**0**	**0**	**6**	**0**	**6**	**14**	**0.70**	**AM Peak 7:45-8:45**
PM 1 Hour Totals																												
4:00-5:00	1	0	0	0	1	0	8	0	0	8	0	0	0	0	0	0	0	2	0	2	1	0	3	0	4	15	0.75	4:00-5:00
4:15-5:15	1	0	0	0	1	0	8	0	0	8	0	0	0	0	0	0	0	2	0	2	1	0	1	0	2	13	0.65	4:15-5:15
4:30-5:30	1	0	0	0	1	0	6	0	0	6	0	0	0	0	0	0	0	2	0	2	1	0	1	0	2	11	0.55	4:30-5:30
4:45-5:45	1	0	0	0	1	0	10	0	0	10	0	0	0	0	0	0	0	1	0	1	1	0	6	0	7	19	0.40	4:45-5:45
5:00-6:00	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	0	1	1	0	2	1	0	7	0	8	18	0.38	5:00-6:00
5:15-6:15	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	0	1	1	0	2	1	0	7	0	8	17	0.35	5:15-6:15
5:30-6:30	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	0	2	1	0	3	1	0	8	0	9	20	0.42	5:30-6:30
5:45-6:45	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	2	1	0	3	0	0	2	0	2	11	0.69	5:45-6:45
6:00-7:00	0	0	0	0	0	0	9	0	0	9	0	0	0	0	0	0	1	0	0	1	0	0	2	0	2	12	0.60	6:00-7:00
PM Peak 5:30-6:30	**0**	**0**	**0**	**0**	**0**	**0**	**8**	**0**	**0**	**8**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**1**	**0**	**3**	**0**	**0**	**8**	**0**	**9**	**20**	**0.42**	**PM Peak 5:30-6:30**

Wells & Associates,Inc
McLean, Virginia

Project Name: Chavy Chase Lake
Project Number: 6886
Location: Arlington County,VA
Intersection: Connecticut Ave.& Manor Rd.
Weather: clear
Date: 1/26/2022
Surveyor: Majda & Agan



Hourly Pedestrian Count

			1	2	3	4	5	6	7	8	9	10						
		From:	SE	NE	SW	SE	SW	NW	NW	NE	E	S	Total	1 & 2	3 & 4	5 & 6	7 & 8	9 & 10
Time Period		To:	NE	SE	SE	SW	NW	SW	NE	NW	S	E						
AM PEAK																		
7:00	8:00		16	8	5	1	6	4	2	3	12	12	45	24	6	10	5	
7:15	8:15		18	11	6	1	9	6	1	3	11	11	55	29	7	15	4	
7:30	8:30		19	10	6	1	10	6	1	3	11	11	56	29	7	16	4	22
7:45	8:45		19	11	3	1	10	8	0	1	13	11	53	30	4	18	1	24
8:00	9:00		24	13	11	1	8	7	0	3	11	10	67	37	12	15	3	21
8:15	9:15		22	12	8	1	4	7	3	4	14	13	61	34	9	11	7	27
8:30	9:30		26	13	10	3	3	7	5	4	14	13	71	39	13	10	9	27
8:45	9:45		47	11	13	3	5	6	12	6	13	14	103	58	16	11	18	27
9:00	10:00		46	9	6	2	4	5	13	3	13	18	88	55	8	9	16	31
PM PEAK																		
4:00	5:00		47	30	3	5	11	10	6	3	17	19	115	77	8	21	9	36
4:15	5:15		43	29	3	4	13	7	6	3	15	26	108	72	7	20	9	41
4:30	5:30		35	32	2	5	9	9	4	3	16	23	99	67	7	18	7	39
4:45	5:45		43	36	0	5	14	14	8	3	19	21	123	79	5	28	11	40
5:00	6:00		45	39	2	10	17	23	5	4	29	28	145	84	12	40	9	57
5:15	6:15		47	45	2	10	16	24	8	6	39	22	158	92	12	40	14	61
5:30	6:30		51	52	4	10	21	24	9	8	46	38	179	103	14	45	17	84
5:45	6:45		47	57	4	7	21	26	5	8	42	41	175	104	11	47	13	83
6:00	7:00		42	55	6	2	19	20	5	6	40	32	155	97	8	39	11	72

Wells + Associates,Inc

McLean, Virginia

Existing Traffic Count

PROJECT:	Washington & Kirkwood	DATE:	1/26/2022	SOUTHBOUND ROAD:	North Kirkwood Road
W & A JOB NO.:	6886	DAY:	Wednesday	NORTHBOUND ROAD:	10th Streeet North
INTERSECTION:	N. Kirkwood Rd. & 10th Street N. & Fairfax Dr.	WEATHER:	clear	WESTBOUND ROAD:	Fairfax Drive - 237
LOCATION:	Arlington County,VA	COUNTED BY:	Majda & Agan	EASTBOUND ROAD:	Fairfax Drive - 237
		INPUTTED BY:	agan	NORTHEASTBOUND ROAD:	North Jackson Street

	Turning Movements																									
	Southbound North Kirkwood Road					Westbound Fairfax Drive - 237					Northeastbound North Jackson Street					Northbound 10th Streeet North					Eastbound Fairfax Drive - 237					Total	PHF	Time Period
Time Period	1 Right	2 Thru	3 Left	4 Hard Left	Total	5 Right	6 Thru	7 Left	8 Hard Left	Total	9 Hard Right	10 Right	11 Left	12 Hard Left	Total	13 Right	14 Thru	15 Left	16 Hard Left	Total	17 Hard Right	18 Right	19 Thru	20 Left	Total			
AM 1 Hour Totals																												
7:00-8:00	24	19	42	9	94	17	35	12	7	71	0	0	0	0	0	18	85	457	3	563	1	246	51	2	300	1,028	0.80	7:00-8:00
7:15-8:15	31	27	57	7	122	15	48	9	11	83	0	0	0	0	0	24	106	496	5	631	5	299	44	6	354	1,190	0.82	7:15-8:15
7:30-8:30	32	29	56	7	124	24	58	12	15	109	0	0	0	0	0	30	136	503	6	675	9	322	47	5	383	1,291	0.89	7:30-8:30
7:45-8:45	39	36	56	11	142	33	62	10	20	125	0	0	0	0	0	33	149	509	8	699	11	326	50	19	406	1,372	0.94	7:45-8:45
8:00-9:00	46	43	66	13	168	33	67	8	23	131	0	0	0	0	0	29	156	474	7	666	12	325	46	18	401	1,366	0.94	8:00-9:00
8:15-9:15	46	38	67	13	164	33	71	9	20	133	0	0	0	0	0	23	153	462	6	644	10	313	53	15	391	1,332	0.96	8:15-9:15
8:30-9:30	45	48	78	16	187	28	72	6	17	123	0	0	0	0	0	21	150	445	8	624	9	299	55	26	389	1,323	0.97	8:30-9:30
8:45-9:45	41	46	77	15	179	24	67	7	15	113	0	0	0	0	0	19	145	431	8	603	9	305	50	21	385	1,280	0.95	8:45-9:45
9:00-10:00	39	40	64	9	152	21	63	6	13	103	0	0	0	0	0	21	133	404	9	567	7	334	45	22	408	1,230	0.91	9:00-10:00
AM Peak 7:45-8:45	**39**	**36**	**56**	**11**	**142**	**33**	**62**	**10**	**20**	**125**	**0**	**0**	**0**	**0**	**0**	**33**	**149**	**509**	**8**	**699**	**11**	**326**	**50**	**19**	**406**	**1,372**	**0.94**	**AM Peak 7:45-8:45**
PM 1 Hour Totals																												
2:00-3:00	0		0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	#REF!	#REF!	2:00-3:00
2:15-3:15	0		0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	#REF!	#REF!	2:15-3:15
2:30-3:30	0		0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	#REF!	#REF!	2:30-3:30
2:45-3:45	0		0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	#REF!	#REF!	2:45-3:45
3:00-4:00	0		0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	#REF!	#REF!	3:00-4:00
3:15-4:15	18		38	2	77	7		2	3	18	0		0	0	0	3		89	3	117	1		11	8	135	#REF!	#REF!	3:15-4:15
3:30-4:30	39		61	5	138	9		4	7	36	0		0	0	0	8		173	4	233	5		28	10	286	#REF!	#REF!	3:30-4:30
3:45-4:45	54		91	5	206	11		7	11	51	0		0	0	0	14		263	5	352	8		39	20	440	#REF!	#REF!	3:45-4:45
4:00-5:00	75	69	112	6	262	15	33	10	15	73	0	0	0	0	0	18	91	348	5	462	8	523	47	22	600	1,397	0.98	4:00-5:00
4:15-5:15	77	62	105	5	249	12	42	12	17	83	0	0	0	0	0	20	97	344	3	464	8	558	50	18	634	1,430	0.94	4:15-5:15
4:30-5:30	87	67	108	3	265	15	63	11	15	104	0	0	0	0	0	20	105	368	5	498	6	589	50	17	662	1,529	0.86	4:30-5:30
4:45-5:45	85	62	101	5	253	13	76	12	17	118	0	0	0	0	0	18	116	387	5	526	3	599	60	13	675	1,572	0.88	4:45-5:45
5:00-6:00	87	68	113	6	274	15	81	10	15	121	0	0	0	0	0	20	123	401	11	555	7	600	65	15	687	1,637	0.92	5:00-6:00
5:15-6:15	85	76	111	7	279	14	86	7	11	118	0	0	0	0	0	21	114	413	11	559	8	569	62	15	654	1,610	0.90	5:15-6:15
5:30-6:30	68	78	106	6	258	12	67	7	14	100	0	0	0	0	0	22	111	405	9	547	13	524	59	14	610	1,515	0.92	5:30-6:30
5:45-6:45	73	74	98	7	252	19	59	6	12	96	0	0	0	0	0	23	96	344	8	471	15	472	46	12	545	1,364	0.83	5:45-6:45
6:00-7:00	72	65	86	6	229	15	64	5	13	97	0	0	0	0	0	22	98	329	2	451	17	436	50	10	513	1,290	0.91	6:00-7:00
PM Peak 5:00-6:00	**87**	**68**	**113**	**6**	**274**	**15**	**81**	**10**	**15**	**121**	**0**	**0**	**0**	**0**	**0**	**20**	**123**	**401**	**11**	**555**	**7**	**600**	**65**	**15**	**687**	**1,637**	**0.92**	**PM Peak 5:00-6:00**

Wells + Associates, Inc.

Tysons, Virginia

Turning Movement Count - Bicycles

PROJECT: Arlington YMCA
W+A JOB NO: 8687
INTERSECTION: N. Kirkwood St. & YMCA Driveway
LOCATION: Arlington County,VA
DATE: 1/26/2022
DAY: Wednesday
WEATHER: clear
COUNTED BY: Agan
INPUTED BY: agan
SOUTHBOUND ROAD: North Kirkwood Street
NORTHBOUND ROAD: North Kirkwood Street
WESTBOUND ROAD: 0
EASTBOUND ROAD: YMCA Driveway

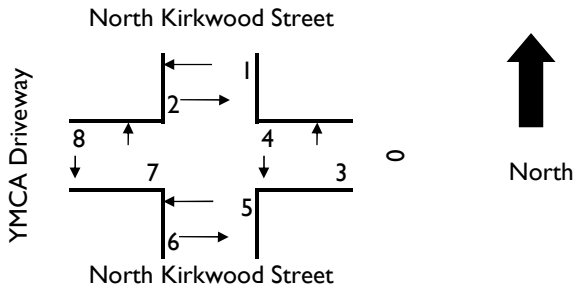
Time Period	Southbound North Kirkwood Street				Westbound 0				Northbound North Kirkwood Street				Eastbound YMCA Driveway				North & South	East & West	Total
	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total			
One Hour Volumes																			
7:00 AM - 8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM - 8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM - 8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM - 8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM - 9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM - 9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM - 9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM - 9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM - 10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM - 5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM - 5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM - 5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM - 5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM - 6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM - 6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM - 6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM - 6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM - 7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Wells + Associates, Inc.

Tysons, Virginia

Pedestrian Volume Survey

PROJECT: Arlington YMCA
W + A JOB NO: 8687
INTERSECTION: N. Kirkwood St. & YMCA Driveway
LOCATION: Arlington County,VA
DATE: 1/26/2022
DAY: Wednesday
WEATHER: clear
COUNTED BY: Agan
INPUTED BY: agan



Time Period		Movement 1	2	3	4	5	6	7	8	1 + 2	3 + 4	5 + 6	7+ 8	Total
One Hour Volumes														
7:00 AM	- 8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	- 8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	- 8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	- 8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	- 9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	- 9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	- 9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	- 9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	- 10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	- 5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	- 5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	- 5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	- 5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	- 6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	- 6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	- 6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	- 6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	- 7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0

Wells + Associates,Inc

Tysons, Virginia

Turning Movement Count - Total Vehicles

PROJECT: Arlington YMCA
W+A JOB NO: 8687
INTERSECTION: N. Kirkwood St. & YMCA Driveway
LOCATION: Arlington County,VA

DATE: 1/26/2022
DAY: Wednesday
WEATHER: clear
COUNTED BY: Agan
INPUTED BY: agan

SOUTHBOUND ROAD: North Kirkwood Street
NORTHBOUND ROAD: North Kirkwood Street
WESTBOUND ROAD: 0
EASTBOUND ROAD: YMCA Driveway

Time Period	Southbound North Kirkwood Street						Westbound 0						Northbound North Kirkwood Street						Eastbound YMCA Driveway						North & South	East & West	Total
	Right	Thru	Left	U-Turn	Total	PHF	Right	Thru	Left	U-Turn	Total	PHF	Right	Thru	Left	U-Turn	Total	PHF	Right	Thru	Left	U-Turn	Total	PHF			
One Hour Volumes																											
7:00 AM - 8:00 AM	5	0	0	0	5	0.625	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		5	0	5
7:15 AM - 8:15 AM	4	0	0	0	4	0.5	0	0	0	0	0		0	0	0	0	0		1	0	0	0	1	0.25	4	1	5
7:30 AM - 8:30 AM	3	0	0	0	3	0.75	0	0	0	0	0		0	0	0	0	0		1	0	0	0	1	0.25	3	1	4
7:45 AM - 8:45 AM	5	0	0	0	5	0.4167	0	0	0	0	0		0	0	0	0	0		2	0	0	0	2	0.5	5	2	7
8:00 AM - 9:00 AM	6	0	0	0	6	0.5	0	0	0	0	0		0	0	0	0	0		3	0	0	0	3	0.75	6	3	9
8:15 AM - 9:15 AM	8	0	0	0	8	0.6667	0	0	0	0	0		0	0	0	0	0		3	0	0	0	3	0.75	8	3	11
8:30 AM - 9:30 AM	8	0	0	0	8	0.6667	0	0	0	0	0		0	0	0	0	0		3	0	0	0	3	0.75	8	3	11
8:45 AM - 9:45 AM	8	0	0	0	8	0.6667	0	0	0	0	0		0	0	0	0	0		2	0	0	0	2	0.5	8	2	10
9:00 AM - 10:00 AM	7	0	0	0	7	0.5833	0	0	0	0	0		0	0	0	0	0		1	0	0	0	1	0.25	7	1	8
9:15 AM - 10:15 AM	4	0	0	0	4	0.3333	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		4	0	4
9:30 AM - 10:30 AM	3	0	0	0	3	0.25	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		3	0	3
3:45 PM - 4:45 PM	2	0	0	0	2	0.25	0	0	0	0	0		0	0	0	0	0		7	0	0	0	7	0.2917	2	7	9
4:00 PM - 5:00 PM	2	0	0	0	2	0.25	0	0	0	0	0		0	0	0	0	0		7	0	0	0	7	0.2917	2	7	9
4:15 PM - 5:15 PM	3	0	0	0	3	0.375	0	0	0	0	0		0	0	0	0	0		4	0	0	0	4	0.3333	3	4	7
4:30 PM - 5:30 PM	4	0	0	0	4	0.5	0	0	0	0	0		0	0	0	0	0		5	0	0	0	5	0.4167	4	5	9
4:45 PM - 5:45 PM	2	0	0	0	2	0.5	0	0	0	0	0		0	0	0	0	0		4	0	0	0	4	0.3333	2	4	6
5:00 PM - 6:00 PM	4	0	0	0	4	0.5	0	0	0	0	0		0	0	0	0	0		5	0	0	0	5	0.4167	4	5	9
5:15 PM - 6:15 PM	4	0	0	0	4	0.5	0	0	0	0	0		0	0	0	0	0		5	0	0	0	5	0.4167	4	5	9
5:30 PM - 6:30 PM	7	0	0	0	7	0.4375	0	0	0	0	0		0	0	0	0	0		4	0	0	0	4	0.3333	7	4	11
5:45 PM - 6:45 PM	7	0	0	0	7	0.4375	0	0	0	0	0		0	0	0	0	0		8	0	0	0	8	0.5	7	8	15
6:00 PM - 7:00 PM	5	0	0	0	5	0.3125	0	0	0	0	0		0	0	0	0	0		12	0	0	0	12	0.6	5	12	17
6:15 PM - 7:15 PM	4	0	0	0	4	0.25	0	0	0	0	0		0	0	0	0	0		9	0	0	0	9	0.45	4	9	13

Wells + Associates, Inc.

Tysons, Virginia

Turning Movement Count - Bicycles

PROJECT: Arlington YMCA
W+A JOB NO: 8687
INTERSECTION: Washington Blvd. & N.Founders Way
LOCATION: Arlington County,VA
DATE: 1/26/2022
DAY: Wednesday
WEATHER: clear
COUNTED BY: Agan
INPUTED BY: agan
SOUTHBOUND ROAD: North Founders Way
NORTHBOUND ROAD: North Founders Way
WESTBOUND ROAD: Washington Boulevard
EASTBOUND ROAD: Washington Boulevard

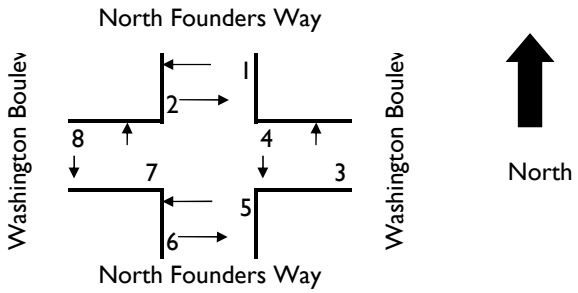
Time Period	Southbound North Founders Way				Westbound Washington Boulevard				Northbound North Founders Way				Eastbound Washington Boulevard				North & South	East & West	Total
	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total			
One Hour Volumes																			
7:00 AM - 8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM - 8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM - 8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM - 8:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	1	0	0	1	0	2	2
8:00 AM - 9:00 AM	0	0	0	0	0	1	0	1	0	0	0	0	1	0	0	1	0	2	2
8:15 AM - 9:15 AM	0	0	0	0	0	1	0	1	0	0	0	0	1	0	0	1	0	2	2
8:30 AM - 9:30 AM	0	0	0	0	0	1	0	1	0	0	0	0	1	0	0	1	0	2	2
8:45 AM - 9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM - 10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	1
4:00 PM - 5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM - 5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM - 5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM - 5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM - 6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM - 6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM - 6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM - 6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM - 7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Wells + Associates, Inc.

Tysons, Virginia

Pedestrian Volume Survey

PROJECT: Arlington YMCA
W + A JOB NO: 8687
INTERSECTION: Washington Blvd. & N.Founders Wa
LOCATION: Arlington County,VA
DATE: 1/26/2022
DAY: Wednesday
WEATHER: clear
COUNTED BY: Agan
INPUTED BY: agan



Time Period		Movement												
		1	2	3	4	5	6	7	8	1 + 2	3 + 4	5 + 6	7+ 8	Total
One Hour Volumes														
7:00 AM	- 8:00 AM	13	62	16	0	11	17	5	1	75	16	28	6	125
7:15 AM	- 8:15 AM	10	32	4	3	12	12	6	0	42	7	24	6	79
7:30 AM	- 8:30 AM	10	27	8	6	17	12	6	0	37	14	29	6	86
7:45 AM	- 8:45 AM	16	27	12	6	30	15	6	0	43	18	45	6	112
8:00 AM	- 9:00 AM	22	22	11	6	33	23	2	1	44	17	56	3	120
8:15 AM	- 9:15 AM	24	24	12	4	30	24	0	1	48	16	54	1	119
8:30 AM	- 9:30 AM	24	22	7	2	25	24	0	1	46	9	49	1	105
8:45 AM	- 9:45 AM	16	21	3	2	19	29	1	1	37	5	48	2	92
9:00 AM	- 10:00 AM	8	21	2	4	23	19	1	1	29	6	42	2	79
4:00 PM	- 5:00 PM	35	7	1	19	39	24	2	2	42	20	63	4	129
4:15 PM	- 5:15 PM	35	4	1	14	43	23	4	2	39	15	66	6	126
4:30 PM	- 5:30 PM	5	3	1	8	35	22	4	1	8	9	57	5	79
4:45 PM	- 5:45 PM	3	4	4	11	24	26	4	0	7	15	50	4	76
5:00 PM	- 6:00 PM	4	2	4	4	19	28	2	0	6	8	47	2	63
5:15 PM	- 6:15 PM	4	4	6	3	19	32	0	0	8	9	51	0	68
5:30 PM	- 6:30 PM	4	4	6	3	22	29	0	0	8	9	51	0	68
5:45 PM	- 6:45 PM	2	4	3	0	20	28	0	0	6	3	48	0	57
6:00 PM	- 7:00 PM	1	3	3	0	16	23	0	0	4	3	39	0	46

Wells + Associates,Inc

Tysons, Virginia

Turning Movement Count - Total Vehicles

PROJECT: Arlington YMCA
W+A JOB NO: 8687
INTERSECTION: Washington Blvd. & N.Founders Way
LOCATION: Arlington County,VA

DATE: 1/26/2022
DAY: Wednesday
WEATHER: clear
COUNTED BY: Agan
INPUTED BY: agan

SOUTHBOUND ROAD: North Founders Way
NORTHBOUND ROAD: North Founders Way
WESTBOUND ROAD: Washington Boulevard
EASTBOUND ROAD: Washington Boulevard

Time Period	Southbound North Founders Way						Westbound Washington Boulevard						Northbound North Founders Way						Eastbound Washington Boulevard						North & South	East & West	Total
	Right	Thru	Left	U-Turn	Total	PHF	Right	Thru	Left	U-Turn	Total	PHF	Right	Thru	Left	U-Turn	Total	PHF	Right	Thru	Left	U-Turn	Total	PHF			
One Hour Volumes																											
7:00 AM - 8:00 AM	5	0	1	0	6	0.5	3	270	15	0	288	0.7273	3	0	5	0	8	0.4	39	330	1	0	370	0.7115	14	658	672
7:15 AM - 8:15 AM	5	0	1	0	6	0.5	2	301	14	0	317	0.8005	1	0	7	0	8	0.4	44	389	2	0	435	0.8239	14	752	766
7:30 AM - 8:30 AM	5	1	0	0	6	0.5	2	334	12	0	348	0.8788	1	0	4	0	5	0.4167	41	455	3	0	499	0.9241	11	847	858
7:45 AM - 8:45 AM	4	1	0	0	5	0.4167	1	334	11	0	346	0.8737	3	0	7	0	10	0.5	43	478	2	0	523	0.9685	15	869	884
8:00 AM - 9:00 AM	3	1	0	0	4	0.3333	2	307	10	0	319	0.9382	3	0	8	0	11	0.55	44	452	2	0	498	0.9222	15	817	832
8:15 AM - 9:15 AM	3	1	0	0	4	0.3333	2	298	14	0	314	0.9345	6	0	6	0	12	0.6	35	434	1	0	470	0.8704	16	784	800
8:30 AM - 9:30 AM	1	0	0	0	1	0.25	3	284	25	0	312	0.9512	7	0	5	0	12	0.6	37	398	1	0	436	0.8651	13	748	761
8:45 AM - 9:45 AM	2	0	2	0	4	0.3333	5	271	28	0	304	0.9268	13	0	2	0	15	0.4688	40	354	3	0	397	0.9452	19	701	720
9:00 AM - 10:00 AM	4	0	2	0	6	0.5	5	267	24	0	296	0.9024	17	0	1	0	18	0.5625	37	331	3	0	371	0.8918	24	667	691
9:15 AM - 10:15 AM	4	0	2	0	6	0.5	5	193	18	0	216	0.6585	13	0	1	0	14	0.4375	31	233	3	0	267	0.6609	20	483	503
9:30 AM - 10:30 AM	4	0	2	0	6	0.5	3	125	6	0	134	0.4786	12	0	0	0	12	0.375	20	144	2	0	166	0.477	18	300	318
9:45 AM - 10:45 AM	3	0	0	0	3	0.25	1	63	0	0	64	0.25	4	0	0	0	4	0.25	7	72	0	0	79	0.25	7	143	150
3:15 PM - 4:15 PM	0	0	0	0	0		0	108	1	0	109	0.25	4	0	12	0	16	0.25	3	108	0	0	111	0.25	16	220	236
3:30 PM - 4:30 PM	0	0	0	0	0		2	196	3	0	201	0.461	7	0	18	0	25	0.3906	7	207	0	0	214	0.482	25	415	440
3:45 PM - 4:45 PM	1	0	0	0	1	0.25	2	309	4	0	315	0.6908	21	1	30	0	52	0.4815	9	308	0	0	317	0.714	53	632	685
4:00 PM - 5:00 PM	1	0	1	0	2	0.5	4	422	5	0	431	0.9289	26	1	37	0	64	0.5926	16	410	0	0	426	0.9595	66	857	923
4:15 PM - 5:15 PM	1	0	1	0	2	0.5	5	412	6	0	423	0.9116	28	1	31	0	60	0.5556	15	426	0	0	441	0.875	62	864	926
4:30 PM - 5:30 PM	1	0	1	0	2	0.5	4	445	5	0	454	0.9228	32	1	33	0	66	0.6111	17	452	1	0	470	0.8902	68	924	992
4:45 PM - 5:45 PM	1	0	2	0	3	0.375	5	457	7	0	469	0.9089	27	0	27	0	54	0.9	24	473	2	0	499	0.9451	57	968	1025
5:00 PM - 6:00 PM	1	0	1	0	2	0.25	3	456	6	0	465	0.9012	25	0	27	0	52	0.8667	22	471	3	0	496	0.9394	54	961	1015
5:15 PM - 6:15 PM	2	0	2	0	4	0.5	2	476	5	0	483	0.936	24	0	33	0	57	0.8382	20	440	3	0	463	0.8769	61	946	1007
5:30 PM - 6:30 PM	3	0	3	0	6	0.75	2	481	5	0	488	0.9457	23	0	29	0	52	0.7647	16	410	2	0	428	0.8106	58	916	974
5:45 PM - 6:45 PM	3	0	2	0	5	0.625	1	461	4	0	466	0.9102	17	0	25	0	42	0.6176	7	376	1	0	384	0.9057	47	850	897
6:00 PM - 7:00 PM	3	0	2	0	5	0.625	1	447	5	0	453	0.8848	19	0	20	0	39	0.5735	8	371	1	0	380	0.9314	44	833	877
6:15 PM - 7:15 PM	2	0	1	0	3	0.375	1	329	4	0	334	0.6523	14	0	8	0	22	0.55	8	278	1	0	287	0.7034	25	621	646
6:30 PM - 7:30 PM	1	0	0	0	1	0.25	0	203	3	0	206	0.4813	8	0	4	0	12	0.4286	6	183	1	0	190	0.4657	13	396	409
6:45 PM - 7:45 PM	0	0	0	0	0		0	98	1	0	99	0.25	5	0	2	0	7	0.25	6	95	1	0	102	0.25	7	201	208

Wells + Associates, Inc.

Tysons, Virginia

Turning Movement Count - Bicycles

PROJECT: Arlington YMCA
W+A JOB NO: 8687
INTERSECTION: Washington Blvd. & N. Kirkwood SRd
LOCATION: Arlington County,VA
DATE: 1/26/2022
DAY: Wednesday
WEATHER: clear
COUNTED BY: Agan
INPUTED BY: agan
SOUTHBOUND ROAD: North Kirkwood Road
NORTHBOUND ROAD: North Kirkwood Road
WESTBOUND ROAD: Washington Boulevard
EASTBOUND ROAD: Washington Boulevard

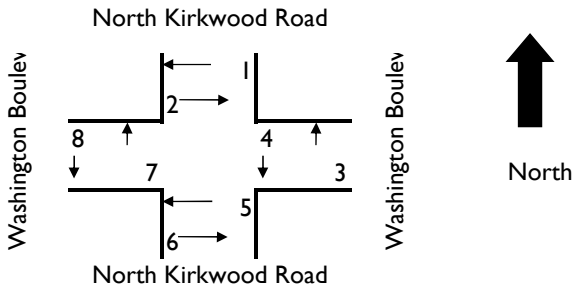
Time Period	Southbound North Kirkwood Road				Westbound Washington Boulevard				Northbound North Kirkwood Road				Eastbound Washington Boulevard				North & South	East & West	Total
	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total			
One Hour Volumes																			
7:00 AM - 8:00 AM	0	0	0	0	0	0	0	0	0	2	0	2	0	1	0	1	2	1	3
7:15 AM - 8:15 AM	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2	0	2
7:30 AM - 8:30 AM	0	1	0	1	0	1	0	1	0	2	0	2	0	0	0	0	3	1	4
7:45 AM - 8:45 AM	0	1	0	1	0	1	0	1	0	0	0	0	0	0	0	0	1	1	2
8:00 AM - 9:00 AM	0	2	0	2	0	1	0	1	0	0	0	0	0	0	0	0	2	1	3
8:15 AM - 9:15 AM	0	2	0	2	0	1	0	1	0	0	0	0	0	0	0	0	2	1	3
8:30 AM - 9:30 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
8:45 AM - 9:45 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
9:00 AM - 10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM - 5:00 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	0	1
4:15 PM - 5:15 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	0	1
4:30 PM - 5:30 PM	0	2	0	2	0	0	0	0	0	1	0	1	0	0	0	0	3	0	3
4:45 PM - 5:45 PM	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
5:00 PM - 6:00 PM	0	2	0	2	0	0	0	0	0	0	0	0	0	1	0	1	2	1	3
5:15 PM - 6:15 PM	0	2	0	2	0	0	0	0	0	1	0	1	0	1	0	1	3	1	4
5:30 PM - 6:30 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	1	1	2
5:45 PM - 6:45 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	1	1	2
6:00 PM - 7:00 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	0	1

Wells + Associates, Inc.

Tysons, Virginia

Pedestrian Volume Survey

PROJECT: Arlington YMCA
W + A JOB NO: 8687
INTERSECTION: Washington Blvd. & N. Kirkwood SR
LOCATION: Arlington County,VA
DATE: 1/26/2022
DAY: Wednesday
WEATHER: clear
COUNTED BY: Agan
INPUTED BY: agan



Time Period		Movement 1	2	3	4	5	6	7	8	1 + 2	3 + 4	5 + 6	7+ 8	Total
One Hour Volumes														
7:00 AM	- 8:00 AM	6	4	1	6	7	0	3	2	10	7	7	5	29
7:15 AM	- 8:15 AM	5	4	3	6	1	3	5	2	9	9	4	7	29
7:30 AM	- 8:30 AM	4	4	4	6	3	4	5	2	8	10	7	7	32
7:45 AM	- 8:45 AM	5	4	4	3	4	5	6	0	9	7	9	6	31
8:00 AM	- 9:00 AM	3	3	3	5	7	7	5	1	6	8	14	6	34
8:15 AM	- 9:15 AM	1	1	1	6	7	5	3	2	2	7	12	5	26
8:30 AM	- 9:30 AM	1	2	1	5	5	6	3	2	3	6	11	5	25
8:45 AM	- 9:45 AM	3	4	1	7	4	8	2	2	7	8	12	4	31
9:00 AM	- 10:00 AM	4	4	1	4	3	6	0	2	8	5	9	2	24
4:00 PM	- 5:00 PM	5	1	4	5	6	11	4	7	6	9	17	11	43
4:15 PM	- 5:15 PM	2	1	4	5	9	13	4	3	3	9	22	7	41
4:30 PM	- 5:30 PM	2	3	5	7	13	13	13	5	5	12	26	18	61
4:45 PM	- 5:45 PM	3	3	8	5	13	23	11	7	6	13	36	18	73
5:00 PM	- 6:00 PM	6	2	9	7	18	22	10	10	8	16	40	20	84
5:15 PM	- 6:15 PM	7	2	12	8	15	18	9	11	9	20	33	20	82
5:30 PM	- 6:30 PM	8	0	13	6	12	17	0	8	8	19	29	8	64
5:45 PM	- 6:45 PM	9	0	11	4	12	6	1	6	9	15	18	7	49
6:00 PM	- 7:00 PM	6	0	9	2	7	5	1	3	6	11	12	4	33

Wells + Associates,Inc

Tysons, Virginia

Turning Movement Count - Total Vehicles

PROJECT: Arlington YMCA
W+A JOB NO: 8687
INTERSECTION: Washington Blvd. & N. Kirkwood SRd.
LOCATION: Arlington County,VA

DATE: 1/26/2022
DAY: Wednesday
WEATHER: clear
COUNTED BY: Agan
INPUTED BY: agan

SOUTHBOUND ROAD: North Kirkwood Road
NORTHBOUND ROAD: North Kirkwood Road
WESTBOUND ROAD: Washington Boulevard
EASTBOUND ROAD: Washington Boulevard

Time Period	Southbound North Kirkwood Road						Westbound Washington Boulevard						Northbound North Kirkwood Road						Eastbound Washington Boulevard						North & South	East & West	Total
	Right	Thru	Left	U-Turn	Total	PHF	Right	Thru	Left	U-Turn	Total	PHF	Right	Thru	Left	U-Turn	Total	PHF	Right	Thru	Left	U-Turn	Total	PHF			
One Hour Volumes																											
7:00 AM - 8:00 AM	23	53	30	0	106	0.6795	75	212	18	0	305	0.6995	14	91	19	0	124	0.8378	33	251	43	0	327	0.7432	230	632	862
7:15 AM - 8:15 AM	28	79	34	0	141	0.5975	87	237	21	0	345	0.7913	6	106	26	0	138	0.75	42	292	51	0	385	0.837	279	730	1009
7:30 AM - 8:30 AM	38	78	48	0	164	0.6949	102	249	26	0	377	0.8647	8	139	35	0	182	0.7109	55	339	68	0	462	0.837	346	839	1185
7:45 AM - 8:45 AM	35	97	61	0	193	0.8178	104	249	27	0	380	0.8716	10	158	37	0	205	0.8008	56	348	69	0	473	0.8569	398	853	1251
8:00 AM - 9:00 AM	32	122	64	0	218	0.8516	108	237	26	0	371	0.9275	10	165	42	0	217	0.8477	49	334	71	0	454	0.8225	435	825	1260
8:15 AM - 9:15 AM	33	111	59	0	203	0.793	101	227	32	0	360	0.9	9	168	40	0	217	0.8477	56	313	74	0	443	0.8025	420	803	1223
8:30 AM - 9:30 AM	34	125	44	0	203	0.793	96	239	32	0	367	0.9175	10	145	38	0	193	0.8042	49	276	64	0	389	0.8841	396	756	1152
8:45 AM - 9:45 AM	45	130	32	0	207	0.8086	86	234	33	0	353	0.8825	8	124	34	0	166	0.883	51	237	60	0	348	0.8365	373	701	1074
9:00 AM - 10:00 AM	48	110	24	0	182	0.8922	74	223	31	0	328	0.8283	8	93	33	0	134	0.7283	58	219	58	0	335	0.8053	316	663	979
4:00 PM - 5:00 PM	58	163	84	0	305	0.8665	84	330	18	0	432	0.8571	13	102	23	0	138	0.8415	47	340	71	0	458	0.9234	443	890	1333
4:15 PM - 5:15 PM	65	158	83	0	306	0.8596	91	312	18	0	421	0.8353	13	113	28	0	154	0.8191	42	363	72	0	477	0.8704	460	898	1358
4:30 PM - 5:30 PM	68	172	82	0	322	0.8564	95	326	22	0	443	0.879	22	115	31	0	168	0.7636	42	403	79	0	524	0.9097	490	967	1457
4:45 PM - 5:45 PM	71	174	77	0	322	0.8564	98	344	30	0	472	0.9008	25	131	30	0	186	0.8455	35	423	78	0	536	0.9306	508	1008	1516
5:00 PM - 6:00 PM	81	182	70	0	333	0.8856	92	331	32	0	455	0.8683	23	136	30	0	189	0.8591	41	407	77	0	525	0.9115	522	980	1502
5:15 PM - 6:15 PM	76	188	66	0	330	0.8777	82	366	30	0	478	0.9122	19	127	28	0	174	0.7909	45	386	67	0	498	0.8646	504	976	1480
5:30 PM - 6:30 PM	79	166	55	0	300	0.8721	78	371	27	0	476	0.9084	13	125	28	0	166	0.8469	41	353	64	0	458	0.874	466	934	1400
5:45 PM - 6:45 PM	71	164	51	0	286	0.8314	59	354	23	0	436	0.9083	11	120	31	0	162	0.8617	39	313	70	0	422	0.9336	448	858	1306
6:00 PM - 7:00 PM	62	157	54	0	273	0.7936	53	350	25	0	428	0.8917	12	125	34	0	171	0.9096	31	309	73	0	413	0.9386	444	841	1285

Wells + Associates, Inc.

Tysons, Virginia

Turning Movement Count - Bicycles

PROJECT: Arlington YMCA
W+A JOB NO: 8687
INTERSECTION: Washington Blvd. & N. Lincoln St.
LOCATION: Arlington County,VA
DATE: 1/26/2022
DAY: Wednesday
WEATHER: clear
COUNTED BY: Agan
INPUTED BY: agan
SOUTHBOUND ROAD: North Lincoln Street
NORTHBOUND ROAD: North Lincoln Street
WESTBOUND ROAD: Washington Boulevard
EASTBOUND ROAD: Washington Boulevard

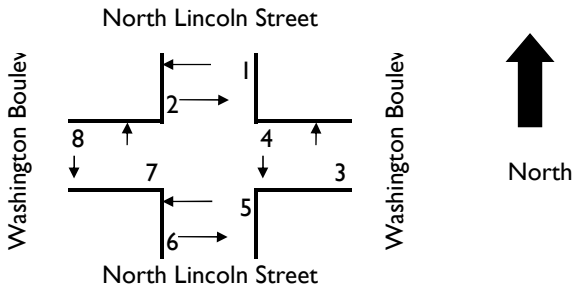
Time Period	Southbound North Lincoln Street				Westbound Washington Boulevard				Northbound North Lincoln Street				Eastbound Washington Boulevard				North & South	East & West	Total
	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total			
One Hour Volumes																			
7:00 AM - 8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	2	2
7:15 AM - 8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	3	3
7:30 AM - 8:30 AM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	3	3	1	3	4
7:45 AM - 8:45 AM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	3	3	1	3	4
8:00 AM - 9:00 AM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	3	3	1	3	4
8:15 AM - 9:15 AM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	1	1	1	2
8:30 AM - 9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	1
8:45 AM - 9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	1
9:00 AM - 10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM - 5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	1
4:15 PM - 5:15 PM	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	1	1	2
4:30 PM - 5:30 PM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
4:45 PM - 5:45 PM	1	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
5:00 PM - 6:00 PM	1	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
5:15 PM - 6:15 PM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
5:30 PM - 6:30 PM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
5:45 PM - 6:45 PM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1	1	1	2
6:00 PM - 7:00 PM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1	1	1	2

Wells + Associates, Inc.

Tysons, Virginia

Pedestrian Volume Survey

PROJECT: Arlington YMCA
W + A JOB NO: 8687
INTERSECTION: Washington Blvd. & N. Lincoln St.
LOCATION: Arlington County,VA
DATE: 1/26/2022
DAY: Wednesday
WEATHER: clear
COUNTED BY: Agan
INPUTED BY: agan



Time Period		Movement												
		1	2	3	4	5	6	7	8	1 + 2	3 + 4	5 + 6	7+ 8	Total
One Hour Volumes														
7:00 AM	- 8:00 AM	1	29	0	0	13	10	0	0	30	0	23	0	53
7:15 AM	- 8:15 AM	1	3	0	0	12	12	1	1	4	0	24	2	30
7:30 AM	- 8:30 AM	2	2	0	0	13	13	1	1	4	0	26	2	32
7:45 AM	- 8:45 AM	3	2	0	0	15	15	1	3	5	0	30	4	39
8:00 AM	- 9:00 AM	4	5	0	0	13	14	3	4	9	0	27	7	43
8:15 AM	- 9:15 AM	4	6	0	0	10	12	3	4	10	0	22	7	39
8:30 AM	- 9:30 AM	2	6	0	0	10	13	4	4	8	0	23	8	39
8:45 AM	- 9:45 AM	2	7	0	0	10	12	4	4	9	0	22	8	39
9:00 AM	- 10:00 AM	4	4	0	0	11	7	2	4	8	0	18	6	32
4:00 PM	- 5:00 PM	31	6	3	0	19	9	5	2	37	3	28	7	75
4:15 PM	- 5:15 PM	30	7	2	0	18	9	4	1	37	2	27	5	71
4:30 PM	- 5:30 PM	4	9	0	0	16	11	4	2	13	0	27	6	46
4:45 PM	- 5:45 PM	2	10	0	0	13	11	5	2	12	0	24	7	43
5:00 PM	- 6:00 PM	3	8	1	0	14	16	6	2	11	1	30	8	50
5:15 PM	- 6:15 PM	4	7	1	0	15	21	7	5	11	1	36	12	60
5:30 PM	- 6:30 PM	5	6	2	0	15	21	6	4	11	2	36	10	59
5:45 PM	- 6:45 PM	5	8	2	4	13	16	3	4	13	6	29	7	55
6:00 PM	- 7:00 PM	5	7	2	4	12	11	3	4	12	6	23	7	48

Wells + Associates,Inc

Tysons, Virginia

Turning Movement Count - Total Vehicles

PROJECT: Arlington YMCA
W+A JOB NO: 8687
INTERSECTION: Washington Blvd. & N. Lincoln St.
LOCATION: Arlington County,VA

DATE: 1/26/2022
DAY: Wednesday
WEATHER: clear
COUNTED BY: Agan
INPUTED BY: agan

SOUTHBOUND ROAD: North Lincoln Street
NORTHBOUND ROAD: North Lincoln Street
WESTBOUND ROAD: Washington Boulevard
EASTBOUND ROAD: Washington Boulevard

Time Period	Southbound North Lincoln Street						Westbound Washington Boulevard						Northbound North Lincoln Street						Eastbound Washington Boulevard						North & South	East & West	Total
	Right	Thru	Left	U-Turn	Total	PHF	Right	Thru	Left	U-Turn	Total	PHF	Right	Thru	Left	U-Turn	Total	PHF	Right	Thru	Left	U-Turn	Total	PHF			
One Hour Volumes																											
7:00 AM - 8:00 AM	18	0	2	0	20	0.5556	7	271	0	0	278	0.7165	0	0	0	0	0		0	375	13	0	388	0.6783	20	666	686
7:15 AM - 8:15 AM	14	0	3	0	17	0.4722	10	298	0	0	308	0.7938	0	0	0	0	0		0	451	18	0	469	0.8199	17	777	794
7:30 AM - 8:30 AM	13	0	2	0	15	0.4167	12	333	0	0	345	0.8892	0	0	0	0	0		0	522	20	0	542	0.8856	15	887	902
7:45 AM - 8:45 AM	18	0	3	0	21	0.5833	10	337	0	0	347	0.8943	0	0	0	0	0		0	546	19	0	565	0.9232	21	912	933
8:00 AM - 9:00 AM	16	0	3	0	19	0.6786	10	316	0	0	326	0.8859	0	0	0	0	0		0	521	22	0	543	0.8873	19	869	888
8:15 AM - 9:15 AM	17	0	2	0	19	0.6786	6	311	0	0	317	0.8614	0	0	0	0	0		0	496	21	0	517	0.8448	19	834	853
8:30 AM - 9:30 AM	22	0	6	0	28	0.6364	4	285	0	0	289	0.9383	0	0	0	0	0		0	443	23	0	466	0.9246	28	755	783
8:45 AM - 9:45 AM	18	0	6	0	24	0.5455	6	264	0	0	270	0.8882	0	0	0	0	0		0	412	21	0	433	0.8946	24	703	727
9:00 AM - 10:00 AM	12	0	6	0	18	0.4091	5	249	0	0	254	0.8819	0	0	0	0	0		0	380	14	0	394	0.8419	18	648	666
4:00 PM - 5:00 PM	19	0	4	0	23	0.7188	8	423	0	0	431	0.9131	0	0	0	0	0		0	409	13	0	422	0.9174	23	853	876
4:15 PM - 5:15 PM	21	0	1	0	22	0.6875	9	421	0	0	430	0.911	0	0	0	0	0		0	430	13	0	443	0.8143	22	873	895
4:30 PM - 5:30 PM	23	0	1	0	24	0.75	12	438	0	0	450	0.9534	0	0	0	0	0		0	472	13	0	485	0.8479	24	935	959
4:45 PM - 5:45 PM	21	0	4	0	25	0.7813	16	435	0	0	451	0.9475	0	0	0	0	0		0	495	13	0	508	0.8881	25	959	984
5:00 PM - 6:00 PM	16	0	7	0	23	0.8214	14	441	0	0	455	0.9559	0	0	0	0	0		0	496	12	0	508	0.8881	23	963	986
5:15 PM - 6:15 PM	17	0	8	0	25	0.8929	11	463	0	0	474	0.9405	0	0	0	0	0		0	460	10	0	470	0.8217	25	944	969
5:30 PM - 6:30 PM	14	0	8	0	22	0.7857	8	478	0	0	486	0.9492	0	0	0	0	0		0	418	9	0	427	0.8212	22	913	935
5:45 PM - 6:45 PM	21	0	6	0	27	0.675	5	469	0	0	474	0.9258	0	0	0	0	0		0	381	8	0	389	0.9725	27	863	890
6:00 PM - 7:00 PM	24	0	3	0	27	0.675	5	452	0	0	457	0.8926	0	0	0	0	0		0	393	8	0	401	0.9032	27	858	885

Wells + Associates, Inc.

Tysons, Virginia

Turning Movement Count - Bicycles

PROJECT: Arlington YMCA
W+A JOB NO: 8687
INTERSECTION: Washington Blvd. & N. Quincy St.
LOCATION: Arlington County,VA
DATE: 1/26/2022
DAY: Wednesday
WEATHER: clear
COUNTED BY: Ramiz
INPUTED BY: agan
SOUTHBOUND ROAD: North Quincy Street
NORTHBOUND ROAD: North Quincy Street
WESTBOUND ROAD: Washington Boulevard
EASTBOUND ROAD: Washington Boulevard

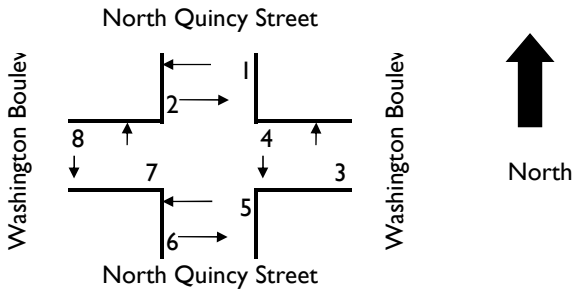
Time Period	Southbound North Quincy Street				Westbound Washington Boulevard				Northbound North Quincy Street				Eastbound Washington Boulevard				North & South	East & West	Total
	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total			
One Hour Volumes																			
7:00 AM - 8:00 AM	0	3	1	4	2	0	0	2	0	3	1	4	0	0	0	0	8	2	10
7:15 AM - 8:15 AM	0	3	1	4	3	0	0	3	0	4	0	4	0	0	0	0	8	3	11
7:30 AM - 8:30 AM	0	3	1	4	3	0	0	3	0	6	0	6	0	0	0	0	10	3	13
7:45 AM - 8:45 AM	0	2	0	2	3	0	0	3	0	5	0	5	0	0	0	0	7	3	10
8:00 AM - 9:00 AM	0	2	0	2	2	0	0	2	0	5	0	5	0	0	0	0	7	2	9
8:15 AM - 9:15 AM	0	3	0	3	0	0	0	0	0	3	0	3	0	0	0	0	6	0	6
8:30 AM - 9:30 AM	0	3	0	3	0	0	0	0	0	1	0	1	0	0	0	0	4	0	4
8:45 AM - 9:45 AM	0	3	0	3	0	0	0	0	0	1	0	1	0	0	0	0	4	0	4
9:00 AM - 10:00 AM	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3
4:00 PM - 5:00 PM	0	3	0	3	0	0	0	0	1	1	0	2	0	0	0	0	5	0	5
4:15 PM - 5:15 PM	0	2	0	2	0	0	0	0	1	1	0	2	0	0	0	0	4	0	4
4:30 PM - 5:30 PM	0	1	0	1	0	1	0	1	1	1	0	2	0	0	0	0	3	1	4
4:45 PM - 5:45 PM	0	0	0	0	1	2	0	3	1	1	0	2	0	0	0	0	2	3	5
5:00 PM - 6:00 PM	0	0	0	0	1	2	0	3	0	0	0	0	0	0	0	0	0	3	3
5:15 PM - 6:15 PM	0	1	0	1	1	2	0	3	0	0	0	0	0	0	0	0	1	3	4
5:30 PM - 6:30 PM	0	1	0	1	1	1	0	2	0	1	0	1	0	0	0	0	2	2	4
5:45 PM - 6:45 PM	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2	0	2
6:00 PM - 7:00 PM	0	1	0	1	0	0	0	0	0	2	0	2	0	0	0	0	3	0	3

Wells + Associates, Inc.

Tysons, Virginia

Pedestrian Volume Survey

PROJECT: Arlington YMCA
W + A JOB NO: 8687
INTERSECTION: Washington Blvd. & N. Quincy St.
LOCATION: Arlington County,VA
DATE: 1/26/2022
DAY: Wednesday
WEATHER: clear
COUNTED BY: Ramiz
INPUTED BY: agan



Time Period		Movement 1	2	3	4	5	6	7	8	1 + 2	3 + 4	5 + 6	7+ 8	Total
One Hour Volumes														
7:00 AM	- 8:00 AM	6	6	5	4	7	6	8	5	12	9	13	13	47
7:15 AM	- 8:15 AM	8	5	5	4	11	4	27	5	13	9	15	32	69
7:30 AM	- 8:30 AM	9	4	6	4	12	6	29	4	13	10	18	33	74
7:45 AM	- 8:45 AM	11	5	5	3	14	5	33	4	16	8	19	37	80
8:00 AM	- 9:00 AM	14	4	4	2	11	5	29	5	18	6	16	34	74
8:15 AM	- 9:15 AM	8	4	4	2	6	6	11	8	12	6	12	19	49
8:30 AM	- 9:30 AM	8	5	4	2	6	6	10	6	13	6	12	16	47
8:45 AM	- 9:45 AM	6	4	3	3	8	8	6	7	10	6	16	13	45
9:00 AM	- 10:00 AM	3	6	4	7	8	8	6	7	9	11	16	13	49
4:00 PM	- 5:00 PM	5	7	6	8	4	5	38	12	12	14	9	50	85
4:15 PM	- 5:15 PM	6	7	8	8	5	5	37	13	13	16	10	50	89
4:30 PM	- 5:30 PM	6	6	5	11	8	5	9	12	12	16	13	21	62
4:45 PM	- 5:45 PM	8	6	9	9	11	7	7	14	14	18	18	21	71
5:00 PM	- 6:00 PM	8	7	6	6	18	9	9	10	15	12	27	19	73
5:15 PM	- 6:15 PM	6	10	6	8	22	11	12	10	16	14	33	22	85
5:30 PM	- 6:30 PM	5	10	9	6	17	12	10	9	15	15	29	19	78
5:45 PM	- 6:45 PM	3	8	6	4	15	10	11	11	11	10	25	22	68
6:00 PM	- 7:00 PM	3	6	7	4	7	7	10	12	9	11	14	22	56

Wells + Associates,Inc

Tysons, Virginia

Turning Movement Count - Total Vehicles

PROJECT: Arlington YMCA
W+A JOB NO: 8687
INTERSECTION: Washington Blvd. & N. Quincy St.
LOCATION: Arlington County,VA

DATE: 1/26/2022
DAY: Wednesday
WEATHER: clear
COUNTED BY: Ramiz & Walter
INPUTED BY: agan

SOUTHBOUND ROAD: North Quincy Street
NORTHBOUND ROAD: North Quincy Street
WESTBOUND ROAD: Washington Boulevard
EASTBOUND ROAD: Washington Boulevard

Time Period	Southbound North Quincy Street						Westbound Washington Boulevard						Northbound North Quincy Street						Eastbound Washington Boulevard						North & South	East & West	Total
	Right	Thru	Left	U-Turn	Total	PHF	Right	Thru	Left	U-Turn	Total	PHF	Right	Thru	Left	U-Turn	Total	PHF	Right	Thru	Left	U-Turn	Total	PHF			
One Hour Volumes																											
7:00 AM - 8:00 AM	34	175	70	0	279	0.6173	75	223	13	0	311	0.7133	15	268	58	0	341	0.7349	8	307	51	0	366	0.7754	620	677	1297
7:15 AM - 8:15 AM	51	227	100	0	378	0.6385	71	275	13	0	359	0.8234	18	325	83	0	426	0.7717	6	373	61	0	440	0.8029	804	799	1603
7:30 AM - 8:30 AM	59	276	110	0	445	0.7517	69	308	15	0	392	0.8991	19	334	95	0	448	0.8116	6	439	61	0	506	0.8377	893	898	1791
7:45 AM - 8:45 AM	61	287	100	0	448	0.7568	81	320	22	0	423	0.9442	22	326	92	0	440	0.7971	5	466	67	0	538	0.8907	888	961	1849
8:00 AM - 9:00 AM	53	278	82	0	413	0.6976	65	298	25	0	388	0.8661	24	304	76	0	404	0.7319	6	459	67	0	532	0.8808	817	920	1737
8:15 AM - 9:15 AM	34	245	56	0	335	0.7614	71	267	31	0	369	0.8237	26	240	54	0	320	0.8	6	442	63	0	511	0.846	655	880	1535
8:30 AM - 9:30 AM	31	213	60	0	304	0.962	75	243	30	0	348	0.7768	25	213	42	0	280	0.814	5	394	54	0	453	0.858	584	801	1385
8:45 AM - 9:45 AM	31	197	68	0	296	0.9367	66	218	23	0	307	0.8624	22	189	37	0	248	0.775	4	360	51	0	415	0.8944	544	722	1266
9:00 AM - 10:00 AM	38	173	67	0	278	0.8797	61	219	22	0	302	0.8483	21	184	38	0	243	0.81	3	330	51	0	384	0.8276	521	686	1207
4:00 PM - 5:00 PM	60	306	85	0	451	0.902	77	383	37	0	497	0.8875	27	242	61	0	330	0.9375	2	336	54	0	392	0.9159	781	889	1670
4:15 PM - 5:15 PM	91	303	80	0	474	0.8007	71	406	33	0	510	0.9107	27	252	68	0	347	0.8505	3	356	55	0	414	0.8415	821	924	1745
4:30 PM - 5:30 PM	118	300	92	0	510	0.8615	76	415	30	0	521	0.9304	31	289	77	0	397	0.834	2	386	60	0	448	0.8819	907	969	1876
4:45 PM - 5:45 PM	128	297	87	0	512	0.8649	63	419	28	0	510	0.9375	34	287	83	0	404	0.8487	2	413	56	0	471	0.9272	916	981	1897
5:00 PM - 6:00 PM	120	295	97	0	512	0.8649	62	408	31	0	501	0.921	38	298	86	0	422	0.8866	2	396	55	0	453	0.8917	934	954	1888
5:15 PM - 6:15 PM	88	281	97	0	466	0.8147	65	421	37	0	523	0.9017	34	278	77	0	389	0.8172	3	365	55	0	423	0.8327	855	946	1801
5:30 PM - 6:30 PM	62	258	85	0	405	0.8299	66	407	46	0	519	0.8948	37	242	72	0	351	0.8278	2	341	50	0	393	0.8618	756	912	1668
5:45 PM - 6:45 PM	55	252	83	0	390	0.7992	62	411	44	0	517	0.8914	31	229	64	0	324	0.7642	6	319	53	0	378	0.9545	714	895	1609
6:00 PM - 7:00 PM	44	219	70	0	333	0.8162	64	400	44	0	508	0.8759	27	194	59	0	280	0.8642	7	329	51	0	387	0.9773	613	895	1508

Appendix C

LOS Descriptions

Level of Service Criteria 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 1. 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 1. 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 Exhibit 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. . . .

Exhibit 2. Level of Service Criteria for TWSC Intersections

LEVEL OF SERVICE	AVERAGE CONTROL DELAY (sec/veh)
A	≤ 10
B	> 10 and ≤ 15
C	> 15 and ≤ 25
D	> 25 and ≤ 35
E	> 35 and ≤ 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 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

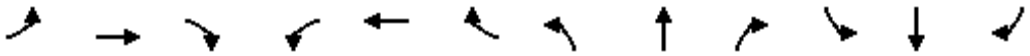
Appendix D

HCM Results: Existing Conditions

Lane Group	EBT	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	535	399	49	206	257
v/c Ratio	0.43	0.24	0.20	0.50	0.45
Control Delay	7.8	6.9	21.8	26.4	37.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	7.8	6.9	21.8	26.4	37.1
Queue Length 50th (ft)	28	42	26	126	80
Queue Length 95th (ft)	34	64	m49	190	113
Internal Link Dist (ft)	34	68		333	11
Turn Bay Length (ft)					
Base Capacity (vph)	1248	1654	240	408	574
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	0.43	0.24	0.20	0.50	0.45

Intersection Summary

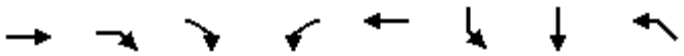
m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	71	334	49	26	237	108	42	165	10	64	122	32
Future Volume (vph)	71	334	49	26	237	108	42	165	10	64	122	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.5			6.5		6.5	6.5			6.5	
Lane Util. Factor		0.95			0.95		1.00	1.00			0.95	
Frpb, ped/bikes		1.00			0.99		1.00	1.00			1.00	
Flpb, ped/bikes		1.00			1.00		0.99	1.00			1.00	
Frt		0.98			0.96		1.00	0.99			0.98	
Flt Protected		0.99			1.00		0.95	1.00			0.99	
Satd. Flow (prot)		2951			2865		1496	1568			2967	
Flt Permitted		0.80			0.90		0.59	1.00			0.74	
Satd. Flow (perm)		2388			2573		930	1568			2217	
Peak-hour factor, PHF	0.85	0.85	0.85	0.93	0.93	0.93	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	84	393	58	28	255	116	49	194	12	75	144	38
RTOR Reduction (vph)	0	0	0	0	40	0	0	2	0	0	0	0
Lane Group Flow (vph)	0	535	0	0	359	0	49	204	0	0	257	0
Confl. Peds. (#/hr)	6		14	14		6	6		8	8		6
Confl. Bikes (#/hr)			2			1						2
Heavy Vehicles (%)	7%	7%	7%	7%	7%	7%	8%	8%	8%	5%	5%	5%
Turn Type	Perm	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases		6		5	2			4			4	
Permitted Phases	6			2			4			4		
Actuated Green, G (s)		57.5			68.5		28.5	28.5			28.5	
Effective Green, g (s)		57.5			68.5		28.5	28.5			28.5	
Actuated g/C Ratio		0.52			0.62		0.26	0.26			0.26	
Clearance Time (s)		6.5			6.5		6.5	6.5			6.5	
Lane Grp Cap (vph)		1248			1616		240	406			574	
v/s Ratio Prot					c0.01			c0.13				
v/s Ratio Perm		c0.22			0.13		0.05				0.12	
v/c Ratio		0.43			0.22		0.20	0.50			0.45	
Uniform Delay, d1		16.1			9.1		31.9	34.7			34.2	
Progression Factor		0.41			1.00		0.61	0.64			1.00	
Incremental Delay, d2		1.1			0.3		1.8	4.1			2.5	
Delay (s)		7.7			9.4		21.3	26.2			36.7	
Level of Service		A			A		C	C			D	
Approach Delay (s)		7.7			9.4			25.3			36.7	
Approach LOS		A			A			C			D	

Intersection Summary			
HCM 2000 Control Delay	16.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	18.5
Intersection Capacity Utilization	110.0%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBT	EBR	EBR2	WBL	WBT	SBL	SBT	NWL
Lane Group Flow (vph)	73	347	12	32	101	66	85	744
v/c Ratio	0.34	0.32	0.02	0.12	0.15	0.28	0.29	0.56
Control Delay	26.1	21.3	0.1	35.8	23.6	34.4	18.1	21.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.1	21.3	0.1	35.8	23.6	34.4	18.1	21.4
Queue Length 50th (ft)	33	89	0	18	19	49	38	169
Queue Length 95th (ft)	74	127	0	46	43	98	92	227
Internal Link Dist (ft)	784				499		333	1197
Turn Bay Length (ft)		80	80	45				
Base Capacity (vph)	217	1094	665	261	660	233	296	1334
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	0.34	0.32	0.02	0.12	0.15	0.28	0.29	0.56

Intersection Summary

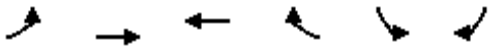
Movement	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	SBL2	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	19	50	326	11	20	10	62	33	11	56	36	39
Future Volume (vph)	19	50	326	11	20	10	62	33	11	56	36	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.0	7.0	7.0		6.5	6.5			7.0	4.0	
Lane Util. Factor		1.00	0.88	1.00		1.00	0.95			0.95	0.95	
Frpb, ped/bikes		1.00	1.00	0.98		1.00	0.99			1.00	0.99	
Flpb, ped/bikes		1.00	1.00	1.00		0.99	1.00			1.00	1.00	
Frt		1.00	0.85	0.85		1.00	0.95			1.00	0.93	
Flt Protected		0.99	1.00	1.00		0.95	1.00			0.95	1.00	
Satd. Flow (prot)		1653	2508	1390		1570	2843			1513	1462	
Flt Permitted		0.30	1.00	1.00		0.71	1.00			0.95	1.00	
Satd. Flow (perm)		500	2508	1390		1172	2843			1513	1462	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	20	53	347	12	21	11	66	35	12	60	38	41
RTOR Reduction (vph)	0	0	0	7	0	0	27	0	0	0	31	0
Lane Group Flow (vph)	0	73	347	5	0	32	74	0	0	66	54	0
Confl. Peds. (#/hr)	5		5	8	5	8		5	1	5		1
Confl. Bikes (#/hr)			6	6				7				
Parking (#/hr)							0	0				
Turn Type	custom	NA	Over	custom	custom	Prot	NA		Prot	Prot	NA	
Protected Phases			1			2			3	3		
Permitted Phases	1	1		1	2		2					
Actuated Green, G (s)		48.0	48.0	48.0		24.5	24.5			17.0	17.0	
Effective Green, g (s)		48.0	48.0	48.0		24.5	24.5			17.0	17.0	
Actuated g/C Ratio		0.44	0.44	0.44		0.22	0.22			0.15	0.15	
Clearance Time (s)		7.0	7.0	7.0		6.5	6.5			7.0		
Lane Grp Cap (vph)		218	1094	606		261	633			233	225	
v/s Ratio Prot			0.14							c0.04	0.04	
v/s Ratio Perm		0.15		0.00		c0.03	0.03					
v/c Ratio		0.33	0.32	0.01		0.12	0.12			0.28	0.24	
Uniform Delay, d1		20.5	20.3	17.5		34.2	34.1			41.1	40.8	
Progression Factor		1.00	1.00	1.00		1.00	1.00			0.76	0.66	
Incremental Delay, d2		4.1	0.8	0.0		1.0	0.4			2.8	2.3	
Delay (s)		24.6	21.0	17.6		35.1	34.5			33.9	29.3	
Level of Service		C	C	B		D	C			C	C	
Approach Delay (s)		21.5					34.6				31.3	
Approach LOS		C					C				C	

Intersection Summary			
HCM 2000 Control Delay	25.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.38		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	20.5
Intersection Capacity Utilization	73.7%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	NWL2	NWL	NWR	NWR2
Lane Configurations				
Traffic Volume (vph)	8	509	149	33
Future Volume (vph)	8	509	149	33
Ideal Flow (vphpl)	1900	1900	1900	1900
Total Lost time (s)		7.0		
Lane Util. Factor		0.97		
Frpb, ped/bikes		0.99		
Flpb, ped/bikes		0.99		
Frt		0.96		
Flt Protected		0.96		
Satd. Flow (prot)		2971		
Flt Permitted		0.95		
Satd. Flow (perm)		2924		
Peak-hour factor, PHF	0.94	0.94	0.94	0.94
Adj. Flow (vph)	9	541	159	35
RTOR Reduction (vph)	0	59	0	0
Lane Group Flow (vph)	0	685	0	0
Confl. Peds. (#/hr)	1	5	1	5
Confl. Bikes (#/hr)				1
Parking (#/hr)			0	0
Turn Type	D.Pm	Prot		
Protected Phases		1		
Permitted Phases	1			
Actuated Green, G (s)		48.0		
Effective Green, g (s)		48.0		
Actuated g/C Ratio		0.44		
Clearance Time (s)		7.0		
Lane Grp Cap (vph)		1275		
v/s Ratio Prot				
v/s Ratio Perm		c0.23		
v/c Ratio		0.54		
Uniform Delay, d1		22.8		
Progression Factor		1.00		
Incremental Delay, d2		1.6		
Delay (s)		24.5		
Level of Service		C		
Approach Delay (s)		24.5		
Approach LOS		C		

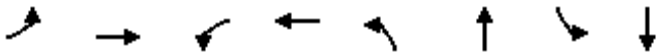
Intersection Summary



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	19	546	337	10	3	18
Future Volume (Veh/h)	19	546	337	10	3	18
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.89	0.89	0.85	0.85
Hourly flow rate (vph)	21	593	379	11	4	21
Pedestrians		4			5	
Lane Width (ft)		12.0			12.0	
Walking Speed (ft/s)		3.5			3.5	
Percent Blockage		0			0	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		120	260			
pX, platoon unblocked	0.97				0.97	0.97
vC, conflicting volume	395				722	198
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	309				647	106
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	98				99	98
cM capacity (veh/h)	1203				382	890

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	SB 1
Volume Total	219	395	190	190	11	25
Volume Left	21	0	0	0	0	4
Volume Right	0	0	0	0	11	21
cSH	1203	1700	1700	1700	1700	734
Volume to Capacity	0.02	0.23	0.11	0.11	0.01	0.03
Queue Length 95th (ft)	1	0	0	0	0	3
Control Delay (s)	0.9	0.0	0.0	0.0	0.0	10.1
Lane LOS	A					B
Approach Delay (s)	0.3		0.0			10.1
Approach LOS						B

Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	42.8%	ICU Level of Service	A
Analysis Period (min)	15		



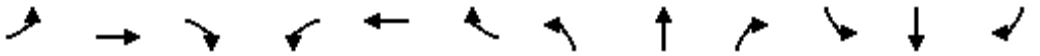
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	75	530	23	426	108	410	118	410
v/c Ratio	0.18	0.32	0.06	0.27	0.50	0.73	0.54	0.67
Control Delay	15.9	16.3	20.0	20.4	36.1	38.5	37.8	35.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.9	16.3	20.0	20.4	36.1	38.5	37.8	35.2
Queue Length 50th (ft)	27	110	11	111	58	246	64	239
Queue Length 95th (ft)	56	145	31	149	109	338	120	325
Internal Link Dist (ft)		143		1078		1026		443
Turn Bay Length (ft)	105		60		110		175	
Base Capacity (vph)	409	1632	357	1589	216	562	219	609
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	0.18	0.32	0.06	0.27	0.50	0.73	0.54	0.67

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	67	466	5	22	320	81	92	326	22	100	287	61
Future Volume (vph)	67	466	5	22	320	81	92	326	22	100	287	61
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5		5.5	5.5		6.5	6.5		6.5	6.5	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frpb, ped/bikes	1.00	1.00		1.00	0.99		1.00	1.00		1.00	0.99	
Flpb, ped/bikes	0.98	1.00		0.99	1.00		0.98	1.00		1.00	1.00	
Frt	1.00	1.00		1.00	0.97		1.00	0.99		1.00	0.97	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1562	3179		1575	3054		1562	1492		1586	1616	
Flt Permitted	0.48	1.00		0.42	1.00		0.35	1.00		0.35	1.00	
Satd. Flow (perm)	797	3179		697	3054		575	1492		583	1616	
Peak-hour factor, PHF	0.89	0.89	0.89	0.94	0.94	0.94	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	75	524	6	23	340	86	108	384	26	118	338	72
RTOR Reduction (vph)	0	0	0	0	20	0	0	0	0	0	0	0
Lane Group Flow (vph)	75	530	0	23	406	0	108	410	0	118	410	0
Confl. Peds. (#/hr)	16		19	19		16	37		8	8		37
Confl. Bikes (#/hr)									5			2
Parking (#/hr)								0				
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Actuated Green, G (s)	56.5	56.5		56.5	56.5		41.5	41.5		41.5	41.5	
Effective Green, g (s)	56.5	56.5		56.5	56.5		41.5	41.5		41.5	41.5	
Actuated g/C Ratio	0.51	0.51		0.51	0.51		0.38	0.38		0.38	0.38	
Clearance Time (s)	5.5	5.5		5.5	5.5		6.5	6.5		6.5	6.5	
Lane Grp Cap (vph)	409	1632		358	1568		216	562		219	609	
v/s Ratio Prot		c0.17			0.13			c0.27			0.25	
v/s Ratio Perm	0.09			0.03			0.19			0.20		
v/c Ratio	0.18	0.32		0.06	0.26		0.50	0.73		0.54	0.67	
Uniform Delay, d1	14.4	15.6		13.5	15.0		26.3	29.4		26.8	28.6	
Progression Factor	1.00	1.00		1.42	1.47		1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.0	0.5		0.3	0.4		8.0	8.1		9.2	5.9	
Delay (s)	15.3	16.1		19.5	22.5		34.3	37.5		36.0	34.4	
Level of Service	B	B		B	C		C	D		D	C	
Approach Delay (s)		16.0			22.3			36.9			34.8	
Approach LOS		B			C			D			C	

Intersection Summary			
HCM 2000 Control Delay	27.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	72.8%	ICU Level of Service	C
Analysis Period (min)	15		

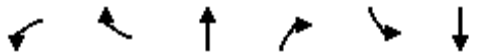
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	34	24	17	3	25	24	24	300	24	34	199	26
Future Volume (Veh/h)	34	24	17	3	25	24	24	300	24	34	199	26
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	40	28	20	4	29	28	28	353	28	40	234	31
Pedestrians		16			14			42			5	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		3.5			3.5			3.5			3.5	
Percent Blockage		2			1			4			0	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								613				
pX, platoon unblocked	0.93	0.93		0.93	0.93	0.93				0.93		
vC, conflicting volume	800	781	292	827	798	386	281			395		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	748	727	292	777	746	303	281			312		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	84	91	97	98	90	96	98			96		
cM capacity (veh/h)	246	297	702	232	290	669	1251			1135		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2
Volume Total	88	61	409	274	31
Volume Left	40	4	28	40	0
Volume Right	20	28	28	0	31
cSH	309	383	1251	1135	1700
Volume to Capacity	0.29	0.16	0.02	0.04	0.02
Queue Length 95th (ft)	29	14	2	3	0
Control Delay (s)	21.3	16.2	0.8	1.5	0.0
Lane LOS	C	C	A	A	
Approach Delay (s)	21.3	16.2	0.8	1.3	
Approach LOS	C	C			

Intersection Summary				
Average Delay	4.1			
Intersection Capacity Utilization	57.5%	ICU Level of Service	B	
Analysis Period (min)	15			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	4	39	503	2	39	479
Future Volume (Veh/h)	4	39	503	2	39	479
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	5	46	592	2	46	564
Pedestrians	11		15			5
Lane Width (ft)	12.0		12.0			12.0
Walking Speed (ft/s)	3.5		3.5			3.5
Percent Blockage	1		1			0
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)			523			
pX, platoon unblocked	0.79	0.79			0.79	
vC, conflicting volume	1275	609			605	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1215	373			368	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	97	91			95	
cM capacity (veh/h)	147	524			931	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	51	594	610
Volume Left	5	0	46
Volume Right	46	2	0
cSH	419	1700	931
Volume to Capacity	0.12	0.35	0.05
Queue Length 95th (ft)	10	0	4
Control Delay (s)	14.8	0.0	1.3
Lane LOS	B		A
Approach Delay (s)	14.8	0.0	1.3
Approach LOS	B		

Intersection Summary			
Average Delay	1.2		
Intersection Capacity Utilization	68.8%	ICU Level of Service	C
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Stop			Stop	Stop	
Traffic Volume (vph)	52	3	7	60	7	20
Future Volume (vph)	52	3	7	60	7	20
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	61	4	8	71	8	24

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total (vph)	65	79	32
Volume Left (vph)	0	8	8
Volume Right (vph)	4	0	24
Hadj (s)	0.00	0.05	-0.37
Departure Headway (s)	4.0	4.1	3.8
Degree Utilization, x	0.07	0.09	0.03
Capacity (veh/h)	876	869	895
Control Delay (s)	7.4	7.5	7.0
Approach Delay (s)	7.4	7.5	7.0
Approach LOS	A	A	A

Intersection Summary			
Delay	7.3		
Level of Service	A		
Intersection Capacity Utilization	19.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	69	3	2	68	3	4
Future Volume (Veh/h)	69	3	2	68	3	4
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	81	4	2	80	4	5
Pedestrians				2	15	
Lane Width (ft)				12.0	12.0	
Walking Speed (ft/s)				3.5	3.5	
Percent Blockage				0	1	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			100		182	100
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			100		182	100
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		99	99
cM capacity (veh/h)			1459		799	946

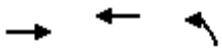
Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	85	82	9
Volume Left	0	2	4
Volume Right	4	0	5
cSH	1700	1459	874
Volume to Capacity	0.05	0.00	0.01
Queue Length 95th (ft)	0	0	1
Control Delay (s)	0.0	0.2	9.2
Lane LOS		A	A
Approach Delay (s)	0.0	0.2	9.2
Approach LOS			A

Intersection Summary			
Average Delay		0.6	
Intersection Capacity Utilization		18.2%	ICU Level of Service A
Analysis Period (min)		15	

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	4	0	308	320	2
Future Volume (Veh/h)	0	4	0	308	320	2
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	0	5	0	362	376	2
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				501		
pX, platoon unblocked	0.92					
vC, conflicting volume	738	376	378			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	674	376	378			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	99	100			
cM capacity (veh/h)	387	670	1180			

Direction, Lane #	EB 1	NB 1	SB 1	SB 2
Volume Total	5	362	376	2
Volume Left	0	0	0	0
Volume Right	5	0	0	2
cSH	670	1700	1700	1700
Volume to Capacity	0.01	0.21	0.22	0.00
Queue Length 95th (ft)	1	0	0	0
Control Delay (s)	10.4	0.0	0.0	0.0
Lane LOS	B			
Approach Delay (s)	10.4	0.0	0.0	
Approach LOS	B			

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	26.8%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBT	WBT	NBL
Lane Group Flow (vph)	537	355	10
v/c Ratio	0.25	0.18	0.03
Control Delay	3.7	8.4	25.6
Queue Delay	0.0	0.0	0.0
Total Delay	3.7	8.4	25.6
Queue Length 50th (ft)	63	50	4
Queue Length 95th (ft)	67	65	18
Internal Link Dist (ft)	180	370	129
Turn Bay Length (ft)			
Base Capacity (vph)	2117	1965	384
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.25	0.18	0.03

Intersection Summary

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	478	43	11	334	7	3
Future Volume (vph)	478	43	11	334	7	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5			5.5	5.0	
Lane Util. Factor	0.95			0.95	1.00	
Frpb, ped/bikes	0.99			1.00	0.99	
Flpb, ped/bikes	1.00			1.00	1.00	
Frt	0.99			1.00	0.96	
Flt Protected	1.00			1.00	0.97	
Satd. Flow (prot)	3294			3271	1450	
Flt Permitted	1.00			0.94	0.97	
Satd. Flow (perm)	3294			3068	1450	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	493	44	11	344	7	3
RTOR Reduction (vph)	6	0	0	0	2	0
Lane Group Flow (vph)	531	0	0	355	8	0
Confl. Peds. (#/hr)		45	45		6	18
Heavy Vehicles (%)	7%	7%	10%	10%	20%	20%
Turn Type	NA		Perm	NA	Prot	
Protected Phases	1			1	2	
Permitted Phases			1			
Actuated Green, G (s)	70.5			70.5	29.0	
Effective Green, g (s)	70.5			70.5	29.0	
Actuated g/C Ratio	0.64			0.64	0.26	
Clearance Time (s)	5.5			5.5	5.0	
Lane Grp Cap (vph)	2111			1966	382	
v/s Ratio Prot	c0.16				c0.01	
v/s Ratio Perm				0.12		
v/c Ratio	0.25			0.18	0.02	
Uniform Delay, d1	8.5			8.0	30.0	
Progression Factor	0.42			1.02	1.00	
Incremental Delay, d2	0.3			0.2	0.1	
Delay (s)	3.8			8.4	30.1	
Level of Service	A			A	C	
Approach Delay (s)	3.8			8.4	30.1	
Approach LOS	A			A	C	

Intersection Summary			
HCM 2000 Control Delay	5.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.18		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	10.5
Intersection Capacity Utilization	43.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT
Lane Group Flow (vph)	1042	525
v/c Ratio	0.51	0.26
Control Delay	9.5	6.8
Queue Delay	0.0	0.0
Total Delay	9.5	6.8
Queue Length 50th (ft)	117	54
Queue Length 95th (ft)	140	70
Internal Link Dist (ft)	1078	40
Turn Bay Length (ft)		
Base Capacity (vph)	2041	2041
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.51	0.26

Intersection Summary

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	959	0	0	483	0	0
Future Volume (vph)	959	0	0	483	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5			5.5		
Lane Util. Factor	0.95			0.95		
Frt	1.00			1.00		
Flt Protected	1.00			1.00		
Satd. Flow (prot)	3185			3185		
Flt Permitted	1.00			1.00		
Satd. Flow (perm)	3185			3185		
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1042	0	0	525	0	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	1042	0	0	525	0	0
Turn Type	NA			NA	Prot	
Protected Phases	1			1	2	
Permitted Phases			1			
Actuated Green, G (s)	70.5			70.5		
Effective Green, g (s)	70.5			70.5		
Actuated g/C Ratio	0.64			0.64		
Clearance Time (s)	5.5			5.5		
Lane Grp Cap (vph)	2041			2041		
v/s Ratio Prot	c0.33			0.16		
v/s Ratio Perm						
v/c Ratio	0.51			0.26		
Uniform Delay, d1	10.5			8.5		
Progression Factor	0.80			0.76		
Incremental Delay, d2	0.9			0.3		
Delay (s)	9.4			6.7		
Level of Service	A			A		
Approach Delay (s)	9.4			6.7	0.0	
Approach LOS	A			A	A	

Intersection Summary			
HCM 2000 Control Delay	8.5	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.36		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	10.5
Intersection Capacity Utilization	34.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	61	8	3	68	0	0
Future Volume (Veh/h)	61	8	3	68	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	66	9	3	74	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			75		150	70
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			75		150	70
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1524		840	992

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	75	77	0
Volume Left	0	3	0
Volume Right	9	0	0
cSH	1700	1524	1700
Volume to Capacity	0.04	0.00	0.00
Queue Length 95th (ft)	0	0	0
Control Delay (s)	0.0	0.3	0.0
Lane LOS		A	A
Approach Delay (s)	0.0	0.3	0.0
Approach LOS			A

Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	9.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	58	3	7	66	5	5
Future Volume (Veh/h)	58	3	7	66	5	5
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	63	3	8	72	5	5
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			66		152	64
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			66		152	64
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		99	99
cM capacity (veh/h)			1536		835	1000

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	66	80	10
Volume Left	0	8	5
Volume Right	3	0	5
cSH	1700	1536	910
Volume to Capacity	0.04	0.01	0.01
Queue Length 95th (ft)	0	0	1
Control Delay (s)	0.0	0.8	9.0
Lane LOS		A	A
Approach Delay (s)	0.0	0.8	9.0
Approach LOS			A

Intersection Summary			
Average Delay		1.0	
Intersection Capacity Utilization		19.3%	ICU Level of Service
Analysis Period (min)		15	

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	62	1	5	73	0	3
Future Volume (Veh/h)	62	1	5	73	0	3
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.87	0.87	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	71	1	6	86	0	4
Pedestrians	3			4	20	
Lane Width (ft)	12.0			12.0	12.0	
Walking Speed (ft/s)	3.5			3.5	3.5	
Percent Blockage	0			0	2	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			92		192	96
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			92		192	96
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1474		776	939

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	72	92	4
Volume Left	0	6	0
Volume Right	1	0	4
cSH	1700	1474	939
Volume to Capacity	0.04	0.00	0.00
Queue Length 95th (ft)	0	0	0
Control Delay (s)	0.0	0.5	8.8
Lane LOS		A	A
Approach Delay (s)	0.0	0.5	8.8
Approach LOS			A

Intersection Summary			
Average Delay		0.5	
Intersection Capacity Utilization		19.5%	ICU Level of Service
Analysis Period (min)		15	

Lane Group	EBT	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	618	489	35	187	391
v/c Ratio	0.51	0.30	0.19	0.46	0.65
Control Delay	11.9	8.8	23.1	25.5	42.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	11.9	8.8	23.1	25.5	42.1
Queue Length 50th (ft)	65	66	20	109	129
Queue Length 95th (ft)	63	93	m43	168	171
Internal Link Dist (ft)	34	68		333	11
Turn Bay Length (ft)					
Base Capacity (vph)	1222	1637	182	405	604
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	0.51	0.30	0.19	0.46	0.65

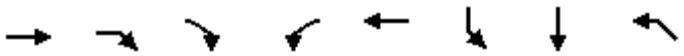
Intersection Summary

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	77	407	41	32	331	92	30	136	23	70	182	81
Future Volume (vph)	77	407	41	32	331	92	30	136	23	70	182	81
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.5			6.5		6.5	6.5			6.5	
Lane Util. Factor		0.95			0.95		1.00	1.00			0.95	
Frpb, ped/bikes		1.00			0.99		1.00	1.00			0.99	
Flpb, ped/bikes		1.00			1.00		1.00	1.00			1.00	
Frt		0.99			0.97		1.00	0.98			0.96	
Flt Protected		0.99			1.00		0.95	1.00			0.99	
Satd. Flow (prot)		2969			2913		1498	1544			2931	
Flt Permitted		0.78			0.88		0.45	1.00			0.79	
Satd. Flow (perm)		2340			2572		706	1544			2332	
Peak-hour factor, PHF	0.85	0.85	0.85	0.93	0.93	0.93	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	91	479	48	34	356	99	35	160	27	82	214	95
RTOR Reduction (vph)	0	0	0	0	20	0	0	5	0	0	0	0
Lane Group Flow (vph)	0	618	0	0	469	0	35	182	0	0	391	0
Confl. Peds. (#/hr)	6		14	14		6	6		8	8		6
Confl. Bikes (#/hr)			2			1						2
Heavy Vehicles (%)	7%	7%	7%	7%	7%	7%	8%	8%	8%	5%	5%	5%
Turn Type	Perm	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases		6		5	2			4			4	
Permitted Phases	6			2			4			4		
Actuated Green, G (s)		57.5			68.5		28.5	28.5			28.5	
Effective Green, g (s)		57.5			68.5		28.5	28.5			28.5	
Actuated g/C Ratio		0.52			0.62		0.26	0.26			0.26	
Clearance Time (s)		6.5			6.5		6.5	6.5			6.5	
Lane Grp Cap (vph)		1223			1618		182	400			604	
v/s Ratio Prot					c0.01			0.12				
v/s Ratio Perm		c0.26			0.17		0.05				c0.17	
v/c Ratio		0.51			0.29		0.19	0.45			0.65	
Uniform Delay, d1		17.0			9.6		31.8	34.2			36.3	
Progression Factor		0.60			1.00		0.63	0.65			1.00	
Incremental Delay, d2		1.5			0.5		2.2	3.5			5.3	
Delay (s)		11.7			10.0		22.4	25.9			41.6	
Level of Service		B			B		C	C			D	
Approach Delay (s)		11.7			10.0			25.3			41.6	
Approach LOS		B			B			C			D	

Intersection Summary			
HCM 2000 Control Delay	19.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	18.5
Intersection Capacity Utilization	110.0%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBT	EBR	EBR2	WBL	WBT	SBL	SBT	NWL
Lane Group Flow (vph)	87	652	8	27	104	118	181	604
v/c Ratio	0.32	0.60	0.01	0.12	0.16	0.51	0.61	0.49
Control Delay	24.5	26.4	0.0	35.8	29.8	34.6	25.6	19.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.5	26.4	0.0	35.8	29.8	34.6	25.6	19.7
Queue Length 50th (ft)	39	194	0	15	26	89	108	126
Queue Length 95th (ft)	82	261	0	40	50	m147	189	177
Internal Link Dist (ft)	784				499		333	1197
Turn Bay Length (ft)		80	80	45				
Base Capacity (vph)	272	1094	628	234	657	233	297	1223
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	0.32	0.60	0.01	0.12	0.16	0.51	0.61	0.49

Intersection Summary

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

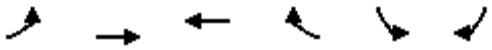
Movement	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	SBL2	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	15	65	600	7	15	10	81	15	6	113	68	87
Future Volume (vph)	15	65	600	7	15	10	81	15	6	113	68	87
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.0	7.0	7.0		6.5	6.5			7.0	4.0	
Lane Util. Factor		1.00	0.88	1.00		1.00	0.95			0.95	0.95	
Frpb, ped/bikes		1.00	1.00	0.92		1.00	0.98			1.00	0.98	
Flpb, ped/bikes		0.99	1.00	1.00		0.89	1.00			1.00	1.00	
Frt		1.00	0.85	0.85		1.00	0.98			1.00	0.92	
Flt Protected		0.99	1.00	1.00		0.95	1.00			0.95	1.00	
Satd. Flow (prot)		1649	2508	1306		1425	2896			1513	1436	
Flt Permitted		0.38	1.00	1.00		0.70	1.00			0.95	1.00	
Satd. Flow (perm)		625	2508	1306		1051	2896			1513	1436	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	16	71	652	8	16	11	88	16	7	123	74	95
RTOR Reduction (vph)	0	0	0	5	0	0	12	0	0	0	37	0
Lane Group Flow (vph)	0	87	652	3	0	27	92	0	0	118	144	0
Confl. Peds. (#/hr)	84		40	57	40	57		84	9	57		12
Confl. Bikes (#/hr)			7	7				8				
Parking (#/hr)							0	0				
Turn Type	custom	NA	Over	custom	custom	Prot	NA		Prot	Prot	NA	
Protected Phases			1			2			3	3		
Permitted Phases	1	1		1	2		2					
Actuated Green, G (s)		48.0	48.0	48.0		24.5	24.5			17.0	17.0	
Effective Green, g (s)		48.0	48.0	48.0		24.5	24.5			17.0	17.0	
Actuated g/C Ratio		0.44	0.44	0.44		0.22	0.22			0.15	0.15	
Clearance Time (s)		7.0	7.0	7.0		6.5	6.5			7.0		
Lane Grp Cap (vph)		272	1094	569		234	645			233	221	
v/s Ratio Prot			c0.26							0.08	0.10	
v/s Ratio Perm		0.14		0.00		0.03	c0.03					
v/c Ratio		0.32	0.60	0.01		0.12	0.14			0.51	0.65	
Uniform Delay, d1		20.3	23.6	17.5		34.1	34.3			42.7	43.7	
Progression Factor		1.00	1.00	1.00		1.00	1.00			0.65	0.57	
Incremental Delay, d2		3.1	2.4	0.0		1.0	0.5			6.3	11.6	
Delay (s)		23.4	26.0	17.5		35.1	34.8			34.1	36.6	
Level of Service		C	C	B		D	C			C	D	
Approach Delay (s)		25.6					34.8				35.6	
Approach LOS		C					C				D	

Intersection Summary			
HCM 2000 Control Delay	27.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	20.5
Intersection Capacity Utilization	74.6%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	NWL2	NWL	NWR	NWR2
Lane Configurations				
Traffic Volume (vph)	11	401	123	20
Future Volume (vph)	11	401	123	20
Ideal Flow (vphpl)	1900	1900	1900	1900
Total Lost time (s)		7.0		
Lane Util. Factor		0.97		
Frpb, ped/bikes		0.95		
Flpb, ped/bikes		0.97		
Frt		0.96		
Flt Protected		0.96		
Satd. Flow (prot)		2754		
Flt Permitted		0.94		
Satd. Flow (perm)		2671		
Peak-hour factor, PHF	0.92	0.92	0.92	0.92
Adj. Flow (vph)	12	436	134	22
RTOR Reduction (vph)	0	59	0	0
Lane Group Flow (vph)	0	545	0	0
Confl. Peds. (#/hr)	57	9	84	12
Confl. Bikes (#/hr)				
Parking (#/hr)			0	0
Turn Type	D.Pm	Prot		
Protected Phases		1		
Permitted Phases	1			
Actuated Green, G (s)		48.0		
Effective Green, g (s)		48.0		
Actuated g/C Ratio		0.44		
Clearance Time (s)		7.0		
Lane Grp Cap (vph)		1165		
v/s Ratio Prot				
v/s Ratio Perm		0.20		
v/c Ratio		0.47		
Uniform Delay, d1		22.0		
Progression Factor		1.00		
Incremental Delay, d2		1.4		
Delay (s)		23.3		
Level of Service		C		
Approach Delay (s)		23.3		
Approach LOS		C		

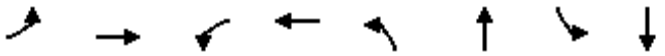
Intersection Summary



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	12	496	441	14	7	16
Future Volume (Veh/h)	12	496	441	14	7	16
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.89	0.89	0.96	0.96	0.82	0.82
Hourly flow rate (vph)	13	557	459	15	9	20
Pedestrians		8	11		11	
Lane Width (ft)		12.0	12.0		12.0	
Walking Speed (ft/s)		3.5	3.5		3.5	
Percent Blockage		1	1		1	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		1278	260			
pX, platoon unblocked	0.95				0.95	0.95
vC, conflicting volume	485				786	248
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	351				648	101
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				98	98
cM capacity (veh/h)	1132				371	871

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	SB 1
Volume Total	199	371	230	230	15	29
Volume Left	13	0	0	0	0	9
Volume Right	0	0	0	0	15	20
cSH	1132	1700	1700	1700	1700	614
Volume to Capacity	0.01	0.22	0.14	0.14	0.01	0.05
Queue Length 95th (ft)	1	0	0	0	0	4
Control Delay (s)	0.6	0.0	0.0	0.0	0.0	11.1
Lane LOS	A					B
Approach Delay (s)	0.2		0.0			11.1
Approach LOS						B

Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	37.1%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	60	446	30	513	98	378	101	494
v/c Ratio	0.16	0.27	0.07	0.32	0.61	0.68	0.42	0.83
Control Delay	15.8	15.7	20.5	23.5	46.6	36.1	32.0	44.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.8	15.7	20.5	23.5	46.6	36.1	32.0	44.6
Queue Length 50th (ft)	22	90	16	151	55	221	52	312
Queue Length 95th (ft)	48	123	40	200	#114	306	100	#434
Internal Link Dist (ft)		143		1078		1026		443
Turn Bay Length (ft)	105		60		110		175	
Base Capacity (vph)	364	1634	401	1602	161	557	241	597
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	0.16	0.27	0.07	0.32	0.61	0.68	0.42	0.83

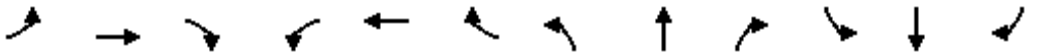
Intersection Summary

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	56	413	2	28	419	63	83	287	34	87	297	128
Future Volume (vph)	56	413	2	28	419	63	83	287	34	87	297	128
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5		5.5	5.5		6.5	6.5		6.5	6.5	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frpb, ped/bikes	1.00	1.00		1.00	0.99		1.00	1.00		1.00	0.99	
Flpb, ped/bikes	0.99	1.00		0.99	1.00		0.99	1.00		0.99	1.00	
Frt	1.00	1.00		1.00	0.98		1.00	0.98		1.00	0.95	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1570	3183		1573	3101		1579	1480		1576	1582	
Flt Permitted	0.43	1.00		0.47	1.00		0.26	1.00		0.39	1.00	
Satd. Flow (perm)	711	3183		781	3101		427	1480		640	1582	
Peak-hour factor, PHF	0.93	0.93	0.93	0.94	0.94	0.94	0.85	0.85	0.85	0.86	0.86	0.86
Adj. Flow (vph)	60	444	2	30	446	67	98	338	40	101	345	149
RTOR Reduction (vph)	0	0	0	0	11	0	0	0	0	0	0	0
Lane Group Flow (vph)	60	446	0	30	502	0	98	378	0	101	494	0
Confl. Peds. (#/hr)	14		18	18		14	21		18	18		21
Confl. Bikes (#/hr)						2			1			2
Parking (#/hr)								0				
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Actuated Green, G (s)	56.5	56.5		56.5	56.5		41.5	41.5		41.5	41.5	
Effective Green, g (s)	56.5	56.5		56.5	56.5		41.5	41.5		41.5	41.5	
Actuated g/C Ratio	0.51	0.51		0.51	0.51		0.38	0.38		0.38	0.38	
Clearance Time (s)	5.5	5.5		5.5	5.5		6.5	6.5		6.5	6.5	
Lane Grp Cap (vph)	365	1634		401	1592		161	558		241	596	
v/s Ratio Prot		0.14			c0.16			0.26			c0.31	
v/s Ratio Perm	0.08			0.04			0.23			0.16		
v/c Ratio	0.16	0.27		0.07	0.32		0.61	0.68		0.42	0.83	
Uniform Delay, d1	14.2	15.1		13.5	15.5		27.7	28.7		25.3	31.0	
Progression Factor	1.00	1.00		1.45	1.53		1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.0	0.4		0.4	0.5		15.9	6.5		5.3	12.6	
Delay (s)	15.2	15.5		19.9	24.3		43.6	35.1		30.6	43.6	
Level of Service	B	B		B	C		D	D		C	D	
Approach Delay (s)		15.5			24.1			36.9			41.4	
Approach LOS		B			C			D			D	

Intersection Summary			
HCM 2000 Control Delay	29.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	75.9%	ICU Level of Service	D
Analysis Period (min)	15		

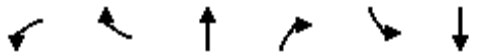
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	17	20	10	18	22	32	262	14	14	290	41
Future Volume (Veh/h)	25	17	20	10	18	22	32	262	14	14	290	41
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.91	0.91	0.91	0.86	0.86	0.86
Hourly flow rate (vph)	29	20	24	12	21	26	35	288	15	16	337	48
Pedestrians		13			17			26				
Lane Width (ft)		12.0			12.0			12.0				
Walking Speed (ft/s)		3.5			3.5			3.5				
Percent Blockage		1			2			2				
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								613				
pX, platoon unblocked												
vC, conflicting volume	784	772	376	812	812	312	398			320		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	784	772	376	812	812	312	398			320		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	89	93	96	95	93	96	97			99		
cM capacity (veh/h)	264	306	644	249	293	721	1152			1220		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2
Volume Total	73	59	338	353	48
Volume Left	29	12	35	16	0
Volume Right	24	26	15	0	48
cSH	343	379	1152	1220	1700
Volume to Capacity	0.21	0.16	0.03	0.01	0.03
Queue Length 95th (ft)	20	14	2	1	0
Control Delay (s)	18.3	16.3	1.1	0.5	0.0
Lane LOS	C	C	A	A	
Approach Delay (s)	18.3	16.3	1.1	0.4	
Approach LOS	C	C			

Intersection Summary				
Average Delay	3.3			
Intersection Capacity Utilization	57.2%	ICU Level of Service	B	
Analysis Period (min)	15			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	75	113	381	17	26	462
Future Volume (Veh/h)	75	113	381	17	26	462
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.85	0.85	0.90	0.90	0.91	0.91
Hourly flow rate (vph)	88	133	423	19	29	508
Pedestrians	12		11			1
Lane Width (ft)	12.0		12.0			12.0
Walking Speed (ft/s)	3.5		3.5			3.5
Percent Blockage	1		1			0
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)			523			
pX, platoon unblocked	0.83	0.83			0.83	
vC, conflicting volume	1022	446			454	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	924	231			241	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	63	80			97	
cM capacity (veh/h)	237	663			1089	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	221	442	537
Volume Left	88	0	29
Volume Right	133	19	0
cSH	386	1700	1089
Volume to Capacity	0.57	0.26	0.03
Queue Length 95th (ft)	86	0	2
Control Delay (s)	26.1	0.0	0.8
Lane LOS	D		A
Approach Delay (s)	26.1	0.0	0.8
Approach LOS	D		

Intersection Summary			
Average Delay	5.1		
Intersection Capacity Utilization	63.5%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Stop			Stop	Stop	
Traffic Volume (vph)	46	3	21	72	19	11
Future Volume (vph)	46	3	21	72	19	11
Peak Hour Factor	0.88	0.88	0.89	0.89	0.85	0.85
Hourly flow rate (vph)	52	3	24	81	22	13

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total (vph)	55	105	35
Volume Left (vph)	0	24	22
Volume Right (vph)	3	0	13
Hadj (s)	0.00	0.08	-0.06
Departure Headway (s)	4.1	4.1	4.2
Degree Utilization, x	0.06	0.12	0.04
Capacity (veh/h)	865	863	822
Control Delay (s)	7.4	7.7	7.4
Approach Delay (s)	7.4	7.7	7.4
Approach LOS	A	A	A

Intersection Summary			
Delay	7.5		
Level of Service	A		
Intersection Capacity Utilization	21.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	55	3	4	80	1	2
Future Volume (Veh/h)	55	3	4	80	1	2
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	65	4	5	94	1	2
Pedestrians				2	15	
Lane Width (ft)				12.0	12.0	
Walking Speed (ft/s)				3.5	3.5	
Percent Blockage				0	1	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			84		186	84
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			84		186	84
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1479		794	965

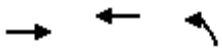
Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	69	99	3
Volume Left	0	5	1
Volume Right	4	0	2
cSH	1700	1479	900
Volume to Capacity	0.04	0.00	0.00
Queue Length 95th (ft)	0	0	0
Control Delay (s)	0.0	0.4	9.0
Lane LOS		A	A
Approach Delay (s)	0.0	0.4	9.0
Approach LOS			A

Intersection Summary			
Average Delay		0.4	
Intersection Capacity Utilization		18.1%	ICU Level of Service
Analysis Period (min)		15	

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	3	0	165	191	8
Future Volume (Veh/h)	0	3	0	165	191	8
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	0	4	0	194	225	9
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				501		
pX, platoon unblocked						
vC, conflicting volume	419	225	234			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	419	225	234			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	591	814	1333			

Direction, Lane #	EB 1	NB 1	SB 1	SB 2
Volume Total	4	194	225	9
Volume Left	0	0	0	0
Volume Right	4	0	0	9
cSH	814	1700	1700	1700
Volume to Capacity	0.00	0.11	0.13	0.01
Queue Length 95th (ft)	0	0	0	0
Control Delay (s)	9.4	0.0	0.0	0.0
Lane LOS	A			
Approach Delay (s)	9.4	0.0	0.0	
Approach LOS	A			

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	20.1%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBT	WBT	NBL
Lane Group Flow (vph)	584	546	64
v/c Ratio	0.27	0.27	0.16
Control Delay	6.0	8.1	19.2
Queue Delay	0.0	0.0	0.0
Total Delay	6.0	8.1	19.2
Queue Length 50th (ft)	24	73	17
Queue Length 95th (ft)	82	87	48
Internal Link Dist (ft)	180	370	129
Turn Bay Length (ft)			
Base Capacity (vph)	2134	1990	396
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.27	0.27	0.16

Intersection Summary

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	473	24	7	457	27	27
Future Volume (vph)	473	24	7	457	27	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5			5.5	5.0	
Lane Util. Factor	0.95			0.95	1.00	
Frpb, ped/bikes	0.99			1.00	0.98	
Flpb, ped/bikes	1.00			1.00	1.00	
Frt	0.99			1.00	0.93	
Flt Protected	1.00			1.00	0.98	
Satd. Flow (prot)	3325			3277	1415	
Flt Permitted	1.00			0.95	0.98	
Satd. Flow (perm)	3325			3104	1415	
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	556	28	8	538	32	32
RTOR Reduction (vph)	3	0	0	0	24	0
Lane Group Flow (vph)	581	0	0	546	40	0
Confl. Peds. (#/hr)		50	50		4	15
Heavy Vehicles (%)	7%	7%	10%	10%	20%	20%
Turn Type	NA		Perm	NA	Prot	
Protected Phases	1			1	2	
Permitted Phases			1			
Actuated Green, G (s)	70.5			70.5	29.0	
Effective Green, g (s)	70.5			70.5	29.0	
Actuated g/C Ratio	0.64			0.64	0.26	
Clearance Time (s)	5.5			5.5	5.0	
Lane Grp Cap (vph)	2131			1989	373	
v/s Ratio Prot	0.17				c0.03	
v/s Ratio Perm				c0.18		
v/c Ratio	0.27			0.27	0.11	
Uniform Delay, d1	8.6			8.6	30.7	
Progression Factor	0.66			0.89	1.00	
Incremental Delay, d2	0.3			0.3	0.6	
Delay (s)	6.0			8.0	31.3	
Level of Service	A			A	C	
Approach Delay (s)	6.0			8.0	31.3	
Approach LOS	A			A	C	

Intersection Summary			
HCM 2000 Control Delay	8.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.23		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	10.5
Intersection Capacity Utilization	43.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	94	3	1	58	0	0
Future Volume (Veh/h)	94	3	1	58	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	102	3	1	63	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			105		168	104
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			105		168	104
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1486		821	951

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	105	64	0
Volume Left	0	1	0
Volume Right	3	0	0
cSH	1700	1486	1700
Volume to Capacity	0.06	0.00	0.00
Queue Length 95th (ft)	0	0	0
Control Delay (s)	0.0	0.1	0.0
Lane LOS		A	A
Approach Delay (s)	0.0	0.1	0.0
Approach LOS			A

Intersection Summary			
Average Delay		0.0	
Intersection Capacity Utilization		8.5%	ICU Level of Service
Analysis Period (min)		15	

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	91	3	5	56	3	6
Future Volume (Veh/h)	91	3	5	56	3	6
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	99	3	5	61	3	7
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			102		172	100
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			102		172	100
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	99
cM capacity (veh/h)			1490		816	955

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	102	66	10
Volume Left	0	5	3
Volume Right	3	0	7
cSH	1700	1490	908
Volume to Capacity	0.06	0.00	0.01
Queue Length 95th (ft)	0	0	1
Control Delay (s)	0.0	0.6	9.0
Lane LOS		A	A
Approach Delay (s)	0.0	0.6	9.0
Approach LOS			A

Intersection Summary			
Average Delay		0.7	
Intersection Capacity Utilization		17.1%	ICU Level of Service
Analysis Period (min)		15	

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	96	1	0	61	0	0
Future Volume (Veh/h)	96	1	0	61	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.87	0.87	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	110	1	0	72	0	0
Pedestrians	3			4	20	
Lane Width (ft)	12.0			12.0	12.0	
Walking Speed (ft/s)	3.5			3.5	3.5	
Percent Blockage	0			0	2	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			131		206	134
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			131		206	134
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1427		766	894

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	111	72	0
Volume Left	0	0	0
Volume Right	1	0	0
cSH	1700	1427	1700
Volume to Capacity	0.07	0.00	0.00
Queue Length 95th (ft)	0	0	0
Control Delay (s)	0.0	0.0	0.0
Lane LOS			A
Approach Delay (s)	0.0	0.0	0.0
Approach LOS			A

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	20.4%	ICU Level of Service	A
Analysis Period (min)	15		

Appendix E

Forecast Sheets

1: North Kirkwood Street/Washington Boulevard
Trip Distribution

Traffic Component			Southbound North Kirkwood Street			Westbound Washington Boulevard			Northbound North Kirkwood Street			Eastbound Washington Boulevard		
			Right	Through	Left	Right	Through	Left	Right	Through	Left	Right	Through	Left
Site Developments														
YMCA				-15%			20%			15%	15%		-20%	
Residential				-50%	-10%	10%	-10%			50%			10%	
Existing YMCA				-50%	-20%	20%				50%				
Pipeline Development														
Market Common Clarendon					10%	-10%	-10%						10%	
APAH - American Legion			15%				25%				20%	-20%	-25%	-15%
Alexan				15%						-15%				
APAH - Central United Methodist Church Site			5%											-5%
Washington Blvd at Kirkwood				-20%			20%			20%	15%	-15%	-20%	
Red Top Cab Site					15%	-15%	-25%						25%	

1: North Kirkwood Street/Washington Boulevard
AM Peak Hour

Traffic Component			Southbound North Kirkwood Street			Westbound Washington Boulevard			Northbound North Kirkwood Street			Eastbound Washington Boulevard		
			Right	Through	Left	Right	Through	Left	Right	Through	Left	Right	Through	Left
Existing Traffic Volume			32	122	64	108	237	26	10	165	42	49	334	71
Growth 1 (2022-2025)			-	2	1	2	4	-	-	2	1	1	5	1
Pipeline Development	IN	OUT												
Market Common Clarendon	(28)	4	-	-	(3)	-	-	-	-	-	-	-	(3)	-
APAH - American Legion	17	21	3	-	-	-	4	-	-	-	3	4	5	3
Alexan	6	29	-	1	-	-	-	-	-	4	-	-	-	-
APAH - Central United Methodist Church Site	6	27	-	-	-	-	-	-	-	-	-	-	-	1
Washington Blvd at Kirkwood	15	57	-	11	-	-	3	-	-	3	2	9	11	-
Red Top Cab Site	22	85	-	-	3	13	21	-	-	-	-	-	6	-
Total Pipeline Trips	38	223	3	12	-	13	28	-	-	7	5	13	19	4
2025 Background			**35**	**136**	**65**	**123**	**269**	**26**	**10**	**174**	**48**	**63**	**358**	**76**
Site Development	IN	OUT												
YMCA	98	34	-	5	-	-	20	-	-	15	15	-	7	-
Residential	18	60	-	18	6	2	6	-	-	5	-	-	2	-
Total Site Trips	**116**	**94**	**-**	**23**	**6**	**2**	**26**	**-**	**-**	**20**	**15**	**-**	**9**	**-**
Existing YMCA Trips	**33**	**23**	**-**	**7**	**5**	**7**	**-**	**-**	**-**	**10**	**-**	**-**	**-**	**-**
2025 Total Future			**35**	**152**	**66**	**118**	**295**	**26**	**10**	**184**	**63**	**63**	**367**	**76**

1: North Kirkwood Street/Washington Boulevard
PM Peak Hour

Traffic Component			Southbound North Kirkwood Street			Westbound Washington Boulevard			Northbound North Kirkwood Street			Eastbound Washington Boulevard		
			Right	Through	Left	Right	Through	Left	Right	Through	Left	Right	Through	Left
Existing Traffic Volume			81	182	70	92	331	32	23	136	30	41	407	77
Growth 1 (2022-2025)			1	3	1	1	5	-	-	2	-	1	6	1
Pipeline Development	IN	OUT												
Market Common Clarendon	56	36	-	-	6	4	4	-	-	-	-	-	6	-
APAH - American Legion	22	24	3	-	-	-	6	-	-	-	4	5	6	4
Alexan	29	14	-	4	-	-	-	-	-	2	-	-	-	-
APAH - Central United Methodist Church Site	33	17	2	-	-	-	-	-	-	-	-	-	-	1
Washington Blvd at Kirkwood	57	31	-	6	-	-	11	-	-	11	9	5	6	-
Red Top Cab Site	86	51	-	-	13	8	13	-	-	-	-	-	22	-
Total Pipeline Trips	283	173	5	10	19	12	34	-	-	13	13	10	40	5
2025 Background			**87**	**195**	**90**	**105**	**370**	**32**	**23**	**151**	**43**	**52**	**453**	**83**
Site Development	IN	OUT												
YMCA	86	113	-	17	-	-	17	-	-	13	13	-	23	-
Residential	51	23	-	7	2	5	2	-	-	15	-	-	5	-
Total Site Trips	**137**	**136**	**-**	**24**	**2**	**5**	**19**	**-**	**-**	**28**	**13**	**-**	**28**	**-**
Existing YMCA Trips	**29**	**22**	**-**	**7**	**4**	**6**	**-**	**-**	**-**	**9**	**-**	**-**	**-**	**-**
2025 Total Future			**87**	**212**	**88**	**104**	**389**	**32**	**23**	**170**	**56**	**52**	**481**	**83**

2: North Kirkwood Road/Fairfax Drive (FUTURE RECONIGURATION)
Trip Distribution

Traffic Component	Southbound North Kirkwood Road				Westbound Fairfax Drive				Northeastbound North Jackson Street				Northbound 10th Street North				Eastbound Fairfax Drive			
	Sharp Right	Slight Right	Through	Left	Sharp Right	Slight Right	Through	Left	Sharp Right	Slight Right	Slight Left	Sharp Left	Right	Through	Slight Left	Sharp Left	Sharp Right	Slight Right	Through	Left
Site Developments																				
YMCA			-20%											20%						10%
Residential	-10%		-20%											20%						10%
	-10%		-20%											20%						10%
Pipeline Development																				
Market Common Clarendon																				
APAH - American Legion			-20%											20%						
Alexan															20%			-20%		
APAH - Central United Methodist Church Site															25%			-25%		
Washington Blvd at Kirkwood	-10%		-25%					10%						25%						
Red Top Cab Site																				

2: North Kirkwood Road/Fairfax Drive
AM Peak Hour

Traffic Component			Southbound North Kirkwood Road				Westbound Fairfax Drive				Northbound North Jackson Street				Eastbound North Kirkwood Road				Eastbound Fairfax Drive			
			Right	Through	Left	Left	Right	Through	Through	Left	Right	Through	Through	Left	Right	Through	Through	Left	Right	Through	Through	Left
Existing Traffic Volume			39	36	56	11	33	62	10	20	0	0	0	0	33	149	509	8	11	326	50	19
Growth 1 (2022-2025)				1	1	-		1	-	-		-	-	-		2	8	-		5	1	-
Pipeline Development	IN	OUT																				
Market Common Clarendon	(28)	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
APAH - American Legion	17	21	-	-	4	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-
Alexan	6	29	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	6	-	-
APAH - Central United Methodist Church Site	6	27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	7	-	-
Washington Blvd at Kirkwood	15	57	6	-	14	-	-	-	-	2	-	-	-	-	-	4	-	-	-	-	-	-
Red Top Cab Site	22	85	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Pipeline Trips	38	223	6	-	18	-	-	-	-	2	-	-	-	-	-	7	3	-	-	13	-	-
2025 Background			**45**	**37**	**75**	**11**	**33**	**63**	**10**	**22**	**-**	**-**	**-**	**-**	**33**	**158**	**520**	**8**	**11**	**344**	**51**	**19**
Site Development	IN	OUT																				
YMCA	98	34	-	-	7	-	-	-	-	-	-	-	-	-	-	20	-	-	-	-	-	10
Residential	18	60	6	-	12	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	2
Total Site Trips	**116**	**94**	**6**	**-**	**19**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**24**	**-**	**-**	**-**	**-**	**-**	**12**
Existing YMCA Trips	**33**	**23**	2	-	5	-	-	-	-	-	-	-	-	-	-	7	-	-	-	-	-	3
2025 Total Future			**49**	**37**	**89**	**11**	**33**	**63**	**10**	**22**	**-**	**-**	**-**	**-**	**33**	**175**	**520**	**8**	**11**	**344**	**51**	**28**

2: North Kirkwood Road/Fairfax Drive
PM Peak Hour

Traffic Component			Southbound North Kirkwood Road				Westbound Fairfax Drive				Northbound North Jackson Street				Eastbound North Kirkwood Road				Eastbound Fairfax Drive			
			Right	Through	Left	Left	Right	Through	Through	Left	Right	Through	Through	Left	Right	Through	Through	Left	Right	Through	Through	Left
Existing Traffic Volume	-	-	87	68	113	6	15	81	10	15	-	-	-	-	20	123	401	11	7	600	65	15
Growth 1 (2022-2025)	-	-	1	1	2	-	-	1	-	-	-	-	-	-	-	2	6	-	-	9	1	-
Pipeline Development	IN	OUT																				
Market Common Clarendon	56	36	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
APAH - American Legion	22	24	-	-	5	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-
Alexan	29	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	-	-	3	-	-
APAH - Central United Methodist Church Site	33	17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	-	-	4	-	-
Washington Blvd at Kirkwood	57	31	3	-	8	-	-	-	-	6	-	-	-	-	-	14	-	-	-	-	-	-
Red Top Cab Site	86	51	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Pipeline Trips	283	173	3	-	13	-	-	-	-	6	-	-	-	-	-	18	14	-	-	7	-	-
2025 Background	**-**	**-**	**91**	**69**	**128**	**6**	**15**	**82**	**10**	**21**	**-**	**-**	**-**	**-**	**20**	**143**	**421**	**11**	**7**	**616**	**66**	**15**
Site Development	IN	OUT																				
YMCA	86	113	-	-	23	-	-	-	-	-	-	-	-	-	-	17	-	-	-	-	-	9
Residential	51	23	2	-	5	-	-	-	-	-	-	-	-	-	-	10	-	-	-	-	-	5
Total Site Trips	**137**	**136**	**4**	**-**	**32**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**33**	**-**	**-**	**-**	**-**	**-**	**17**
Existing YMCA Trips	**29**	**22**	**2**	**-**	**4**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**6**	**-**	**-**	**-**	**-**	**-**	**3**
2025 Total Future			**95**	**69**	**160**	**6**	**15**	**82**	**10**	**21**	**-**	**-**	**-**	**-**	**20**	**176**	**421**	**11**	**7**	**616**	**66**	**32**

3: North Lincoln St/Washington Boulevard
Trip Distribution

Traffic Component	Southbound North Lincoln St			Westbound Washington Boulevard						Eastbound Washington Boulevard		
	Right	Through	Left	Right	Through	Left				Right	Through	Left
Site Developments												
YMCA					25%						-35%	
Residential					-25%						-25%	
Pipeline Development												
Market Common Clarendon					-10%						10%	
APAH - American Legion					-40%						40%	
Alexan												
APAH - Central United Methodist Church Site					5%						-5%	
Washington Blvd at Kirkwood					-30%						30%	
Red Top Cab Site					-25%						25%	

3: North Lincoln St/Washington Boulevard
AM Peak Hour

Traffic Component			Southbound North Lincoln St			Westbound Washington Boulevard						Eastbound Washington Boulevard		
			Right	Through	Left	Right	Through	Left				Right	Through	Left
Existing Traffic Volume			18	0	3	10	337	0				0	546	19
Growth 1 (2022-2025)			-	-	-	-	5	-				-	8	-
Pipeline Development	IN	OUT												
Market Common Clarendon			-	-	-	-	-	-	-	-	-	-	(3)	-
APAH - American Legion			-	-	-	-	8	-	-	-	-	-	7	-
Alexan			-	-	-	-	-	-	-	-	-	-	-	-
APAH - Central United Methodist Church Site			-	-	-	-	-	-	-	-	-	-	1	-
Washington Blvd at Kirkwood			-	-	-	-	17	-	-	-	-	-	5	-
Red Top Cab Site			-	-	-	-	21	-	-	-	-	-	6	-
Total Pipeline Trips			-	-	-	-	46	-	-	-	-	-	16	-
2025 Background			**18**	**-**	**3**	**10**	**388**	**-**				**-**	**570**	**19**
Site Development	IN	OUT												
YMCA	98	34	-	-	-	-	25	-	-	-	-	-	12	-
Residential	18	60	-	-	-	-	4	-	-	-	-	-	15	-
Total Site Trips	**116**	**94**	**-**	**-**	**-**	**-**	**29**	**-**	**-**	**-**	**-**	**-**	**27**	**-**
Existing YMCA Trips	**33**	**23**	-	-	-	-	-	-	-	-	-	-	-	-
2025 Total Future			**18**	**-**	**3**	**10**	**417**	**-**	**-**	**-**	**-**	**-**	**597**	**19**

3: North Lincoln St/Washington Boulevard
PM Peak Hour

Traffic Component			Southbound North Lincoln St			Westbound Washington Boulevard						Eastbound Washington Boulevard		
			Right	Through	Left	Right	Through	Left				Right	Through	Left
Existing Traffic Volume	-	-	16	-	7	14	441	-				-	496	12
Growth 1 (2022-2025)	-	-	-	-	-	-	7	-				-	7	-
Pipeline Development	IN	OUT												
Market Common Clarendon	56	36	-	-	-	-	4	-	-	-	-	-	6	-
APAH - American Legion	22	24	-	-	-	-	10	-	-	-	-	-	9	-
Alexan	29	14	-	-	-	-	-	-	-	-	-	-	-	-
APAH - Central United Methodist Church Site	33	17	-	-	-	-	2	-	-	-	-	-	1	-
Washington Blvd at Kirkwood	57	31	-	-	-	-	9	-	-	-	-	-	17	-
Red Top Cab Site	86	51	-	-	-	-	13	-	-	-	-	-	22	-
Total Pipeline Trips	283	173	-	-	-	-	38	-	-	-	-	-	55	-
2025 Background	**-**	**-**	**16**	**-**	**7**	**14**	**486**	**-**				**-**	**558**	**12**
Site Development	IN	OUT												
YMCA	86	113	-	-	-	-	22	-	-	-	-	-	40	-
Residential	51	23	-	-	-	-	13	-	-	-	-	-	6	-
Total Site Trips	**137**	**136**	**-**	**-**	**-**	**-**	**35**	**-**	**-**	**-**	**-**	**-**	**46**	**-**
Existing YMCA Trips	**29**	**22**	-	-	-	-	-	-	-	-	-	-	-	-
2025 Total Future			**16**	**-**	**7**	**14**	**521**	**-**	**-**	**-**	**-**	**-**	**604**	**12**

4: Washington Boulevard/North Quincy Street
Trip Distribution

Traffic Component	Southbound North Quincy Street			Westbound Washington Boulevard			Northbound North Quincy Street			Eastbound Washington Boulevard		
	Right	Through	Left	Right	Through	Left	Right	Through	Left	Right	Through	Left
Site Developments												
YMCA					-10%	-15%	5%				10%	
Residential	-20%	-5%			-20%	-5%	5%	5%			20%	
						20%						
Pipeline Development												
Market Common Clarendon					-10%						10%	
APAH - American Legion					-35%						35%	
Alexan		5%						-5%	-10%	10%		
APAH - Central United Methodist Church Site	5%				5%						-5%	-5%
Washington Blvd at Kirkwood			5%	-5%	-20%	-5%	5%			5%	20%	
Red Top Cab Site			2%	-2%	-21%	-2%	2%				21%	

4: Washington Boulevard/North Quincy Street
AM Peak Hour

Traffic Component			Southbound North Quincy Street			Westbound Washington Boulevard			Northbound North Quincy Street					
			Right	Through	Left	Right	Through	Left	Right	Through	Left	Through	Left	Hard-Left
Existing Traffic Volume			61	287	100	81	320	22	22	326	92	5	466	67
Growth 1 (2022-2025)			1	4	2	1	5	-	-	5	1	-	7	1
Pipeline Development	IN	OUT												
Market Common Clarendon			-	-	-	-	-	-	-	-	-	-	(3)	-
APAH - American Legion			-	-	-	-	7	-	-	-	-	-	6	-
Alexan			-	-	-	-	-	-	-	1	3	1	-	-
APAH - Central United Methodist Church Site			-	-	-	-	-	-	-	-	-	-	1	1
Washington Blvd at Kirkwood			-	-	1	3	11	3	1	-	-	1	3	-
Red Top Cab Site			-	-	-	2	18	2	-	-	-	-	5	-
Total Pipeline Trips			-	-	1	5	36	5	1	1	3	2	12	1
2025 Background			**62**	**291**	**103**	**87**	**361**	**27**	**23**	**332**	**96**	**7**	**485**	**69**
Site Development	IN	OUT												
YMCA	98	34	-	-	-	-	3	5	5	-	-	-	10	-
Residential	18	60	-	-	-	-	12	3	1	-	-	-	4	-
Total Site Trips	**116**	**94**	**-**	**-**	**-**	**-**	**15**	**8**	**6**	**-**	**-**	**-**	**14**	**-**
Existing YMCA Trips	**33**	**23**	**5**	**1**	**-**	**-**	**-**	**7**	**-**	**2**	**-**	**-**	**-**	**-**
2025 Total Future			**57**	**290**	**103**	**87**	**376**	**28**	**29**	**330**	**96**	**7**	**499**	**69**

4: Washington Boulevard/North Quincy Street
PM Peak Hour

Traffic Component			Southbound North Quincy Street			Westbound Washington Boulevard			Northbound North Quincy Street					
			Right	Through	Left	Right	Through	Left	Right	Through	Left	Through	Left	Hard-Left
Existing Traffic Volume	-	-	128	297	87	63	419	28	34	287	83	2	413	56
Growth 1 (2022-2025)	-	-	2	4	1	1	6	-	1	4	1	-	6	1
Pipeline Development	IN	OUT												
Market Common Clarendon	56	36	-	-	-	-	4	-	-	-	-	-	6	-
APAH - American Legion	22	24	-	-	-	-	8	-	-	-	-	-	8	-
Alexan	29	14	-	1	-	-	-	-	-	1	1	3	-	-
APAH - Central United Methodist Church Site	33	17	2	-	-	-	2	-	-	-	-	-	1	1
Washington Blvd at Kirkwood	57	31	-	-	3	2	6	2	3	-	-	3	11	-
Red Top Cab Site	86	51	-	-	2	1	11	1	2	-	-	-	18	-
Total Pipeline Trips	283	173	2	1	5	3	31	3	5	1	1	6	44	1
2025 Background	**-**	**-**	**132**	**302**	**93**	**67**	**456**	**31**	**40**	**292**	**85**	**8**	**463**	**58**
Site Development	IN	OUT												
YMCA	86	113	-	-	-	-	11	17	4	-	-	-	9	-
Residential	51	23	-	-	-	-	5	1	3	-	-	-	10	-
Total Site Trips	**137**	**136**	**-**	**-**	**-**	**-**	**16**	**18**	**7**	**-**	**-**	**-**	**19**	**-**
Existing YMCA Trips	**29**	**22**	**4**	**1**	**-**	**-**	**-**	**6**	**-**	**1**	**-**	**-**	**-**	**-**
2025 Total Future			**128**	**301**	**93**	**67**	**472**	**43**	**47**	**291**	**85**	**8**	**482**	**58**

5: North Kirkwood Road/13th Street North
Trip Distribution

Traffic Component	Southbound North Kirkwood Road			Westbound 13th Street North			Northbound North Kirkwood Road			Eastbound 13th Street North		
	Right	Through	Left	Right	Through	Left	Right	Through	Left	Right	Through	Left
Site Developments												
YMCA	20%								15%	-10%		-20%
Residential		20%						-20%	-5%	5%		
			20%						50%	-50%		-20%
Pipeline Development												
Market Common Clarendon		10%						-10%				
APAH - American Legion		15%						-15%				
Alexan		15%						-15%				
APAH - Central United Methodist Church Site		5%						-5%				
Washington Blvd at Kirkwood		15%						-15%				
Red Top Cab Site		15%						-15%				

5: North Kirkwood Road/13th Street North
AM Peak Hour

Traffic Component			Southbound North Kirkwood Road			Westbound 13th Street North			Northbound North Kirkwood Road			Eastbound 13th Street North		
			Right	Through	Left	Right	Through	Left	Right	Through	Left	Right	Through	Left
Existing Traffic Volume			26	199	34	24	25	3	24	300	24	17	24	34
Growth 1 (2022-2025)			-	3	1	-	-	-	-	5	-	-	-	1
Pipeline Development	IN	OUT												
Market Common Clarendon	22	85	-	(3)	-	-	-	-	-	-	-	-	-	-
APAH - American Legion	22	85	-	3	-	-	-	-	-	3	-	-	-	-
Alexan	22	85	-	1	-	-	-	-	-	4	-	-	-	-
APAH - Central United Methodist Church Site	22	85	-	-	-	-	-	-	-	1	-	-	-	-
Washington Blvd at Kirkwood	22	85	-	2	-	-	-	-	-	9	-	-	-	-
Red Top Cab Site	22	85	-	3	-	-	-	-	-	13	-	-	-	-
Total Pipeline Trips	22	85	-	6	-	-	-	-	-	30	-	-	-	-
2025 Background			**26**	**208**	**35**	**24**	**25**	**3**	**24**	**335**	**24**	**17**	**24**	**35**
Site Development	IN	OUT												
YMCA	98	34	20	-	-	-	-	-	-	-	15	3	-	7
Residential	18	60	-	4	-	-	-	-	-	12	3	1	-	-
Total Site Trips	**116**	**94**	**20**	**4**	**-**	**-**	**-**	**-**	**-**	**12**	**18**	**4**	**-**	**7**
Existing YMCA Trips	**33**	**23**	**-**	**-**	**7**	**-**	**-**	**-**	**-**	**-**	**17**	**12**	**-**	**5**
2025 Total Future			**46**	**212**	**28**	**24**	**25**	**3**	**24**	**347**	**25**	**9**	**24**	**37**

5: North Kirkwood Road/13th Street North
PM Peak Hour

Traffic Component			Southbound North Kirkwood Road			Westbound 13th Street North			Northbound North Kirkwood Road			Eastbound 13th Street North		
			Right	Through	Left	Right	Through	Left	Right	Through	Left	Right	Through	Left
Existing Traffic Volume	-	-	41	290	14	22	18	10	14	262	32	20	17	25
Growth 1 (2022-2025)	-	-	1	4	-	-	-	-	-	4	-	-	-	-
Pipeline Development	IN	OUT												
Market Common Clarendon	56	36	-	6	-	-	-	-	-	4	-	-	-	-
APAH - American Legion	22	24	-	3	-	-	-	-	-	4	-	-	-	-
Alexan	29	14	-	4	-	-	-	-	-	2	-	-	-	-
APAH - Central United Methodist Church Site	33	17	-	2	-	-	-	-	-	1	-	-	-	-
Washington Blvd at Kirkwood	57	31	-	9	-	-	-	-	-	5	-	-	-	-
Red Top Cab Site	86	51	-	13	-	-	-	-	-	8	-	-	-	-
Total Pipeline Trips	283	173	-	37	-	-	-	-	-	24	-	-	-	-
2025 Background	**-**	**-**	**42**	**331**	**14**	**22**	**18**	**10**	**14**	**290**	**32**	**20**	**17**	**25**
Site Development	IN	OUT												
YMCA	86	113	17	-	-	-	-	-	-	-	13	11	-	23
Residential	51	23	-	10	-	-	-	-	-	5	1	3	-	-
Total Site Trips	**137**	**136**	**17**	**10**	**-**	**-**	**-**	**-**	**-**	**5**	**14**	**14**	**-**	**23**
Existing YMCA Trips	**29**	**22**	**-**	**-**	**6**	**-**	**-**	**-**	**-**	**-**	**15**	**11**	**-**	**4**
2025 Total Future			**59**	**341**	**8**	**22**	**18**	**10**	**14**	**295**	**31**	**23**	**17**	**44**

6: North Quincy Street/13th Street North
Trip Distribution

Traffic Component	Southbound North Quincy Street			Westbound 13th Street North			Northbound North Quincy Street		
	Right	Through	Left	Right	Through	Left	Right	Through	Left
Site Developments									
YMCA			5%	-5%					
Residential			5%	-5%					
			5%	-5%		-45%	45%		
Pipeline Development									
Market Common Clarendon									
APAH - American Legion									
Alexan			5%					-5%	
APAH - Central United Methodist Church Site			5%					-5%	
Washington Blvd at Kirkwood			5%					-5%	
Red Top Cab Site			2%					-2%	

6: North Quincy Street/13th Street North
AM Peak Hour

Traffic Component			Southbound North Quincy Street			Eastbound 13th Street North			Northbound North Quincy Street					
			Right	Through	Left	Right	Through	Left	Right	Through	Left			
Existing Traffic Volume			0	479	39	39	0	4	2	503	0			
Growth 1 (2022-2025)			-	7	1	1	-	-	-	8	-			
Pipeline Development	IN	OUT												
Market Common Clarendon			-	-	-	-	-	-	-	-	-	-	-	-
APAH - American Legion			-	-	-	-	-	-	-	-	-	-	-	-
Alexan			-	-	-	-	-	-	-	1	-	-	-	-
APAH - Central United Methodist Church Site			-	-	-	-	-	-	-	1	-	-	-	-
Washington Blvd at Kirkwood			-	1	-	-	-	-	-	3	-	-	-	-
Red Top Cab Site			-	-	-	-	-	-	-	2	-	-	-	-
Total Pipeline Trips			-	1	-	-	-	-	-	7	-	-	-	-
2025 Background			**-**	**487**	**40**	**40**	**-**	**4**	**2**	**518**	**-**			
Site Development	IN	OUT												
YMCA	98	34	-	-	5	1	-	-	-	-	-	-	-	-
Residential	18	60	-	-	1	3	-	-	-	-	-	-	-	-
Total Site Trips	**116**	**94**	**-**	**-**	**6**	**4**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Existing YMCA Trips	**33**	**23**	**-**	**-**	**2**	**1**	**-**	**6**	**8**	**-**	**-**	**-**	**-**	**-**
2025 Total Future			**-**	**487**	**44**	**43**	**-**	**(2)**	**(6)**	**518**	**-**	**-**	**-**	**-**

6: North Quincy Street/13th Street North
PM Peak Hour

Traffic Component			Southbound North Quincy Street			Eastbound 13th Street North			Northbound North Quincy Street					
			Right	Through	Left	Right	Through	Left	Right	Through	Left			
Existing Traffic Volume	-	-	-	462	26	113	-	75	17	381	-			
Growth 1 (2022-2025)	-	-	-	7	-	2	-	1	-	6	-			
Pipeline Development	IN	OUT												
Market Common Clarendon	56	36	-	-	-	-	-	-	-	-	-	-	-	-
APAH - American Legion	22	24	-	-	-	-	-	-	-	-	-	-	-	-
Alexan	29	14	-	1	-	-	-	-	-	1	-	-	-	-
APAH - Central United Methodist Church Site	33	17	-	2	-	-	-	-	-	1	-	-	-	-
Washington Blvd at Kirkwood	57	31	-	3	-	-	-	-	-	2	-	-	-	-
Red Top Cab Site	86	51	-	2	-	-	-	-	-	1	-	-	-	-
Total Pipeline Trips	283	173	-	8	-	-	-	-	-	5	-	-	-	-
2025 Background	**-**	**-**	**-**	**477**	**26**	**115**	**-**	**76**	**17**	**392**	**-**			
Site Development	IN	OUT												
YMCA	86	113	-	-	4	6	-	-	-	-	-	-	-	-
Residential	51	23	-	-	3	1	-	-	-	-	-	-	-	-
Total Site Trips	**137**	**136**	**-**	**-**	**7**	**7**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Existing YMCA Trips	**29**	**22**	**-**	**-**	**1**	**1**	**-**	**6**	**7**	**-**	**-**	**-**	**-**	**-**
2025 Total Future			**-**	**477**	**32**	**121**	**-**	**70**	**10**	**392**	**-**	**-**	**-**	**-**

7: North Lincoln Street/13th Street North
Trip Distribution

Traffic Component	Southbound North Lincoln Street			Westbound 13th Street North						Eastbound 13th Street North		
	Right	Through	Left	Right	Through	Left				Right	Through	Left
Site Developments												
YMCA					-5%						5%	
Residential					-5%						5%	
					-30%						30%	
Pipeline Development												
Market Common Clarendon												
APAH - American Legion												
Alexan												
APAH - Central United Methodist Church Site												
Washington Blvd at Kirkwood												
Red Top Cab Site												

7: North Lincoln Street/13th Street North
AM Peak Hour

Traffic Component			Southbound North Lincoln Street			Westbound 13th Street North						Eastbound 13th Street North		
			Right	Through	Left	Right	Through	Left				Right	Through	Left
Existing Traffic Volume						0	60	7	20	0	7	3	52	0
Growth 1 (2022-2025)						-	1	-				-	1	-
Pipeline Development	IN	OUT												
Market Common Clarendon			-	-	-	-	-	-	-	-	-	-	-	-
APAH - American Legion			-	-	-	-	-	-	-	-	-	-	-	-
Alexan			-	-	-	-	-	-	-	-	-	-	-	-
APAH - Central United Methodist Church Site			-	-	-	-	-	-	-	-	-	-	-	-
Washington Blvd at Kirkwood			-	-	-	-	-	-	-	-	-	-	-	-
Red Top Cab Site			-	-	-	-	-	-	-	-	-	-	-	-
Total Pipeline Trips			-	-	-	-	-	-	-	-	-	-	-	-
2025 Background			**-**	**-**	**-**	**-**	**61**	**7**	**20**	**-**	**7**	**3**	**53**	**-**
Site Development	IN	OUT												
YMCA	98	34	-	-	-	-	2	-	-	-	-	-	5	-
Residential	18	60	-	-	-	-	3	-	-	-	-	-	1	-
Total Site Trips	**116**	**94**	**-**	**-**	**-**	**-**	**5**	**-**	**-**	**-**	**-**	**-**	**6**	**-**
Existing YMCA Trips	**33**	**23**	**-**	**-**	**-**	**-**	**7**	**-**	**-**	**-**	**-**	**-**	**10**	**-**
2025 Total Future			**-**	**-**	**-**	**-**	**59**	**7**	**20**	**-**	**7**	**3**	**49**	**-**

7: North Lincoln Street/13th Street North
PM Peak Hour

Traffic Component			Southbound North Lincoln Street			Westbound 13th Street North						Eastbound 13th Street North		
			Right	Through	Left	Right	Through	Left				Right	Through	Left
Existing Traffic Volume	-	-				-	72	21	11	-	19	3	46	-
Growth 1 (2022-2025)	-	-				-	1	-				-	1	-
Pipeline Development	IN	OUT												
Market Common Clarendon	56	36	-	-	-	-	-	-	-	-	-	-	-	-
APAH - American Legion	22	24	-	-	-	-	-	-	-	-	-	-	-	-
Alexan	29	14	-	-	-	-	-	-	-	-	-	-	-	-
APAH - Central United Methodist Church Site	33	17	-	-	-	-	-	-	-	-	-	-	-	-
Washington Blvd at Kirkwood	57	31	-	-	-	-	-	-	-	-	-	-	-	-
Red Top Cab Site	86	51	-	-	-	-	-	-	-	-	-	-	-	-
Total Pipeline Trips	283	173	-	-	-	-	-	-	-	-	-	-	-	-
2025 Background	**-**	**-**	**-**	**-**	**-**	**-**	**73**	**21**	**11**	**-**	**19**	**3**	**47**	**-**
Site Development	IN	OUT												
YMCA	86	113	-	-	-	-	6	-	-	-	-	-	4	-
Residential	51	23	-	-	-	-	1	-	-	-	-	-	3	-
Total Site Trips	**137**	**136**	**-**	**-**	**-**	**-**	**7**	**-**	**-**	**-**	**-**	**-**	**7**	**-**
Existing YMCA Trips	**29**	**22**	**-**	**-**	**-**	**-**	**7**	**-**	**-**	**-**	**-**	**-**	**9**	**-**
2025 Total Future			**-**	**-**	**-**	**-**	**73**	**21**	**11**	**-**	**19**	**3**	**45**	**-**

8A: Site Driveway/13th Street North
Trip Distribution

Traffic Component						Westbound 13th Street North			Northbound Site Driveway			Eastbound 13th Street North		
						Right	Through	Left	Right	Through	Left	Right	Through	Left
Site Developments														
YMCA														
Pipeline Development														
Market Common Clarendon														
APAH - American Legion														
Alexan														
APAH - Central United Methodist Church Site														
Washington Blvd at Kirkwood														
Red Top Cab Site														

8A: Site Driveway/13th Street North
AM Peak Hour

Traffic Component						Westbound 13th Street North			Northbound Site Driveway			Eastbound 13th Street North		
						Right	Through	Left	Right	Through	Left	Right	Through	Left
Existing Traffic Volume							68	3	0		0	8	61	
Growth 1 (2022-2025)						-	1	-				-	1	-
Pipeline Development	IN	OUT												
Market Common Clarendon	22	85				-	-	-	-	-	-	-	-	-
APAH - American Legion	22	85				-	-	-	-	-	-	-	-	-
Alexan	22	85				-	-	-	-	-	-	-	-	-
APAH - Central United Methodist Church Site	22	85				-	-	-	-	-	-	-	-	-
Washington Blvd at Kirkwood	22	85				-	-	-	-	-	-	-	-	-
Red Top Cab Site	22	85				-	-	-	-	-	-	-	-	-
Total Pipeline Trips	22	85				-	-	-	-	-	-	-	-	-
2025 Background						**-**	**69**	**3**	**-**	**-**	**-**	**8**	**62**	**-**
Site Development	IN	OUT												
YMCA	98	34				-	-	-	-	-	-	-	-	-
Residential	18	60	-	-	-	-	-	-	-	-	-	-	-	-
Total Site Trips	**116**	**94**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
			-	-	-	-	-	-	-	-	-	-	-	-
2025 Total Future						**-**	**69**	**3**	**-**	**-**	**-**	**8**	**62**	**-**

8A: Site Driveway/13th Street North
PM Peak Hour

Traffic Component						Westbound 13th Street North			Northbound Site Driveway			Eastbound 13th Street North		
						Right	Through	Left	Right	Through	Left	Right	Through	Left
Existing Traffic Volume						1	58		-	-	-	-	94	3
Growth 1 (2022-2025)						-	1	-				-	1	-
Pipeline Development	IN	OUT												
Market Common Clarendon	86	51	-	-	-	-	-	-	-	-	-	-	-	-
APAH - American Legion	86	51	-	-	-	-	-	-	-	-	-	-	-	-
Alexan	86	51	-	-	-	-	-	-	-	-	-	-	-	-
APAH - Central United Methodist Church Site	86	51	-	-	-	-	-	-	-	-	-	-	-	-
Washington Blvd at Kirkwood	86	51	-	-	-	-	-	-	-	-	-	-	-	-
Red Top Cab Site	86	51	-	-	-	-	-	-	-	-	-	-	-	-
Total Pipeline Trips	86	51	-	-	-	-	-	-	-	-	-	-	-	-
2025 Background						**1**	**59**	**-**	**-**	**-**	**-**	**-**	**95**	**3**
Site Development	IN	OUT												
YMCA	86	113				-	-	-	-	-	-	-	-	-
Total Site Trips	**86**	**113**				**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
2025 Total Future						**1**	**59**	**-**	**-**	**-**	**-**	**-**	**95**	**3**

9: Driveway 4/13th Street North
Trip Distribution

Traffic Component			Westbound 13th Street North			Northbound Driveway 4			Eastbound 13th Street North		
			Right	Through	Left	Right	Through	Left	Right	Through	Left
Site Developments											
YMCA											
Pipeline Development											
Market Common Clarendon											
APAH - American Legion											
Alexan											
APAH - Central United Methodist Church Site											
Washington Blvd at Kirkwood											
Red Top Cab Site											

9: Driveway 4/13th Street North
AM Peak Hour

Traffic Component			Westbound 13th Street North			Northbound Driveway 4			Eastbound 13th Street North		
			Right	Through	Left	Right	Through	Left	Right	Through	Left
Existing Traffic Volume			0	68	2	4		3	3	69	0
Growth 1 (2022-2025)			-	1	-	-	-	-	-	1	-
Pipeline Development	IN	OUT									
Market Common Clarendon	22	85	-	-	-	-	-	-	-	-	-
APAH - American Legion	22	85	-	-	-	-	-	-	-	-	-
Alexan	22	85	-	-	-	-	-	-	-	-	-
APAH - Central United Methodist Church Site	22	85	-	-	-	-	-	-	-	-	-
Washington Blvd at Kirkwood	22	85	-	-	-	-	-	-	-	-	-
Red Top Cab Site	22	85	-	-	-	-	-	-	-	-	-
Total Pipeline Trips	22	85	-	-	-	-	-	-	-	-	-
2025 Background			**-**	**69**	**2**	**4**	**-**	**3**	**3**	**70**	**-**
Site Development	IN	OUT									
YMCA	98	34	-	-	-	-	-	-	-	-	-
Residential	18	60									
Total Site Trips	**116**	**94**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
2025 Total Future			**-**	**69**	**2**	**4**	**-**	**3**	**3**	**70**	**-**

9: Driveway 4/13th Street North
PM Peak Hour

Traffic Component			Westbound 13th Street North			Northbound Driveway 4			Eastbound 13th Street North		
			Right	Through	Left	Right	Through	Left	Right	Through	Left
Existing Traffic Volume			-	80	4	2	-	1	3	55	-
Growth 1 (2022-2025)				1						1	
Pipeline Development	IN	OUT									
Market Common Clarendon	86	51	-	-	-	-	-	-	-	-	-
APAH - American Legion	86	51	-	-	-	-	-	-	-	-	-
Alexan	86	51	-	-	-	-	-	-	-	-	-
APAH - Central United Methodist Church Site	86	51	-	-	-	-	-	-	-	-	-
Washington Blvd at Kirkwood	86	51	-	-	-	-	-	-	-	-	-
Red Top Cab Site	86	51	-	-	-	-	-	-	-	-	-
Total Pipeline Trips	86	51	-	-	-	-	-	-	-	-	-
2025 Background			**-**	**81**	**4**	**2**	**-**	**1**	**3**	**56**	**-**
Site Development	IN	OUT									
YMCA	86	113	-	-	-	-	-	-	-	-	-
Total Site Trips	**86**	**113**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
2025 Total Future			**-**	**81**	**4**	**2**	**-**	**1**	**3**	**56**	**-**

10: North Kirkwood Road/Site Driveway
Trip Distribution

Traffic Component	Southbound North Kirkwood Road						Northbound North Kirkwood Road			Eastbound Site Driveway		
			Right	Through	Left				Right	Through	Left	Right	Through	Left
Site Developments														
YMCA														
Pipeline Development														
Market Common Clarendon														
APAH - American Legion														
Alexan														
APAH - Central United Methodist Church Site														
Washington Blvd at Kirkwood														
Red Top Cab Site														

10: North Kirkwood Road/Site Driveway
AM Peak Hour

Traffic Component			Southbound North Kirkwood Road			Northbound North Kirkwood Road			Eastbound Site Driveway		
			Right	Through	Left	Right	Through	Left	Right	Through	Left
Existing Traffic Volume			2	320			308		4		0
Growth 1 (2022-2025)			-	5	-	-	5	-	-	-	-
Pipeline Development	IN	OUT									
Market Common Clarendon	22	85	-	-	-	-	-	-	-	-	-
APAH - American Legion	22	85	-	-	-	-	-	-	-	-	-
Alexan	22	85	-	-	-	-	-	-	-	-	-
APAH - Central United Methodist Church Site	22	85	-	-	-	-	-	-	-	-	-
Washington Blvd at Kirkwood	22	85	-	-	-	-	-	-	-	-	-
Red Top Cab Site	22	85	-	-	-	-	-	-	-	-	-
Total Pipeline Trips	22	85	-	-	-	-	-	-	-	-	-
2025 Background			**2**	**325**	**-**	**-**	**313**	**-**	**4**	**-**	**-**
Site Development	IN	OUT									
YMCA	98	34	-	-	-	-	-	-	-	-	-
Residential	18	60									
Total Site Trips	**116**	**94**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
2025 Total Future			**2**	**325**	**-**	**-**	**313**	**-**	**4**	**-**	**-**

10: North Kirkwood Road/Site Driveway
PM Peak Hour

Traffic Component			Southbound North Kirkwood Road			Northbound North Kirkwood Road			Eastbound Site Driveway		
			Right	Through	Left	Right	Through	Left	Right	Through	Left
Existing Traffic Volume			8	191	-	-	165	-	3	-	-
Growth 1 (2022-2025)										-	
Pipeline Development	IN	OUT									
Market Common Clarendon	86	51	-	-	-	-	-	-	-	-	-
APAH - American Legion	86	51	-	-	-	-	-	-	-	-	-
Alexan	86	51	-	-	-	-	-	-	-	-	-
APAH - Central United Methodist Church Site	86	51	-	-	-	-	-	-	-	-	-
Washington Blvd at Kirkwood	86	51	-	-	-	-	-	-	-	-	-
Red Top Cab Site	86	51	-	-	-	-	-	-	-	-	-
Total Pipeline Trips	86	51	-	-	-	-	-	-	-	-	-
2025 Background			**8**	**191**	**-**	**-**	**165**	**-**	**3**	**-**	**-**
Site Development	IN	OUT									
YMCA	86	113	-	-	-	-	-	-	-	-	-
Total Site Trips	**86**	**113**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
2025 Total Future			**8**	**191**	**-**	**-**	**165**	**-**	**3**	**-**	**-**

11: North Founders Way/Washington Boulevard
Trip Distribution

Traffic Component	Southbound North Founders Way			Westbound Washington Boulevard			Northbound North Founders Way			Eastbound Washington Boulevard		
	Right	Through	Left	Right	Through	Left	Right	Through	Left	Right	Through	Left
Site Developments												
YMCA		-35%	-40%	45%								25%
Residential					-25%						25%	
Pipeline Development												
Market Common Clarendon					-10%						10%	
APAH - American Legion		-40%	-60%			40%				60%		
Alexan												
APAH - Central United Methodist Church Site					5%						-5%	
Washington Blvd at Kirkwood					-30%						30%	
Red Top Cab Site					-25%						25%	

11: North Founders Way/Washington Boulevard
AM Peak Hour

Traffic Component			Southbound North Founders Way			Westbound Washington Boulevard			Northbound North Founders Way			Eastbound Washington Boulevard		
			Right	Through	Left	Right	Through	Left	Right	Through	Left	Right	Through	Left
Existing Traffic Volume			4	1	0	1	334	11	3	0	7	43	478	2
Growth 1 (2022-2025)							5						7	
Pipeline Development	IN	OUT												
Market Common Clarendon			-	-	-	-	-	-	-	-	-	-	(3)	-
APAH - American Legion			8	-	13	-	-	7	-	-	-	10	-	-
Alexan			-	-	-	-	-	-	-	-	-	-	-	-
APAH - Central United Methodist Church Site			-	-	-	-	-	-	-	-	-	-	1	-
Washington Blvd at Kirkwood			-	-	-	-	17	-	-	-	-	-	5	-
Red Top Cab Site			-	-	-	-	21	-	-	-	-	-	6	-
Total Pipeline Trips			8	-	13	-	38	7	-	-	-	10	9	-
2025 Background			**12**	**1**	**13**	**1**	**377**	**18**	**3**	**-**	**7**	**53**	**494**	**2**
Site Development	IN	OUT												
YMCA	98	34	12	-	14	44	-	-	-	-	-	-	-	25
Residential	18	60	-	-	-	-	15	-	-	-	-	-	4	-
Total Site Trips	**116**	**94**	**12**	**-**	**14**	**44**	**15**	**-**	**-**	**-**	**-**	**-**	**4**	**25**
Existing YMCA Trips	**33**	**23**	-	-	-	-	-	-	-	-	-	-	-	-
2025 Total Future			**24**	**1**	**27**	**45**	**392**	**18**	**3**	**-**	**7**	**53**	**498**	**27**

11: North Founders Way/Washington Boulevard
PM Peak Hour

Traffic Component			Southbound North Founders Way			Westbound Washington Boulevard			Northbound			Eastbound Washington Boulevard		
			Right	Through	Left	Right	Through	Left	Right	Through	Left	Right	Through	Left
Existing Traffic Volume	-	-	1	-	2	5	457	7	27	-	27	24	473	2
Growth 1 (2022-2025)	-	-					7						7	
Pipeline Development	IN	OUT												
Market Common Clarendon	56	36	-	-	-	-	4	-	-	-	-	-	6	-
APAH - American Legion	22	24	10	-	14	-	-	9	-	-	-	13	-	-
Alexan	29	14	-	-	-	-	-	-	-	-	-	-	-	-
APAH - Central United Methodist Church Site	33	17	-	-	-	-	2	-	-	-	-	-	1	-
Washington Blvd at Kirkwood	57	31	-	-	-	-	9	-	-	-	-	-	17	-
Red Top Cab Site	86	51	-	-	-	-	13	-	-	-	-	-	22	-
Total Pipeline Trips	283	173	10	-	14	-	28	9	-	-	-	13	46	-
2025 Background	**-**	**-**	**11**	**-**	**16**	**5**	**492**	**16**	**27**	**-**	**27**	**37**	**526**	**2**
Site Development	IN	OUT												
YMCA	86	113	40	-	45	39	-	-	-	-	-	-	-	22
Residential	51	23	-	-	-	-	6	-	-	-	-	-	13	-
Total Site Trips	**137**	**136**	**40**	**-**	**45**	**39**	**6**	**-**	**-**	**-**	**-**	**-**	**13**	**22**
Existing YMCA Trips	**29**	**22**	-	-	-	-	-	-	-	-	-	-	-	-
2025 Total Future			**51**	**-**	**61**	**44**	**498**	**16**	**27**	**-**	**27**	**37**	**539**	**24**

12: 13th Street North/Future Site Driveway
Trip Distribution

Traffic Component			Westbound 13th Street North			Northbound Future Site Driveway			Eastbound 13th Street North		
			Right	Through	Left	Right	Through	Left	Right	Through	Left
Site Developments											
YMCA					35%	-30%		-5%	5%		
Residential				5%						-5%	
Pipeline Development											
Market Common Clarendon											
APAH - American Legion											
Alexan											
APAH - Central United Methodist Church Site											
Washington Blvd at Kirkwood											
Red Top Cab Site											

12: 13th Street North/Future Site Driveway
AM Peak Hour

Traffic Component			Westbound 13th Street North			Northbound Future Site Driveway			Eastbound 13th Street North		
			Right	Through	Left	Right	Through	Left	Right	Through	Left
Existing Traffic Volume				61						60	
Growth 1 (2022-2025)											
Pipeline Development	IN	OUT									
Market Common Clarendon			-	-	-	-	-	-	-	-	-
APAH - American Legion			-	-	-	-	-	-	-	-	-
Alexan			-	-	-	-	-	-	-	-	-
APAH - Central United Methodist Church Site			-	-	-	-	-	-	-	-	-
Washington Blvd at Kirkwood			-	-	-	-	-	-	-	-	-
Red Top Cab Site			-	-	-	-	-	-	-	-	-
Total Pipeline Trips			-	-	-	-	-	-	-	-	-
2025 Background			**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Site Development	IN	OUT									
YMCA	98	34	-	-	-	-	-	34	10	-	2	5	-	-
Residential	18	60	-	-	-	-	5	-	-	-	-	-	2	-
Total Site Trips	**116**	**94**	**-**	**-**	**-**	**-**	**-**	**34**	**10**	**-**	**2**	**5**	**-**	**-**
			-	-	-									
2025 Total Future			**-**	**-**	**-**	**-**	**61**	**34**	**10**	**-**	**2**	**5**	**60**	**-**

12: 13th Street North/Future Site Driveway
PM Peak Hour

Traffic Component			Westbound 13th Street North			Northbound Future Site Driveway			Eastbound 13th Street North		
			Right	Through	Left	Right	Through	Left	Right	Through	Left
Existing Traffic Volume				75						48	
-											
Growth 1 (2022-2025)											
-											
-											
Pipeline Development	IN	OUT									
Market Common Clarendon	56	36	-	-	-	-	-	-	-	-	-	-	-	-
APAH - American Legion	22	24	-	-	-	-	-	-	-	-	-	-	-	-
Alexan	29	14	-	-	-	-	-	-	-	-	-	-	-	-
APAH - Central United Methodist Church Site	33	17	-	-	-	-	-	-	-	-	-	-	-	-
Washington Blvd at Kirkwood	57	31	-	-	-	-	-	-	-	-	-	-	-	-
Red Top Cab Site	86	51	-	-	-	-	-	-	-	-	-	-	-	-
Total Pipeline Trips	283	173	-	-	-	-	-	-	-	-	-	-	-	-
2025 Background			**-**	**-**	**-**	**-**	**75**	**-**	**-**	**-**	**-**	**-**	**48**	**-**
Site Development	IN	OUT									
YMCA	86	113	-	-	-	-	-	30	34	-	6	4	-	-
Residential	51	23	-	-	-	-	3	-	-	-	-	-	1	-
Total Site Trips	**137**	**136**	**-**	**-**	**-**	**-**	**3**	**30**	**34**	**-**	**6**	**4**	**1**	**-**
Existing YMCA Trips	**29**	**22**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
2025 Total Future			**-**	**-**	**-**	**-**	**78**	**30**	**34**	**-**	**6**	**4**	**49**	**-**

13: Driveway from Washington/Future Site Driveway (South)
Trip Distribution

Traffic Component	Southbound Future Site Driveway (South)			Westbound Extended Driveway from Kirkwood			Northbound			Eastbound Driveway from Washington		
	Right	Through	Left	Right	Through	Left	Right	Through	Left	Right	Through	Left
Site Developments												
YMCA												
Residential	-35%		-65%	65%								35%
Pipeline Development												
Market Common Clarendon												
American Legion												
Alexan												
4201 N Fairfax Dr												
Washington Blvd at Kirkwood					35%						-35%	
Red Top Cab Site												

13: Driveway from Washington/Future Site Driveway (South)
AM Peak Hour

Traffic Component			Southbound Future Site Driveway (South)			Westbound Extended Driveway from Kirkwood			Northbound			Eastbound Driveway from Washington		
			Right	Through	Left	Right	Through	Left	Right	Through	Left	Right	Through	Left
Existing Traffic Volume														
Growth 1 (2022-2025)							-						-	
Pipeline Development	IN	OUT												
Market Common Clarendon			-	-	-	-	-	-	-	-	-	-	-	-
American Legion			-	-	-	-	-	-	-	-	-	-	-	-
Alexan			-	-	-	-	-	-	-	-	-	-	-	-
4201 N Fairfax Dr			-	-	-	-	-	-	-	-	-	-	-	-
Washington Blvd at Kirkwood			-	-	-	-	8	-	-	-	-	-	30	-
Red Top Cab Site			-	-	-	-	-	-	-	-	-	-	-	-
Total Pipeline Trips			-	-	-	-	8	-	-	-	-	-	30	-
2025 Background			**-**	**-**	**-**	**-**	**8**	**-**	**-**	**-**	**-**	**-**	**30**	**-**
Site Development	IN	OUT												
YMCA	98	34	-	-	-	-	-	-	-	-	-	-	-	-
Residential	18	60	21	-	39	12	-	-	-	-	-	-	-	6
Total Site Trips	**116**	**94**	**21**	**-**	**39**	**12**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**6**
			-	-	-									
2025 Total Future			**21**	**-**	**39**	**12**	**8**	**-**	**-**	**-**	**-**	**-**	**30**	**6**

13: Driveway from Washington/Future Site Driveway (South)
PM Peak Hour

Traffic Component			Southbound Future Site Driveway (South)			Westbound Driveway from Washington			Northbound			Eastbound Driveway from Washington		
			Right	Through	Left	Right	Through	Left	Right	Through	Left	Right	Through	Left
Existing Traffic Volume														
-														
Growth 1 (2022-2025)							-						-	
-														
-														
Pipeline Development	IN	OUT												
Market Common Clarendon	56	36	-	-	-	-	-	-	-	-	-	-	-	-
American Legion	22	24	-	-	-	-	-	-	-	-	-	-	-	-
Alexan	29	14	-	-	-	-	-	-	-	-	-	-	-	-
4201 N Fairfax Dr	33	17	-	-	-	-	-	-	-	-	-	-	-	-
Washington Blvd at Kirkwood	57	31	-	-	-	-	20	-	-	-	-	-	11	-
Red Top Cab Site	86	51	-	-	-	-	-	-	-	-	-	-	-	-
Total Pipeline Trips	283	173	-	-	-	-	20	-	-	-	-	-	11	-
2025 Background			**-**	**-**	**-**	**-**	**20**	**-**	**-**	**-**	**-**	**-**	**11**	**-**
Site Development	IN	OUT												
YMCA	86	113	-	-	-	-	-	-	-	-	-	-	-	-
Residential	51	23	**8**	-	15	33	-	-	-	-	-	-	-	18
Total Site Trips	**137**	**136**	**8**	**-**	**15**	**33**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**18**
Existing YMCA Trips	**29**	**22**	-	-	-	-	-	-	-	-	-	-	-	-
2025 Total Future			**8**	**-**	**15**	**33**	**20**	**-**	**-**	**-**	**-**	**-**	**11**	**18**

8B: Site Driveway/13th Street North
Trip Distribution

Traffic Component			Westbound 13th Street North			Northbound Site Driveway			Eastbound 13th Street North		
			Right	Through	Left	Right	Through	Left	Right	Through	Left
Site Developments											
YMCA				-30%						30%	
Pipeline Development											
Market Common Clarendon											
APAH - American Legion											
Alexan											
APAH - Central United Methodist Church Site											
Washington Blvd at Kirkwood											
Red Top Cab Site											

8B: Site Driveway/13th Street North
AM Peak Hour

Traffic Component			Westbound 13th Street North			Northbound Site Driveway			Eastbound 13th Street North		
			Right	Through	Left	Right	Through	Left	Right	Through	Left
Existing Traffic Volume				66	7	5		5	3	58	
Growth 1 (2022-2025)			-	1	-				-	1	-
Pipeline Development	IN	OUT									
Market Common Clarendon	22	85	-	-	-	-	-	-	-	-	-
APAH - American Legion	22	85	-	-	-	-	-	-	-	-	-
Alexan	22	85	-	-	-	-	-	-	-	-	-
APAH - Central United Methodist Church Site	22	85	-	-	-	-	-	-	-	-	-
Washington Blvd at Kirkwood	22	85	-	-	-	-	-	-	-	-	-
Red Top Cab Site	22	85	-	-	-	-	-	-	-	-	-
Total Pipeline Trips	22	85	-	-	-	-	-	-	-	-	-
2025 Background			**-**	**67**	**7**	**5**	**-**	**5**	**3**	**59**	**-**
Site Development	IN	OUT									
YMCA	98	34	-	10	-	-	-	-	-	29	-
Residential	18	60									
Total Site Trips	**116**	**94**	**-**	**10**	**-**	**-**	**-**	**-**	**-**	**29**	**-**
2025 Total Future			**-**	**77**	**7**	**5**	**-**	**5**	**3**	**88**	**-**

8B: Site Driveway/13th Street North
PM Peak Hour

Traffic Component			Westbound 13th Street North			Northbound Site Driveway			Eastbound 13th Street North		
			Right	Through	Left	Right	Through	Left	Right	Through	Left
Existing Traffic Volume			5	56		6		3		91	3
Growth 1 (2022-2025)			-	1	-				-	1	-
Pipeline Development	IN	OUT									
Market Common Clarendon	86	51	-	-	-	-	-	-	-	-	-
APAH - American Legion	86	51	-	-	-	-	-	-	-	-	-
Alexan	86	51	-	-	-	-	-	-	-	-	-
APAH - Central United Methodist Church Site	86	51	-	-	-	-	-	-	-	-	-
Washington Blvd at Kirkwood	86	51	-	-	-	-	-	-	-	-	-
Red Top Cab Site	86	51	-	-	-	-	-	-	-	-	-
Total Pipeline Trips	86	51	-	-	-	-	-	-	-	-	-
2025 Background			**5**	**57**	**-**	**6**	**-**	**3**	**-**	**92**	**3**
Site Development	IN	OUT									
YMCA	86	113	-	34	-	-	-	-	-	26	-
Total Site Trips	**86**	**113**	**-**	**34**	**-**	**-**	**-**	**-**	**-**	**26**	**-**
2025 Total Future			**5**	**91**	**-**	**6**	**-**	**3**	**-**	**118**	**3**

8C: Site Driveway/13th Street North
Trip Distribution

Traffic Component			Westbound 13th Street North			Northbound Site Driveway			Eastbound 13th Street North		
			Right	Through	Left	Right	Through	Left	Right	Through	Left
Site Developments											
YMCA											
Pipeline Development											
Market Common Clarendon											
APAH - American Legion											
Alexan											
APAH - Central United Methodist Church Site											
Washington Blvd at Kirkwood											
Red Top Cab Site											

8C: Site Driveway/13th Street North
AM Peak Hour

Traffic Component			Westbound 13th Street North			Northbound Site Driveway			Eastbound 13th Street North		
			Right	Through	Left	Right	Through	Left	Right	Through	Left
Existing Traffic Volume				73	5	3		0	1	62	
Growth 1 (2022-2025)			-	1	-				-	1	-
Pipeline Development	IN	OUT									
Market Common Clarendon	22	85	-	-	-	-	-	-	-	-	-
APAH - American Legion	22	85	-	-	-	-	-	-	-	-	-
Alexan	22	85	-	-	-	-	-	-	-	-	-
APAH - Central United Methodist Church Site	22	85	-	-	-	-	-	-	-	-	-
Washington Blvd at Kirkwood	22	85	-	-	-	-	-	-	-	-	-
Red Top Cab Site	22	85	-	-	-	-	-	-	-	-	-
Total Pipeline Trips	22	85	-	-	-	-	-	-	-	-	-
2025 Background			**-**	**74**	**5**	**3**	**-**	**-**	**1**	**63**	**-**
Site Development	IN	OUT									
YMCA	98	34	-	-	-	-	-	-	-	-	-
Residential	18	60									
Total Site Trips	**116**	**94**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
2025 Total Future			**-**	**74**	**5**	**3**	**-**	**-**	**1**	**63**	**-**

8C: Site Driveway/13th Street North
PM Peak Hour

Traffic Component			Westbound 13th Street North			Northbound Site Driveway			Eastbound 13th Street North		
			Right	Through	Left	Right	Through	Left	Right	Through	Left
Existing Traffic Volume			-	61	-	-	-	-	1	96	
Growth 1 (2022-2025)			-	1	-				-	1	-
Pipeline Development	IN	OUT									
Market Common Clarendon	86	51	-	-	-	-	-	-	-	-	-
APAH - American Legion	86	51	-	-	-	-	-	-	-	-	-
Alexan	86	51	-	-	-	-	-	-	-	-	-
APAH - Central United Methodist Church Site	86	51	-	-	-	-	-	-	-	-	-
Washington Blvd at Kirkwood	86	51	-	-	-	-	-	-	-	-	-
Red Top Cab Site	86	51	-	-	-	-	-	-	-	-	-
Total Pipeline Trips	86	51	-	-	-	-	-	-	-	-	-
2025 Background			**-**	**62**	**-**	**-**	**-**	**-**	**1**	**97**	**-**
Site Development	IN	OUT									
YMCA	86	113	-	-	-	-	-	-	-	-	-
Total Site Trips	**86**	**113**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
2025 Total Future			**-**	**62**	**-**	**-**	**-**	**-**	**1**	**97**	**-**

14: Driveway to Kirkwood/North Kirkwood Road
Trip Distribution

Traffic Component	Southbound North Kirkwood Road			Northbound North Kirkwood Road			Eastbound Driveway to Kirkwood		
	Right	Through	Left	Right	Through	Left	Right	Through	Left
Site Developments									
YMCA		-10%			15%				
Residential	25%	-50%			50%	40%	-40%		-25%
Pipeline Development									
Market Common Clarendon		10%			-10%				
American Legion		15%			-15%				
Alexan		15%			-15%				
4201 N Fairfax Dr		5%			-5%				
Washington Blvd at Kirkwood	15%					20%	-20%		-15%
Red Top Cab Site		15%			-15%				

14: Driveway to Kirkwood/North Kirkwood Road
AM Peak Hour

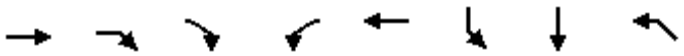
Traffic Component			Southbound North Kirkwood Road			Northbound North Kirkwood Road			Eastbound Driveway to Kirkwood		
			Right	Through	Left	Right	Through	Left	Right	Through	Left
Existing Traffic Volume				225			354				
Growth 1 (2022-2025)										-	
Pipeline Development	IN	OUT									
Market Common Clarendon			-	(3)	-	-	-	-	-	-	-
American Legion			-	3	-	-	-	-	-	-	-
Alexan			-	1	-	-	-	-	-	-	-
4201 N Fairfax Dr			-	-	-	-	-	-	-	-	-
Washington Blvd at Kirkwood			2	-	-	-	9	-	17	-	13
Red Top Cab Site			-	3	-	-	13	4	-	-	-
Total Pipeline Trips			2	4	-	-	13	4	17	-	13
2025 Background			**2**	**4**	**-**	**-**	**13**	**4**	**17**	**-**	**13**
Site Development	IN	OUT									
YMCA	98	34	-	3	-	-	14	-	-	-	-
Residential	18	60	4	-	-	-	-	7	24	-	15
Total Site Trips	**116**	**94**	**4**	**3**	**-**	**-**	**14**	**7**	**24**	**-**	**15**
			-	**12**	-						
2025 Total Future			**6**	**220**	**-**	**-**	**381**	**11**	**41**	**-**	**28**

14: Driveway to Kirkwood/North Kirkwood Road
PM Peak Hour

Traffic Component			Southbound North Kirkwood Road			Northbound North Kirkwood Road			Eastbound Driveway to Kirkwood		
			Right	Through	Left	Right	Through	Left	Right	Through	Left
Existing Traffic Volume				333			317				
-											
Growth 1 (2022-2025)										-	
-											
-											
Pipeline Development	IN	OUT									
Market Common Clarendon	56	36	-	6	-	-	4	-	-	-	-
American Legion	22	24	-	3	-	-	4	-	-	-	-
Alexan	29	14	-	4	-	-	2	-	-	-	-
4201 N Fairfax Dr	33	17	-	2	-	-	1	-	-	-	-
Washington Blvd at Kirkwood	57	31	9	-	-	-	-	11	6	-	5
Red Top Cab Site	86	51	-	13	-	-	8	-	-	-	-
Total Pipeline Trips	283	173	9	28	-	-	19	11	6	-	5
2025 Background			**9**	**361**	**-**	**-**	**336**	**11**	**6**	**-**	**5**
Site Development	IN	OUT									
YMCA	86	113	-	11	-	-	13	-	-	-	-
Residential	51	23	**13**	-	-	-	-	21	9	-	6
Total Site Trips	**137**	**136**	**13**	**11**	**-**	**-**	**13**	**21**	**9**	**-**	**6**
Existing YMCA Trips	**29**	**22**	-	**11**	-	-	**15**	-	-	-	-
2025 Total Future			**22**	**361**	**-**	**-**	**334**	**32**	**15**	**-**	**11**

Appendix F

HCM Results: Background Conditions



Lane Group	EBT	EBR	EBR2	WBL	WBT	SBL	SBT	NWL
Lane Group Flow (vph)	74	366	12	34	102	84	95	765
v/c Ratio	0.35	0.33	0.02	0.13	0.16	0.36	0.32	0.57
Control Delay	26.8	21.5	0.1	35.9	23.6	46.7	26.6	21.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.8	21.5	0.1	35.9	23.6	46.7	26.6	21.9
Queue Length 50th (ft)	34	94	0	19	20	56	34	176
Queue Length 95th (ft)	77	135	0	47	43	108	86	237
Internal Link Dist (ft)	784				499		424	1197
Turn Bay Length (ft)		80	80	45				
Base Capacity (vph)	210	1094	665	261	657	233	298	1333
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	0.35	0.33	0.02	0.13	0.16	0.36	0.32	0.57

Intersection Summary

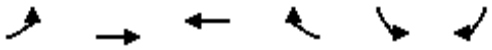
Movement	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	SBL2	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	19	51	344	11	22	10	63	33	11	75	37	45
Future Volume (vph)	19	51	344	11	22	10	63	33	11	75	37	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.0	7.0	7.0		6.5	6.5			7.0	4.0	
Lane Util. Factor		1.00	0.88	1.00		1.00	0.95			0.95	0.95	
Frpb, ped/bikes		1.00	1.00	0.98		1.00	0.99			1.00	0.99	
Flpb, ped/bikes		1.00	1.00	1.00		0.99	1.00			1.00	1.00	
Frt		1.00	0.85	0.85		1.00	0.95			1.00	0.92	
Flt Protected		0.99	1.00	1.00		0.95	1.00			0.95	1.00	
Satd. Flow (prot)		1653	2508	1390		1570	2828			1513	1455	
Flt Permitted		0.29	1.00	1.00		0.71	1.00			0.95	1.00	
Satd. Flow (perm)		482	2508	1390		1171	2828			1513	1455	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	20	54	366	12	23	11	67	35	12	80	39	48
RTOR Reduction (vph)	0	0	0	7	0	0	27	0	0	0	35	0
Lane Group Flow (vph)	0	74	366	5	0	34	75	0	0	84	60	0
Confl. Peds. (#/hr)	5		5	8	5	8		5	1	5		1
Confl. Bikes (#/hr)			6	6				7				
Parking (#/hr)							0	0				
Turn Type	custom	NA	Over	custom	custom	Prot	NA		Prot	Prot	NA	
Protected Phases			1			2			3	3		
Permitted Phases	1	1		1	2		2					
Actuated Green, G (s)		48.0	48.0	48.0		24.5	24.5			17.0	17.0	
Effective Green, g (s)		48.0	48.0	48.0		24.5	24.5			17.0	17.0	
Actuated g/C Ratio		0.44	0.44	0.44		0.22	0.22			0.15	0.15	
Clearance Time (s)		7.0	7.0	7.0		6.5	6.5			7.0		
Lane Grp Cap (vph)		210	1094	606		260	629			233	224	
v/s Ratio Prot			0.15							c0.06	0.04	
v/s Ratio Perm		0.15		0.00		c0.03	0.03					
v/c Ratio		0.35	0.33	0.01		0.13	0.12			0.36	0.27	
Uniform Delay, d1		20.6	20.5	17.5		34.2	34.1			41.6	41.0	
Progression Factor		1.00	1.00	1.00		1.00	1.00			1.00	1.00	
Incremental Delay, d2		4.6	0.8	0.0		1.0	0.4			4.3	2.9	
Delay (s)		25.2	21.3	17.6		35.3	34.5			45.9	44.0	
Level of Service		C	C	B		D	C			D	D	
Approach Delay (s)		21.8					34.7				44.9	
Approach LOS		C					C				D	

Intersection Summary			
HCM 2000 Control Delay	27.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	20.5
Intersection Capacity Utilization	74.4%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	NWL2	NWL	NWR	NWR2
Lane Configurations				
Traffic Volume (vph)	8	520	158	33
Future Volume (vph)	8	520	158	33
Ideal Flow (vphpl)	1900	1900	1900	1900
Total Lost time (s)		7.0		
Lane Util. Factor		0.97		
Frpb, ped/bikes		0.99		
Flpb, ped/bikes		0.99		
Frt		0.96		
Flt Protected		0.96		
Satd. Flow (prot)		2970		
Flt Permitted		0.95		
Satd. Flow (perm)		2922		
Peak-hour factor, PHF	0.94	0.94	0.94	0.94
Adj. Flow (vph)	9	553	168	35
RTOR Reduction (vph)	0	59	0	0
Lane Group Flow (vph)	0	706	0	0
Confl. Peds. (#/hr)	1	5	1	5
Confl. Bikes (#/hr)				1
Parking (#/hr)			0	0
Turn Type	D.Pm	Prot		
Protected Phases		1		
Permitted Phases	1			
Actuated Green, G (s)		48.0		
Effective Green, g (s)		48.0		
Actuated g/C Ratio		0.44		
Clearance Time (s)		7.0		
Lane Grp Cap (vph)		1275		
v/s Ratio Prot				
v/s Ratio Perm		c0.24		
v/c Ratio		0.55		
Uniform Delay, d1		23.0		
Progression Factor		1.00		
Incremental Delay, d2		1.7		
Delay (s)		24.8		
Level of Service		C		
Approach Delay (s)		24.8		
Approach LOS		C		

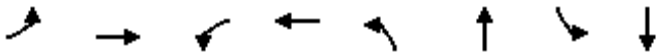
Intersection Summary



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	19	570	388	10	3	18
Future Volume (Veh/h)	19	570	388	10	3	18
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.89	0.89	0.85	0.85
Hourly flow rate (vph)	21	620	436	11	4	21
Pedestrians		4			5	
Lane Width (ft)		12.0			12.0	
Walking Speed (ft/s)		3.5			3.5	
Percent Blockage		0			0	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		1278	260			
pX, platoon unblocked	0.94				0.95	0.94
vC, conflicting volume	452				793	227
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	295				568	57
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	98				99	98
cM capacity (veh/h)	1184				423	932

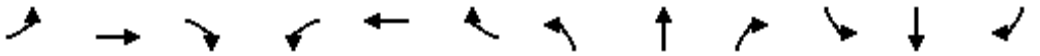
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	SB 1
Volume Total	228	413	218	218	11	25
Volume Left	21	0	0	0	0	4
Volume Right	0	0	0	0	11	21
cSH	1184	1700	1700	1700	1700	782
Volume to Capacity	0.02	0.24	0.13	0.13	0.01	0.03
Queue Length 95th (ft)	1	0	0	0	0	2
Control Delay (s)	0.9	0.0	0.0	0.0	0.0	9.8
Lane LOS	A					A
Approach Delay (s)	0.3		0.0			9.8
Approach LOS						A

Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	44.1%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	78	553	29	477	113	418	121	415
v/c Ratio	0.20	0.34	0.08	0.30	0.53	0.74	0.57	0.68
Control Delay	16.3	16.4	14.5	14.6	37.7	39.3	39.5	35.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.3	16.4	14.5	14.6	37.7	39.3	39.5	35.6
Queue Length 50th (ft)	29	115	10	88	61	252	67	243
Queue Length 95th (ft)	58	152	27	123	116	346	125	329
Internal Link Dist (ft)		143		1078		1026		443
Turn Bay Length (ft)	105		60		110		175	
Base Capacity (vph)	382	1632	346	1590	213	562	214	609
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	0.20	0.34	0.08	0.30	0.53	0.74	0.57	0.68

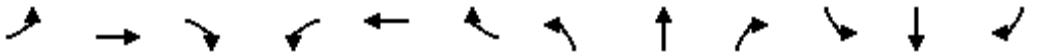
Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	69	485	7	27	361	87	96	332	23	103	291	62
Future Volume (vph)	69	485	7	27	361	87	96	332	23	103	291	62
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5		5.5	5.5		6.5	6.5		6.5	6.5	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frpb, ped/bikes	1.00	1.00		1.00	0.99		1.00	1.00		1.00	0.99	
Flpb, ped/bikes	0.98	1.00		0.99	1.00		0.98	1.00		1.00	1.00	
Frt	1.00	1.00		1.00	0.97		1.00	0.99		1.00	0.97	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1565	3177		1575	3058		1563	1492		1586	1616	
Flt Permitted	0.45	1.00		0.41	1.00		0.34	1.00		0.34	1.00	
Satd. Flow (perm)	745	3177		675	3058		565	1492		568	1616	
Peak-hour factor, PHF	0.89	0.89	0.89	0.94	0.94	0.94	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	78	545	8	29	384	93	113	391	27	121	342	73
RTOR Reduction (vph)	0	1	0	0	19	0	0	0	0	0	0	0
Lane Group Flow (vph)	78	552	0	29	458	0	113	418	0	121	415	0
Confl. Peds. (#/hr)	16		19	19		16	37		8	8		37
Confl. Bikes (#/hr)									5			2
Parking (#/hr)								0				
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Actuated Green, G (s)	56.5	56.5		56.5	56.5		41.5	41.5		41.5	41.5	
Effective Green, g (s)	56.5	56.5		56.5	56.5		41.5	41.5		41.5	41.5	
Actuated g/C Ratio	0.51	0.51		0.51	0.51		0.38	0.38		0.38	0.38	
Clearance Time (s)	5.5	5.5		5.5	5.5		6.5	6.5		6.5	6.5	
Lane Grp Cap (vph)	382	1631		346	1570		213	562		214	609	
v/s Ratio Prot		c0.17			0.15			c0.28			0.26	
v/s Ratio Perm	0.10			0.04			0.20			0.21		
v/c Ratio	0.20	0.34		0.08	0.29		0.53	0.74		0.57	0.68	
Uniform Delay, d1	14.5	15.7		13.6	15.3		26.7	29.6		27.1	28.7	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.2	0.6		0.5	0.5		9.2	8.6		10.4	6.1	
Delay (s)	15.7	16.3		14.1	15.8		35.8	38.3		37.5	34.8	
Level of Service	B	B		B	B		D	D		D	C	
Approach Delay (s)		16.2			15.7			37.8			35.4	
Approach LOS		B			B			D			D	

Intersection Summary			
HCM 2000 Control Delay	26.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	73.1%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	24	17	3	25	24	24	335	24	35	208	26
Future Volume (Veh/h)	35	24	17	3	25	24	24	335	24	35	208	26
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	41	28	20	4	29	28	28	394	28	41	245	31
Pedestrians		16			14			42			5	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		3.5			3.5			3.5			3.5	
Percent Blockage		2			1			4			0	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								1026				
pX, platoon unblocked												
vC, conflicting volume	854	835	303	881	852	427	292			436		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	854	835	303	881	852	427	292			436		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	82	90	97	98	89	95	98			96		
cM capacity (veh/h)	222	276	692	210	269	612	1239			1098		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2
Volume Total	89	61	450	286	31
Volume Left	41	4	28	41	0
Volume Right	20	28	28	0	31
cSH	282	354	1239	1098	1700
Volume to Capacity	0.32	0.17	0.02	0.04	0.02
Queue Length 95th (ft)	33	15	2	3	0
Control Delay (s)	23.5	17.3	0.7	1.5	0.0
Lane LOS	C	C	A	A	
Approach Delay (s)	23.5	17.3	0.7	1.4	
Approach LOS	C	C			

Intersection Summary				
Average Delay	4.3			
Intersection Capacity Utilization	60.1%	ICU Level of Service	B	
Analysis Period (min)	15			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	4	40	518	2	40	487
Future Volume (Veh/h)	4	40	518	2	40	487
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	5	47	609	2	47	573
Pedestrians	11		15			5
Lane Width (ft)	12.0		12.0			12.0
Walking Speed (ft/s)	3.5		3.5			3.5
Percent Blockage	1		1			0
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)			523			
pX, platoon unblocked	0.78	0.78			0.78	
vC, conflicting volume	1303	626			622	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1249	386			381	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	96	91			95	
cM capacity (veh/h)	139	511			914	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	52	611	620
Volume Left	5	0	47
Volume Right	47	2	0
cSH	406	1700	914
Volume to Capacity	0.13	0.36	0.05
Queue Length 95th (ft)	11	0	4
Control Delay (s)	15.2	0.0	1.3
Lane LOS	C		A
Approach Delay (s)	15.2	0.0	1.3
Approach LOS	C		

Intersection Summary			
Average Delay	1.3		
Intersection Capacity Utilization	70.1%	ICU Level of Service	C
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Stop			Stop	Stop	
Traffic Volume (vph)	53	3	7	61	7	20
Future Volume (vph)	53	3	7	61	7	20
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	62	4	8	72	8	24

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total (vph)	66	80	32
Volume Left (vph)	0	8	8
Volume Right (vph)	4	0	24
Hadj (s)	0.00	0.05	-0.37
Departure Headway (s)	4.0	4.1	3.8
Degree Utilization, x	0.07	0.09	0.03
Capacity (veh/h)	875	868	894
Control Delay (s)	7.4	7.5	7.0
Approach Delay (s)	7.4	7.5	7.0
Approach LOS	A	A	A

Intersection Summary			
Delay	7.4		
Level of Service	A		
Intersection Capacity Utilization	19.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	70	3	2	69	3	4
Future Volume (Veh/h)	70	3	2	69	3	4
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	82	4	2	81	4	5
Pedestrians				2	15	
Lane Width (ft)				12.0	12.0	
Walking Speed (ft/s)				3.5	3.5	
Percent Blockage				0	1	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			101		184	101
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			101		184	101
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		99	99
cM capacity (veh/h)			1458		797	944

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	86	83	9
Volume Left	0	2	4
Volume Right	4	0	5
cSH	1700	1458	873
Volume to Capacity	0.05	0.00	0.01
Queue Length 95th (ft)	0	0	1
Control Delay (s)	0.0	0.2	9.2
Lane LOS		A	A
Approach Delay (s)	0.0	0.2	9.2
Approach LOS			A

Intersection Summary			
Average Delay		0.6	
Intersection Capacity Utilization		18.3%	ICU Level of Service
Analysis Period (min)		15	

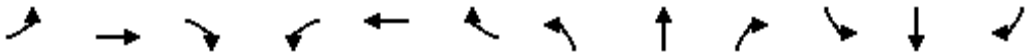
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	4	0	308	320	2
Future Volume (Veh/h)	0	4	0	308	320	2
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	0	5	0	362	376	2
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				914		
pX, platoon unblocked						
vC, conflicting volume	738	376	378			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	738	376	378			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	99	100			
cM capacity (veh/h)	385	670	1180			

Direction, Lane #	EB 1	NB 1	SB 1	SB 2
Volume Total	5	362	376	2
Volume Left	0	0	0	0
Volume Right	5	0	0	2
cSH	670	1700	1700	1700
Volume to Capacity	0.01	0.21	0.22	0.00
Queue Length 95th (ft)	1	0	0	0
Control Delay (s)	10.4	0.0	0.0	0.0
Lane LOS	B			
Approach Delay (s)	10.4	0.0	0.0	
Approach LOS	B			

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	26.8%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	566	409	10	26
v/c Ratio	0.34	0.26	0.03	0.12
Control Delay	18.0	17.4	0.1	34.2
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	18.0	17.4	0.1	34.2
Queue Length 50th (ft)	137	96	0	11
Queue Length 95th (ft)	178	130	0	40
Internal Link Dist (ft)	180	370	129	90
Turn Bay Length (ft)				
Base Capacity (vph)	1665	1589	362	219
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.34	0.26	0.03	0.12

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	494	53	18	377	1	7	0	3	13	1	12
Future Volume (vph)	2	494	53	18	377	1	7	0	3	13	1	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5			5.5			5.0			4.5	
Lane Util. Factor		0.95			0.95			1.00			1.00	
Frpb, ped/bikes		0.98			1.00			0.99			0.99	
Flpb, ped/bikes		1.00			1.00			1.00			0.98	
Frt		0.99			1.00			0.96			0.94	
Flt Protected		1.00			1.00			0.97			0.98	
Satd. Flow (prot)		3270			3263			1448			1689	
Flt Permitted		0.95			0.91			0.97			0.89	
Satd. Flow (perm)		3120			2987			1448			1543	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	2	509	55	19	389	1	7	0	3	13	1	12
RTOR Reduction (vph)	0	6	0	0	0	0	0	8	0	0	10	0
Lane Group Flow (vph)	0	560	0	0	409	0	0	2	0	0	16	0
Confl. Peds. (#/hr)	43		45	45		43	6		18	18		6
Confl. Bikes (#/hr)						1						
Heavy Vehicles (%)	7%	7%	7%	10%	10%	10%	20%	20%	20%	0%	0%	0%
Turn Type	Perm	NA		Perm	NA		Split	NA		Perm	NA	
Protected Phases		1			1		2	2			6	
Permitted Phases	1			1						6		
Actuated Green, G (s)		70.5			70.5			29.0			18.0	
Effective Green, g (s)		70.5			70.5			29.0			18.0	
Actuated g/C Ratio		0.53			0.53			0.22			0.14	
Clearance Time (s)		5.5			5.5			5.0			4.5	
Lane Grp Cap (vph)		1660			1589			316			209	
v/s Ratio Prot								c0.00				
v/s Ratio Perm		c0.18			0.14						c0.01	
v/c Ratio		0.34			0.26			0.01			0.07	
Uniform Delay, d1		17.7			16.8			40.5			50.0	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.6			0.4			0.0			0.7	
Delay (s)		18.2			17.2			40.5			50.7	
Level of Service		B			B			D			D	
Approach Delay (s)		18.2			17.2			40.5			50.7	
Approach LOS		B			B			D			D	

Intersection Summary			
HCM 2000 Control Delay	18.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.22		
Actuated Cycle Length (s)	132.5	Sum of lost time (s)	15.0
Intersection Capacity Utilization	50.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	62	8	3	69	0	0
Future Volume (Veh/h)	62	8	3	69	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	67	9	3	75	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			76		152	72
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			76		152	72
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1523		838	991

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	76	78	0
Volume Left	0	3	0
Volume Right	9	0	0
cSH	1700	1523	1700
Volume to Capacity	0.04	0.00	0.00
Queue Length 95th (ft)	0	0	0
Control Delay (s)	0.0	0.3	0.0
Lane LOS		A	A
Approach Delay (s)	0.0	0.3	0.0
Approach LOS			A

Intersection Summary			
Average Delay		0.2	
Intersection Capacity Utilization		9.4%	ICU Level of Service
Analysis Period (min)		15	

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	59	3	7	67	5	5
Future Volume (Veh/h)	59	3	7	67	5	5
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	64	3	8	73	5	5
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			67		154	66
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			67		154	66
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		99	99
cM capacity (veh/h)			1535		833	998

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	67	81	10
Volume Left	0	8	5
Volume Right	3	0	5
cSH	1700	1535	908
Volume to Capacity	0.04	0.01	0.01
Queue Length 95th (ft)	0	0	1
Control Delay (s)	0.0	0.8	9.0
Lane LOS		A	A
Approach Delay (s)	0.0	0.8	9.0
Approach LOS			A

Intersection Summary			
Average Delay		1.0	
Intersection Capacity Utilization		19.4%	ICU Level of Service
Analysis Period (min)		15	

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	63	1	5	74	0	3
Future Volume (Veh/h)	63	1	5	74	0	3
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.87	0.87	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	72	1	6	87	0	4
Pedestrians	3			4	20	
Lane Width (ft)	12.0			12.0	12.0	
Walking Speed (ft/s)	3.5			3.5	3.5	
Percent Blockage	0			0	2	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			93		194	96
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			93		194	96
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1473		774	938

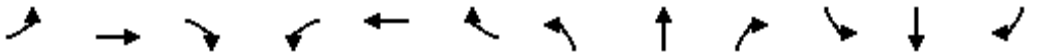
Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	73	93	4
Volume Left	0	6	0
Volume Right	1	0	4
cSH	1700	1473	938
Volume to Capacity	0.04	0.00	0.00
Queue Length 95th (ft)	0	0	0
Control Delay (s)	0.0	0.5	8.9
Lane LOS		A	A
Approach Delay (s)	0.0	0.5	8.9
Approach LOS			A

Intersection Summary			
Average Delay		0.5	
Intersection Capacity Utilization		19.5%	ICU Level of Service
Analysis Period (min)		15	

Lane Group	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	584	449	56	217	76	201
v/c Ratio	0.48	0.27	0.25	0.53	0.35	0.49
Control Delay	18.3	7.3	22.9	27.2	38.8	39.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.3	7.3	22.9	27.2	38.8	39.6
Queue Length 50th (ft)	132	50	31	134	44	121
Queue Length 95th (ft)	165	74	m57	200	84	182
Internal Link Dist (ft)	34	68		333		11
Turn Bay Length (ft)					150	
Base Capacity (vph)	1224	1656	224	408	217	407
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	0.48	0.27	0.25	0.53	0.35	0.49

Intersection Summary

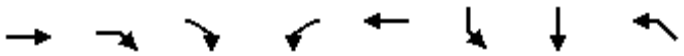
m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	76	358	63	26	269	123	48	174	10	65	136	35
Future Volume (vph)	76	358	63	26	269	123	48	174	10	65	136	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.5			6.5		6.5	6.5		6.5	6.5	
Lane Util. Factor		0.95			0.95		1.00	1.00		1.00	1.00	
Frpb, ped/bikes		1.00			0.99		1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00			1.00		0.99	1.00		0.99	1.00	
Frt		0.98			0.96		1.00	0.99		1.00	0.97	
Flt Protected		0.99			1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		2942			2864		1496	1568		1537	1572	
Flt Permitted		0.79			0.90		0.55	1.00		0.52	1.00	
Satd. Flow (perm)		2342			2575		864	1568		842	1572	
Peak-hour factor, PHF	0.85	0.85	0.85	0.93	0.93	0.93	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	89	421	74	28	289	132	56	205	12	76	160	41
RTOR Reduction (vph)	0	0	0	0	42	0	0	2	0	0	0	0
Lane Group Flow (vph)	0	584	0	0	408	0	56	215	0	76	201	0
Confl. Peds. (#/hr)	6		14	14		6	6		8	8		6
Confl. Bikes (#/hr)			2			1						2
Heavy Vehicles (%)	7%	7%	7%	7%	7%	7%	8%	8%	8%	5%	5%	5%
Turn Type	Perm	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases		6		5	2			4			4	
Permitted Phases	6			2			4			4		
Actuated Green, G (s)		57.5			68.5		28.5	28.5		28.5	28.5	
Effective Green, g (s)		57.5			68.5		28.5	28.5		28.5	28.5	
Actuated g/C Ratio		0.52			0.62		0.26	0.26		0.26	0.26	
Clearance Time (s)		6.5			6.5		6.5	6.5		6.5	6.5	
Lane Grp Cap (vph)		1224			1617		223	406		218	407	
v/s Ratio Prot					c0.01			c0.14			0.13	
v/s Ratio Perm		c0.25			0.14		0.06			0.09		
v/c Ratio		0.48			0.25		0.25	0.53		0.35	0.49	
Uniform Delay, d1		16.7			9.3		32.3	35.0		33.2	34.6	
Progression Factor		1.00			1.00		0.61	0.64		1.00	1.00	
Incremental Delay, d2		1.3			0.4		2.5	4.6		4.4	4.2	
Delay (s)		18.0			9.7		22.3	27.0		37.5	38.9	
Level of Service		B			A		C	C		D	D	
Approach Delay (s)		18.0			9.7			26.1			38.5	
Approach LOS		B			A			C			D	

Intersection Summary			
HCM 2000 Control Delay	20.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	18.5
Intersection Capacity Utilization	91.7%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBT	EBR	EBR2	WBL	WBT	SBL	SBT	NWL
Lane Group Flow (vph)	88	670	8	34	105	132	188	647
v/c Ratio	0.35	0.61	0.01	0.15	0.16	0.57	0.64	0.53
Control Delay	25.6	26.8	0.0	36.4	29.9	53.5	42.4	20.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.6	26.8	0.0	36.4	29.9	53.5	42.4	20.6
Queue Length 50th (ft)	40	202	0	19	26	91	100	140
Queue Length 95th (ft)	84	270	0	48	51	160	182	194
Internal Link Dist (ft)	784				499		424	1197
Turn Bay Length (ft)		80	80	45				
Base Capacity (vph)	253	1094	628	233	648	233	296	1220
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	0.35	0.61	0.01	0.15	0.16	0.57	0.64	0.53

Intersection Summary

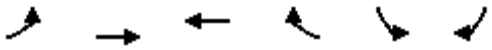
Movement	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	SBL2	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	15	66	616	7	21	10	82	15	6	128	69	91
Future Volume (vph)	15	66	616	7	21	10	82	15	6	128	69	91
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.0	7.0	7.0		6.5	6.5			7.0	4.0	
Lane Util. Factor		1.00	0.88	1.00		1.00	0.95			0.95	0.95	
Frpb, ped/bikes		1.00	1.00	0.92		1.00	0.97			1.00	0.98	
Flpb, ped/bikes		0.99	1.00	1.00		0.90	1.00			1.00	1.00	
Frt		1.00	0.85	0.85		1.00	0.98			1.00	0.92	
Flt Protected		0.99	1.00	1.00		0.95	1.00			0.95	1.00	
Satd. Flow (prot)		1643	2508	1306		1426	2858			1513	1435	
Flt Permitted		0.35	1.00	1.00		0.70	1.00			0.95	1.00	
Satd. Flow (perm)		581	2508	1306		1050	2858			1513	1435	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	16	72	670	8	23	11	89	16	7	139	75	99
RTOR Reduction (vph)	0	0	0	5	0	0	12	0	0	0	37	0
Lane Group Flow (vph)	0	88	670	3	0	34	93	0	0	132	151	0
Confl. Peds. (#/hr)	84		40	57	40	57		84	9	57		12
Confl. Bikes (#/hr)			7	7				8				
Parking (#/hr)							0	0				
Turn Type	custom	NA	Over	custom	custom	Prot	NA		Prot	Prot	NA	
Protected Phases			1			2			3	3		
Permitted Phases	1	1		1	2		2					
Actuated Green, G (s)		48.0	48.0	48.0		24.5	24.5			17.0	17.0	
Effective Green, g (s)		48.0	48.0	48.0		24.5	24.5			17.0	17.0	
Actuated g/C Ratio		0.44	0.44	0.44		0.22	0.22			0.15	0.15	
Clearance Time (s)		7.0	7.0	7.0		6.5	6.5			7.0		
Lane Grp Cap (vph)		253	1094	569		233	636			233	221	
v/s Ratio Prot			c0.27							0.09	0.11	
v/s Ratio Perm		0.15		0.00		0.03	c0.03					
v/c Ratio		0.35	0.61	0.01		0.15	0.15			0.57	0.68	
Uniform Delay, d1		20.6	23.8	17.5		34.3	34.3			43.1	43.9	
Progression Factor		1.00	1.00	1.00		1.00	1.00			1.00	1.00	
Incremental Delay, d2		3.7	2.6	0.0		1.3	0.5			9.6	15.8	
Delay (s)		24.3	26.4	17.5		35.7	34.8			52.7	59.7	
Level of Service		C	C	B		D	C			D	E	
Approach Delay (s)		26.1					35.0				56.8	
Approach LOS		C					D				E	

Intersection Summary			
HCM 2000 Control Delay	31.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	20.5
Intersection Capacity Utilization	75.2%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	NWL2	NWL	NWR	NWR2
Lane Configurations				
Traffic Volume (vph)	11	421	143	20
Future Volume (vph)	11	421	143	20
Ideal Flow (vphpl)	1900	1900	1900	1900
Total Lost time (s)		7.0		
Lane Util. Factor		0.97		
Frpb, ped/bikes		0.94		
Flpb, ped/bikes		0.97		
Frt		0.96		
Flt Protected		0.96		
Satd. Flow (prot)		2746		
Flt Permitted		0.94		
Satd. Flow (perm)		2662		
Peak-hour factor, PHF	0.92	0.92	0.92	0.92
Adj. Flow (vph)	12	458	155	22
RTOR Reduction (vph)	0	59	0	0
Lane Group Flow (vph)	0	588	0	0
Confl. Peds. (#/hr)	57	9	84	12
Confl. Bikes (#/hr)				
Parking (#/hr)			0	0
Turn Type	D.Pm	Prot		
Protected Phases		1		
Permitted Phases	1			
Actuated Green, G (s)		48.0		
Effective Green, g (s)		48.0		
Actuated g/C Ratio		0.44		
Clearance Time (s)		7.0		
Lane Grp Cap (vph)		1161		
v/s Ratio Prot				
v/s Ratio Perm		0.22		
v/c Ratio		0.51		
Uniform Delay, d1		22.4		
Progression Factor		1.00		
Incremental Delay, d2		1.6		
Delay (s)		24.0		
Level of Service		C		
Approach Delay (s)		24.0		
Approach LOS		C		

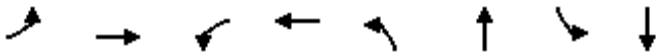
Intersection Summary



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	12	558	486	14	7	16
Future Volume (Veh/h)	12	558	486	14	7	16
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.89	0.89	0.96	0.96	0.82	0.82
Hourly flow rate (vph)	13	627	506	15	9	20
Pedestrians		8	11		11	
Lane Width (ft)		12.0	12.0		12.0	
Walking Speed (ft/s)		3.5	3.5		3.5	
Percent Blockage		1	1		1	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		1278	260			
pX, platoon unblocked	0.91				0.92	0.91
vC, conflicting volume	532				868	272
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	296				577	11
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				98	98
cM capacity (veh/h)	1140				400	956

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	SB 1
Volume Total	222	418	253	253	15	29
Volume Left	13	0	0	0	0	9
Volume Right	0	0	0	0	15	20
cSH	1140	1700	1700	1700	1700	668
Volume to Capacity	0.01	0.25	0.15	0.15	0.01	0.04
Queue Length 95th (ft)	1	0	0	0	0	3
Control Delay (s)	0.6	0.0	0.0	0.0	0.0	10.6
Lane LOS	A					B
Approach Delay (s)	0.2		0.0			10.6
Approach LOS						B

Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	39.0%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	62	507	33	556	100	391	108	504
v/c Ratio	0.18	0.31	0.09	0.35	0.65	0.70	0.47	0.85
Control Delay	16.1	16.1	14.5	15.9	50.7	37.2	34.0	46.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.1	16.1	14.5	15.9	50.7	37.2	34.0	46.2
Queue Length 50th (ft)	23	104	11	112	58	231	57	321
Queue Length 95th (ft)	49	140	29	151	#129	319	108	#467
Internal Link Dist (ft)		143		1078		1026		443
Turn Bay Length (ft)	105		60		110		175	
Base Capacity (vph)	344	1631	369	1605	154	556	232	596
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	0.18	0.31	0.09	0.35	0.65	0.70	0.47	0.85

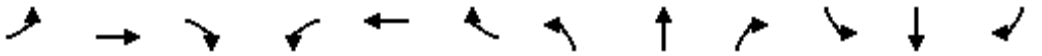
Intersection Summary

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	58	463	8	31	456	67	85	292	40	93	302	132
Future Volume (vph)	58	463	8	31	456	67	85	292	40	93	302	132
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5		5.5	5.5		6.5	6.5		6.5	6.5	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frpb, ped/bikes	1.00	1.00		1.00	0.99		1.00	1.00		1.00	0.99	
Flpb, ped/bikes	0.99	1.00		0.99	1.00		0.99	1.00		0.99	1.00	
Frt	1.00	1.00		1.00	0.98		1.00	0.98		1.00	0.95	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1571	3175		1575	3103		1580	1476		1577	1582	
Flt Permitted	0.41	1.00		0.43	1.00		0.25	1.00		0.37	1.00	
Satd. Flow (perm)	671	3175		719	3103		410	1476		616	1582	
Peak-hour factor, PHF	0.93	0.93	0.93	0.94	0.94	0.94	0.85	0.85	0.85	0.86	0.86	0.86
Adj. Flow (vph)	62	498	9	33	485	71	100	344	47	108	351	153
RTOR Reduction (vph)	0	1	0	0	11	0	0	0	0	0	0	0
Lane Group Flow (vph)	62	506	0	33	545	0	100	391	0	108	504	0
Confl. Peds. (#/hr)	14		18	18		14	21		18	18		21
Confl. Bikes (#/hr)						2			1			2
Parking (#/hr)								0				
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Actuated Green, G (s)	56.5	56.5		56.5	56.5		41.5	41.5		41.5	41.5	
Effective Green, g (s)	56.5	56.5		56.5	56.5		41.5	41.5		41.5	41.5	
Actuated g/C Ratio	0.51	0.51		0.51	0.51		0.38	0.38		0.38	0.38	
Clearance Time (s)	5.5	5.5		5.5	5.5		6.5	6.5		6.5	6.5	
Lane Grp Cap (vph)	344	1630		369	1593		154	556		232	596	
v/s Ratio Prot		0.16			c0.18			0.26			c0.32	
v/s Ratio Perm	0.09			0.05			0.24			0.18		
v/c Ratio	0.18	0.31		0.09	0.34		0.65	0.70		0.47	0.85	
Uniform Delay, d1	14.3	15.5		13.6	15.8		28.2	29.0		25.9	31.3	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.1	0.5		0.5	0.6		19.3	7.3		6.6	13.8	
Delay (s)	15.5	16.0		14.1	16.4		47.5	36.3		32.4	45.1	
Level of Service	B	B		B	B		D	D		C	D	
Approach Delay (s)		15.9			16.2			38.6			42.9	
Approach LOS		B			B			D			D	

Intersection Summary			
HCM 2000 Control Delay	28.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	76.6%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	17	20	10	18	22	32	290	14	14	331	42
Future Volume (Veh/h)	25	17	20	10	18	22	32	290	14	14	331	42
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.91	0.91	0.91	0.86	0.86	0.86
Hourly flow rate (vph)	29	20	24	12	21	26	35	319	15	16	385	49
Pedestrians		13			17			26				
Lane Width (ft)		12.0			12.0			12.0				
Walking Speed (ft/s)		3.5			3.5			3.5				
Percent Blockage		1			2			2				
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								1026				
pX, platoon unblocked												
vC, conflicting volume	863	851	424	890	892	344	447			351		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	863	851	424	890	892	344	447			351		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	87	93	96	95	92	96	97			99		
cM capacity (veh/h)	231	275	605	218	263	692	1105			1188		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2
Volume Total	73	59	369	401	49
Volume Left	29	12	35	16	0
Volume Right	24	26	15	0	49
cSH	307	342	1105	1188	1700
Volume to Capacity	0.24	0.17	0.03	0.01	0.03
Queue Length 95th (ft)	23	15	2	1	0
Control Delay (s)	20.4	17.7	1.1	0.5	0.0
Lane LOS	C	C	A	A	
Approach Delay (s)	20.4	17.7	1.1	0.4	
Approach LOS	C	C			

Intersection Summary				
Average Delay	3.3			
Intersection Capacity Utilization	61.3%	ICU Level of Service		B
Analysis Period (min)	15			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	76	115	392	17	26	477
Future Volume (Veh/h)	76	115	392	17	26	477
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.85	0.85	0.90	0.90	0.91	0.91
Hourly flow rate (vph)	89	135	436	19	29	524
Pedestrians	12		11			1
Lane Width (ft)	12.0		12.0			12.0
Walking Speed (ft/s)	3.5		3.5			3.5
Percent Blockage	1		1			0
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)			523			
pX, platoon unblocked	0.82	0.82			0.82	
vC, conflicting volume	1050	458			467	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	954	235			245	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	60	79			97	
cM capacity (veh/h)	225	654			1075	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	224	455	553
Volume Left	89	0	29
Volume Right	135	19	0
cSH	372	1700	1075
Volume to Capacity	0.60	0.27	0.03
Queue Length 95th (ft)	94	0	2
Control Delay (s)	28.3	0.0	0.8
Lane LOS	D		A
Approach Delay (s)	28.3	0.0	0.8
Approach LOS	D		

Intersection Summary			
Average Delay	5.5		
Intersection Capacity Utilization	64.4%	ICU Level of Service	C
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Stop			Stop	Stop	
Traffic Volume (vph)	47	3	21	73	19	11
Future Volume (vph)	47	3	21	73	19	11
Peak Hour Factor	0.88	0.88	0.89	0.89	0.85	0.85
Hourly flow rate (vph)	53	3	24	82	22	13

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total (vph)	56	106	35
Volume Left (vph)	0	24	22
Volume Right (vph)	3	0	13
Hadj (s)	0.00	0.08	-0.06
Departure Headway (s)	4.1	4.1	4.2
Degree Utilization, x	0.06	0.12	0.04
Capacity (veh/h)	864	862	821
Control Delay (s)	7.4	7.7	7.4
Approach Delay (s)	7.4	7.7	7.4
Approach LOS	A	A	A

Intersection Summary			
Delay	7.5		
Level of Service	A		
Intersection Capacity Utilization	22.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	56	3	4	81	1	2
Future Volume (Veh/h)	56	3	4	81	1	2
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	66	4	5	95	1	2
Pedestrians				2	15	
Lane Width (ft)				12.0	12.0	
Walking Speed (ft/s)				3.5	3.5	
Percent Blockage				0	1	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			85		188	85
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			85		188	85
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1478		791	964

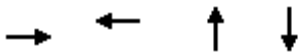
Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	70	100	3
Volume Left	0	5	1
Volume Right	4	0	2
cSH	1700	1478	899
Volume to Capacity	0.04	0.00	0.00
Queue Length 95th (ft)	0	0	0
Control Delay (s)	0.0	0.4	9.0
Lane LOS		A	A
Approach Delay (s)	0.0	0.4	9.0
Approach LOS			A

Intersection Summary			
Average Delay		0.4	
Intersection Capacity Utilization		18.2%	ICU Level of Service
Analysis Period (min)		15	

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	3	0	165	191	8
Future Volume (Veh/h)	0	3	0	165	191	8
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	0	4	0	194	225	9
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				914		
pX, platoon unblocked						
vC, conflicting volume	419	225	234			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	419	225	234			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	591	814	1333			

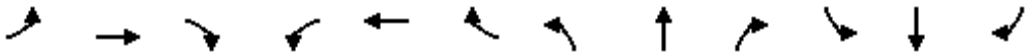
Direction, Lane #	EB 1	NB 1	SB 1	SB 2
Volume Total	4	194	225	9
Volume Left	0	0	0	0
Volume Right	4	0	0	9
cSH	814	1700	1700	1700
Volume to Capacity	0.00	0.11	0.13	0.01
Queue Length 95th (ft)	0	0	0	0
Control Delay (s)	9.4	0.0	0.0	0.0
Lane LOS	A			
Approach Delay (s)	9.4	0.0	0.0	
Approach LOS	A			

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	20.1%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	665	604	64	32
v/c Ratio	0.40	0.38	0.18	0.13
Control Delay	19.0	19.0	13.3	3.4
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	19.0	19.0	13.3	3.4
Queue Length 50th (ft)	170	154	4	0
Queue Length 95th (ft)	200	184	39	5
Internal Link Dist (ft)	180	370	129	90
Turn Bay Length (ft)				
Base Capacity (vph)	1678	1602	354	252
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.40	0.38	0.18	0.13

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	526	37	16	492	5	27	0	27	16	0	11
Future Volume (vph)	2	526	37	16	492	5	27	0	27	16	0	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5			5.5			5.0			4.5	
Lane Util. Factor		0.95			0.95			1.00			1.00	
Frpb, ped/bikes		0.99			1.00			0.98			0.99	
Flpb, ped/bikes		1.00			1.00			1.00			0.98	
Frt		0.99			1.00			0.93			0.95	
Flt Protected		1.00			1.00			0.98			0.97	
Satd. Flow (prot)		3299			3265			1412			1703	
Flt Permitted		0.95			0.92			0.98			0.84	
Satd. Flow (perm)		3148			3010			1412			1466	
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	2	619	44	19	579	6	32	0	32	19	0	13
RTOR Reduction (vph)	0	4	0	0	0	0	0	45	0	0	28	0
Lane Group Flow (vph)	0	661	0	0	604	0	0	19	0	0	4	0
Confl. Peds. (#/hr)	7		50	50		7	4		15	15		4
Heavy Vehicles (%)	7%	7%	7%	10%	10%	10%	20%	20%	20%	0%	0%	0%
Turn Type	Perm	NA		Perm	NA		Split	NA		Perm	NA	
Protected Phases		1			1		2	2			6	
Permitted Phases	1			1						6		
Actuated Green, G (s)		70.5			70.5			29.0			18.0	
Effective Green, g (s)		70.5			70.5			29.0			18.0	
Actuated g/C Ratio		0.53			0.53			0.22			0.14	
Clearance Time (s)		5.5			5.5			5.0			4.5	
Lane Grp Cap (vph)		1674			1601			309			199	
v/s Ratio Prot								c0.01				
v/s Ratio Perm		c0.21			0.20						c0.00	
v/c Ratio		0.40			0.38			0.06			0.02	
Uniform Delay, d1		18.4			18.1			41.0			49.6	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.7			0.7			0.4			0.2	
Delay (s)		19.1			18.8			41.3			49.8	
Level of Service		B			B			D			D	
Approach Delay (s)		19.1			18.8			41.3			49.8	
Approach LOS		B			B			D			D	

Intersection Summary			
HCM 2000 Control Delay	20.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.26		
Actuated Cycle Length (s)	132.5	Sum of lost time (s)	15.0
Intersection Capacity Utilization	51.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	95	3	1	59	0	0
Future Volume (Veh/h)	95	3	1	59	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	103	3	1	64	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			106		170	104
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			106		170	104
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1485		819	950

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	106	65	0
Volume Left	0	1	0
Volume Right	3	0	0
cSH	1700	1485	1700
Volume to Capacity	0.06	0.00	0.00
Queue Length 95th (ft)	0	0	0
Control Delay (s)	0.0	0.1	0.0
Lane LOS		A	A
Approach Delay (s)	0.0	0.1	0.0
Approach LOS			A

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	8.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	92	3	5	57	3	6
Future Volume (Veh/h)	92	3	5	57	3	6
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	100	3	5	62	3	7
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			103		174	102
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			103		174	102
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	99
cM capacity (veh/h)			1489		814	954

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	103	67	10
Volume Left	0	5	3
Volume Right	3	0	7
cSH	1700	1489	907
Volume to Capacity	0.06	0.00	0.01
Queue Length 95th (ft)	0	0	1
Control Delay (s)	0.0	0.6	9.0
Lane LOS		A	A
Approach Delay (s)	0.0	0.6	9.0
Approach LOS			A

Intersection Summary			
Average Delay		0.7	
Intersection Capacity Utilization		17.1%	ICU Level of Service
Analysis Period (min)		15	

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	97	1	0	62	0	0
Future Volume (Veh/h)	97	1	0	62	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.87	0.87	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	111	1	0	73	0	0
Pedestrians	3			4	20	
Lane Width (ft)	12.0			12.0	12.0	
Walking Speed (ft/s)	3.5			3.5	3.5	
Percent Blockage	0			0	2	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			132		208	136
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			132		208	136
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1425		764	892

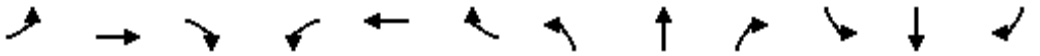
Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	112	73	0
Volume Left	0	0	0
Volume Right	1	0	0
cSH	1700	1425	1700
Volume to Capacity	0.07	0.00	0.00
Queue Length 95th (ft)	0	0	0
Control Delay (s)	0.0	0.0	0.0
Lane LOS			A
Approach Delay (s)	0.0	0.0	0.0
Approach LOS			A

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	20.4%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	692	545	51	205	106	331
v/c Ratio	0.58	0.33	0.38	0.50	0.47	0.83
Control Delay	20.4	9.2	31.0	26.4	42.4	57.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.4	9.2	31.0	26.4	42.4	57.1
Queue Length 50th (ft)	168	76	30	121	63	221
Queue Length 95th (ft)	208	105	m64	184	113	#334
Internal Link Dist (ft)	34	68		333		11
Turn Bay Length (ft)					150	
Base Capacity (vph)	1199	1632	133	406	227	400
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	0.58	0.33	0.38	0.50	0.47	0.83

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.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	83	453	52	32	370	105	43	151	23	90	195	87
Future Volume (vph)	83	453	52	32	370	105	43	151	23	90	195	87
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.5			6.5		6.5	6.5		6.5	6.5	
Lane Util. Factor		0.95			0.95		1.00	1.00		1.00	1.00	
Frpb, ped/bikes		1.00			0.99		1.00	1.00		1.00	0.99	
Flpb, ped/bikes		1.00			1.00		1.00	1.00		0.99	1.00	
Frt		0.99			0.97		1.00	0.98		1.00	0.95	
Flt Protected		0.99			1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		2965			2912		1499	1548		1537	1543	
Flt Permitted		0.77			0.88		0.33	1.00		0.54	1.00	
Satd. Flow (perm)		2293			2565		517	1548		876	1543	
Peak-hour factor, PHF	0.85	0.85	0.85	0.93	0.93	0.93	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	98	533	61	34	398	113	51	178	27	106	229	102
RTOR Reduction (vph)	0	0	0	0	21	0	0	5	0	0	0	0
Lane Group Flow (vph)	0	692	0	0	524	0	51	200	0	106	331	0
Confl. Peds. (#/hr)	6		14	14		6	6		8	8		6
Confl. Bikes (#/hr)			2			1						2
Heavy Vehicles (%)	7%	7%	7%	7%	7%	7%	8%	8%	8%	5%	5%	5%
Turn Type	Perm	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases		6		5	2			4			4	
Permitted Phases	6			2			4			4		
Actuated Green, G (s)		57.5			68.5		28.5	28.5		28.5	28.5	
Effective Green, g (s)		57.5			68.5		28.5	28.5		28.5	28.5	
Actuated g/C Ratio		0.52			0.62		0.26	0.26		0.26	0.26	
Clearance Time (s)		6.5			6.5		6.5	6.5		6.5	6.5	
Lane Grp Cap (vph)		1198			1614		133	401		226	399	
v/s Ratio Prot					c0.02			0.13			c0.21	
v/s Ratio Perm		c0.30			0.19		0.10			0.12		
v/c Ratio		0.58			0.32		0.38	0.50		0.47	0.83	
Uniform Delay, d1		17.9			9.8		33.5	34.7		34.4	38.5	
Progression Factor		1.00			1.00		0.65	0.65		1.00	1.00	
Incremental Delay, d2		2.0			0.5		7.8	4.2		6.8	17.8	
Delay (s)		20.0			10.3		29.7	26.6		41.2	56.3	
Level of Service		B			B		C	C		D	E	
Approach Delay (s)		20.0			10.3			27.2			52.6	
Approach LOS		B			B			C			D	

Intersection Summary			
HCM 2000 Control Delay	25.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	18.5
Intersection Capacity Utilization	93.0%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

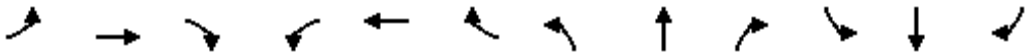
Appendix G

HCM Results: Total Future Conditions

Lane Group	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	595	472	74	228	78	220
v/c Ratio	0.49	0.28	0.35	0.56	0.37	0.54
Control Delay	18.6	7.9	25.2	27.5	39.7	40.9
Queue Delay	11.3	0.0	0.0	0.0	0.0	4.4
Total Delay	29.8	7.9	25.2	27.5	39.7	45.3
Queue Length 50th (ft)	135	56	44	142	45	134
Queue Length 95th (ft)	170	82	m78	209	86	199
Internal Link Dist (ft)	34	68		333		11
Turn Bay Length (ft)					150	
Base Capacity (vph)	1217	1660	210	407	210	408
Starvation Cap Reductn	594	0	0	0	0	122
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.96	0.28	0.35	0.56	0.37	0.77

Intersection Summary

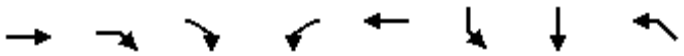
m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	76	367	63	26	295	118	63	184	10	66	152	35
Future Volume (vph)	76	367	63	26	295	118	63	184	10	66	152	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.5			6.5		6.5	6.5		6.5	6.5	
Lane Util. Factor		0.95			0.95		1.00	1.00		1.00	1.00	
Frpb, ped/bikes		1.00			0.99		1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00			1.00		1.00	1.00		0.99	1.00	
Frt		0.98			0.96		1.00	0.99		1.00	0.97	
Flt Protected		0.99			1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		2944			2879		1497	1569		1537	1577	
Flt Permitted		0.79			0.90		0.52	1.00		0.50	1.00	
Satd. Flow (perm)		2332			2591		812	1569		811	1577	
Peak-hour factor, PHF	0.85	0.85	0.85	0.93	0.93	0.93	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	89	432	74	28	317	127	74	216	12	78	179	41
RTOR Reduction (vph)	0	0	0	0	34	0	0	1	0	0	0	0
Lane Group Flow (vph)	0	595	0	0	438	0	74	227	0	78	220	0
Confl. Peds. (#/hr)	6		14	14		6	6		8	8		6
Confl. Bikes (#/hr)			2			1						2
Heavy Vehicles (%)	7%	7%	7%	7%	7%	7%	8%	8%	8%	5%	5%	5%
Turn Type	Perm	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases		6		5	2			4			4	
Permitted Phases	6			2			4			4		
Actuated Green, G (s)		57.5			68.5		28.5	28.5		28.5	28.5	
Effective Green, g (s)		57.5			68.5		28.5	28.5		28.5	28.5	
Actuated g/C Ratio		0.52			0.62		0.26	0.26		0.26	0.26	
Clearance Time (s)		6.5			6.5		6.5	6.5		6.5	6.5	
Lane Grp Cap (vph)		1219			1627		210	406		210	408	
v/s Ratio Prot					c0.01			c0.14			0.14	
v/s Ratio Perm		c0.26			0.15		0.09			0.10		
v/c Ratio		0.49			0.27		0.35	0.56		0.37	0.54	
Uniform Delay, d1		16.8			9.4		33.2	35.3		33.4	35.1	
Progression Factor		1.00			1.00		0.61	0.63		1.00	1.00	
Incremental Delay, d2		1.4			0.4		4.3	5.1		5.0	5.0	
Delay (s)		18.2			9.8		24.4	27.2		38.4	40.1	
Level of Service		B			A		C	C		D	D	
Approach Delay (s)		18.2			9.8			26.5			39.7	
Approach LOS		B			A			C			D	

Intersection Summary			
HCM 2000 Control Delay	21.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	18.5
Intersection Capacity Utilization	91.7%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBT	EBR	EBR2	WBL	WBT	SBL	SBT	NWL
Lane Group Flow (vph)	84	366	12	34	102	97	101	783
v/c Ratio	0.41	0.33	0.02	0.13	0.16	0.42	0.34	0.59
Control Delay	29.2	21.5	0.1	36.0	23.6	48.2	27.3	22.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.2	21.5	0.1	36.0	23.6	48.2	27.3	22.2
Queue Length 50th (ft)	40	94	0	19	20	66	37	182
Queue Length 95th (ft)	89	135	0	48	43	122	91	244
Internal Link Dist (ft)	784				499		424	1197
Turn Bay Length (ft)		80	80	45				
Base Capacity (vph)	203	1094	665	258	657	233	298	1330
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	0.41	0.33	0.02	0.13	0.16	0.42	0.34	0.59

Intersection Summary

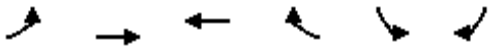
Movement	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	SBL2	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	28	51	344	11	22	10	63	33	11	89	37	49
Future Volume (vph)	28	51	344	11	22	10	63	33	11	89	37	49
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.0	7.0	7.0		6.5	6.5			7.0	4.0	
Lane Util. Factor		1.00	0.88	1.00		1.00	0.95			0.95	0.95	
Frpb, ped/bikes		1.00	1.00	0.98		1.00	0.99			1.00	0.99	
Flpb, ped/bikes		1.00	1.00	1.00		0.99	1.00			1.00	1.00	
Frt		1.00	0.85	0.85		1.00	0.95			1.00	0.92	
Flt Protected		0.98	1.00	1.00		0.95	1.00			0.95	1.00	
Satd. Flow (prot)		1645	2508	1390		1570	2828			1513	1452	
Flt Permitted		0.28	1.00	1.00		0.70	1.00			0.95	1.00	
Satd. Flow (perm)		467	2508	1390		1161	2828			1513	1452	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	30	54	366	12	23	11	67	35	12	95	39	52
RTOR Reduction (vph)	0	0	0	7	0	0	27	0	0	0	36	0
Lane Group Flow (vph)	0	84	366	5	0	34	75	0	0	97	65	0
Confl. Peds. (#/hr)	5		5	8	5	8		5	1	5		1
Confl. Bikes (#/hr)			6	6				7				
Parking (#/hr)							0	0				
Turn Type	custom	NA	Over	custom	custom	Prot	NA		Prot	Prot	NA	
Protected Phases			1			2			3	3		
Permitted Phases	1	1		1	2		2					
Actuated Green, G (s)		48.0	48.0	48.0		24.5	24.5			17.0	17.0	
Effective Green, g (s)		48.0	48.0	48.0		24.5	24.5			17.0	17.0	
Actuated g/C Ratio		0.44	0.44	0.44		0.22	0.22			0.15	0.15	
Clearance Time (s)		7.0	7.0	7.0		6.5	6.5			7.0		
Lane Grp Cap (vph)		203	1094	606		258	629			233	224	
v/s Ratio Prot			0.15							c0.06	0.05	
v/s Ratio Perm		0.18		0.00		c0.03	0.03					
v/c Ratio		0.41	0.33	0.01		0.13	0.12			0.42	0.29	
Uniform Delay, d1		21.3	20.5	17.5		34.2	34.1			42.0	41.2	
Progression Factor		1.00	1.00	1.00		1.00	1.00			1.00	1.00	
Incremental Delay, d2		6.1	0.8	0.0		1.1	0.4			5.4	3.3	
Delay (s)		27.4	21.3	17.6		35.3	34.5			47.4	44.5	
Level of Service		C	C	B		D	C			D	D	
Approach Delay (s)		22.3					34.7				45.9	
Approach LOS		C					C				D	

Intersection Summary			
HCM 2000 Control Delay	27.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	20.5
Intersection Capacity Utilization	75.0%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	NWL2	NWL	NWR	NWR2
Lane Configurations				
Traffic Volume (vph)	8	520	175	33
Future Volume (vph)	8	520	175	33
Ideal Flow (vphpl)	1900	1900	1900	1900
Total Lost time (s)		7.0		
Lane Util. Factor		0.97		
Frpb, ped/bikes		0.99		
Flpb, ped/bikes		0.99		
Frt		0.96		
Flt Protected		0.97		
Satd. Flow (prot)		2964		
Flt Permitted		0.95		
Satd. Flow (perm)		2913		
Peak-hour factor, PHF	0.94	0.94	0.94	0.94
Adj. Flow (vph)	9	553	186	35
RTOR Reduction (vph)	0	59	0	0
Lane Group Flow (vph)	0	724	0	0
Confl. Peds. (#/hr)	1	5	1	5
Confl. Bikes (#/hr)				1
Parking (#/hr)			0	0
Turn Type	D.Pm	Prot		
Protected Phases		1		
Permitted Phases	1			
Actuated Green, G (s)		48.0		
Effective Green, g (s)		48.0		
Actuated g/C Ratio		0.44		
Clearance Time (s)		7.0		
Lane Grp Cap (vph)		1271		
v/s Ratio Prot				
v/s Ratio Perm		c0.25		
v/c Ratio		0.57		
Uniform Delay, d1		23.3		
Progression Factor		1.00		
Incremental Delay, d2		1.9		
Delay (s)		25.1		
Level of Service		C		
Approach Delay (s)		25.1		
Approach LOS		C		

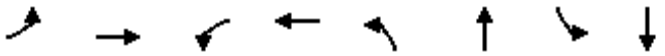
Intersection Summary



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	19	597	417	10	3	18
Future Volume (Veh/h)	19	597	417	10	3	18
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.89	0.89	0.85	0.85
Hourly flow rate (vph)	21	649	469	11	4	21
Pedestrians		4			5	
Lane Width (ft)		12.0			12.0	
Walking Speed (ft/s)		3.5			3.5	
Percent Blockage		0			0	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		1278	260			
pX, platoon unblocked	0.93				0.95	0.93
vC, conflicting volume	485				840	244
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	309				570	50
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	98				99	98
cM capacity (veh/h)	1161				420	933

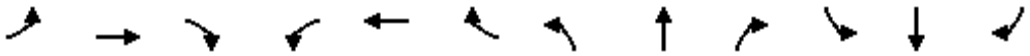
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	SB 1
Volume Total	237	433	234	234	11	25
Volume Left	21	0	0	0	0	4
Volume Right	0	0	0	0	11	21
cSH	1161	1700	1700	1700	1700	781
Volume to Capacity	0.02	0.25	0.14	0.14	0.01	0.03
Queue Length 95th (ft)	1	0	0	0	0	2
Control Delay (s)	0.9	0.0	0.0	0.0	0.0	9.8
Lane LOS	A					A
Approach Delay (s)	0.3		0.0			9.8
Approach LOS						A

Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	44.9%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	78	569	30	493	113	422	121	408
v/c Ratio	0.21	0.35	0.09	0.31	0.52	0.75	0.57	0.67
Control Delay	16.5	16.5	14.6	14.8	36.9	39.8	40.1	35.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.5	16.5	14.6	14.8	36.9	39.8	40.1	35.0
Queue Length 50th (ft)	29	120	10	93	61	256	67	237
Queue Length 95th (ft)	59	157	28	128	114	350	126	322
Internal Link Dist (ft)		143		1078		1026		443
Turn Bay Length (ft)	105		60		110		175	
Base Capacity (vph)	374	1632	339	1591	218	561	211	610
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	0.21	0.35	0.09	0.31	0.52	0.75	0.57	0.67

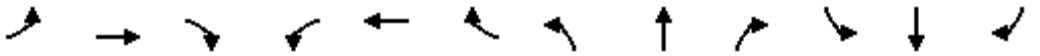
Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	69	499	7	28	376	87	96	330	29	103	290	57
Future Volume (vph)	69	499	7	28	376	87	96	330	29	103	290	57
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5		5.5	5.5		6.5	6.5		6.5	6.5	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frpb, ped/bikes	1.00	1.00		1.00	0.99		1.00	1.00		1.00	0.99	
Flpb, ped/bikes	0.98	1.00		0.99	1.00		0.98	1.00		1.00	1.00	
Frt	1.00	1.00		1.00	0.97		1.00	0.99		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1565	3177		1576	3063		1562	1488		1586	1620	
Flt Permitted	0.44	1.00		0.40	1.00		0.35	1.00		0.34	1.00	
Satd. Flow (perm)	729	3177		660	3063		578	1488		561	1620	
Peak-hour factor, PHF	0.89	0.89	0.89	0.94	0.94	0.94	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	78	561	8	30	400	93	113	388	34	121	341	67
RTOR Reduction (vph)	0	1	0	0	18	0	0	0	0	0	0	0
Lane Group Flow (vph)	78	568	0	30	475	0	113	422	0	121	408	0
Confl. Peds. (#/hr)	16		19	19		16	37		8	8		37
Confl. Bikes (#/hr)									5			2
Parking (#/hr)								0				
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Actuated Green, G (s)	56.5	56.5		56.5	56.5		41.5	41.5		41.5	41.5	
Effective Green, g (s)	56.5	56.5		56.5	56.5		41.5	41.5		41.5	41.5	
Actuated g/C Ratio	0.51	0.51		0.51	0.51		0.38	0.38		0.38	0.38	
Clearance Time (s)	5.5	5.5		5.5	5.5		6.5	6.5		6.5	6.5	
Lane Grp Cap (vph)	374	1631		339	1573		218	561		211	611	
v/s Ratio Prot		c0.18			0.15			c0.28			0.25	
v/s Ratio Perm	0.11			0.05			0.20			0.22		
v/c Ratio	0.21	0.35		0.09	0.30		0.52	0.75		0.57	0.67	
Uniform Delay, d1	14.6	15.8		13.6	15.4		26.5	29.8		27.2	28.5	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.3	0.6		0.5	0.5		8.5	9.0		10.9	5.7	
Delay (s)	15.8	16.4		14.1	15.9		35.1	38.8		38.1	34.2	
Level of Service	B	B		B	B		D	D		D	C	
Approach Delay (s)		16.4			15.8			38.0			35.1	
Approach LOS		B			B			D			D	

Intersection Summary			
HCM 2000 Control Delay	25.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	73.1%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	24	9	3	25	24	25	347	24	28	212	46
Future Volume (Veh/h)	37	24	9	3	25	24	25	347	24	28	212	46
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	44	28	11	4	29	28	29	408	28	33	249	54
Pedestrians		16			14			42			5	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		3.5			3.5			3.5			3.5	
Percent Blockage		2			1			4			0	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								320				
pX, platoon unblocked	0.82	0.82		0.82	0.82	0.82				0.82		
vC, conflicting volume	858	839	307	876	879	441	319			450		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	719	695	307	740	744	211	319			222		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	81	90	98	98	89	96	98			97		
cM capacity (veh/h)	226	274	688	219	257	665	1211			1082		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2
Volume Total	83	61	465	282	54
Volume Left	44	4	29	33	0
Volume Right	11	28	28	0	54
cSH	265	352	1211	1082	1700
Volume to Capacity	0.31	0.17	0.02	0.03	0.03
Queue Length 95th (ft)	32	15	2	2	0
Control Delay (s)	24.6	17.4	0.7	1.3	0.0
Lane LOS	C	C	A	A	
Approach Delay (s)	24.6	17.4	0.7	1.1	
Approach LOS	C	C			

Intersection Summary				
Average Delay	4.0			
Intersection Capacity Utilization	60.5%	ICU Level of Service		B
Analysis Period (min)	15			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	43	518	0	44	487
Future Volume (Veh/h)	0	43	518	0	44	487
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	0	51	609	0	52	573
Pedestrians	11		15			5
Lane Width (ft)	12.0		12.0			12.0
Walking Speed (ft/s)	3.5		3.5			3.5
Percent Blockage	1		1			0
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)			523			
pX, platoon unblocked	0.78	0.78			0.78	
vC, conflicting volume	1312	625			620	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1260	383			376	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	90			94	
cM capacity (veh/h)	136	513			916	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	51	609	625
Volume Left	0	0	52
Volume Right	51	0	0
cSH	513	1700	916
Volume to Capacity	0.10	0.36	0.06
Queue Length 95th (ft)	8	0	5
Control Delay (s)	12.8	0.0	1.5
Lane LOS	B		A
Approach Delay (s)	12.8	0.0	1.5
Approach LOS	B		

Intersection Summary			
Average Delay	1.2		
Intersection Capacity Utilization	70.2%	ICU Level of Service	C
Analysis Period (min)	15		

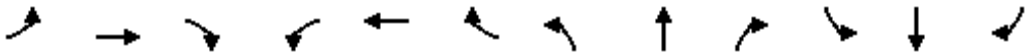
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Stop			Stop	Stop	
Traffic Volume (vph)	49	3	7	59	7	20
Future Volume (vph)	49	3	7	59	7	20
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	58	4	8	69	8	24

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total (vph)	62	77	32
Volume Left (vph)	0	8	8
Volume Right (vph)	4	0	24
Hadj (s)	0.00	0.05	-0.37
Departure Headway (s)	4.0	4.1	3.8
Degree Utilization, x	0.07	0.09	0.03
Capacity (veh/h)	876	869	898
Control Delay (s)	7.3	7.5	7.0
Approach Delay (s)	7.3	7.5	7.0
Approach LOS	A	A	A

Intersection Summary			
Delay	7.3		
Level of Service	A		
Intersection Capacity Utilization	19.0%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	596	469	10	54
v/c Ratio	0.38	0.30	0.03	0.24
Control Delay	18.6	17.4	0.1	34.0
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	18.6	17.4	0.1	34.0
Queue Length 50th (ft)	149	111	0	22
Queue Length 95th (ft)	192	147	0	64
Internal Link Dist (ft)	180	370	129	90
Turn Bay Length (ft)				
Base Capacity (vph)	1588	1553	362	223
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.38	0.30	0.03	0.24

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	27	498	53	18	392	45	7	0	3	27	1	24
Future Volume (vph)	27	498	53	18	392	45	7	0	3	27	1	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5			5.5			5.0			4.5	
Lane Util. Factor		0.95			0.95			1.00			1.00	
Frpb, ped/bikes		0.98			0.98			0.99			0.99	
Flpb, ped/bikes		1.00			1.00			1.00			0.98	
Frt		0.99			0.99			0.96			0.94	
Flt Protected		1.00			1.00			0.97			0.97	
Satd. Flow (prot)		3258			3170			1448			1686	
Flt Permitted		0.91			0.92			0.97			0.86	
Satd. Flow (perm)		2977			2910			1448			1487	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	28	513	55	19	404	46	7	0	3	28	1	25
RTOR Reduction (vph)	0	6	0	0	6	0	0	8	0	0	22	0
Lane Group Flow (vph)	0	590	0	0	463	0	0	2	0	0	32	0
Confl. Peds. (#/hr)	43		45	45		43	6		18	18		6
Confl. Bikes (#/hr)						1						
Heavy Vehicles (%)	7%	7%	7%	10%	10%	10%	20%	20%	20%	0%	0%	0%
Turn Type	Perm	NA		Perm	NA		Split	NA		Perm	NA	
Protected Phases		1			1		2	2			6	
Permitted Phases	1			1						6		
Actuated Green, G (s)		70.5			70.5			29.0			18.0	
Effective Green, g (s)		70.5			70.5			29.0			18.0	
Actuated g/C Ratio		0.53			0.53			0.22			0.14	
Clearance Time (s)		5.5			5.5			5.0			4.5	
Lane Grp Cap (vph)		1583			1548			316			202	
v/s Ratio Prot								c0.00				
v/s Ratio Perm		c0.20			0.16						c0.02	
v/c Ratio		0.37			0.30			0.01			0.16	
Uniform Delay, d1		18.1			17.3			40.5			50.6	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.7			0.5			0.0			1.7	
Delay (s)		18.8			17.7			40.5			52.3	
Level of Service		B			B			D			D	
Approach Delay (s)		18.8			17.7			40.5			52.3	
Approach LOS		B			B			D			D	

Intersection Summary			
HCM 2000 Control Delay	20.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.25		
Actuated Cycle Length (s)	132.5	Sum of lost time (s)	15.0
Intersection Capacity Utilization	62.3%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	60	5	34	61	2	10
Future Volume (Veh/h)	60	5	34	61	2	10
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	65	5	37	66	2	11
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			70		208	68
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			70		208	68
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			98		100	99
cM capacity (veh/h)			1531		762	996

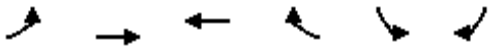
Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	70	103	13
Volume Left	0	37	2
Volume Right	5	0	11
cSH	1700	1531	951
Volume to Capacity	0.04	0.02	0.01
Queue Length 95th (ft)	0	2	1
Control Delay (s)	0.0	2.8	8.8
Lane LOS		A	A
Approach Delay (s)	0.0	2.8	8.8
Approach LOS			A

Intersection Summary			
Average Delay		2.2	
Intersection Capacity Utilization		21.8%	ICU Level of Service
Analysis Period (min)		15	

Lane Group	EBT	WBT	SBL
Lane Group Flow (vph)	40	22	65
v/c Ratio	0.06	0.03	0.09
Control Delay	8.6	11.8	6.6
Queue Delay	0.0	0.0	0.0
Total Delay	8.6	11.8	6.6
Queue Length 50th (ft)	6	4	6
Queue Length 95th (ft)	19	m11	23
Internal Link Dist (ft)	24	23	1
Turn Bay Length (ft)			
Base Capacity (vph)	724	693	701
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.06	0.03	0.09

Intersection Summary

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

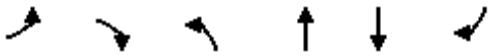


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	6	30	8	12	39	21
Future Volume (vph)	6	30	8	12	39	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5		4.5	
Lane Util. Factor		1.00	1.00		1.00	
Frt		1.00	0.92		0.95	
Flt Protected		0.99	1.00		0.97	
Satd. Flow (prot)		1847	1714		1718	
Flt Permitted		0.97	1.00		0.97	
Satd. Flow (perm)		1811	1714		1718	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	7	33	9	13	42	23
RTOR Reduction (vph)	0	0	8	0	14	0
Lane Group Flow (vph)	0	40	14	0	51	0
Turn Type	Perm	NA	NA		Prot	
Protected Phases		4	8		6	
Permitted Phases	4					
Actuated Green, G (s)		18.0	18.0		18.0	
Effective Green, g (s)		18.0	18.0		18.0	
Actuated g/C Ratio		0.40	0.40		0.40	
Clearance Time (s)		4.5	4.5		4.5	
Lane Grp Cap (vph)		724	685		687	
v/s Ratio Prot			0.01		c0.03	
v/s Ratio Perm		c0.02				
v/c Ratio		0.06	0.02		0.07	
Uniform Delay, d1		8.3	8.2		8.3	
Progression Factor		1.00	1.94		1.00	
Incremental Delay, d2		0.1	0.1		0.2	
Delay (s)		8.4	15.9		8.6	
Level of Service		A	B		A	
Approach Delay (s)		8.4	15.9		8.6	
Approach LOS		A	B		A	

Intersection Summary			
HCM 2000 Control Delay	9.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.06		
Actuated Cycle Length (s)	45.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	18.4%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	NBT	SBT
Lane Group Flow (vph)	75	426	246
v/c Ratio	0.11	0.58	0.33
Control Delay	6.0	14.4	10.8
Queue Delay	0.0	0.0	0.0
Total Delay	6.0	14.4	10.8
Queue Length 50th (ft)	5	81	41
Queue Length 95th (ft)	22	149	80
Internal Link Dist (ft)	23	122	128
Turn Bay Length (ft)			
Base Capacity (vph)	698	737	744
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.11	0.58	0.33

Intersection Summary

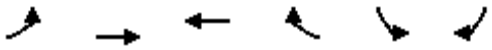


Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	28	41	11	381	220	6
Future Volume (vph)	28	41	11	381	220	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5			4.5	4.5	
Lane Util. Factor	1.00			1.00	1.00	
Frt	0.92			1.00	1.00	
Flt Protected	0.98			1.00	1.00	
Satd. Flow (prot)	1678			1860	1856	
Flt Permitted	0.98			0.99	1.00	
Satd. Flow (perm)	1678			1844	1856	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	30	45	12	414	239	7
RTOR Reduction (vph)	27	0	0	0	2	0
Lane Group Flow (vph)	48	0	0	426	244	0
Turn Type	Prot		Perm	NA	NA	
Protected Phases	4			2	6	
Permitted Phases			2			
Actuated Green, G (s)	18.0			18.0	18.0	
Effective Green, g (s)	18.0			18.0	18.0	
Actuated g/C Ratio	0.40			0.40	0.40	
Clearance Time (s)	4.5			4.5	4.5	
Lane Grp Cap (vph)	671			737	742	
v/s Ratio Prot	c0.03				0.13	
v/s Ratio Perm				c0.23		
v/c Ratio	0.07			0.58	0.33	
Uniform Delay, d1	8.3			10.5	9.3	
Progression Factor	1.13			1.00	1.00	
Incremental Delay, d2	0.2			3.3	1.2	
Delay (s)	9.7			13.8	10.5	
Level of Service	A			B	B	
Approach Delay (s)	9.7			13.8	10.5	
Approach LOS	A			B	B	

Intersection Summary			
HCM 2000 Control Delay	12.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.32		
Actuated Cycle Length (s)	45.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	40.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group
Lane Group Flow (vph)
v/c Ratio
Control Delay
Queue Delay
Total Delay
Queue Length 50th (ft)
Queue Length 95th (ft)
Internal Link Dist (ft)
Turn Bay Length (ft)
Base Capacity (vph)
Starvation Cap Reductn
Spillback Cap Reductn
Storage Cap Reductn
Reduced v/c Ratio

Intersection Summary



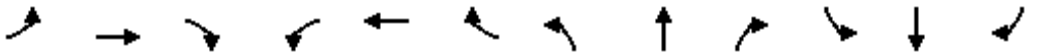
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	0	0	0	0
Future Volume (vph)	0	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)						
Lane Util. Factor						
Frt						
Flt Protected						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	0	0
Turn Type					Prot	
Protected Phases		4	8		6	
Permitted Phases	4					
Actuated Green, G (s)						
Effective Green, g (s)						
Actuated g/C Ratio						
Clearance Time (s)						
Lane Grp Cap (vph)						
v/s Ratio Prot						
v/s Ratio Perm						
v/c Ratio						
Uniform Delay, d1						
Progression Factor						
Incremental Delay, d2						
Delay (s)						
Level of Service						
Approach Delay (s)		0.0	0.0		0.0	
Approach LOS		A	A		A	

Intersection Summary			
HCM 2000 Control Delay	0.0	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.00		
Actuated Cycle Length (s)	45.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	0.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	725	564	66	227	104	351
v/c Ratio	0.60	0.34	0.55	0.56	0.50	0.88
Control Delay	21.0	9.4	34.6	21.8	44.1	63.0
Queue Delay	9.8	0.0	0.0	0.0	0.0	51.6
Total Delay	30.8	9.4	34.6	21.8	44.1	114.6
Queue Length 50th (ft)	180	80	41	138	63	238
Queue Length 95th (ft)	221	110	m79	199	113	#365
Internal Link Dist (ft)	34	68		333		11
Turn Bay Length (ft)					150	
Base Capacity (vph)	1199	1636	120	406	210	400
Starvation Cap Reductn	442	0	0	0	0	104
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.96	0.34	0.55	0.56	0.50	1.19

Intersection Summary

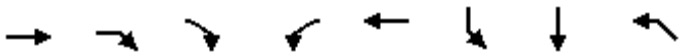
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	83	481	52	32	389	104	56	170	23	88	212	87
Future Volume (vph)	83	481	52	32	389	104	56	170	23	88	212	87
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.5			6.5		6.5	6.5		6.5	6.5	
Lane Util. Factor		0.95			0.95		1.00	1.00		1.00	1.00	
Frpb, ped/bikes		1.00			1.00		1.00	1.00		1.00	0.99	
Flpb, ped/bikes		1.00			1.00		1.00	1.00		0.99	1.00	
Frt		0.99			0.97		1.00	0.98		1.00	0.96	
Flt Protected		0.99			1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		2969			2925		1499	1551		1537	1548	
Flt Permitted		0.77			0.88		0.29	1.00		0.50	1.00	
Satd. Flow (perm)		2297			2572		465	1551		814	1548	
Peak-hour factor, PHF	0.85	0.85	0.85	0.93	0.93	0.93	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	98	566	61	34	418	112	66	200	27	104	249	102
RTOR Reduction (vph)	0	0	0	0	20	0	0	4	0	0	0	0
Lane Group Flow (vph)	0	725	0	0	544	0	66	223	0	104	351	0
Confl. Peds. (#/hr)	6		14	14		6	6		8	8		6
Confl. Bikes (#/hr)			2			1						2
Heavy Vehicles (%)	7%	7%	7%	7%	7%	7%	8%	8%	8%	5%	5%	5%
Turn Type	Perm	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases		6		5	2			4			4	
Permitted Phases	6			2			4			4		
Actuated Green, G (s)		57.5			68.5		28.5	28.5		28.5	28.5	
Effective Green, g (s)		57.5			68.5		28.5	28.5		28.5	28.5	
Actuated g/C Ratio		0.52			0.62		0.26	0.26		0.26	0.26	
Clearance Time (s)		6.5			6.5		6.5	6.5		6.5	6.5	
Lane Grp Cap (vph)		1200			1619		120	401		210	401	
v/s Ratio Prot					c0.02			0.14			c0.23	
v/s Ratio Perm		c0.32			0.19		0.14			0.13		
v/c Ratio		0.60			0.34		0.55	0.55		0.50	0.88	
Uniform Delay, d1		18.3			9.9		35.2	35.3		34.6	39.0	
Progression Factor		1.00			1.00		0.51	0.49		1.00	1.00	
Incremental Delay, d2		2.3			0.6		14.7	4.7		8.1	22.5	
Delay (s)		20.6			10.5		32.7	21.9		42.8	61.5	
Level of Service		C			B		C	C		D	E	
Approach Delay (s)		20.6			10.5			24.3			57.2	
Approach LOS		C			B			C			E	

Intersection Summary			
HCM 2000 Control Delay	26.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	18.5
Intersection Capacity Utilization	92.9%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBT	EBR	EBR2	WBL	WBT	SBL	SBT	NWL
Lane Group Flow (vph)	107	670	8	34	105	164	195	683
v/c Ratio	0.45	0.61	0.01	0.15	0.16	0.70	0.66	0.57
Control Delay	29.2	26.8	0.0	36.5	29.9	61.5	43.5	21.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.2	26.8	0.0	36.5	29.9	61.5	43.5	21.5
Queue Length 50th (ft)	52	202	0	19	26	116	104	153
Queue Length 95th (ft)	108	270	0	48	51	#216	189	211
Internal Link Dist (ft)	784				499		424	1197
Turn Bay Length (ft)		80	80	45				
Base Capacity (vph)	239	1094	628	230	657	233	297	1206
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	0.45	0.61	0.01	0.15	0.16	0.70	0.66	0.57

Intersection Summary

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

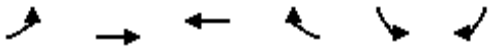
Movement	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	SBL2	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	32	66	616	7	21	10	82	15	6	160	69	95
Future Volume (vph)	32	66	616	7	21	10	82	15	6	160	69	95
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.0	7.0	7.0		6.5	6.5			7.0	4.0	
Lane Util. Factor		1.00	0.88	1.00		1.00	0.95			0.95	0.95	
Frpb, ped/bikes		1.00	1.00	0.92		1.00	0.98			1.00	0.98	
Flpb, ped/bikes		0.99	1.00	1.00		0.90	1.00			1.00	1.00	
Frt		1.00	0.85	0.85		1.00	0.98			1.00	0.92	
Flt Protected		0.98	1.00	1.00		0.95	1.00			0.95	1.00	
Satd. Flow (prot)		1631	2508	1306		1430	2898			1513	1433	
Flt Permitted		0.33	1.00	1.00		0.69	1.00			0.95	1.00	
Satd. Flow (perm)		548	2508	1306		1035	2898			1513	1433	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	35	72	670	8	23	11	89	16	7	174	75	103
RTOR Reduction (vph)	0	0	0	5	0	0	12	0	0	0	38	0
Lane Group Flow (vph)	0	107	670	3	0	34	93	0	0	164	157	0
Confl. Peds. (#/hr)	84		40	57	40	57		84	9	57		12
Confl. Bikes (#/hr)			7	7				8				
Parking (#/hr)							0	0				
Turn Type	custom	NA	Over	custom	custom	Prot	NA		Prot	Prot	NA	
Protected Phases			1			2			3	3		
Permitted Phases	1	1		1	2		2					
Actuated Green, G (s)		48.0	48.0	48.0		24.5	24.5			17.0	17.0	
Effective Green, g (s)		48.0	48.0	48.0		24.5	24.5			17.0	17.0	
Actuated g/C Ratio		0.44	0.44	0.44		0.22	0.22			0.15	0.15	
Clearance Time (s)		7.0	7.0	7.0		6.5	6.5			7.0		
Lane Grp Cap (vph)		239	1094	569		230	645			233	221	
v/s Ratio Prot			c0.27							0.11	0.11	
v/s Ratio Perm		0.20		0.00		c0.03	0.03					
v/c Ratio		0.45	0.61	0.01		0.15	0.14			0.70	0.71	
Uniform Delay, d1		21.7	23.8	17.5		34.4	34.3			44.1	44.2	
Progression Factor		1.00	1.00	1.00		1.00	1.00			1.00	1.00	
Incremental Delay, d2		6.0	2.6	0.0		1.4	0.5			16.4	17.6	
Delay (s)		27.7	26.4	17.5		35.7	34.8			60.5	61.7	
Level of Service		C	C	B		D	C			E	E	
Approach Delay (s)		26.5					35.0				61.2	
Approach LOS		C					D				E	

Intersection Summary			
HCM 2000 Control Delay	32.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	20.5
Intersection Capacity Utilization	75.2%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	NWL2	NWL	NWR	NWR2
Lane Configurations				
Traffic Volume (vph)	11	421	176	20
Future Volume (vph)	11	421	176	20
Ideal Flow (vphpl)	1900	1900	1900	1900
Total Lost time (s)		7.0		
Lane Util. Factor		0.97		
Frpb, ped/bikes		0.93		
Flpb, ped/bikes		0.97		
Frt		0.95		
Flt Protected		0.97		
Satd. Flow (prot)		2715		
Flt Permitted		0.94		
Satd. Flow (perm)		2631		
Peak-hour factor, PHF	0.92	0.92	0.92	0.92
Adj. Flow (vph)	12	458	191	22
RTOR Reduction (vph)	0	59	0	0
Lane Group Flow (vph)	0	624	0	0
Confl. Peds. (#/hr)	57	9	84	12
Confl. Bikes (#/hr)				
Parking (#/hr)			0	0
Turn Type	D.Pm	Prot		
Protected Phases		1		
Permitted Phases	1			
Actuated Green, G (s)		48.0		
Effective Green, g (s)		48.0		
Actuated g/C Ratio		0.44		
Clearance Time (s)		7.0		
Lane Grp Cap (vph)		1148		
v/s Ratio Prot				
v/s Ratio Perm		0.24		
v/c Ratio		0.54		
Uniform Delay, d1		22.9		
Progression Factor		1.00		
Incremental Delay, d2		1.9		
Delay (s)		24.8		
Level of Service		C		
Approach Delay (s)		24.8		
Approach LOS		C		

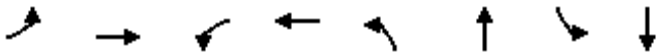
Intersection Summary



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	12	604	521	14	7	16
Future Volume (Veh/h)	12	604	521	14	7	16
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.89	0.89	0.96	0.96	0.82	0.82
Hourly flow rate (vph)	13	679	543	15	9	20
Pedestrians		8	11		11	
Lane Width (ft)		12.0	12.0		12.0	
Walking Speed (ft/s)		3.5	3.5		3.5	
Percent Blockage		1	1		1	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		1278	260			
pX, platoon unblocked	0.91				0.93	0.91
vC, conflicting volume	569				930	290
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	343				610	39
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				98	98
cM capacity (veh/h)	1098				385	921

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	SB 1
Volume Total	239	453	272	272	15	29
Volume Left	13	0	0	0	0	9
Volume Right	0	0	0	0	15	20
cSH	1098	1700	1700	1700	1700	643
Volume to Capacity	0.01	0.27	0.16	0.16	0.01	0.05
Queue Length 95th (ft)	1	0	0	0	0	4
Control Delay (s)	0.6	0.0	0.0	0.0	0.0	10.9
Lane LOS	A					B
Approach Delay (s)	0.2		0.0			10.9
Approach LOS						B

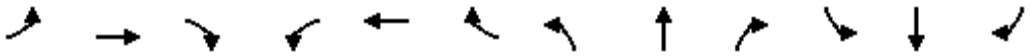
Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	40.4%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	62	527	46	573	100	397	108	499
v/c Ratio	0.18	0.32	0.13	0.36	0.63	0.72	0.48	0.84
Control Delay	16.3	16.2	15.2	16.1	48.8	37.9	34.6	45.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.3	16.2	15.2	16.1	48.8	37.9	34.6	45.3
Queue Length 50th (ft)	23	109	16	116	57	236	57	317
Queue Length 95th (ft)	49	146	38	156	#127	326	109	#459
Internal Link Dist (ft)		143		1078		1026		443
Turn Bay Length (ft)	105		60		110		175	
Base Capacity (vph)	336	1631	360	1603	158	554	227	597
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	0.18	0.32	0.13	0.36	0.63	0.72	0.48	0.84

Intersection Summary

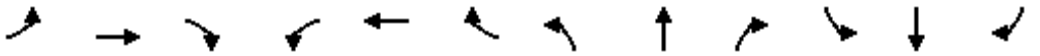
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	58	482	8	43	472	67	85	291	47	93	301	128
Future Volume (vph)	58	482	8	43	472	67	85	291	47	93	301	128
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5		5.5	5.5		6.5	6.5		6.5	6.5	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frpb, ped/bikes	1.00	1.00		1.00	0.99		1.00	1.00		1.00	0.99	
Flpb, ped/bikes	0.99	1.00		0.99	1.00		0.99	1.00		0.99	1.00	
Frt	1.00	1.00		1.00	0.98		1.00	0.98		1.00	0.96	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1572	3175		1579	3102		1580	1470		1577	1583	
Flt Permitted	0.40	1.00		0.42	1.00		0.25	1.00		0.36	1.00	
Satd. Flow (perm)	655	3175		702	3102		418	1470		604	1583	
Peak-hour factor, PHF	0.93	0.93	0.93	0.94	0.94	0.94	0.85	0.85	0.85	0.86	0.86	0.86
Adj. Flow (vph)	62	518	9	46	502	71	100	342	55	108	350	149
RTOR Reduction (vph)	0	1	0	0	10	0	0	0	0	0	0	0
Lane Group Flow (vph)	62	526	0	46	563	0	100	397	0	108	499	0
Confl. Peds. (#/hr)	14		18	14		18	21		18	18		21
Confl. Bikes (#/hr)						2			1			2
Parking (#/hr)								0				
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Actuated Green, G (s)	56.5	56.5		56.5	56.5		41.5	41.5		41.5	41.5	
Effective Green, g (s)	56.5	56.5		56.5	56.5		41.5	41.5		41.5	41.5	
Actuated g/C Ratio	0.51	0.51		0.51	0.51		0.38	0.38		0.38	0.38	
Clearance Time (s)	5.5	5.5		5.5	5.5		6.5	6.5		6.5	6.5	
Lane Grp Cap (vph)	336	1630		360	1593		157	554		227	597	
v/s Ratio Prot		0.17			c0.18			0.27			c0.32	
v/s Ratio Perm	0.09			0.07			0.24			0.18		
v/c Ratio	0.18	0.32		0.13	0.35		0.64	0.72		0.48	0.84	
Uniform Delay, d1	14.4	15.6		13.9	15.9		28.1	29.2		26.0	31.2	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.2	0.5		0.7	0.6		18.1	7.7		7.0	13.0	
Delay (s)	15.6	16.1		14.7	16.5		46.2	37.0		33.0	44.2	
Level of Service	B	B		B	B		D	D		C	D	
Approach Delay (s)		16.1			16.4			38.8			42.2	
Approach LOS		B			B			D			D	

Intersection Summary			
HCM 2000 Control Delay	27.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	76.3%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	44	17	23	10	18	22	31	295	14	8	341	59
Future Volume (Veh/h)	44	17	23	10	18	22	31	295	14	8	341	59
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.91	0.91	0.91	0.86	0.86	0.86
Hourly flow rate (vph)	52	20	27	12	21	26	34	324	15	9	397	69
Pedestrians		13			17			26				
Lane Width (ft)		12.0			12.0			12.0				
Walking Speed (ft/s)		3.5			3.5			3.5				
Percent Blockage		1			2			2				
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								321				
pX, platoon unblocked	0.86	0.86		0.86	0.86	0.86				0.86		
vC, conflicting volume	864	852	436	894	914	348	479			356		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	757	743	436	793	815	155	479			164		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	78	93	95	94	92	97	97			99		
cM capacity (veh/h)	234	273	595	217	251	755	1075			1192		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2
Volume Total	99	59	373	406	69
Volume Left	52	12	34	9	0
Volume Right	27	26	15	0	69
cSH	291	340	1075	1192	1700
Volume to Capacity	0.34	0.17	0.03	0.01	0.04
Queue Length 95th (ft)	36	15	2	1	0
Control Delay (s)	23.6	17.8	1.1	0.3	0.0
Lane LOS	C	C	A	A	
Approach Delay (s)	23.6	17.8	1.1	0.2	
Approach LOS	C	C			

Intersection Summary				
Average Delay	3.9			
Intersection Capacity Utilization	63.5%	ICU Level of Service	B	
Analysis Period (min)	15			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	70	121	392	10	32	477
Future Volume (Veh/h)	70	121	392	10	32	477
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.85	0.85	0.90	0.90	0.91	0.91
Hourly flow rate (vph)	82	142	436	11	35	524
Pedestrians	12		11			1
Lane Width (ft)	12.0		12.0			12.0
Walking Speed (ft/s)	3.5		3.5			3.5
Percent Blockage	1		1			0
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)			523			
pX, platoon unblocked	0.83	0.83			0.83	
vC, conflicting volume	1058	454			459	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	965	233			239	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	63	78			97	
cM capacity (veh/h)	221	657			1084	

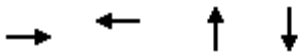
Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	224	447	559
Volume Left	82	0	35
Volume Right	142	11	0
cSH	381	1700	1084
Volume to Capacity	0.59	0.26	0.03
Queue Length 95th (ft)	90	0	3
Control Delay (s)	27.0	0.0	0.9
Lane LOS	D		A
Approach Delay (s)	27.0	0.0	0.9
Approach LOS	D		

Intersection Summary			
Average Delay	5.3		
Intersection Capacity Utilization	69.5%	ICU Level of Service	C
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Stop			Stop	Stop	
Traffic Volume (vph)	45	3	21	73	19	11
Future Volume (vph)	45	3	21	73	19	11
Peak Hour Factor	0.88	0.88	0.89	0.89	0.85	0.85
Hourly flow rate (vph)	51	3	24	82	22	13

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total (vph)	54	106	35
Volume Left (vph)	0	24	22
Volume Right (vph)	3	0	13
Hadj (s)	0.00	0.08	-0.06
Departure Headway (s)	4.1	4.1	4.2
Degree Utilization, x	0.06	0.12	0.04
Capacity (veh/h)	865	863	822
Control Delay (s)	7.3	7.7	7.4
Approach Delay (s)	7.3	7.7	7.4
Approach LOS	A	A	A

Intersection Summary			
Delay	7.5		
Level of Service	A		
Intersection Capacity Utilization	22.0%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	619	574	56	116
v/c Ratio	0.39	0.36	0.16	0.48
Control Delay	18.9	18.4	10.8	33.0
Queue Delay	0.0	0.7	0.0	0.0
Total Delay	18.9	19.1	10.8	33.0
Queue Length 50th (ft)	157	142	0	42
Queue Length 95th (ft)	201	184	35	106
Internal Link Dist (ft)	180	370	129	90
Turn Bay Length (ft)				
Base Capacity (vph)	1607	1599	354	242
Starvation Cap Reductn	0	660	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.39	0.61	0.16	0.48

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	24	539	37	16	498	44	27	0	27	61	0	51
Future Volume (vph)	24	539	37	16	498	44	27	0	27	61	0	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5			5.5			5.0			4.5	
Lane Util. Factor		0.95			0.95			1.00			1.00	
Frpb, ped/bikes		0.99			1.00			0.98			0.99	
Flpb, ped/bikes		1.00			1.00			1.00			0.99	
Frt		0.99			0.99			0.93			0.94	
Flt Protected		1.00			1.00			0.98			0.97	
Satd. Flow (prot)		3298			3223			1412			1695	
Flt Permitted		0.91			0.93			0.98			0.80	
Satd. Flow (perm)		3012			2997			1412			1393	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	25	556	38	16	513	45	28	0	28	63	0	53
RTOR Reduction (vph)	0	4	0	0	5	0	0	44	0	0	54	0
Lane Group Flow (vph)	0	615	0	0	569	0	0	12	0	0	62	0
Confl. Peds. (#/hr)	7		50	50		7	4		15	15		4
Heavy Vehicles (%)	7%	7%	7%	10%	10%	10%	20%	20%	20%	0%	0%	0%
Turn Type	Perm	NA		Perm	NA		Split	NA		Perm	NA	
Protected Phases		1			1		2	2			6	
Permitted Phases	1			1						6		
Actuated Green, G (s)		70.5			70.5			29.0			18.0	
Effective Green, g (s)		70.5			70.5			29.0			18.0	
Actuated g/C Ratio		0.53			0.53			0.22			0.14	
Clearance Time (s)		5.5			5.5			5.0			4.5	
Lane Grp Cap (vph)		1602			1594			309			189	
v/s Ratio Prot								c0.01				
v/s Ratio Perm		c0.20			0.19						c0.04	
v/c Ratio		0.38			0.36			0.04			0.33	
Uniform Delay, d1		18.2			17.9			40.8			51.8	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.7			0.6			0.2			4.6	
Delay (s)		18.9			18.5			41.0			56.4	
Level of Service		B			B			D			E	
Approach Delay (s)		18.9			18.5			41.0			56.4	
Approach LOS		B			B			D			E	

Intersection Summary			
HCM 2000 Control Delay	22.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.29		
Actuated Cycle Length (s)	132.5	Sum of lost time (s)	15.0
Intersection Capacity Utilization	60.3%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	49	4	30	78	6	34
Future Volume (Veh/h)	49	4	30	78	6	34
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	53	4	33	85	7	37
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			57		206	55
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			57		206	55
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			98		99	96
cM capacity (veh/h)			1547		766	1012

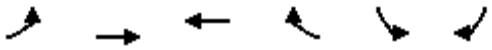
Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	57	118	44
Volume Left	0	33	7
Volume Right	4	0	37
cSH	1700	1547	963
Volume to Capacity	0.03	0.02	0.05
Queue Length 95th (ft)	0	2	4
Control Delay (s)	0.0	2.2	8.9
Lane LOS		A	A
Approach Delay (s)	0.0	2.2	8.9
Approach LOS			A

Intersection Summary			
Average Delay	3.0		
Intersection Capacity Utilization	22.4%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBT	WBT	SBL
Lane Group Flow (vph)	32	58	25
v/c Ratio	0.05	0.08	0.04
Control Delay	8.6	13.1	6.9
Queue Delay	0.0	1.5	0.0
Total Delay	8.6	14.6	6.9
Queue Length 50th (ft)	5	13	2
Queue Length 95th (ft)	16	m35	12
Internal Link Dist (ft)	16	64	1
Turn Bay Length (ft)			
Base Capacity (vph)	652	704	692
Starvation Cap Reductn	0	530	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.05	0.33	0.04

Intersection Summary

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

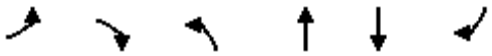


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	18	11	20	33	15	8
Future Volume (vph)	18	11	20	33	15	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5		4.5	
Lane Util. Factor		1.00	1.00		1.00	
Frt		1.00	0.92		0.95	
Flt Protected		0.97	1.00		0.97	
Satd. Flow (prot)		1806	1707		1717	
Flt Permitted		0.88	1.00		0.97	
Satd. Flow (perm)		1632	1707		1717	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	20	12	22	36	16	9
RTOR Reduction (vph)	0	0	22	0	5	0
Lane Group Flow (vph)	0	32	36	0	20	0
Turn Type	Perm	NA	NA		Prot	
Protected Phases		4	8		6	
Permitted Phases	4					
Actuated Green, G (s)		18.0	18.0		18.0	
Effective Green, g (s)		18.0	18.0		18.0	
Actuated g/C Ratio		0.40	0.40		0.40	
Clearance Time (s)		4.5	4.5		4.5	
Lane Grp Cap (vph)		652	682		686	
v/s Ratio Prot			c0.02		c0.01	
v/s Ratio Perm		0.02				
v/c Ratio		0.05	0.05		0.03	
Uniform Delay, d1		8.3	8.3		8.2	
Progression Factor		1.00	2.56		1.00	
Incremental Delay, d2		0.1	0.1		0.1	
Delay (s)		8.4	21.3		8.3	
Level of Service		A	C		A	
Approach Delay (s)		8.4	21.3		8.3	
Approach LOS		A	C		A	

Intersection Summary			
HCM 2000 Control Delay	14.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.04		
Actuated Cycle Length (s)	45.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	19.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	NBL	NBT	SBT
Lane Group Flow (vph)	28	35	363	416
v/c Ratio	0.04	0.11	0.49	0.56
Control Delay	6.8	9.7	12.8	13.8
Queue Delay	0.5	0.0	0.0	0.0
Total Delay	7.3	9.7	12.8	13.8
Queue Length 50th (ft)	2	5	66	76
Queue Length 95th (ft)	14	19	122	142
Internal Link Dist (ft)	64		121	129
Turn Bay Length (ft)				
Base Capacity (vph)	682	309	745	744
Starvation Cap Reductn	494	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.15	0.11	0.49	0.56

Intersection Summary

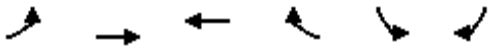


Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	11	15	32	334	361	22
Future Volume (vph)	11	15	32	334	361	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5		4.5	4.5	4.5	
Lane Util. Factor	1.00		1.00	1.00	1.00	
Frt	0.92		1.00	1.00	0.99	
Flt Protected	0.98		0.95	1.00	1.00	
Satd. Flow (prot)	1683		1770	1863	1848	
Flt Permitted	0.98		0.41	1.00	1.00	
Satd. Flow (perm)	1683		772	1863	1848	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	12	16	35	363	392	24
RTOR Reduction (vph)	10	0	0	0	5	0
Lane Group Flow (vph)	18	0	35	363	411	0
Turn Type	Prot		Perm	NA	NA	
Protected Phases	4			2	6	
Permitted Phases			2			
Actuated Green, G (s)	18.0		18.0	18.0	18.0	
Effective Green, g (s)	18.0		18.0	18.0	18.0	
Actuated g/C Ratio	0.40		0.40	0.40	0.40	
Clearance Time (s)	4.5		4.5	4.5	4.5	
Lane Grp Cap (vph)	673		308	745	739	
v/s Ratio Prot	c0.01			0.19	c0.22	
v/s Ratio Perm			0.05			
v/c Ratio	0.03		0.11	0.49	0.56	
Uniform Delay, d1	8.2		8.5	10.1	10.4	
Progression Factor	1.14		1.00	1.00	1.00	
Incremental Delay, d2	0.1		0.7	2.3	3.0	
Delay (s)	9.4		9.2	12.3	13.4	
Level of Service	A		A	B	B	
Approach Delay (s)	9.4			12.1	13.4	
Approach LOS	A			B	B	

Intersection Summary			
HCM 2000 Control Delay	12.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.29		
Actuated Cycle Length (s)	45.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	38.3%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group
Lane Group Flow (vph)
v/c Ratio
Control Delay
Queue Delay
Total Delay
Queue Length 50th (ft)
Queue Length 95th (ft)
Internal Link Dist (ft)
Turn Bay Length (ft)
Base Capacity (vph)
Starvation Cap Reductn
Spillback Cap Reductn
Storage Cap Reductn
Reduced v/c Ratio

Intersection Summary



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	0	0	0	0
Future Volume (vph)	0	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)						
Lane Util. Factor						
Frt						
Flt Protected						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	0	0
Turn Type					Prot	
Protected Phases		4	8		6	
Permitted Phases	4					
Actuated Green, G (s)						
Effective Green, g (s)						
Actuated g/C Ratio						
Clearance Time (s)						
Lane Grp Cap (vph)						
v/s Ratio Prot						
v/s Ratio Perm						
v/c Ratio						
Uniform Delay, d1						
Progression Factor						
Incremental Delay, d2						
Delay (s)						
Level of Service						
Approach Delay (s)		0.0	0.0		0.0	
Approach LOS		A	A		A	

Intersection Summary			
HCM 2000 Control Delay	0.0	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.00		
Actuated Cycle Length (s)	45.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	0.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

WELLS + ASSOCIATES

MEMORANDUM

To: TDM Planner
Arlington County Department of Environmental Services

From: Christopher L. Kabatt, P.E.

1420 Spring Hill Road
Suite 610
Tysons, Virginia 22102
703–917–6620
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www.mjwells.com

Subject: Arlington YMCA
Residential Building
Preliminary Transportation Management Plan
Arlington County, Virginia

Date: August 1, 2022

Introduction

This document presents a preliminary Transportation Management Plan (TMP) for the residential component of the Arlington YMCA redevelopment project. A 4.1 Site Plan application has been filed to re-develop the YMCA site to include a new YMCA and a multi-family building.

The subject site is located on the south side of 13th Street North bounded by single-family homes to the west, townhomes to the north and east, and commercial uses and the APAH/American Legion mixed use building and Mill Creek multi-family building (under construction) to the south.

A new YMCA building will be constructed on the west side of the site to include an array of uses including a Diversity, Equity, and Inclusion center, tennis and pickle ball courts, an aquatics center, STEM and maker-space for children, and community health amenities within approximately 95,140 S.F. served by approximately 203 parking spaces in a four-level underground parking garage. The main entrance to the YMCA will be off 13th Street N. and parking and loading will occur from a new shared access drive on the west side of the building extending from the new segment of N. Kansas Street on the west side of APAH's American Legion development. The new, north-south shared access drive will provide access to both 13th Street N. and Washington Boulevard. With the redevelopment of the YMCA site, the number of curb cuts on 13th Street N. will be reduced from four (4) existing to one (1) curb cut for the new shared access drive.

The east side of the site will be redeveloped with a 374 unit multi-family residential building and 295 parking spaces. The main entrance for residents will on the North Kirkwood Road frontage. Vehicular access to the parking garage and loading docks will be from an alley on the south side that connects to North Kirkwood Road and Washington Boulevard. A layby lane, or short term

parking, is proposed on North Kirkwood Road in front of the main lobby. The existing driveway on North Kirkwood Road serving the YMCA site will be removed.

The subject site is located in a walkable multimodal rich environment with a connected network of sidewalks and nearby bike amenities. Access to/from the site is provided by a combination of local streets and arterial roadways. Further, the site is located within a short walking distance to bus lines and approximately 1/3 of a mile to the Clarendon and Virginia Square Metro Stations.

This TMP has been developed for residential component of the site, consisting of strategies and methods to contribute individually and in combination to achieving objectives outlined as part of the Arlington County Transportation Demand Management (TDM) program. This preliminary TMP will be finalized for implementation by the developer/building owner should the application be approved.

Transportation Management Plan

The Developer/Owner agrees to obtain the approval of the County Manager or his designee for such plan prior to the issuance of the first Certificate of Occupancy (CO) for the buildings. Upon approval of the TMP by the County Manager, the Developer agrees to implement all elements of the plan with assistance, when appropriate, by agencies of the County. Unless otherwise specified, the Developer agrees that all individual elements of this TMP shall be operational prior to issuance of the First Partial Certificate of Occupancy for Tenant Occupancy.

Should the TMP include annual assessments, they will be adjusted for inflation by the U.S. Department of Labor, Bureau of Labor Statistics Consumer Price Index (CPI) Inflation Calculator from the date of site plan approval.

The TMP shall include a schedule and details of implementation, and continued operation of the elements in the plan. The TMP shall include, but not be limited to, the following strategies.

Participation and Funding

a. Maintain an active, ongoing relationship with Arlington Transportation Partners (ATP), or successor entity, at no cost to the developer, on behalf of the property owner.

b. Designate a member of building management as Property Transportation Coordinator (PTC) to be a primary point of contact with the County and undertake the responsibility for coordinating and completing all TMP obligations. The Developer/Owner and/or building management company will provide, and keep current, the name and contact information of the PTC to Arlington County Commuter Services (ACCS). The PTC shall be appropriately trained, to the satisfaction of ACCS, to provide rideshare, transit, and other information provided by Arlington County intended to assist residents of the building with transportation to and from the site.

c. In addition to supporting the ongoing activities of the PTC and other commitments of this TMP, the Developer/Owner agrees to contribute to the ACCS, or successor, to sustain direct and indirect on-site and off-site services in support of TMP. Payment on this commitment shall begin as a condition of issuance of the First Partial Certificate of Occupancy for Tenant Occupancy for the residential building. Subsequent payments shall be made annually.

Physical Facilities and Improvements

a. Provide one (1) transportation information display, which could be electronic, in the main lobby to provide transportation-related information to residents, employees, and guests. The developer agrees that the required transportation information displays shall meet the Arlington County Neighborhood Transportation Information Display Standards in effect on the date of the site plan approval, or equivalent as approved by the County Manager.

b. Comply with requirements of Site Plan conditions to provide bicycle parking/storage facilities, a Parking Management Plan (PMP), a Bicycle Facilities Management Plan, and parking for construction workers.

Promotions, Services, Policies

a. Prepare, reproduce, and distribute, in digital or hard copy, materials provided by Arlington County, which includes site-specific transit, bike, walk, and rideshare related information, to each new residential lessee or purchaser, property management, or maintenance employee, from initial occupancy through the life of the site plan. These materials shall be distributed as a part of prospective tenant marketing materials, as well as communications associated with lease signing, on-boarding, or similar activities.

b. Provide a one time, per person, to each new residential lessee, property management, or maintenance employee, directly employed or contracted, who moves into or begins employment in the buildings throughout initial occupancy, the choice of one of the following:

- Metro fare (amount to be determined) on a SmarTrip card or successor fare medium;
- A one-year bikeshare membership;
- A one-year carshare membership.

c. Provide, administer, or cause the provision of a sustainable commute benefit program for on-site property management and maintenance employees. The program shall include, at a minimum, pre-tax employee contributions and/or tax-free transit.

d. Distribute a new-resident package, or similar, as specified by the County TDM planner; material provided by Arlington County which includes site-specific ridesharing and transit-related information to each residential lessee. Packages will be distributed to tenants no later than the day of move-in on-site.

e. Distribute a new-employee package, or similar, as specified by the County TDM planner; material provided by Arlington County which includes site-specific ridesharing and transit-related information for on-site employees. Packages will be distributed to employees no later than their first week of work on-site.

f. Provide reference to the Clarendon and Virginia Square Metro stations and local bus routes in promotional materials and advertisements for the building.

g. Cooperate with Arlington County to assist the County in implementing a transit-advertising program that will distribute information four times per year to residents, employees, and guests.

Performance and Monitoring

a. Upon approval of the TMP by the County, the Developer/Owner agrees to implement all elements of the plan with assistance when appropriate by agencies of the County.

b. During the first year of implementation of the TMP, and on an annual basis thereafter, the Developer/Owner will submit an annual letter to the County Manager, describing completely and correctly, the TDM related activities of the site.

c. Conduct a transportation performance monitoring study at two (2) years, five (5) years, and each subsequent five (5) years, after issuance of first Certificate of Occupancy. The County will specify the timing and reasonable scope of the study which may include building occupancy rates, average vehicle occupancy, average garage occupancy for various day of the week and times of the day, parking availability by time of day, average duration of stay for short term parkers on various days of the week and times of day, pedestrian traffic, a seven-day count of site-generated vehicle traffic, a voluntary mode-split survey, and hourly/monthly/special event parking rates. The building owner and/or operator shall notify, assist, and encourage building occupants and visitors on site to participate in mode-split surveys which may be online or email variety.

Summary

The elements of the Arlington YMCA TMP for the residential building will influence the travel behavior of residents, employees, and guests to maximize the use of the transportation facilities available. The TMP will reduce peak hour vehicle-trips, reduce parking demand, and promote use of alternative transportation modes.

WELLS + ASSOCIATES

MEMORANDUM

To: TDM Planner
Arlington County Department of Environmental Services

From: Christopher L. Kabatt, P.E.

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Suite 610
Tysons, Virginia 22102
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Subject: Arlington YMCA
YMCA Building
Preliminary Transportation Management Plan
Arlington County, Virginia

Date: August 1, 2022

Introduction

This document presents a preliminary Transportation Management Plan (TMP) for the YMCA component of the Arlington YMCA re-development project. A 4.1 Site Plan application has been filed to re-develop the YMCA site to include a new YMCA and a multi-family building.

The subject site is located on the south side of 13th Street North bounded by single-family homes to the west, townhomes to the north and east, and commercial uses and the APAH/American Legion mixed use building and Mill Creek multi-family building (under construction) to the south.

A new YMCA building will be constructed on the west side of the site to include an array of uses including a Diversity, Equity, and Inclusion center, tennis and pickle ball courts, an aquatics center, STEM and maker-space for children, and community health amenities within approximately 95,140 S.F. served by approximately 203 parking spaces in a four-level underground parking garage. The main entrance to the YMCA will be off 13th Street N. and parking and loading will occur from a new shared access drive on the west side of the building extending from the new segment of N. Kansas Street on the west side of APAH's American Legion development. The new, north-south shared access drive will provide access to both 13th Street N. and Washington Boulevard. With the redevelopment of the YMCA site, the number of curb cuts on 13th Street N. will be reduced from four (4) existing to one (1) curb cut for the new shared access drive.

The east side of the site will be redeveloped with a 374 unit multi-family residential building and 295 parking spaces. The main entrance for residents will on the North Kirkwood Road frontage. Vehicular access to the parking garage and loading docks will be from an alley on the south side that connects to North Kirkwood Road and Washington Boulevard. A layby lane, or short term

parking, is proposed on North Kirkwood Road in front of the main lobby. The existing driveway on North Kirkwood Road serving the YMCA site will be removed.

The subject site is located in a walkable multimodal rich environment with a connected network of sidewalks and nearby bike amenities. Access to/from the site is provided by a combination of local streets and arterial roadways. Further, the site is located within a short walking distance to bus lines and approximately 1/3 of a mile to the Clarendon and Virginia Square Metro Stations.

This TMP has been developed for the employees of the YMCA, consisting of strategies and methods to contribute individually and in combination to achieving objectives outlined as part of the Arlington County Transportation Demand Management (TDM) program. This preliminary TMP will be finalized for implementation by the developer/building owner should the application be approved.

Transportation Management Plan

The Developer/Owner agrees to obtain the approval of the County Manager or his designee for such plan prior to the issuance of the first Certificate of Occupancy (CO) for the buildings. Upon approval of the TMP by the County Manager, the Developer agrees to implement all elements of the plan with assistance, when appropriate, by agencies of the County. Unless otherwise specified, the Developer agrees that all individual elements of this TMP shall be operational prior to issuance of the First Partial Certificate of Occupancy for use of the YMCA.

Should the TMP include annual assessments, they will be adjusted for inflation by the U.S. Department of Labor, Bureau of Labor Statistics Consumer Price Index (CPI) Inflation Calculator from the date of site plan approval.

The TMP shall include a schedule and details of implementation, and continued operation of the elements in the plan. The TMP shall include, but not be limited to, the following strategies.

Participation and Funding

a. Maintain an active, ongoing relationship with Arlington Transportation Partners (ATP), or successor entity, at no cost to the developer, on behalf of the property owner.

b. Designate a member of building management as Property Transportation Coordinator (PTC) to be a primary point of contact with the County and undertake the responsibility for coordinating and completing all TMP obligations. The Developer/Owner and/or building management company will provide, and keep current, the name and contact information of the PTC to Arlington County Commuter Services (ACCS). The PTC shall be appropriately trained, to the satisfaction of ACCS, to provide rideshare, transit, and other information provided by Arlington County intended to assist employees of the building with transportation to and from the site.

c. In addition to supporting the ongoing activities of the PTC and other commitments of this TMP, the Developer/Owner agrees to contribute to the ACCS, or successor, to sustain direct and indirect on-site and off-site services in support of TMP. Payment on this commitment shall begin as a condition of issuance of the First Partial Certificate of Occupancy for YMCA use for the YMCA building. Subsequent payments shall be made annually.

Physical Facilities and Improvements

a. Provide one (1) transportation information display, which could be electronic, in the main lobby to provide transportation-related information to employees. The developer agrees that the required transportation information displays shall meet the Arlington County Neighborhood Transportation Information Display Standards in effect on the date of the site plan approval, or equivalent as approved by the County Manager.

b. Comply with requirements of Site Plan conditions to provide bicycle parking/storage facilities, a Parking Management Plan (PMP), a Bicycle Facilities Management Plan, and parking for construction workers.

Promotions, Services, Policies

a. Prepare, reproduce, and distribute, in digital or hard copy, materials provided by Arlington County, which includes site-specific transit, bike, walk, and rideshare related information, to each new employee, from initial occupancy through the life of the site plan. These materials shall be distributed as a part of prospective employee marketing materials, as well as communications associated with on-boarding or similar activities.

b. Provide a one time, per person, to each new employee, directly employed or contracted, who begins employment in the buildings throughout initial occupancy, the choice of one of the following:

- Metro fare (amount to be determined) on a SmarTrip card or successor fare medium;
- A one-year bikeshare membership;
- A one-year carshare membership.

c. Provide, administer, or cause the provision of a sustainable commute benefit program for employees. The program shall include, at a minimum, pre-tax employee contributions and/or tax-free transit.

d. Distribute a new-employee package, or similar, as specified by the County TDM planner; material provided by Arlington County which includes site-specific ridesharing and transit-related information to each employee. Packages will be distributed to employees no later than their first week of work on-site.

e. Provide reference to the Clarendon and Virginia Square Metro stations and local bus routes in promotional materials and advertisements for the building.

f. Cooperate with Arlington County to assist the County in implementing a transit-advertising program that will distribute information four times per year to employees.

Performance and Monitoring

a. Upon approval of the TMP by the County, the Developer/Owner agrees to implement all elements of the plan with assistance when appropriate by agencies of the County.

b. During the first year of implementation of the TMP, and on an annual basis thereafter, the Developer/Owner will submit an annual letter to the County Manager, describing completely and correctly, the TDM related activities of the site.

c. Conduct a transportation performance monitoring study at two (2) years, five (5) years, and each subsequent five (5) years, after issuance of first Certificate of Occupancy. The County will specify the timing and reasonable scope of the study which may include building occupancy rates, average vehicle occupancy, average garage occupancy for various day of the week and times of the day, parking availability by time of day, average duration of stay for short term parkers on various days of the week and times of day, pedestrian traffic, a seven-day count of site-generated vehicle traffic, a voluntary mode-split survey, and hourly/monthly/special event parking rates. The building owner and/or operator shall notify, assist, and encourage building employees on site to participate in mode-split surveys which may be online or email variety.

Summary

The elements of the Arlington YMCA TMP for the YMCA use will influence the travel behavior of employees to maximize the use of the transportation facilities available. The TMP will reduce peak hour vehicle-trips, reduce parking demand, and promote use of alternative transportation modes.