Technical Appendix

Seven Corners Phasing Study

Fairfax County, Virginia

June 2023

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Project No. 22632.004

June 2023

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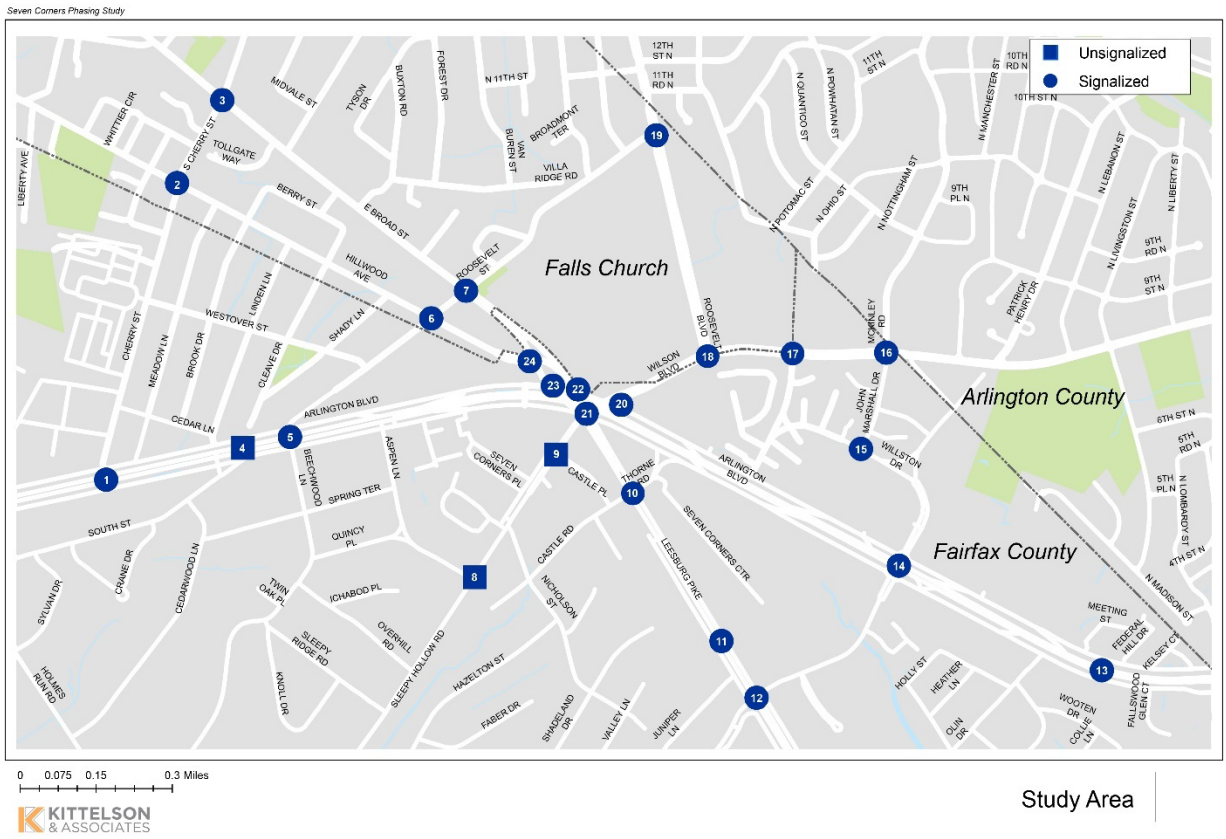
Appendix A
Data Development

Data Development

Fairfax County Department of Transportation (FCDOT) conducted a phasing analysis for previously recommended transportation improvements. The transportation study area is shown in **Figure A-1** and extends beyond the Seven Corners Community Business Center (CBC) and into the City of Falls Church and Arlington County. The study area was roughly bounded by Cherry Street to the west, Broad Street/Roosevelt Street/Wilson Boulevard/Arlington Boulevard to the north, Patrick Henry Drive to the east, and the Sleepy Hollow and Ravenwood Park neighborhoods to the south.

The transportation study area was multi-jurisdictional and included intersections that are within the City of Falls Church and close to the Arlington County line. Additionally, Arlington County controls some traffic signals that are within Fairfax County to provide traffic signal coordination.

Figure A-1: Seven Corners Study Area



ATYPICAL TRAVEL VOLUMES

The initial data collection plan for this effort was to collect turning movement counts at the study intersections and tube counts at a few select locations in September 2020. Following the COVID-19 shutdown and the resulting economic slowdown, the Seven Corners project team was concerned about how and if travel demand would recover. At the time of data collection in Fall 2020, case rates were high, and Fairfax County Public Schools elected to begin the school year virtually. As such, the Seven Corners project team determined that it was unlikely that travel patterns would be back to "normal" for data collection.

APPROACH TO DEVELOPING TRAVEL VOLUMES

Considering the likelihood that COVID-19 pandemic response would persist, the project team began considering a new approach to develop travel volumes. Historic turning-movement counts in the study area were identified from the previous study as well as from available counts from 2018 and 2019. The objective of this memorandum is to summarize the available data and describe the proposed volume development approach in the absence of reliable data in the study area.

AVAILABLE TRAFFIC DATA

The project team reached out to traffic engineering staff at Virginia Department of Transportation (VDOT), Arlington County, and the City of Falls Church to obtain any recent peak hour turning movement counts that have been conducted in the study area. VDOT provided weekday AM, weekday PM, and Saturday data at 12 intersections. Arlington County provided data for two additional study intersections. Counts from Arlington County and VDOT had been conducted in May 2018 and September 2019, respectively, providing the project team with relatively recent data. The City of Falls Church did not have any recent traffic counts available for the study area.

The project team also revisited 2013 data collected during the previous Seven Corners Transportation Study. Between May 2018/September 2019 and 2013 counts, peak hour turning-movement counts are available at all the signalized intersections in the study area. A Count Location Summary is included as **Figure A-2** and shows the study intersections with their respective data collection dates. Intersection lists are also provided in **Appendix A1** at the end of this document.

For intersections with 2018/2019 counts, a comparison of intersection volumes was conducted with the 2013 counts to understand growth patterns in the study area. The volume changes from 2013 to 2018/2019 are summarized in **Table A-1**. Note that these changes are presented as both number of vehicles and as a percentage. Overall, the data shows that volumes typically grew from 2013 to 2018/2019 within the study area.

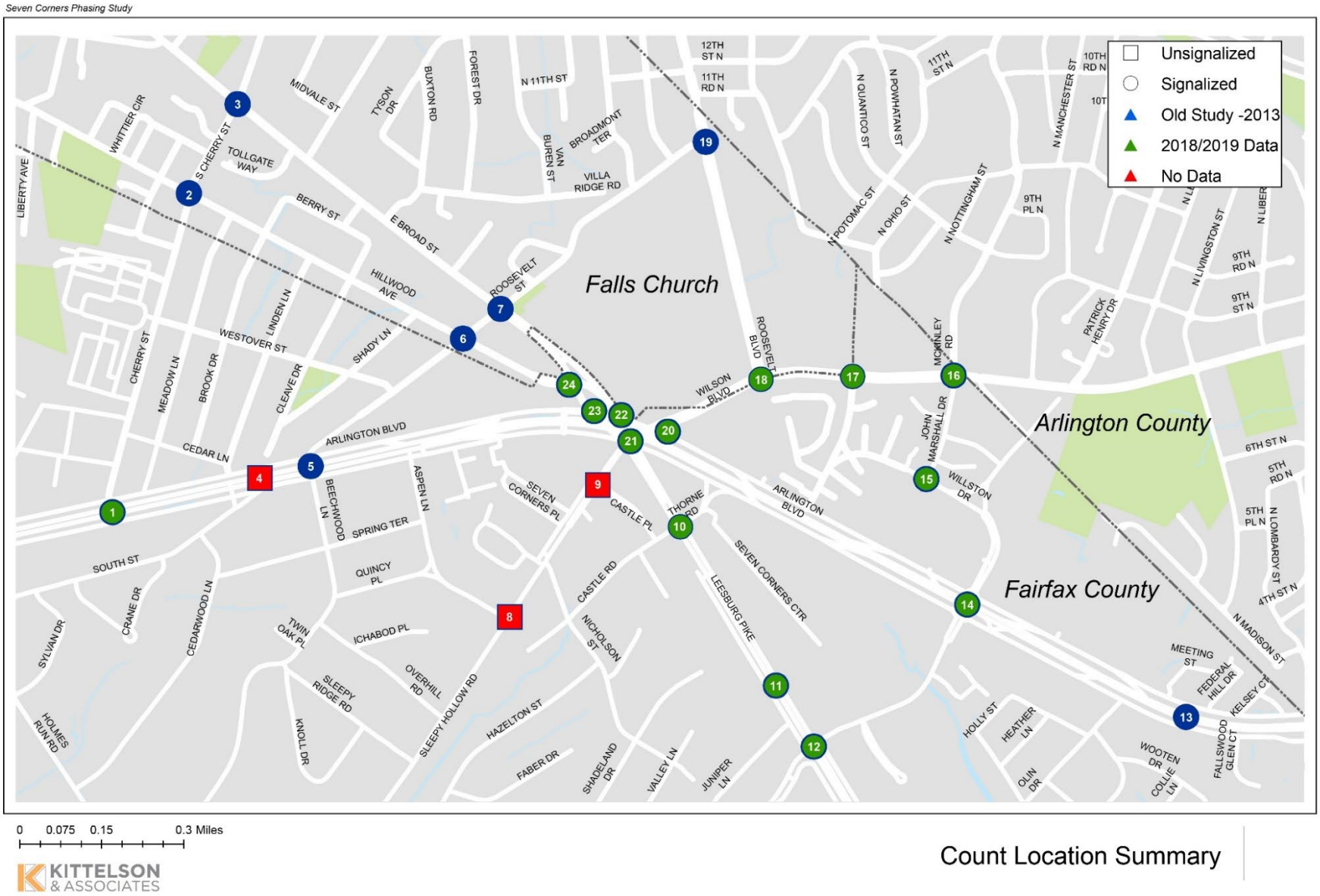


Figure A-2: Seven Corners Count Location Summary

Table A-1: Intersection Volume Comparison (2013 to 2018/2019)

Int. Number	Intersection Name	Total Intersection - AM Peak Hour	Total Intersection - AM Peak Hour	Total Intersection - PM Peak Hour	Total Intersection - PM Peak Hour
Int. Number	Intersection Name	Difference	% Change	Difference	% Change
1	S Cherry Street/Arlington Boulevard (US 50)	450	9%	493	11%
10	Castle Road &Thorne Road/Leesburg Pike (VA 7)	408	12%	816	23%
11	Seven Corners Center/Leesburg Pike (VA 7)	815	29%	1130	36%
12	Patrick Henry Drive/Leesburg Pike (VA 7)	892	28%	840	23%
14	Patrick Henry Drive/Arlington Boulevard (US 50)	-215	-3%	-766	-12%
15	John Marshall Drive/Patrick Henry Drive & Willston Drive	633	95%	252	20%
16	John Marshall Drive & N. McKinley Road/Wilson Boulevard	124	8%	-54	-3%
17	Peyton Randolph Drive/Wilson Boulevard	650	44%	724	44%
18	Roosevelt Boulevard/Wilson Boulevard	439	18%	364	15%
20	Arlington Blvd WB/Wilson Blvd	-60	-3%	-115	-5%
21	Sleepy Hollow Rd/Wilson Blvd/Broad St/Arlington Blvd EB	95	2%	400	10%
22	Broad St WB/Arlington Blvd WB	21	1%	-265	-12%
23	Broad St EB/Arlington Blvd WB	-311	-14%	-663	-26%
24	Broad St EB/Hillwood Ave	-898	-35%	-851	-34%

Overall, the counts are relatively consistent between 2013 and 2018/2019 and align with the expectations given marginal changes in land use and the transportation network in the study area. Most intersections experience some growth during both peak periods that is primarily attributed to the increase in traffic volumes in the off-peak direction. As shown in **Figure A-3**, during the weekday AM peak hour most growth appears to be happening in the westbound direction, which is the off-peak direction. This is to be expected, given vehicle capacity is typically constrained in the peak direction.

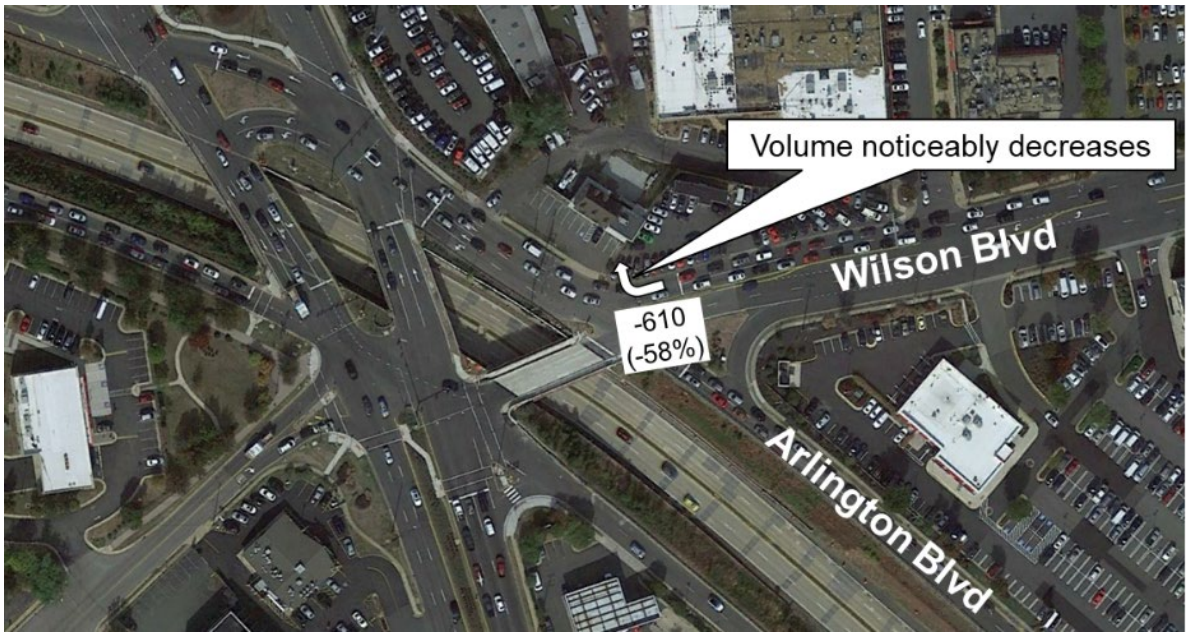
There were also areas and intersections where counts were somewhat inconsistent and needed further consideration. One intersection was identified for additional consideration and future review of ADT data. For example, at the Arlington Blvd WB/Wilson Blvd intersection (Intersection 508), it appears the right-turn volume from Wilson Blvd to Arlington Blvd WB decreased noticeably from 2013 to 2018/2019. This is depicted in **Figure A-4**.

Overall, the turning-movement counts received provide adequate support for an approach to develop turning-movement volumes for the study area. In addition to using the turning-movement counts mentioned above as data sources, other supplementary data sources helped verify and develop volumes. This included data from StreetLight, INRIX,[1] and the Fairfax County Travel Demand Model. An overview of the proposed volume development approach is provided in the next section.

[1] StreetLight data uses anonymized location records from smart phones and navigation devices in connected cars and trucks to show travel patterns and order of magnitude travel demand. INRIX data are gathered vehicles and show vehicle speed.

Figure A-3: Weekday AM Westbound Growth from 2013 to 2019

Figure A-4: Weekday PM Change in Volumes at the Intersection of Arlington Blvd WB/Wilson Blvd Intersection based on the 2013 and 2019 Data



VOLUME DEVELOPMENT APPROACH

Before beginning volume development, the project team reviewed recent travel demand and travel patterns compared to a relatively "normal" condition before COVID-19. The project team compared INRIX and StreetLight data for late June in both 2019 and 2020. Conducting this comparison helped validate the assumption that traffic patterns were substantially low, and that travel would unlikely return to "normal" conditions by the time data would need to be collected.

Following that analysis, the following steps were used to develop volumes at the study intersections:

1. ***Use available turning movement count data obtained from VDOT and Arlington County.*** *These volumes served as the basis for estimating turning-movement counts at intersections without recent*

counts since data at these locations were recently collected (2018/2019). For intersections where data was collected in 2013 for the previous study and that are adjacent to the VDOT/Arlington County intersections without any intersection or major driveway in between, the 2013 volumes were adjusted to match the 2018/2019 volumes.

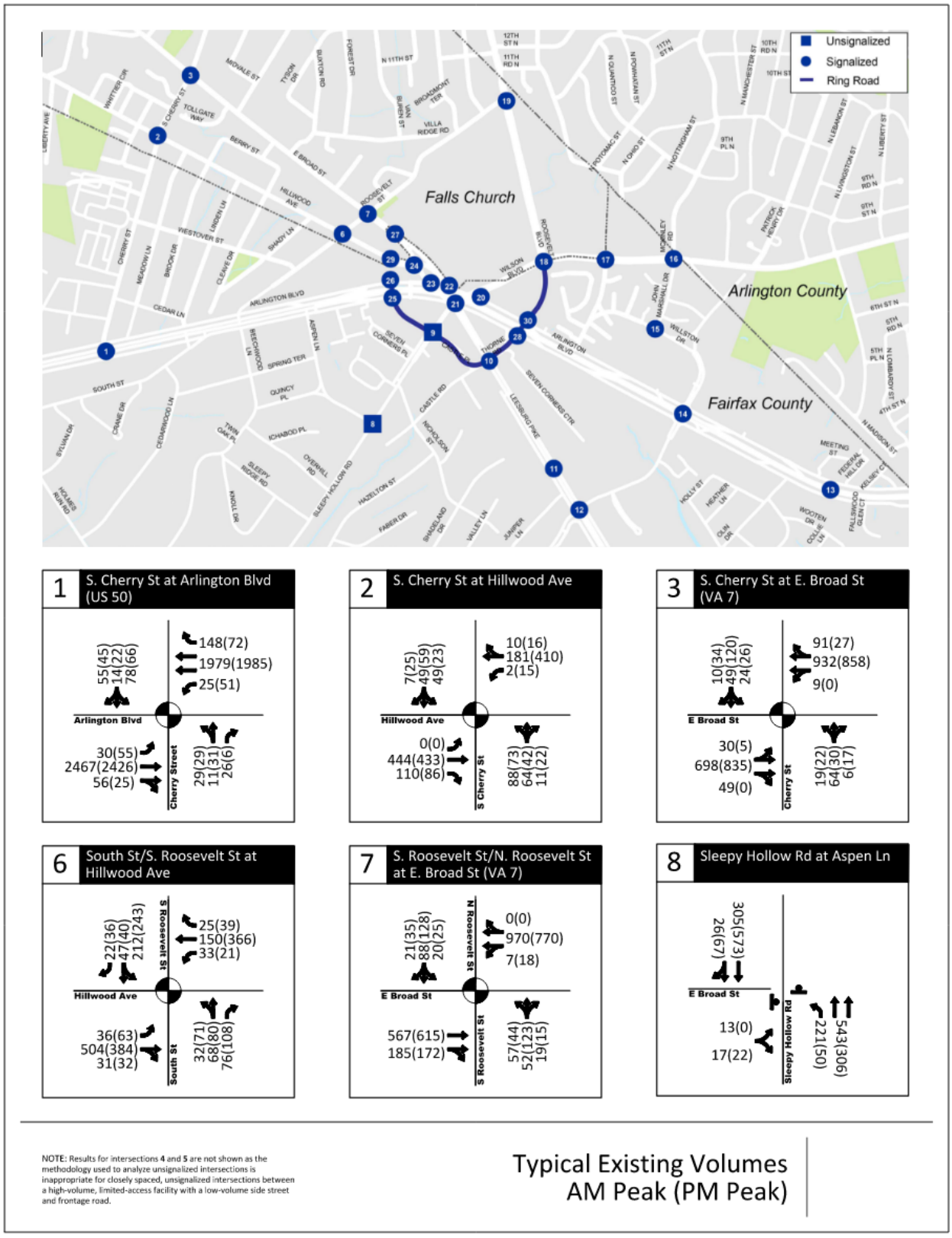
2. ***Develop link volumes based on the input and output volumes from the VDOT and Arlington County intersections.*** *As discussed above, the adjusted volumes for the 2013 intersections were also used to develop link volumes.*
3. ***Estimate turning-movement counts at intersections without 2018/2019 counts based on the input and output volumes.*** *Turn proportions were required in addition to the link volumes to estimate intersection volumes. Turn proportions were developed using the following data sources:*
    a. StreetLight Data from 2019 before COVID-19
    b. Travel Demand Model
    c. 2013 turning movement counts

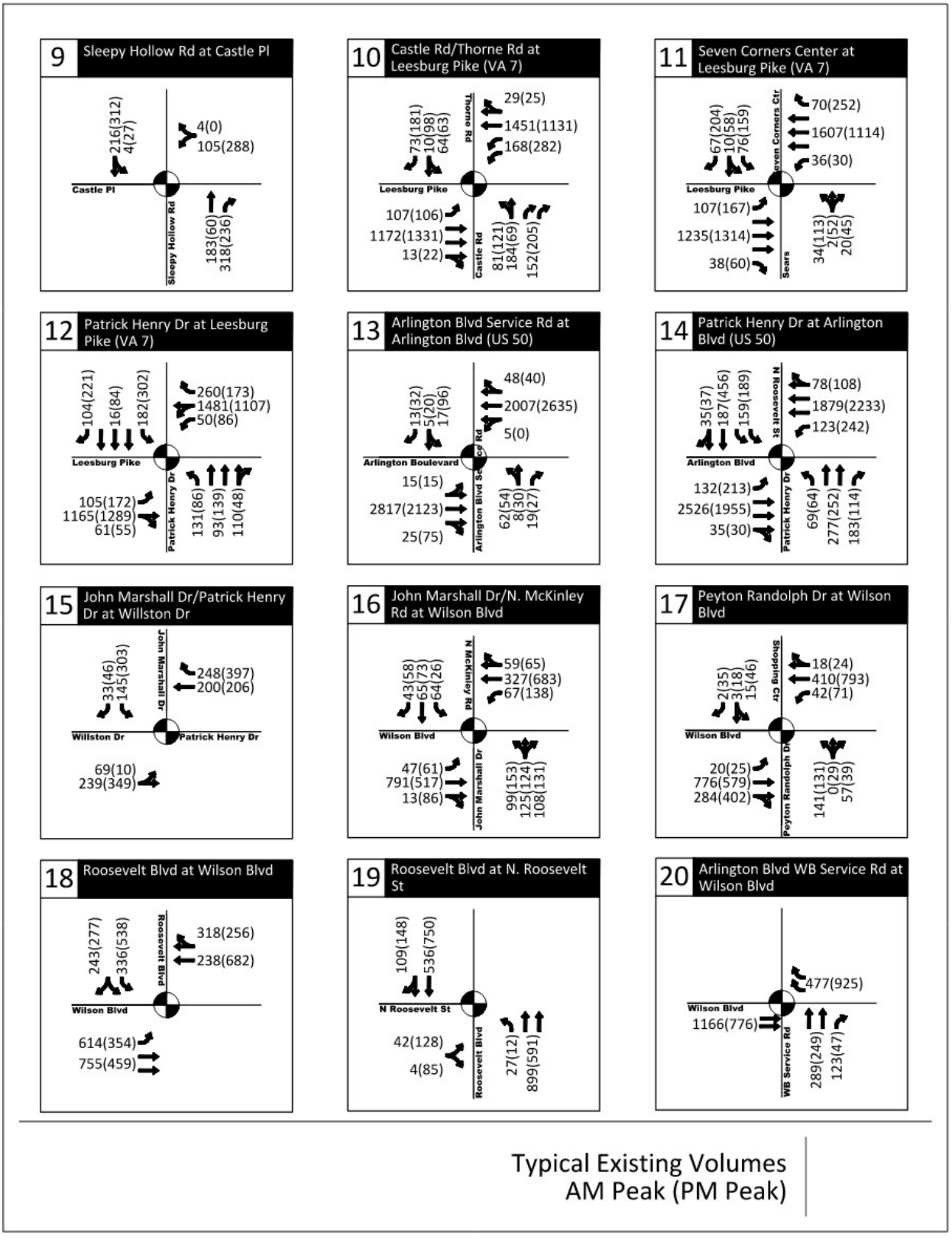
4. ***Balance volumes at the study intersections.***

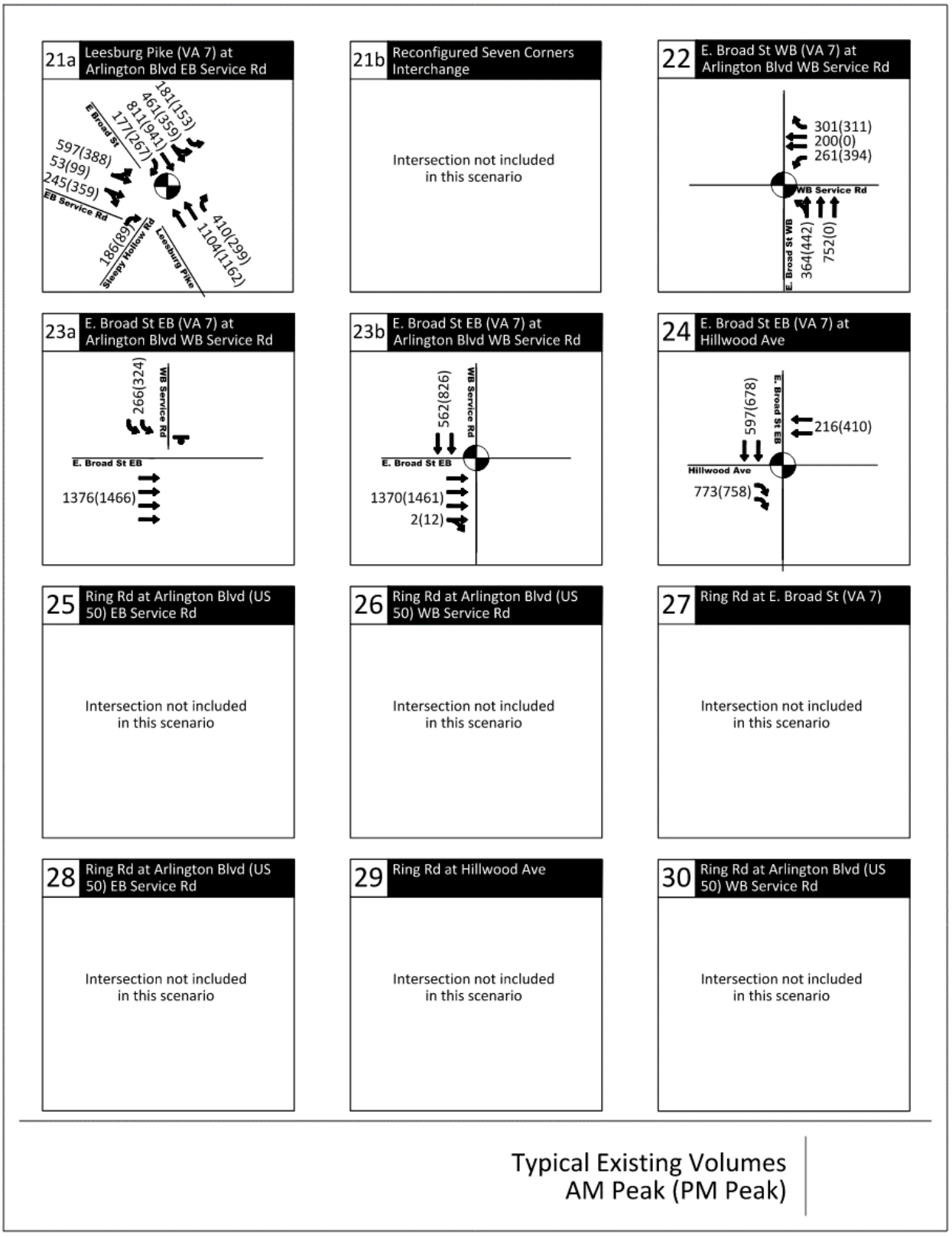
TYPICAL EXISTING VOLUME

Peak hour volume for typical existing conditions is provided by the intersection movement in **Figure A-5**.

Figure A-5: Peak Hour Volume by Movement for 2018/19 Typical Existing Conditions AM and PM




9
Sleepy Hollow Rd at Castle Pl
216(312)
4(27)
4(0)
105(288)
Castle Pl
Sleepy Hollow Rd
183(60)
318(236)
10
Castle Rd/Thorne Rd at Leesburg Pike (VA 7)
73(181)
10(98)
64(63)
29(25)
1451(1131)
168(282)
Thorne Rd
Leesburg Pike
107(106)
1172(1331)
13(22)
Castle Rd
81(121)
184(69)
152(205)
11
Seven Corners Center at Leesburg Pike (VA 7)
67(204)
10(58)
76(159)
70(252)
1607(1114)
36(30)
Seven Corners Ctr
Leesburg Pike
107(167)
1235(1314)
38(60)
Sears
34(113)
2(52)
20(45)
12
Patrick Henry Dr at Leesburg Pike (VA 7)
104(221)
16(84)
182(302)
260(173)
1481(1107)
50(86)
Leesburg Pike
Patrick Henry Dr
105(172)
1165(1289)
61(55)
131(86)
93(139)
110(48)
13
Arlington Blvd Service Rd at Arlington Blvd (US 50)
13(32)
5(20)
17(96)
48(40)
2007(2635)
5(0)
Arlington Boulevard
Arlington Blvd Service Rd
15(15)
2817(2123)
25(75)
62(54)
8(30)
19(27)
14
Patrick Henry Dr at Arlington Blvd (US 50)
35(37)
187(456)
159(189)
78(108)
1879(2233)
123(242)
N Roosevelt St
Arlington Blvd
132(213)
2526(1955)
35(30)
Patrick Henry Dr
69(64)
277(252)
183(114)
15
John Marshall Dr/Patrick Henry Dr at Willston Dr
33(46)
145(303)
248(397)
200(206)
John Marshall Dr
Willston Dr
Patrick Henry Dr
69(10)
239(349)
16
John Marshall Dr/N. McKinley Rd at Wilson Blvd
43(58)
65(73)
64(26)
59(65)
327(683)
67(138)
N McKinley Rd
Wilson Blvd
47(61)
791(517)
13(86)
John Marshall Dr
99(153)
125(124)
108(131)
17
Peyton Randolph Dr at Wilson Blvd
2(35)
3(18)
15(46)
18(24)
410(793)
42(71)
Shopping Ctr
Wilson Blvd
20(25)
776(579)
284(402)
Peyton Randolph Dr
141(131)
0(29)
57(39)
18
Roosevelt Blvd at Wilson Blvd
243(277)
336(538)
318(256)
238(682)
Roosevelt Blvd
Wilson Blvd
614(354)
755(459)
19
Roosevelt Blvd at N. Roosevelt St
109(148)
536(750)
N Roosevelt St
42(128)
4(85)
Roosevelt Blvd
27(12)
899(591)
20
Arlington Blvd WB Service Rd at Wilson Blvd
477(925)
Wilson Blvd
1166(776)
WB Service Rd
289(249)
123(47)
Typical Existing Volumes
AM Peak (PM Peak)


21a
Leesburg Pike (VA 7) at Arlington Blvd EB Service Rd
181(153)
461(359)
811(941)
177(267)
597(388)
53(99)
245(359)
186(89)
410(299)
1104(1162)
E Broad St
EB Service Rd
Sleepy Hollow Rd
Leesburg Pike
21b
Reconfigured Seven Corners Interchange
Intersection not included in this scenario
22
E. Broad St WB (VA 7) at Arlington Blvd WB Service Rd
301(311)
200(0)
261(394)
WB Service Rd
E. Broad St WB
364(442)
752(0)
23a
E. Broad St EB (VA 7) at Arlington Blvd WB Service Rd
266(324)
WB Service Rd
E. Broad St EB
1376(1466)
23b
E. Broad St EB (VA 7) at Arlington Blvd WB Service Rd
562(826)
WB Service Rd
E. Broad St EB
1370(1461)
2(12)
24
E. Broad St EB (VA 7) at Hillwood Ave
597(678)
E. Broad St EB
216(410)
Hillwood Ave
773(758)
25
Ring Rd at Arlington Blvd (US 50) EB Service Rd
Intersection not included in this scenario
26
Ring Rd at Arlington Blvd (US 50) WB Service Rd
Intersection not included in this scenario
27
Ring Rd at E. Broad St (VA 7)
Intersection not included in this scenario
28
Ring Rd at Arlington Blvd (US 50) EB Service Rd
Intersection not included in this scenario
29
Ring Rd at Hillwood Ave
Intersection not included in this scenario
30
Ring Rd at Arlington Blvd (US 50) WB Service Rd
Intersection not included in this scenario
Typical Existing Volumes
AM Peak (PM Peak)

APPENDIX A1 – DATA SOURCES OF STUDY INTERSECTIONS

Intersections where VDOT provided traffic data:

Int. Number	Intersection Name
1	S Cherry Street/Arlington Boulevard (US 50)
10	Castle Road &Thorne Road/Leesburg Pike (VA 7)
11	Seven Corners Center/Leesburg Pike (VA 7)
12	Patrick Henry Drive/Leesburg Pike (VA 7)
15	John Marshall Drive/Patrick Henry Drive & Willston Drive
17	Peyton Randolph Drive/Wilson Boulevard
18	Roosevelt Boulevard/Wilson Boulevard
20	Arlington Blvd WB/Wilson Blvd
21	Sleepy Hollow Rd/Wilson Blvd/Broad St/Arlington Blvd EB
22	Broad St WB/Arlington Blvd WB
23	Broad St EB/Arlington Blvd WB
24	Broad St EB/Hillwood Ave

Intersections where Arlington County provided data:

Int. Number	Intersection Name
14	Patrick Henry Drive/Arlington Boulevard (US 50)
16	John Marshall Drive & N McKinley Road/Wilson Boulevard

Intersections where only 2013 data is available:

Int. Number	Intersection Name
2	S Cherry Street/Hillwood Avenue
3	S Cherry Street/E Broad Street
5	South Street/Arlington Boulevard side street (North side)
6	South Street & S. Roosevelt Street/Hillwood Avenue
7	N Roosevelt Street/E. Broad Street (VA 7)
13	Arlington Boulevard service road/Arlington Boulevard (US 50)
19	Roosevelt Boulevard/N. Roosevelt Street

Appendix B
Traffic Analysis Methodology

Traffic Analysis Methodology

MULTI-RESOLUTION MODELING AND DYNAMIC TRAFFIC ASSIGNMENT (DTA)

The project team used a multi-resolution modeling approach coupled with a Dynamic Traffic Assignment (DTA) process to assess traffic conditions in the study area and then identify the phasing of the needed roadway improvements envisioned in the Fairfax County Comprehensive Plan. The team used a multi-resolution modeling approach to develop all necessary inputs for a microsimulation model. The multi-resolution modeling consisted of tools with different analysis resolutions. The essential components of the multi-resolution modeling approach included three major modeling approaches: macroscopic, mesoscopic, and microscopic. With the proposed approach, multi-resolution modeling integrated macroscopic travel demand model outputs with mesoscopic models to better represent travel patterns in the study area. The outputs from the mesoscopic models were then further processed and analyzed through the DTA in the microscopic model for detailed peak hour operational and queuing analysis for different phasing scenarios. Key components of the multi-resolution approach include the following:

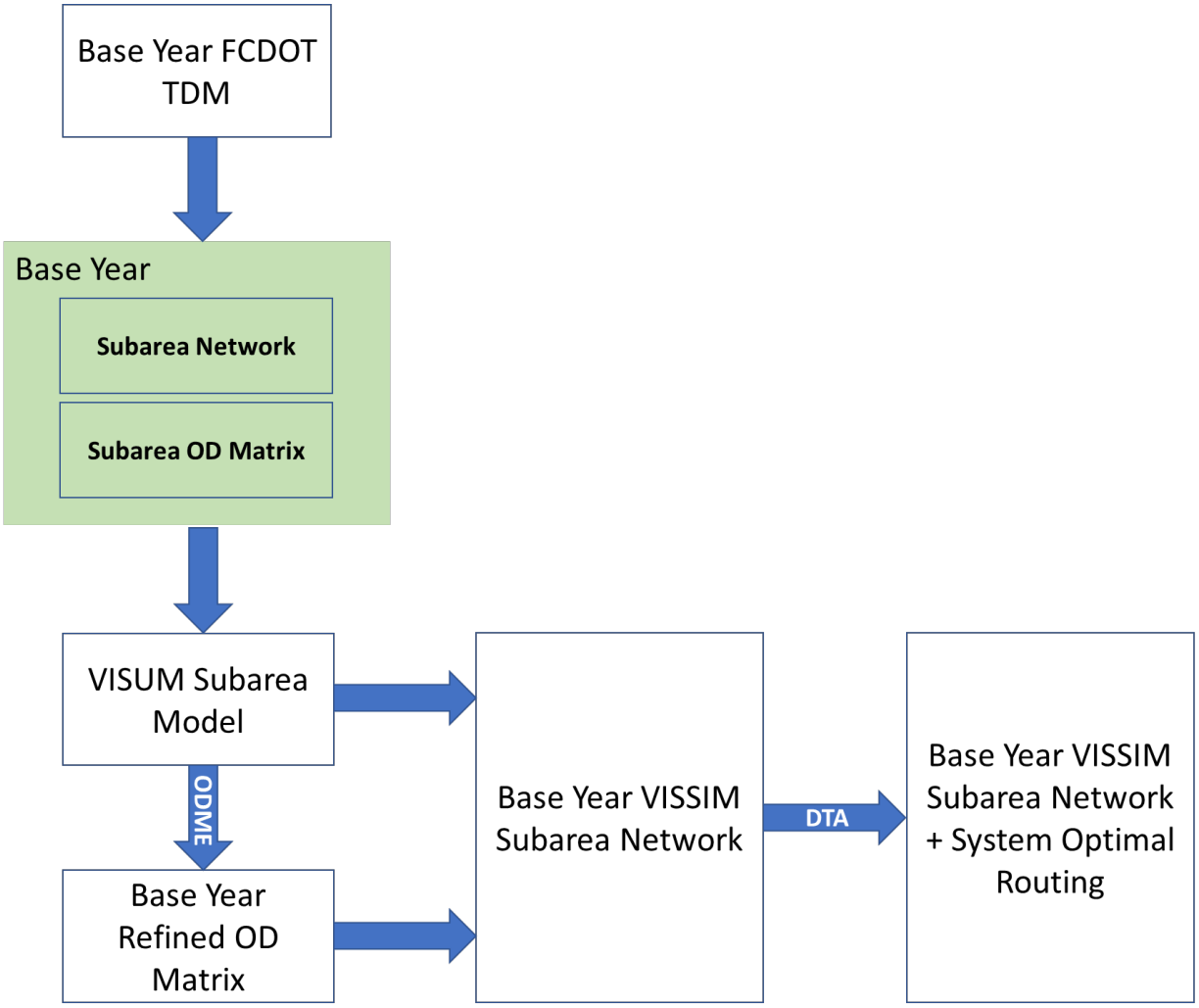
- ***Macroscopic model:*** Fairfax County Department of Transportation (FCDOT) Travel Demand Model (TDM), calibrated and validated for the full county.
    - Modeling Platform: Citilabs CUBE.
    - Model Outputs: Initial roadway network and the static demand origin and destination (OD) tables for the study area.
- ***Mesoscopic model:*** VISUM model, calibrated and validated for the study area.
    - Modeling Platform: PTV VISUM.
    - Model Outputs: Refined roadway network and demand matrix.
- ***Microscopic model:*** VISSIM microsimulation, calibrated and validated for the study intersections, which is a subset of the study area.
    - Modeling Platform: PTV VISSIM.
    - Model Outputs: Static travel routes developed through dynamic traffic assignment (DTA) based on the refined demand matrix for existing conditions and various phasing scenarios.

Through the multi-resolution modeling process, the project team developed the inputs of the VISSIM microsimulation model, such as roadway network, vehicle inputs (i.e., demands), and static travel route. This enabled the detailed operations assessment of existing conditions and various phasing scenarios in VISSIM. The DTA played a critical role in assigning the OD demands into the roadway networks in response to the characteristics of different conceptual plans in the future phasing analysis. It is important to note that the mesoscopic modeling efforts and corresponding demand matrix correction application were only applied for the base year. The modeling procedures were different for base year and future years, as detailed below.

MODELING APPROACH FOR BASE YEAR

Figure B-1 demonstrates the multi-resolution modeling approach for the base year. The FCDOT TDM provides inputs for the VISUM model, which includes a subarea network and the corresponding OD tables for the AM and PM peak hours. Through a demand matrix correction procedure, the VISUM model produced refined OD matrices that were then incorporated into the VISSIM model. The VISSIM model assigned the traffic demand between OD pairs onto the roadway network through a DTA procedure.

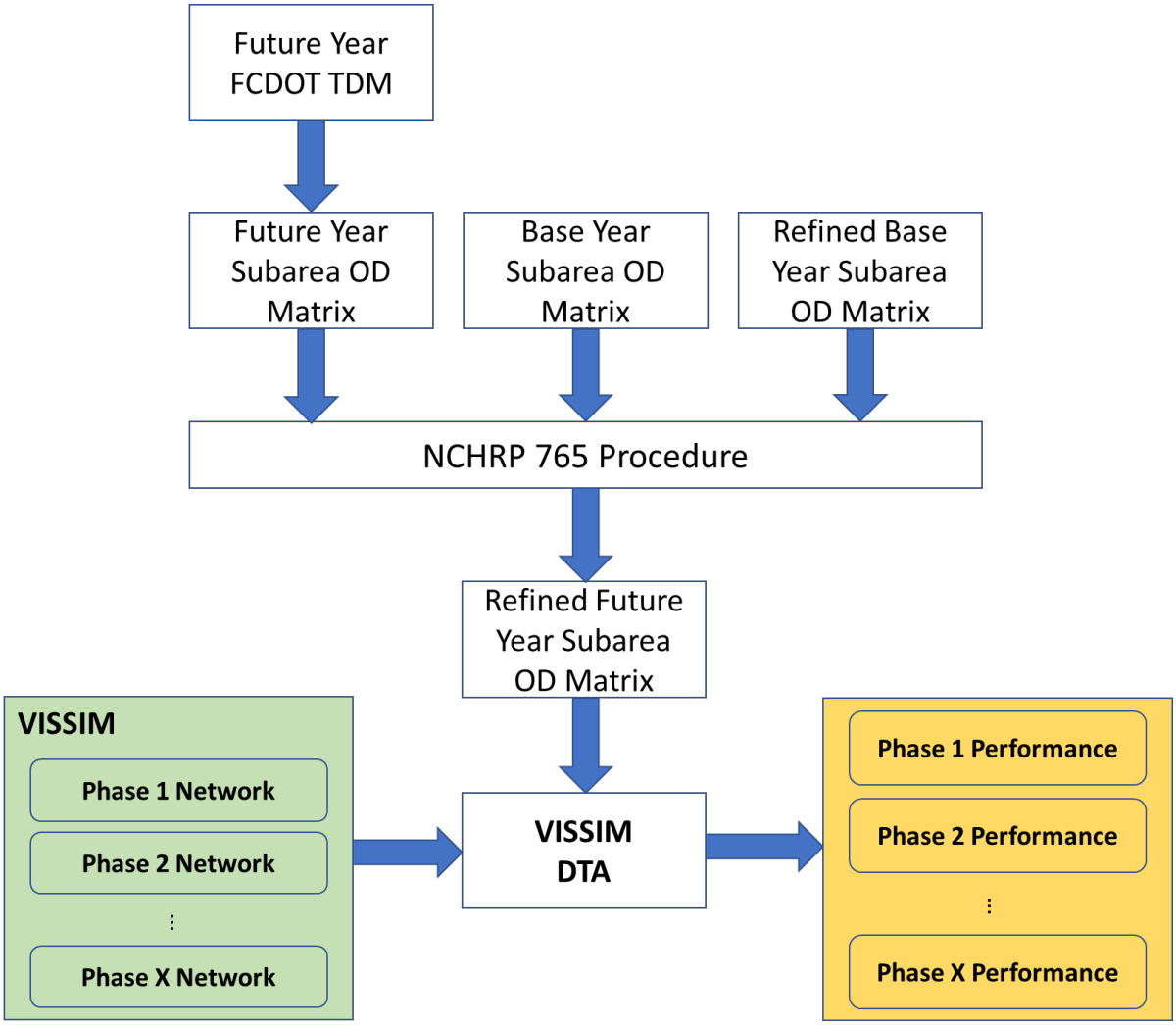
Figure B-1: Modeling Approach for Base Year



MODELING APPROACH FOR FUTURE YEAR

The modeling approach for the future year, as shown in **Figure B-2**, was different from the one used for the base year. Instead of using the VISUM model, the project team applied the NCHRP 765 procedure to generate the refined OD matrices for the VISSIM models to analyze future year scenarios.

Figure B-2: Modeling Approach for the Future Year



MACROSCOPIC MODEL

The project team used the FCDOT TDM for the macroscopic modeling application. The FCDOT TDM was developed based on the modeling structure of the Metropolitan Washington Council of Governments (MWCOG) regional travel demand model, but it includes a more detailed roadway network and zone structure within Fairfax County. As the starting point of this multi-resolution modeling application, the FCDOT TDM mainly provided the necessary inputs for the VISUM and VISSIM modeling efforts. It is important to note that comprehensive subarea model validation was not conducted for the study area within the FCDOT TDM. This validation step was conducted during the microscopic modeling efforts. The outputs retrieved from the FCDOT TDM for further modeling efforts included:

- ***Study area roadway network and link characteristics, such as number of lanes, speed limit, capacity, etc.:*** These are required inputs for mesoscopic assignment in VISUM.
- ***Study area OD matrices for the base year:*** These are used as the seed matrices for the demand matrix correction procedure for the purpose of providing a reasonable starting point for the demand.
- ***Study area OD matrices for future years:*** These are critical inputs of the NCHRP 765 procedure to develop the refined OD matrices for the future year VISSIM models.

Model Assumptions

As discussed above, the FCDOT TDM was the basis for developing traffic inputs for both VISUM and VISSIM. The key assumptions and modifications associated with the TDM are summarized below.

Analysis Years

- Base/Existing year: 2019
- Intermediate year: 2030
- Design year: 2045

It should be noted that at the time of our model development efforts, the base year of FCDOT TDM was 2015; while the base year of MWCOG model was 2019. The base year model in this study (i.e., 2019) was developed by replacing the current MWCOG inputs files (representing year-2015) in FCDOT TDM with the corresponding year-2019 MWCOG input files.

Time Periods Modeled

Three time periods were included in the FCDOT TDM as listed below. In this study, only AM and PM period results were used.

- ***AM:*** 6 am–9 am
- ***PM****:* 3 pm–7 pm
- ***Off-peak:*** 9 am-3 pm and 7 pm–6 am

Peak Period to Peak Hour Conversion Factors

To convert the peak period traffic volumes to the corresponding peak hour traffic volumes for both VISUM and VISSIM models, the following conversion factors were used:

- ***AM Peak Period to AM Peak Hour:*** 0.417
- ***PM Peak Period to PM Peak Hour:*** 0.294

Land Use

- MWCOG Round 9.1a socioeconomic data: no change was made for any traffic analysis zone (TAZ) within study area.

Roadway Network

- ***Roadway Links:*** In the base model, some local street links were added or relocated to better represent the local street connections. In the future models, the project team reviewed the number of lanes of roadway links within study area and adjusted them to be consistent with the Constrained Long-Range Planning (CLRP) at the County's suggestion.
- ***Centroid:*** TAZs that are relatively large and covering multiple study intersections were split into multiple centroids.
- ***Centroid Connectors:*** The locations of some centroid connectors were adjusted to allocate the traffic in a more reasonable way. Within the same TAZs, new centroid connectors were added to better represent the local street connection.
- ***Speed and Capacity:*** No changes were made to link speed and capacity. The original values assumed in the FCDOT TDM were directly used in VISUM model.

The details of the roadway network adjustments are summarized in **Appendix A1** at the end of this document.

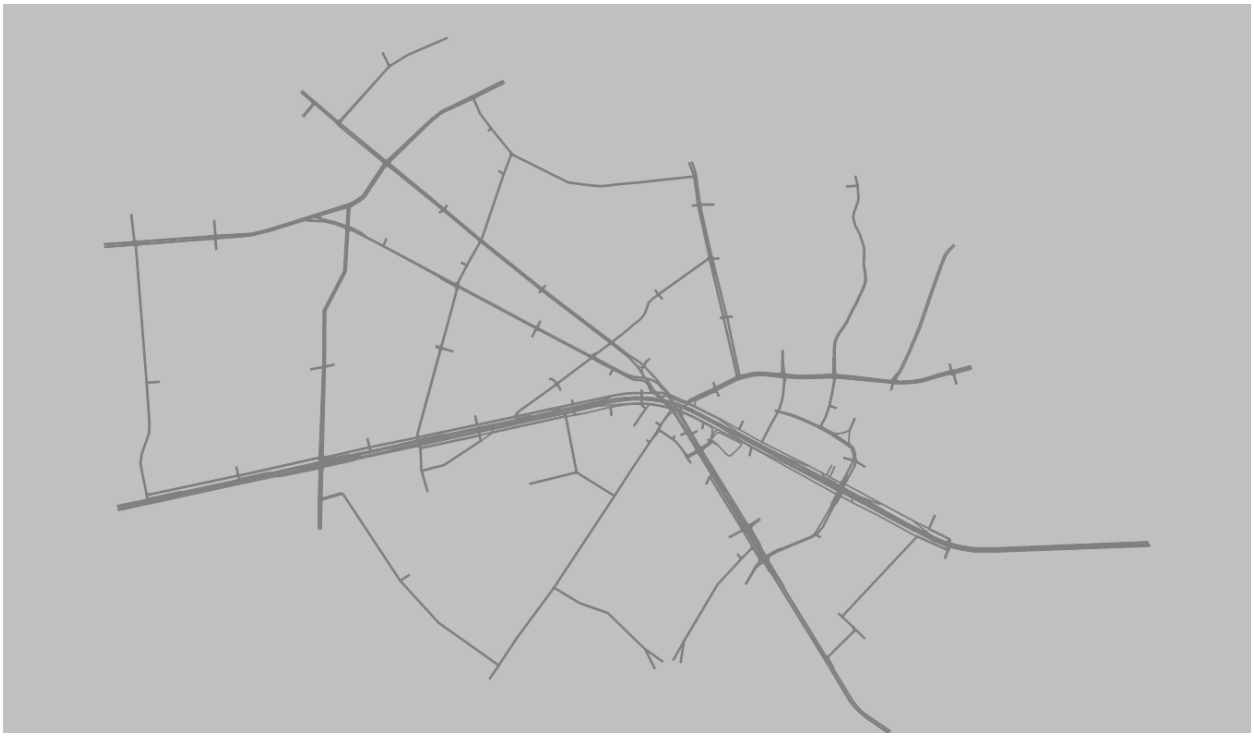
Mesoscopic Model

The project team used PTV VISUM to develop the mesoscopic model based on the outputs from the FCDOT TDM. The outputs of the VISUM model of the study area were used as the inputs for microscopic VISSIM model, which include:

- ***Study area roadway network:*** The roadway network, as shown in **Figure B-3**, was developed and refined based on the network obtained from FCDOT TDM. The refined network better represents the real-world roadway alignment and includes more details at intersections, such as turn bay length, intersection control types, turn restrictions, etc.

Refined base year study area OD matrices: Demand matrix correction was conducted through an origin-destination matrix estimation (ODME) procedure in VISUM, which is discussed below.

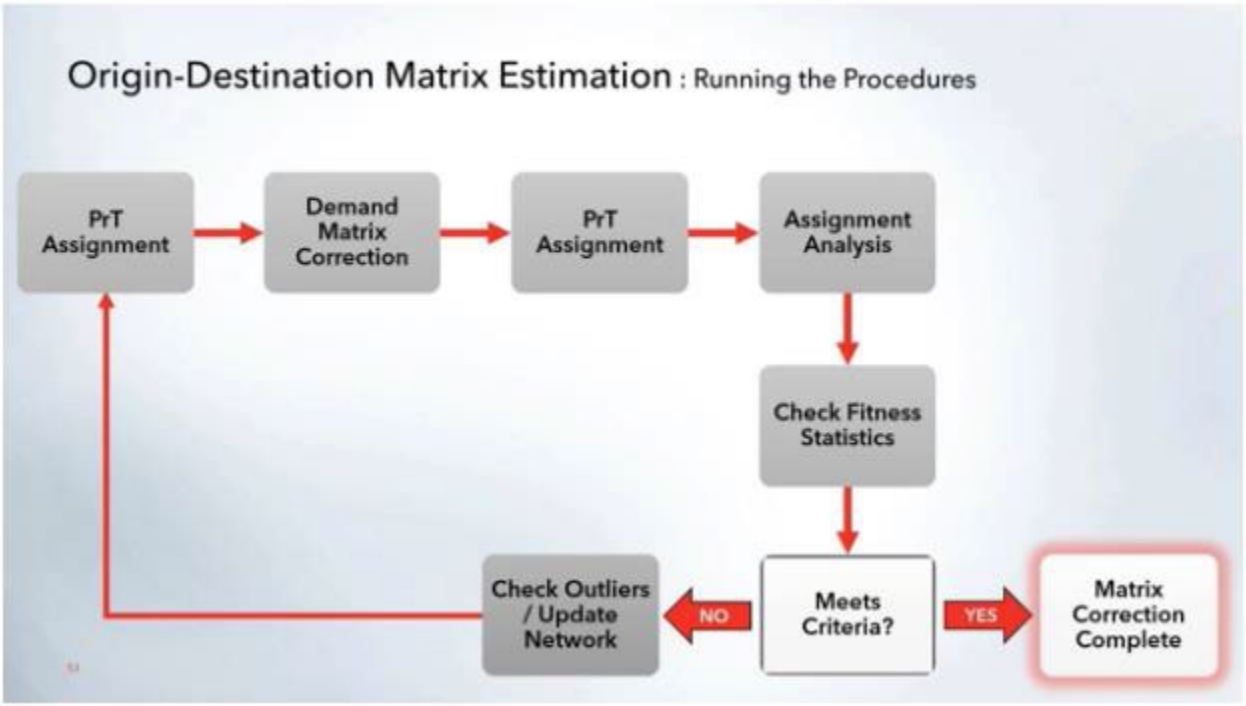
Figure B-3: Roadway Network and Study Area Used in PTV VISUM



Origin-Destination Matrix Estimation (ODME)

ODME was conducted in PTV VISUM to develop OD demand matrices for use in the microscopic VISSIM analysis. Using turning movement counts of study intersections as the targets, the OD matrices from the FCDOT TDM were iteratively adjusted until the convergence threshold was met. The ODME procedures are mainly the combination of Equilibrium Assignment (PrT Assignment in VISUM) and demand matrix correction (TflowFuzzy in VISUM). **Figure C-4** demonstrates the general sequence of the ODME procedure.

Figure B-4: Origin Destination Matrix Estimation (ODME) Procedures Used in this Study



MICROSCOPIC MODEL WITH DYNAMIC TRAFFIC ASSIGNMENT (DTA)

Microsimulation with a dynamic traffic assignment process is used to develop the microsimulation models that assess travel conditions for the various scenarios of phasing transportation network improvements. Based on the study area network and OD matrices from VISUM model, the following steps were completed to develop the VISSIM microsimulation model:

- ***Roadway network refinement:*** Roadway network was further refined so that microscopic details, such as detectors, signal heads, signal controllers, and stop/yield signs, were incorporated.
- ***Vehicle inputs and routing development:*** Vehicle inputs and routings were developed through the DTA module in VISSIM, which assigns the OD traffic into the roadway network.
- ***Model calibration:*** Comprehensive model calibration and validation were conducted for the VISSIM model. Various car-following models were developed to achieve desired roadway capacities at specific locations. The details of VISSIM model calibration are summarized in Appendix C VISSIM Model Calibration.

Dynamic Traffic Assignment (DTA)

The dynamic traffic assignment process plays an important role in the microsimulation model. The DTA identifies trip routes between origins and destinations. The OD matrix obtained from the VISUM model provides the traffic demands between origins and destinations. However, the routes connecting origins and destinations and the corresponding splits are unknown because there are multiple routes available for most OD pairs in the study network. The DTA was used to identify the static routings—the route vehicles will follow

without further update during the simulation—for all the OD pairs based on OD matrix and the characteristics (such as link length, capacity, speed, etc.) of the roadway network. Through an iterative process, OD demands were assigned to the roadway network, and time-dependent system optimal routings were determined.

Assumptions for DTA Application

The key assumptions associated with the DTA application are summarized below.

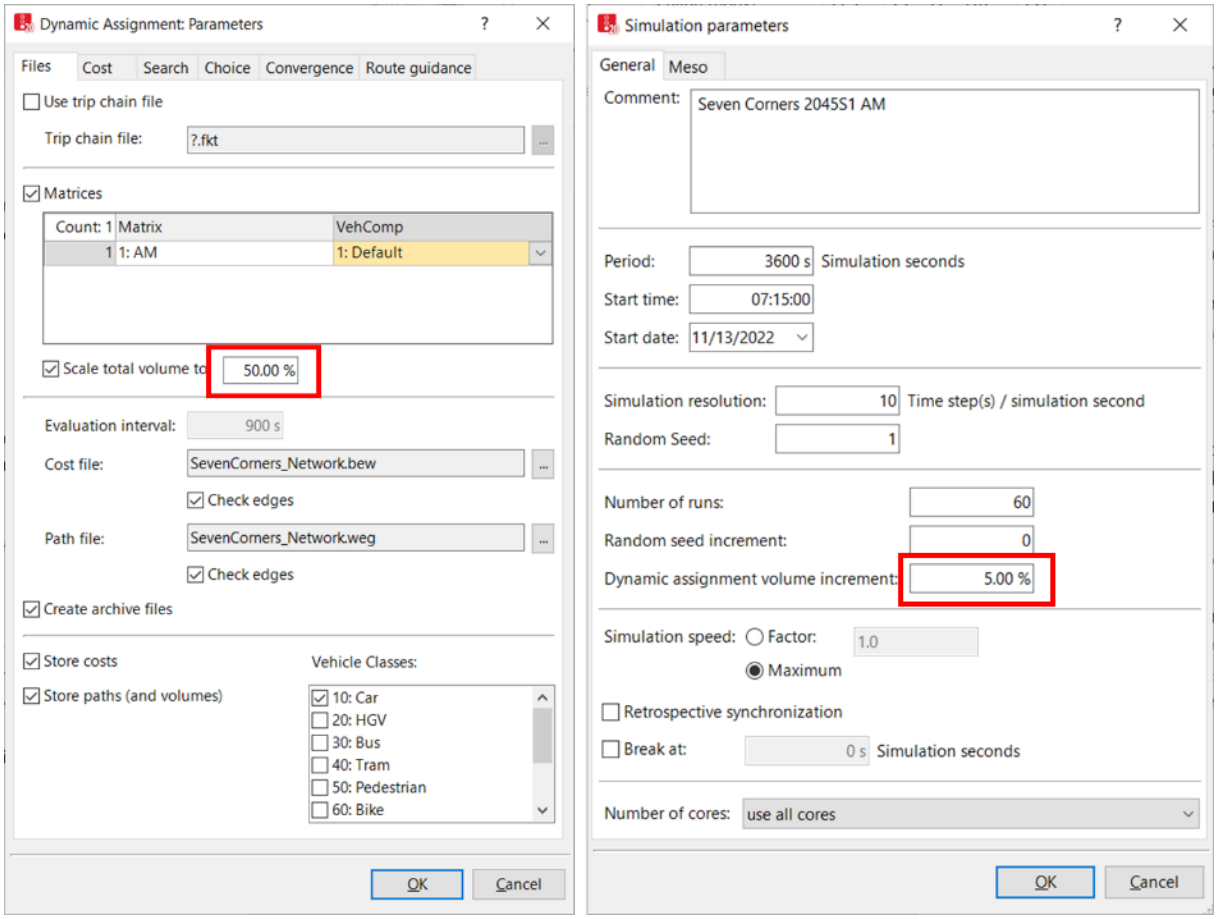
- ***Evaluation interval:*** 900 seconds.
- ***Vehicle compositions:*** 98% car and 2% HGV (i.e., heavy vehicles).
- ***Exponential smoothing factor:*** 0.2. The smoothing factor is used to calculate the smoothed travel time by integrating the travel time measured in current iteration and previous iterations.
- ***Path selection type:*** Decide at start only.
- ***Avoid long detours:*** 1.2. If the distance of an alternative path is 20% greater than the shortest path, this alternative path will not be considered. This helps avoid long detours in the DTA route selection process.

Convergence of Dynamic Traffic Assignment

The dynamic traffic assignment process is iterative in that individual vehicles are assigned a best path for the current run based on the previous simulation run. It is best practice to start the DTA with reduced demand (for example, 50% of original demand) and the demand increases per iteration. This setting makes the network start with uncongested traffic conditions, therefore facilitating the best path search process for individual vehicles. The settings in this study for DTA convergence are shown in **Figure B-5.**

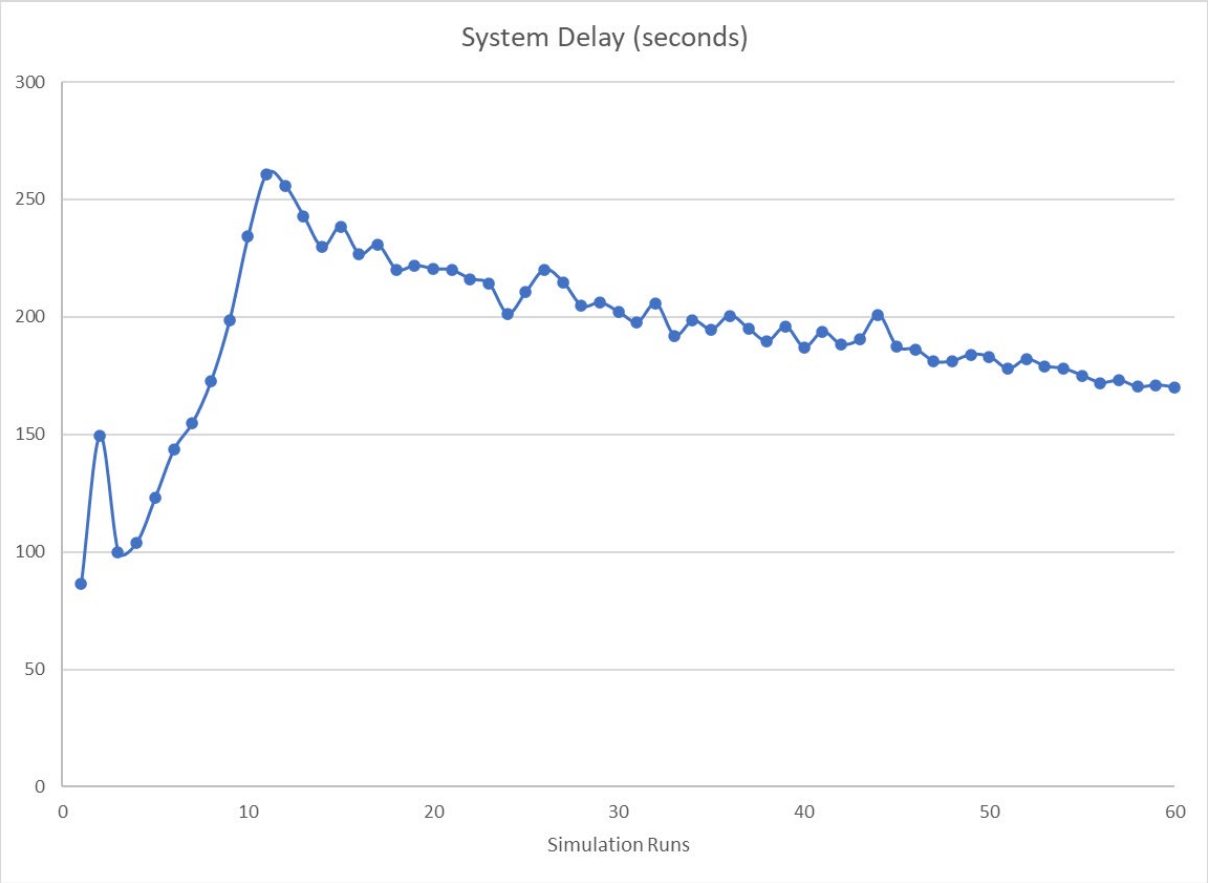
As shown in **Figure B-5**, the DTA in this study started with 50% of the actual traffic demand, and the demand increased by 5% for each simulation run. After 10 simulation runs, the traffic demand will increase to the original value. For all subsequent simulation runs, the DTA was operating with full demand.

Figure B-5: Dynamic Assignment and Simulation Settings



Depending on network complexity, the DTA may take varying numbers of simulation runs to reach default convergence condition. And in some cases, it may not be possible to reach default convergence in a reasonable amount of simulation runs. In this study, the system delay of each iteration was reviewed, and the preferred number of DTA runs were then determined. As demonstrated in **Figure B-6**, the system delay of the study area became relatively stable after the 54th DTA run. As a result, 60 DTA runs were conducted for this study to assure stable and accurate outputs from the DTA application.

Figure B-6: System Delay of DTA Runs



POST PROCESSING OF DTA OUTPUTS

As the last step of the DTA application in this study, the project team made final adjustments to the VISSIM model in response to the DTA outputs. Signal timing usually requires adjusting the initial plans due to the traffic pattern changes between different phasing scenarios. The static vehicle routes from DTA outputs also require a comprehensive review. Sometimes, unrealistic vehicle routes are generated from the DTA, especially when multiple alternative paths are available between the ODs. Those routes need to be adjusted or removed from the model. After the final adjustments, the project team analyzed vehicular operations at the study intersections using the VISSIM model.

APPENDIX B1. ROADWAY NETWORK ADJUSTMENTS OF FCDOT TDM

Adjustments	Notes
Adjust the location of centroid of TAZ 1935	Allocate the traffic in a more reasonable way
Add centroid connectors for TAZ 1935	Better represents the local street connection
Add centroid connectors for TAZ 1941	Better represents the local street connection
Add South St in the network	Complete the local street connection
Adjust the centroid connectors for TAZ 1948	Better represents the local street connection
Split TAZ 1936 to 1936 and 3887	Large TAZ covers multiple study intersections
Add centroid connectors for both 1936 and 3887	Better represents the local street connection
Add a centroid connector for TAZ 1942 (Connecting to Sleepy Hollow RD)	Better represents the local street connection
Add a new centroid connector for TAZ 1943 and adjust the original connector	Better represents the local street connection
Add a new centroid connector for TAZ 3820	Better represents the local street connection
Add a new centroid connector for TAZ 3821	Better represents the local street connection
Adjust the location of centroid of TAZ 1947	Allocate the traffic in a more reasonable way
Add centroid connectors for TAZ 1947 and adjust the original connectors	Better represents the local street connection
Add a new centroid connector for TAZ 1946	Better represents the local street connection
Add a new centroid connector for TAZ 3827 and adjust the original connector	Better represents the local street connection
Add centroid connectors for TAZ 1945	Better represents the local street connection
Split TAZ 1940 to 1940, 3889, and 3890	Large TAZ covers multiple study intersections
Add centroid connectors for 1940, 3889, and 3890	Better represents the local street connection
Add a centroid connector for TAZ 1938 and adjust the original connector	Better represents the local street connection
Split TAZ 1937 to 1937 and 3888	Large TAZ covers multiple study intersections
Add centroid connectors for both 1937 and 3888	Better represents the local street connection
Adjust the location of centroid of TAZ 1939	Allocate the traffic in a more reasonable way
Add a centroid connector for TAZ 1939	Better represents the local street connection

Split TAZ 3823 to 3823 and 3886	Large TAZ covers multiple study intersections
Add a centroid connector for 3886	Better represents the local street connection
Move the centroid connector of TAZ 3824	Better represents the local street connection
Add a new centroid connector for TAZ 3825	Better represents the local street connection
Add a new centroid connector for TAZ 3823	Better represents the local street connection
Add a new centroid connector for TAZ 3826	Better represents the local street connection
Add a new centroid connector for TAZ 1944	Better represents the local street connection
Add a new centroid connector for TAZ 1944	Better represents the local street connection
Relocate 16th St	Better represents the local street connection

Appendix C
VISSIM Model Calibration

VISSIM Model Calibration

INTRODUCTION

The project team used a VISSIM microsimulation model to assess traffic conditions in the study area and identify the phasing of the needed roadway improvements on key street links and intersections. This document summarizes the VISSIM model calibration efforts for the 2018/2019 typical travel conditions as well as the model development process, model calibration process, and calibration results.

DATA COLLECTION SUMMARY

This section first summarizes the data collected for the VISSIM model development and model calibration. Then, this section discusses the required measures and calibration targets outlined in the Virginia Department of Transportation's (VDOT's) Traffic Operations and Safety Analysis Manual (TOSAM)[2].

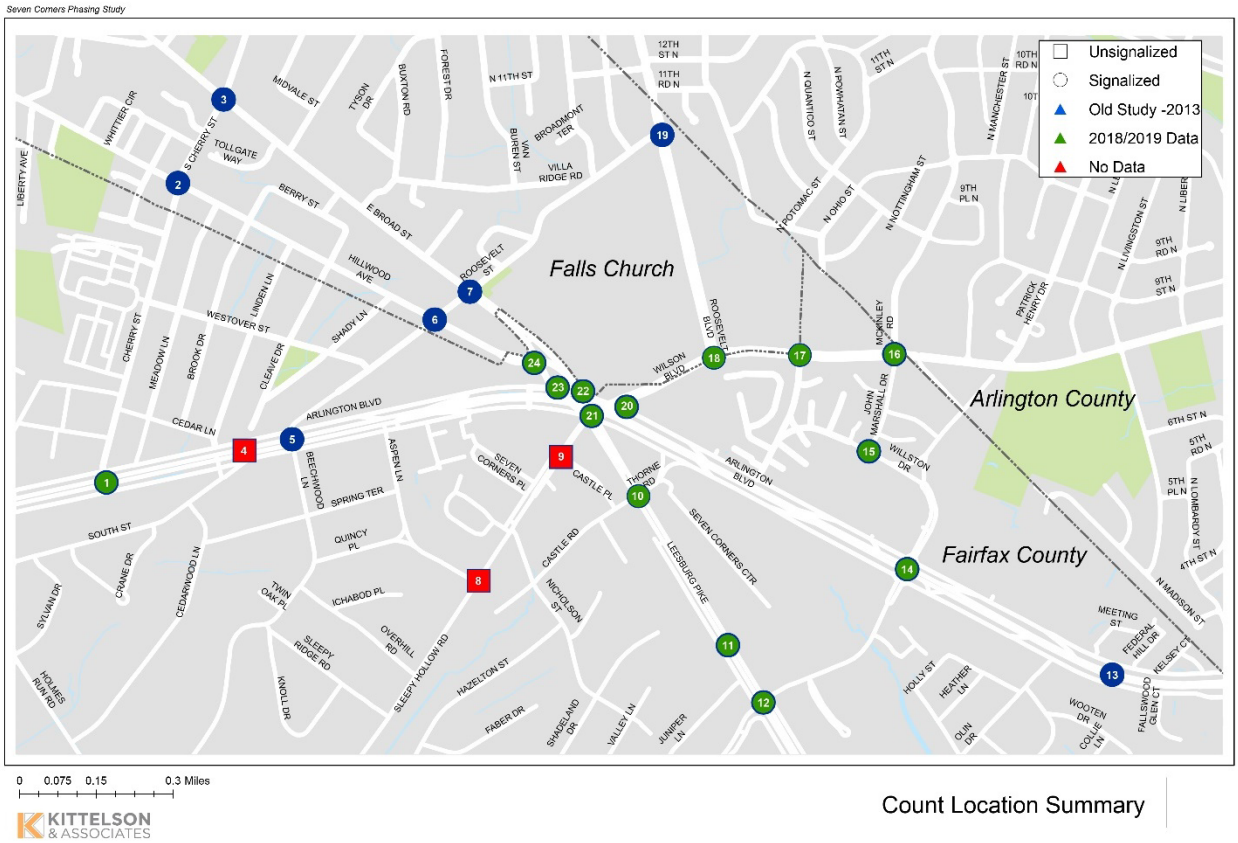
Traffic Volume Data

The development of the 2018/2019 typical conditions model required a proper calibration effort to closely replicate real-world conditions and accurately reflect field conditions. The initial data collection plan for this effort was to collect turning movement counts at the study intersections and tube counts at a few select locations in September 2020. Following the COVID-19 shutdown and the resulting economic slowdown, the team closely coordinated with FCDOT and VDOT to develop traffic volumes for this analysis based on the historic turning-movement counts collected by FCDOT, VDOT, and Arlington County. The team also coordinated with the City of Falls Church to confirm the City did not have additional turning-movement count data. To supplement the historic turning-movement counts, the team also used StreetLight[3] data to verify traffic patterns at key intersections and obtain turn proportions at a few intersections where no historic data was available.

The historic turning-movement counts included data from 2013 (the previous Seven Corners Transportation Study) as well as 2018 and 2019 data collected by VDOT and Arlington County. **Figure C-1** provides a count location summary and shows the study intersections with their respective data collection dates.

[2] http://www.virginiadot.org/business/resources/TOSAM.pdf
[3] StreetLight data uses anonymized location records from smart phones and navigation devices in connected cars and trucks to show travel patterns and order of magnitude travel demand.

Figure C-1: Seven Corners Count Location Summary



For the volume development, the team used 2018 and 2019 turning movement counts as the basis since data was recently collected. For intersections where data was collected in 2013 that are adjacent to the 2018 and 2019 intersections without a major intersection or major driveway in between, the 2013 volumes were adjusted to match the 2018 and 2019 volumes. For intersections that do not have any volume data (typically unsignalized intersections), link volumes were first developed based on the input and output volumes. Then, the link volumes were supplemented by the Streetlight data from 2019 before the pandemic to obtain turn proportions and estimate turning-movement volumes. Finally, volume balancing was performed throughout the network. Detailed information on the volume development methodology can be found in **Appendix A**.

Speed Data

In addition to traffic volumes, speed data on critical segments within the study area were collected for the calibration of the VISSIM model. Similar to the volume data, the initial plan for the speed data collection was to use the floating car technique and supplement that with the speed data extracted from the Regional Integrated Transportation Information System (RITIS) platform. However, due to the COVID-19 impacts on traffic, speed data was collected on select segments only using the 2019 INRIX probe data from the RITIS platform. The speed data on these selected segments were processed to compare against simulated travel time and speed. Except for one segment, travel time segments in the VISSIM network were adjusted accordingly to match the INRIX segments for calibration purposes. The exception was for westbound Route 7, where the INRIX segment extended well beyond the study area modeled in VISSIM.

VISSIM CALIBRATION TARGETS

The project team calibrated the typical conditions VISSIM models using the following guidance outlined in the VDOT's TOSAM:

- ***Simulated Traffic Volume***: This compares VISSIM model throughputs at study intersections to developed traffic volumes.
- ***Simulated Travel Time and Speed***: This compares simulated vehicle travel time and speed to field travel times and speed.
- ***Simulated Queue Length and Visual Verification***: These compare simulated average queue length and field observations as well as qualitative traffic patterns observed in the field that have notable influence on the traffic operations in the study area (e.g., yielding behavior, etc.).

Table C-1 provides detailed information on calibration targets for the quantitative measures as documented in TOSAM. In close coordination with FCDOT, the project team decided to use *simulated traffic volumes* and *simulated travel times* to calibrate the typical conditions VISSIM models. *Simulated queue lengths* were not included since it was not possible to collect field queue data, due to the COVID-19 impacts. Additionally, for simulated traffic volumes, only movements that carry more than 20 vehicles per hour were included during calibration. This was because dynamic traffic assignment (DTA) was applied for vehicle routing in VISSIM to better capture the complexity of the network and create more realistic origin-destination patterns. With the DTA approach, it is typically difficult to match volumes for very minor movements, even after the applied origin-destination matrix estimation (ODME) techniques (please see below for the ODME calibration details below). Therefore, movements that have less than 20 vehicles per hour were not included in the simulated traffic volume calibration.

Table C-1 Simulated Measures and Calibration Targets per TOSAM

Simulated Measure	Calibration Threshold/Target
Simulated Traffic Volume (vehicles per hour) 85% of the network links and/or turning movement, and a select number of critical links and/or turning movements, as determined by the DTE or his/her designee, shall meet the calibration thresholds.	Within ± 20% for <100 vph Within ± 15% for ≥100 vph to <1000 vph Within ± 10% for ≥1000 vph to <5,000 vph Within ± 500 vph for ≥5,000 vph
Simulated Travel Time (seconds) 85% of the travel time routes and segments, or a select number of critical routes and segments, as determined by the DTE or his/her designee, shall meet the calibration thresholds. Travel time routes should be determined in cooperation with the VDOT project manager based on project needs and goals.	Within ± 30% for average observed travel times on arterials
Simulated Queue Length (feet) A select number of critical locations and/or movements, as determined by the DTE or his/her designee, shall meet the calibration thresholds.	Visually acceptable maximum queue lengths are represented at critical locations

CALIBRATION METHODOLOGY

Simulation Run Time

A warm-up period of 15 minutes (900 seconds) was applied prior to the analysis period to allow for the model to populate with a sufficient number of vehicles to better represent field conditions. The 15-minute warm-up period ensures that all vehicles would be able to enter and exit the network when travelling from one end to another during the warm-up duration. The measures of effectiveness (MOEs) were not collected during the warm-up period.

The simulation run time was conducted for a one-hour peak period during the AM and PM peak periods, in addition to the 15-minute warm-up time:

- AM Peak Hour
  - 7:15–7:30 AM: Warm-up
  - 7:30–8:30 AM: Evaluation Period
- PM Peak Hour
  - 4:45–5:00 PM: Warm-up
  - 5:00–6:00 PM: Evaluation Period

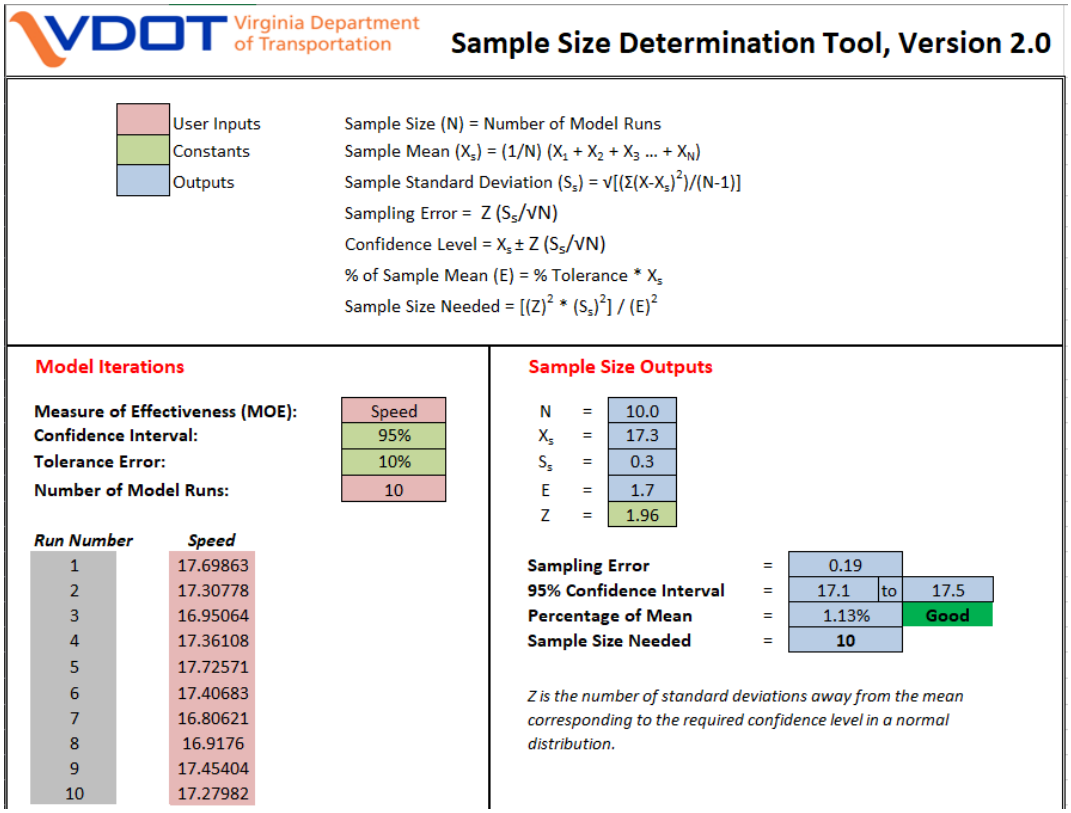
The simulation run time used in the 2018 and 2019 typical conditions models remained the same in the future condition models. In addition, a simulation resolution of 10 was used in the typical condition models, and the same value was used in future analyses.

Sample Size Determination

The simulation model should run multiple times with different random seeds to capture the impact of the stochastic nature of the model on the results and obtain statistically reliable model outputs. Determining and applying the appropriate number of simulation runs is crucial to developing accurate results. The Federal Highway Administration (FHWA) developed a statistical process to guide the selection of the appropriate number of simulation runs. To assist the application of the FHWA approach, the *VDOT Sample Size Determination Tool* is used as suggested in TOSAM to determine the required number of simulation runs in this study.

An initial 10 simulation runs were performed with different random seed numbers. After the first 10 runs, the selected MOEs of each run were entered into the calculation engine. The team used speed as the MOE to determine the necessary number of simulation runs. The adequacy of the number of runs was assessed by the tool for AM and PM peak hours as shown in **Figure C-2** and **Figure C-3**. Based on the outputs of the sample size determination tool, it required 10 simulation runs for both AM and PM periods, respectively. The same number of simulation runs were used in both typical and future condition models.

Figure C-2 Sample Size Calculation for the AM Peak Hour



VDOT Virginia Department of Transportation

Sample Size Determination Tool, Version 2.0

User Inputs
Constants
Outputs

Sample Size (N) = Number of Model Runs
Sample Mean (X_s) = (1/N) ($X_1 + X_2 + X_3 \ldots + X_N$)
Sample Standard Deviation (S_s) = $\sqrt{[(\Sigma(X-X_s)^2)/(N-1)]}$
Sampling Error = $Z (S_s/\sqrt{N})$
Confidence Level = $X_s \pm Z (S_s/\sqrt{N})$
% of Sample Mean (E) = % Tolerance * X_s
Sample Size Needed = $[(Z)^2 * (S_s)^2] / (E)^2$

Model Iterations

Measure of Effectiveness (MOE):	Speed
Confidence Interval:	95%
Tolerance Error:	10%
Number of Model Runs:	10

Run Number	*Speed*
1	17.69863
2	17.30778
3	16.95064
4	17.36108
5	17.72571
6	17.40683
7	16.80621
8	16.9176
9	17.45404
10	17.27982

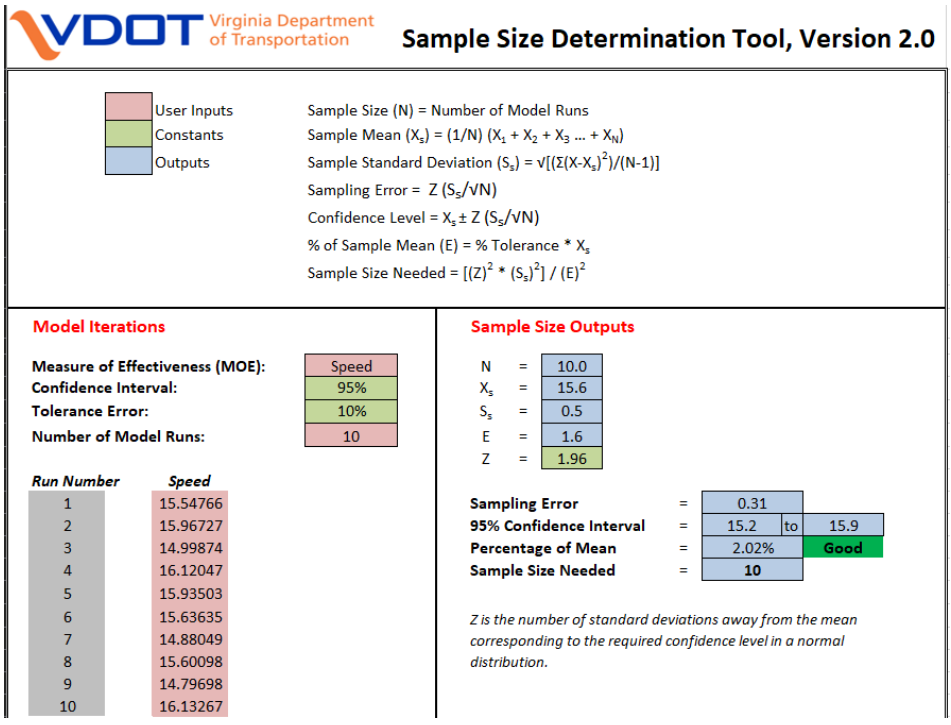
Sample Size Outputs

N	=	10.0
X_s	=	17.3
S_s	=	0.3
E	=	1.7
Z	=	1.96

Sampling Error	=	0.19		
95% Confidence Interval	=	17.1	to	17.5
Percentage of Mean	=	1.13%		**Good**
Sample Size Needed	=	**10**		

Z is the number of standard deviations away from the mean corresponding to the required confidence level in a normal distribution.

Figure C-3 Sample Size Calculation for the PM Peak Hour



VDOT Virginia Department of Transportation

Sample Size Determination Tool, Version 2.0

User Inputs
Constants
Outputs

Sample Size (N) = Number of Model Runs
Sample Mean (X_s) = (1/N) ($X_1 + X_2 + X_3 \ldots + X_N$)
Sample Standard Deviation (S_s) = $\sqrt{[(\Sigma(X-X_s)^2)/(N-1)]}$
Sampling Error = $Z (S_s/\sqrt{N})$
Confidence Level = $X_s \pm Z (S_s/\sqrt{N})$
% of Sample Mean (E) = % Tolerance * X_s
Sample Size Needed = $[(Z)^2 * (S_s)^2] / (E)^2$

Model Iterations

Measure of Effectiveness (MOE):	Speed
Confidence Interval:	95%
Tolerance Error:	10%
Number of Model Runs:	10

Run Number	*Speed*
1	15.54766
2	15.96727
3	14.99874
4	16.12047
5	15.93503
6	15.63635
7	14.88049
8	15.60098
9	14.79698
10	16.13267

Sample Size Outputs

N	=	10.0
X_s	=	15.6
S_s	=	0.5
E	=	1.6
Z	=	1.96

Sampling Error	=	0.31		
95% Confidence Interval	=	15.2	to	15.9
Percentage of Mean	=	2.02%		**Good**
Sample Size Needed	=	**10**		

Z is the number of standard deviations away from the mean corresponding to the required confidence level in a normal distribution.

Driving Behavior Adjustments

Field visits indicated aggressive lane changing and car-following behavior, particularly around the interchange, due to the high levels of congestion experienced. These observations were also validated by the initial VISSIM results that indicated considerably lower travel speeds around the interchange, with the default driving behavior compared to the field speeds obtained using the INRIX data. As a result, VISSIM's default driving behavior was adjusted around the interchange.

Table C-2 provides a summary of driving behavior adjustments used for the select links for the AM and PM VISSIM models.

Table C-2 Summary of Adjustments to VISSIM's Default Driving Behavior around the Interchange for Model Calibration

Model Parameters	VISSIM Default	Adjusted
Car Following – Average standstill distance (ft)	6.56	4.66
Car Following – Additive part of safety distance	2.00	2.00
Car Following – Multiplicative part of safety distance	3.00	2.80
Lane Change – Minimum clearance (feet)	1.64	1.10
Lane Change – Safety distance reduction factor	0.6	0.1
Lane Change – Maximum deceleration for cooperative braking (ft/s²)	-9.84	-13.84

CALIBRATION RESULTS

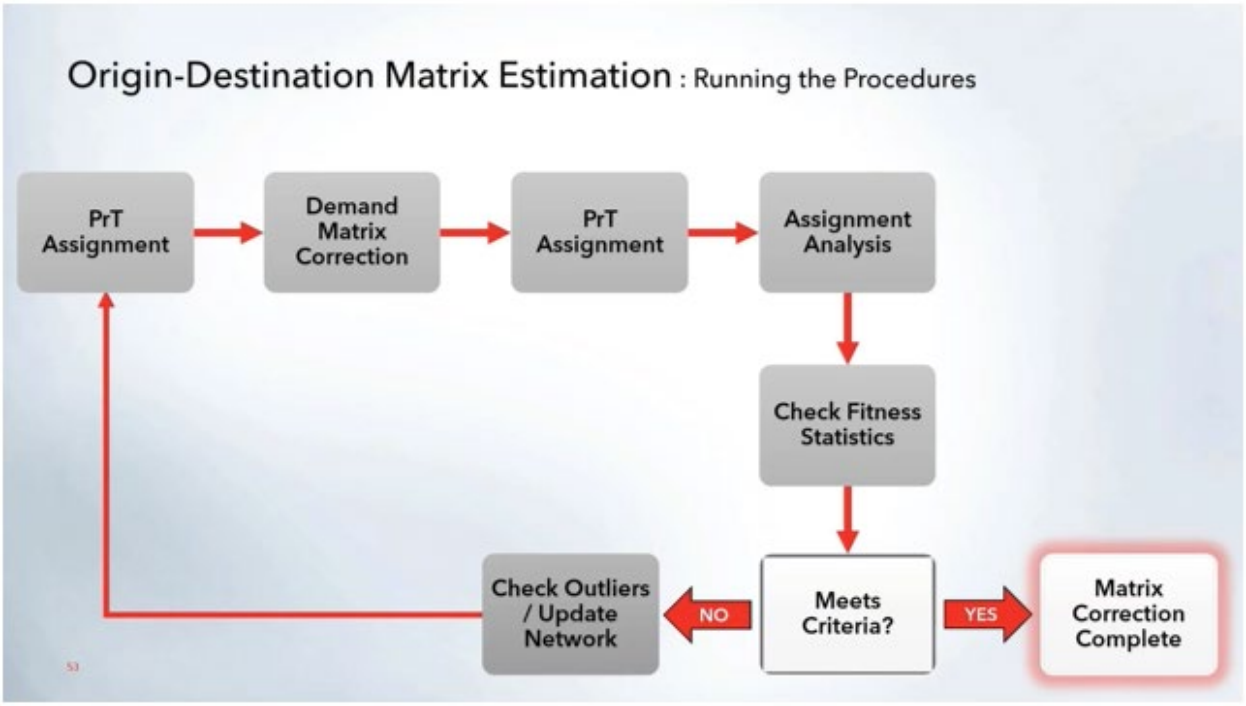
This section provides a summary of the calibration results for the typical AM and PM VISSIM models.

Origin-Destination Matrix Estimation (ODME)

An origin-destination matrix estimation (ODME) was completed to develop an origin-destination (O-D) demand matrix for use in the VISSIM analysis. The ODME was conducted in PTV VISUM with following steps:

1. Retrieve roadway network and seed matrices (demand matrices) for the study area from Fairfax County Travel Demand Model.
2. Refine the roadway network characteristics, such as number of lanes, free-flow speed, link capacity, node control and turn lanes.
3. Import turning movement counts of study intersections as the targets of ODME process.
4. Run the ODME procedures, which is mainly the combination of Equilibrium Assignment (PrT Assignment in VISUM) and demand matrix correction (TflowFuzzy in VISUM). **Figure C-4** demonstrates the general sequence of ODME procedures.

Figure C-4 Origin Destination Matrix Estimation (ODME) Procedures



The project team used about 350 turning-movement counts for AM and PM ODME. The performance of ODME is shown in **Figure C-5** and **Figure C-6** for the AM and PM peak hours, respectively. ODME procedures for the AM and PM peak hours were completed when R-squared, which is a measure for goodness-of-fit, reached 0.99. In general, the simulated volumes became close to the field turning movement counts for most cases after the ODME procedures. Some instances are relatively off-target, especially for the PM peak hour. Considering the complexity of the study network, the team decided that these locations could be adjusted during the calibration of the VISSIM model, if necessary.

Figure C-5 ODME Performance for the AM Peak Hour

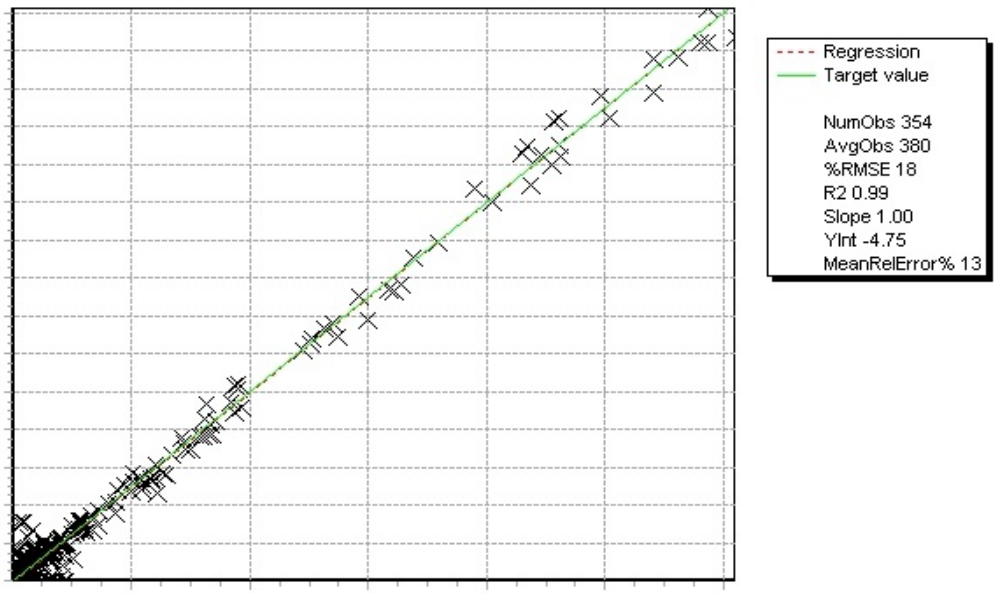
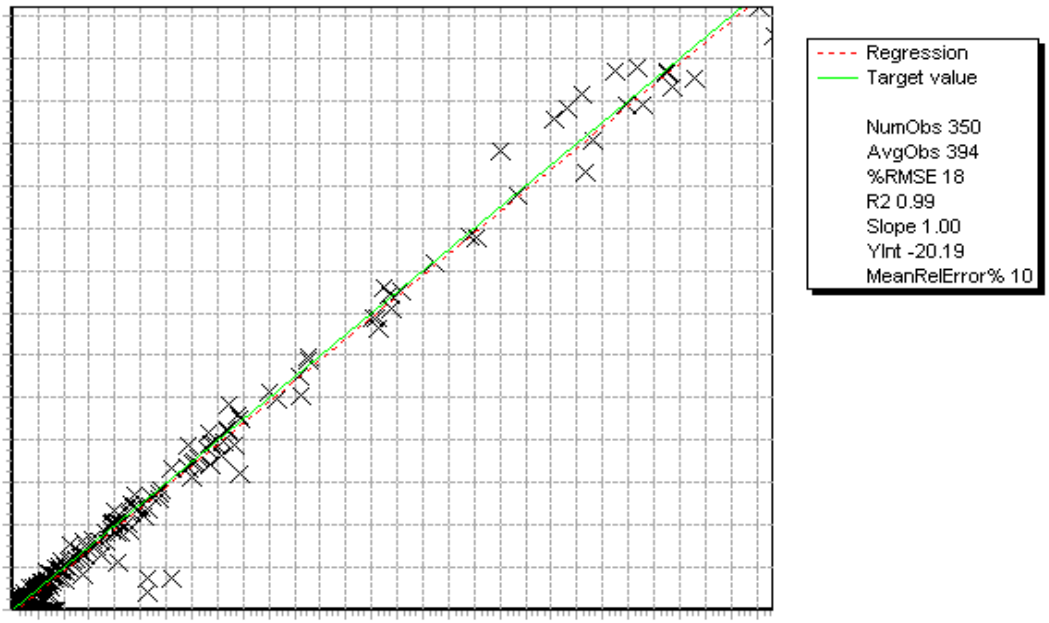


Figure C-6 ODME Performance for the PM Peak Hour



Simulated Traffic Volumes

Following the guidance provided in TOSAM, simulated volumes were extracted and compared at the following intersections in the network[4]:

- 1- S Cherry Street/Arlington Boulevard (US 50) - signalized
- 2 - S Cherry Street/Hillwood Avenue - signalized
- 3 - S Cherry Street/E. Broad Street (VA 7) - signalized
- 4 - South Street/Arlington Boulevard - unsignalized
- 6 - South Street & S. Roosevelt Street/Hillwood Avenue - signalized
- 7 - N Roosevelt Street/E. Broad Street (VA 7) - signalized
- 8 - Sleepy Hollow Road/Aspen Lane - unsignalized
- 9 - Sleepy Hollow Road/Castle Place - unsignalized
- 10 - Castle Road &Thorne Road/Leesburg Pike (VA 7) - signalized
- 11 - Seven Corners Center/Leesburg Pike (VA 7) - signalized
- 12 - Patrick Henry Drive/Leesburg Pike (VA 7) - signalized
- 13 - Arlington Boulevard service road/Arlington Boulevard (US 50) - signalized
- 14 - Patrick Henry Drive/Arlington Boulevard (US 50) - signalized
- 15 - John Marshall Drive/Patrick Henry Drive & Willston Drive - signalized
- 16 - John Marshall Drive & N. McKinley Road/Wilson Boulevard - signalized
- 17 - Peyton Randolph Drive/Wilson Boulevard - signalized
- 18 - Roosevelt Boulevard/Wilson Boulevard - signalized
- 19 - Roosevelt Boulevard/N. Roosevelt Street - signalized

[4] Only Streetlight data was available at intersection #5, and baseline volumes were developed using upstream and downstream intersection volumes. Therefore, simulated volumes could not be compared at this location.

- 20 - Arlington Blvd WB/Wilson Blvd - signalized
- 21 - Sleepy Hollow Rd/Wilson Blvd/Broad St/Arlington Blvd EB - signalized
- 22 - Broad St WB/Arlington Blvd WB - signalized
- 23a - Broad St EB/Arlington Blvd WB - unsignalized
- 23b - Broad St EB/Arlington Blvd WB - signalized
- 24 - Broad St WB/Hillwood Ave WB - diverge
- 24 - Broad St EB/Hillwood Ave - unsignalized

Table C-3 provides a summary of the number of movements that met the calibration threshold identified in TOSAM. As discussed previously, due to the nature of DTA applied in the simulation, it was decided with FCDOT to only include movements with volumes over 20 vehicles per hour for comparison. The full comparison of simulated volume versus developed volume along with the percent difference is included in **Appendix A**.

Table C-3 Simulated Traffic Volume Calibration Results

Peak Hour	Number of Movements Meeting Threshold	Total Number of Movements	% Meeting Threshold	TOSAM Required % Meeting Threshold	Threshold Met?
AM Peak Hour	144	164	87.8%	85.0%	**Yes**
PM Peak Hour	162	187	86.6%	85.0%	**Yes**

Results indicate that for all the volume groups analyzed, at least 85% of the movements meet the volume calibration thresholds identified in TOSAM.

Simulated Travel Speeds

Simulated travel speeds for selected critical segments were compared to INRIX speeds. **Tables C-4** and **C-5** provide a comparison of the simulated speeds and INRIX speeds along with the calibration thresholds that need to be met. Results show that, except for one segment during both the AM and PM peak hour, the simulated speeds are within the 20% range of observed INRIX average speeds, meeting the calibration target. The only segment that did not meet the calibration threshold is the westbound Route 7 segment from Lakeside View Drive to the Interchange, where INRIX indicated higher vehicle speeds both for the AM and PM peak hours. This is likely because the INRIX segment extends well beyond the VISSIM study area for this link and includes segments with large intersection spacing, where vehicles typically travel at higher speeds. As a result, the simulated travel speed calibration is deemed acceptable.

Table C-4 AM Peak Hour Simulated Travel Speed and INRIX Travel Speed Comparison for Model Calibration

Segment	VISSIM Speed (mph)	INRIX Speed (mph)	% Difference	Calibration Threshold	Threshold Met?
EB Route 7: Washington Street – Interchange	16.1	19.1	-15.7%	Within ±20%	**Yes**
WB Route 7: Interchange – Washington Street	18.3	21.0	-12.9%	Within ±20%	**Yes**
EB Route 7: Interchange – Lakeside View Drive	24.3	29.1	-16.5%	Within ±20%	**Yes**
WB Route 7: Lakeside View Drive – Interchange	9.0	13.9	-35.3%	Within ±20%	***No****
EB Hillwood Avenue: Washington Street – Interchange	17.3	17.0	1.8%	Within ±20%	**Yes**
WB Hillwood Avenue: Interchange – Washington Street	17.4	18.8	-7.4%	Within ±20%	**Yes**
EB US 50: Annandale Road – Driveway (east of Patrick Henry)	31.6	30.6	3.3%	Within ±20%	**Yes**
WB US 50: Driveway (east of Patrick Henry) – Annandale Road	29.2	33.8	-13.6%	Within ±20%	**Yes**
NB Sleepy Hollow Road: Holmes Run Road – Interchange	28.5	24.6	15.9%	Within ±20%	**Yes**
SB Sleepy Hollow Road: Interchange – Holmes Run Road	33.3	30.1	10.6%	Within ±20%	**Yes**
EB Wilson Boulevard: Interchange – McKinley Road	15.2	17.3	-12.1%	Within ±20%	**Yes**
WB Wilson Boulevard: McKinley Road – Interchange	15.8	15.6	1.3%	Within ±20%	**Yes**

* This segment did not meet the calibration threshold, largely because the INRIX segment extends well beyond the VISSIM study area for this link and includes segments with large intersection spacing where vehicles travel with higher speeds. Therefore, this segment not meeting the calibration threshold should not be a reason to invalidate the calibration.

Table C-5 PM Peak Hour Simulated Travel Speed and INRIX Travel Speed Comparison for Model Calibration

Segment	VISSIM Speed (mph)	INRIX Speed (mph)	% Difference	Calibration Threshold	Threshold Met?
EB Route 7: Washington Street – Interchange	13.7	13.6	0.7%	Within ±20%	**Yes**
WB Route 7: Interchange – Washington Street	19.9	20.7	-3.9%	Within ±20%	**Yes**
EB Route 7: Interchange – Lakeside View Drive	16.9	18.8	-10.1%	Within ±20%	**Yes**
WB Route 7: Lakeside View Drive – Interchange	8.8	16.6	-47.0%	Within ±20%	***No****
EB Hillwood Avenue: Washington Street – Interchange	17.6	14.8	18.9%	Within ±20%	**Yes**
WB Hillwood Avenue: Interchange – Washington Street	16.2	19.2	-15.6%	Within ±20%	**Yes**
EB US 50: Annandale Road – Driveway (east of Patrick Henry)	26.6	29.0	-8.3%	Within ±20%	**Yes**
WB US 50: Driveway (east of Patrick Henry) – Annandale Road	22.6	19.3	17.1%	Within ±20%	**Yes**
NB Sleepy Hollow Road: Holmes Run Road – Interchange	29.6	28.0	5.7%	Within ±20%	**Yes**
SB Sleepy Hollow Road: Interchange – Holmes Run Road	31.0	26.9	15.2%	Within ±20%	**Yes**
EB Wilson Boulevard: Interchange – McKinley Road	15.0	14.0	7.1%	Within ±20%	**Yes**
WB Wilson Boulevard: McKinley Road – Interchange	8.8	7.6	15.8%	Within ±20%	**Yes**

* This segment did not meet the calibration threshold, largely because the INRIX segment extends well beyond the VISSIM study area for this link and includes segments with large intersection spacing where vehicles travel with higher speeds. Therefore, this segment not meeting the calibration threshold should not be a reason to invalidate the calibration.

CONCLUSIONS

Appendix C describes the calibration efforts the team followed to develop the VISSIM microsimulation model for the Seven Corners Phasing Study. Based on the quantitative comparisons of simulated traffic volumes and vehicle speeds, it is concluded that the 2018 and 2019 typical conditions calibration results meet the calibration targets presented in **Table C-1**. The adjustments made in the 2018 and 2019 typical conditions AM and PM VISSIM models for calibration (e.g., changes in driving behavior, lane changing and gap acceptance) were carried over to future condition models.

Appendix D
2030 and 2045 Scenario Analysis Detailed Operational Results

Future Scenario Analysis (Year 2030)

To establish an interim future-year benchmark for comparisons, the project team evaluated an interim year 2030 Baseline Conditions for the study area. Following the establishment of Baseline Conditions, multiple phasing scenarios for future improvements were then developed and analyzed.

2030 BASELINE TRANSPORTATION CONDITIONS

The following section provides an overview of the 2030 Baseline Conditions. Conditions noted here would be expected in 2030 if none of the improvements noted in this study, as recommended in the Comprehensive Plan Amendment, are implemented and growth of population and employment continue as expected. This scenario also considers all improvements in the regional transportation network that are expected to be implemented by 2030.

2030 Baseline Network Assumptions

The regional and local transportation networks are planned to be modified in various locations by 2030. These changes are expected with or without the implementation of the improvements considered in this study, as part of the Comprehensive Plan Amendment. This study includes these changes as part of the analysis. Relevant changes in the transportation network include:

ROADWAY NETWORK ADJUSTMENTS

The roadway network for the 2030 Baseline Conditions includes all changes that the Metropolitan Washington Council of Governments (MWCOG) anticipates, as noted in regional planning documents and included in its regional travel demand model. However, some adjustments and clarifications to roadway facilities in the study were necessary. The following adjustments, including a brief explanation, were made:

- Route 50 was reduced from three to two lanes in each direction from approximately Seven Oaks Drive to Peyton Randolph Road.
    - The Service Roads along Route 50 were assumed to be the third through lane along Route 50.
- Route 7 was reduced from three to two lanes in each direction from Patrick Henry Drive to Columbia Pike.
    - Future widening of Route 7 is anticipated to accommodate transit-only lanes as part of the Envision Route 7 Bus Rapid Transit (BRT) project. However, that project is not anticipated to begin implementation until after the 2030 time horizon.

TRANSIT NETWORK ADJUSTMENTS

The project team researched any changes to transit that would affect the 2030 Baseline Conditions in the study area. Two WMATA routes that typically serve the Seven Corners area, 4A and 26A, were included in the 2030 scenarios, and it is assumed that their service will resume. These routes provide service between the following terminal points:

- ***Route 4A (Pershing Drive-Arlington Boulevard Line)***: This route provides weekday peak hour service between Rosslyn Metrorail Station and Seven Corners Transit Center.
- ***Route 26A (Annandale-East Falls Church Line)***: This route provides service between East Falls Church Metrorail Station and Northern Virginia Community College Annandale.

Note that the Envision Route 7 BRT project is not included in the 2030 Baseline.

BICYCLE NETWORK ADJUSTMENTS

The project team coordinated with the County to identify any bicycle connections that would be built by 2030. Through this coordination, it was determined that there are no new bicycle connections planned to be completed in the study area before 2030.

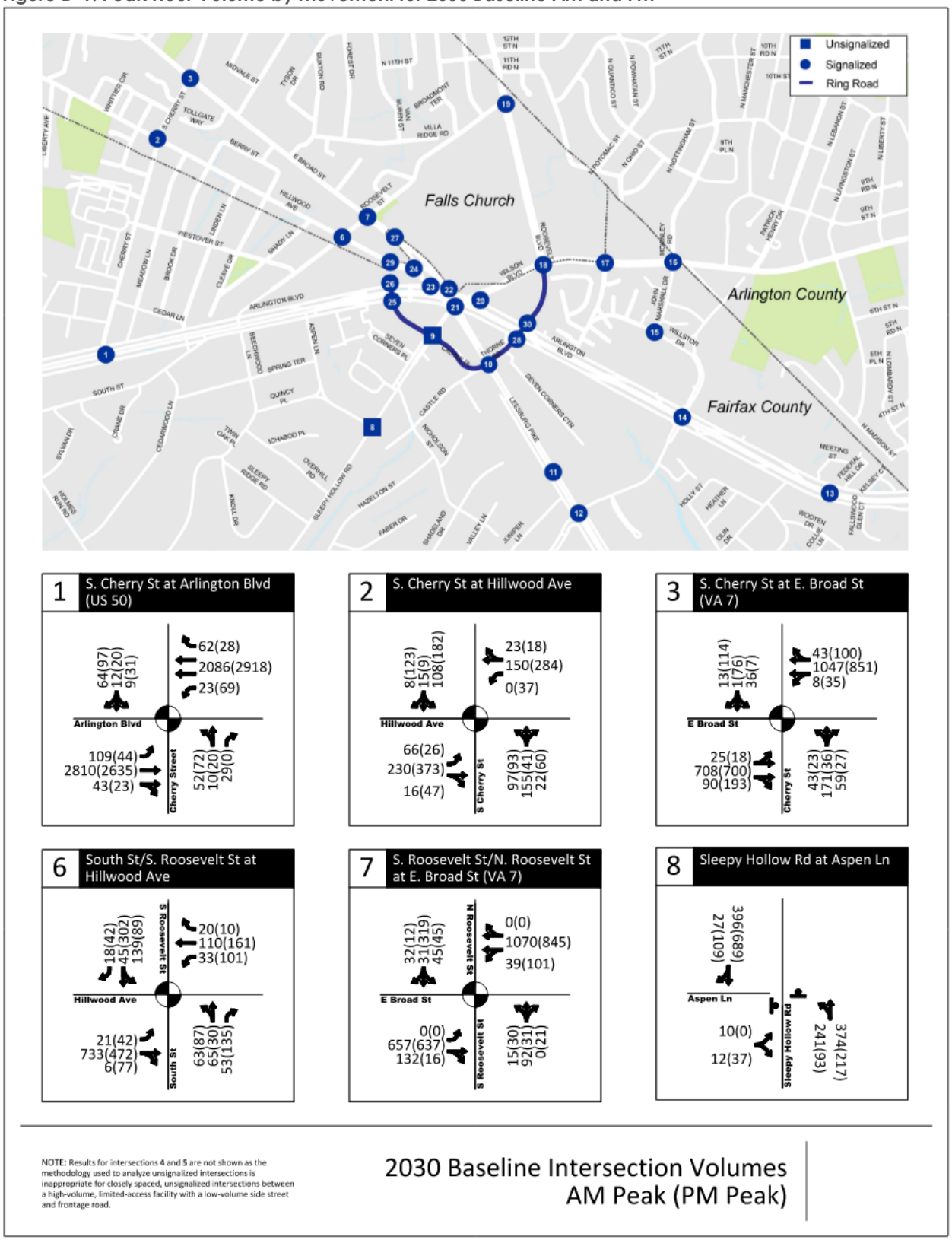
PEDESTRIAN NETWORK ADJUSTMENTS

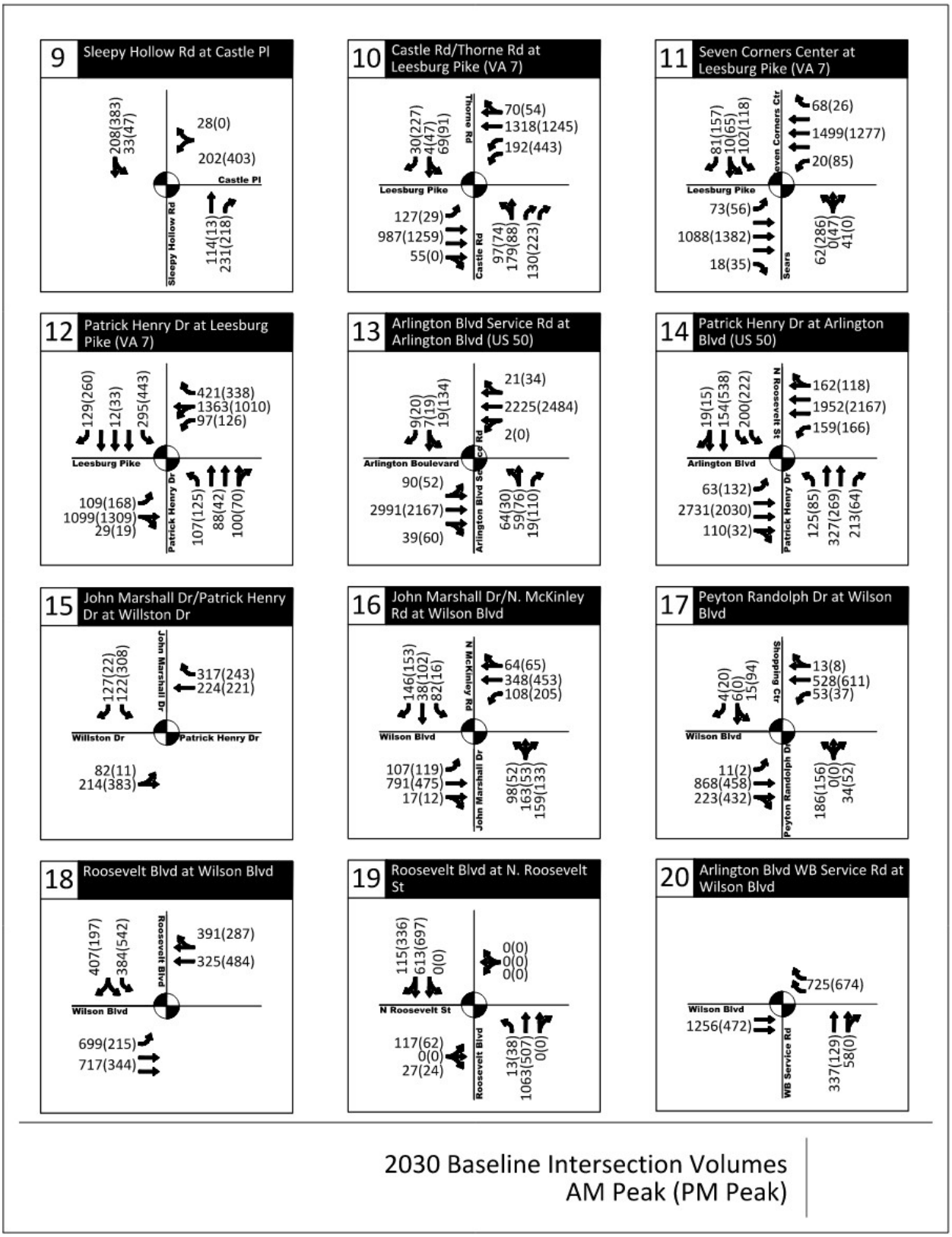
The project team coordinated with the County to identify any pedestrian connections that would be built by 2030. Through this coordination, it was determined that there are no new pedestrian connections planned to be completed in the study area before 2030.

Vehicular Operations

In 2030, additional travel demand is expected on the roadway network as compared to current conditions. Peak hour volume is provided by the intersection movement in **Figure D-1**. Level of service (LOS) and delay are shown in **Figure D-2** and **Table D-1.**

Figure D-1: Peak Hour Volume by Movement for 2030 Baseline AM and PM




9
Sleepy Hollow Rd at Castle Pl
208(383)
33(47)
28(0)
202(403)
Castle Pl
Sleepy Hollow Rd
114(13)
231(218)
10
Castle Rd/Thorne Rd at Leesburg Pike (VA 7)
30(227)
4(47)
69(91)
Thorne Rd
70(54)
1318(1245)
192(443)
Leesburg Pike
127(29)
987(1259)
55(0)
Castle Rd
97(74)
179(88)
130(223)
11
Seven Corners Center at Leesburg Pike (VA 7)
81(157)
10(65)
102(118)
Seven Corners Ctr
68(26)
1499(1277)
20(85)
Leesburg Pike
73(56)
1088(1382)
18(35)
Sears
62(286)
0(47)
41(0)
12
Patrick Henry Dr at Leesburg Pike (VA 7)
129(260)
12(33)
295(443)
421(338)
1363(1010)
97(126)
Leesburg Pike
109(168)
1099(1309)
29(19)
Patrick Henry Dr
107(125)
88(42)
100(70)
13
Arlington Blvd Service Rd at Arlington Blvd (US 50)
9(20)
7(19)
19(134)
21(34)
2225(2484)
2(0)
Arlington Boulevard
90(52)
2991(2167)
39(60)
Arlington Blvd Service Rd
64(30)
59(76)
19(110)
14
Patrick Henry Dr at Arlington Blvd (US 50)
19(15)
154(538)
200(222)
N Roosevelt St
162(118)
1952(2167)
159(166)
Arlington Blvd
63(132)
2731(2030)
110(32)
Patrick Henry Dr
125(85)
327(269)
213(64)
15
John Marshall Dr/Patrick Henry Dr at Willston Dr
127(22)
122(308)
John Marshall Dr
317(243)
224(221)
Willston Dr
Patrick Henry Dr
82(11)
214(383)
16
John Marshall Dr/N. McKinley Rd at Wilson Blvd
146(153)
38(102)
82(16)
N McKinley Rd
64(65)
348(453)
108(205)
Wilson Blvd
107(119)
791(475)
17(12)
John Marshall Dr
98(52)
163(53)
159(133)
17
Peyton Randolph Dr at Wilson Blvd
4(20)
6(0)
15(94)
Shopping Ctr
13(8)
528(611)
53(37)
Wilson Blvd
11(2)
868(458)
223(432)
Peyton Randolph Dr
186(156)
0(0)
34(52)
18
Roosevelt Blvd at Wilson Blvd
407(197)
384(542)
Roosevelt Blvd
391(287)
325(484)
Wilson Blvd
699(215)
717(344)
19
Roosevelt Blvd at N. Roosevelt St
115(336)
613(697)
0(0)
0(0)
0(0)
0(0)
N Roosevelt St
117(62)
0(0)
27(24)
Roosevelt Blvd
13(38)
1063(507)
0(0)
20
Arlington Blvd WB Service Rd at Wilson Blvd
725(674)
Wilson Blvd
1256(472)
WB Service Rd
337(129)
58(0)
2030 Baseline Intersection Volumes
AM Peak (PM Peak)

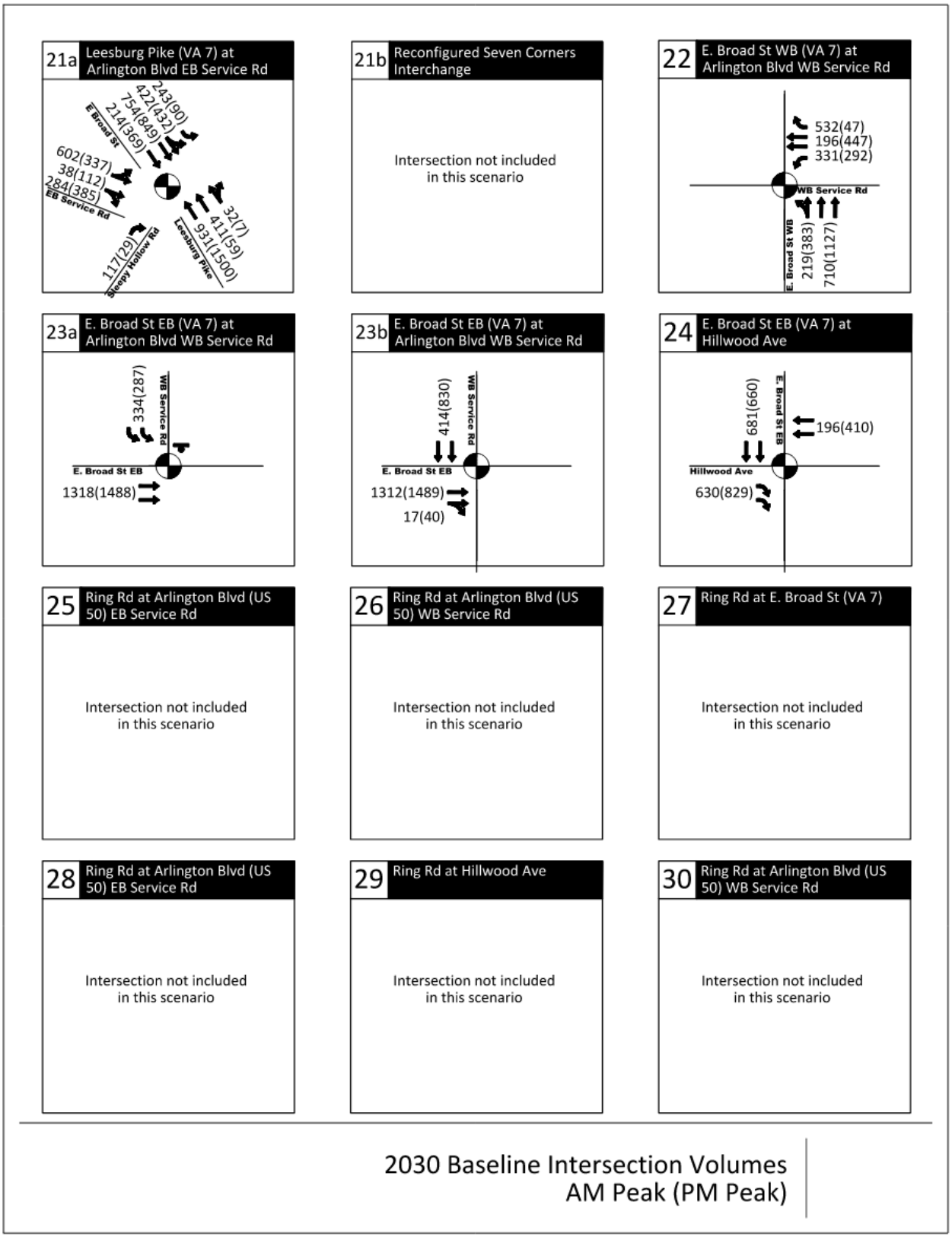

21a Leesburg Pike (VA 7) at Arlington Blvd EB Service Rd
243(90)
422(432)
754(849)
214(369)
E Broad St
602(337)
38(112)
284(385)
EB Service Rd
32(7)
411(59)
931(1500)
Leesburg Pike
117(29)
Sleepy Hollow Rd
21b Reconfigured Seven Corners Interchange
Intersection not included in this scenario
22 E. Broad St WB (VA 7) at Arlington Blvd WB Service Rd
532(47)
196(447)
331(292)
WB Service Rd
E. Broad St WB
219(383)
710(1127)
23a E. Broad St EB (VA 7) at Arlington Blvd WB Service Rd
334(287)
WB Service Rd
E. Broad St EB
1318(1488)
23b E. Broad St EB (VA 7) at Arlington Blvd WB Service Rd
414(830)
WB Service Rd
E. Broad St EB
1312(1489)
17(40)
24 E. Broad St EB (VA 7) at Hillwood Ave
681(660)
E. Broad St EB
196(410)
Hillwood Ave
630(829)
25 Ring Rd at Arlington Blvd (US 50) EB Service Rd
Intersection not included in this scenario
26 Ring Rd at Arlington Blvd (US 50) WB Service Rd
Intersection not included in this scenario
27 Ring Rd at E. Broad St (VA 7)
Intersection not included in this scenario
28 Ring Rd at Arlington Blvd (US 50) EB Service Rd
Intersection not included in this scenario
29 Ring Rd at Hillwood Ave
Intersection not included in this scenario
30 Ring Rd at Arlington Blvd (US 50) WB Service Rd
Intersection not included in this scenario
2030 Baseline Intersection Volumes
AM Peak (PM Peak)

Figure D-2: LOS for 2030 Baseline

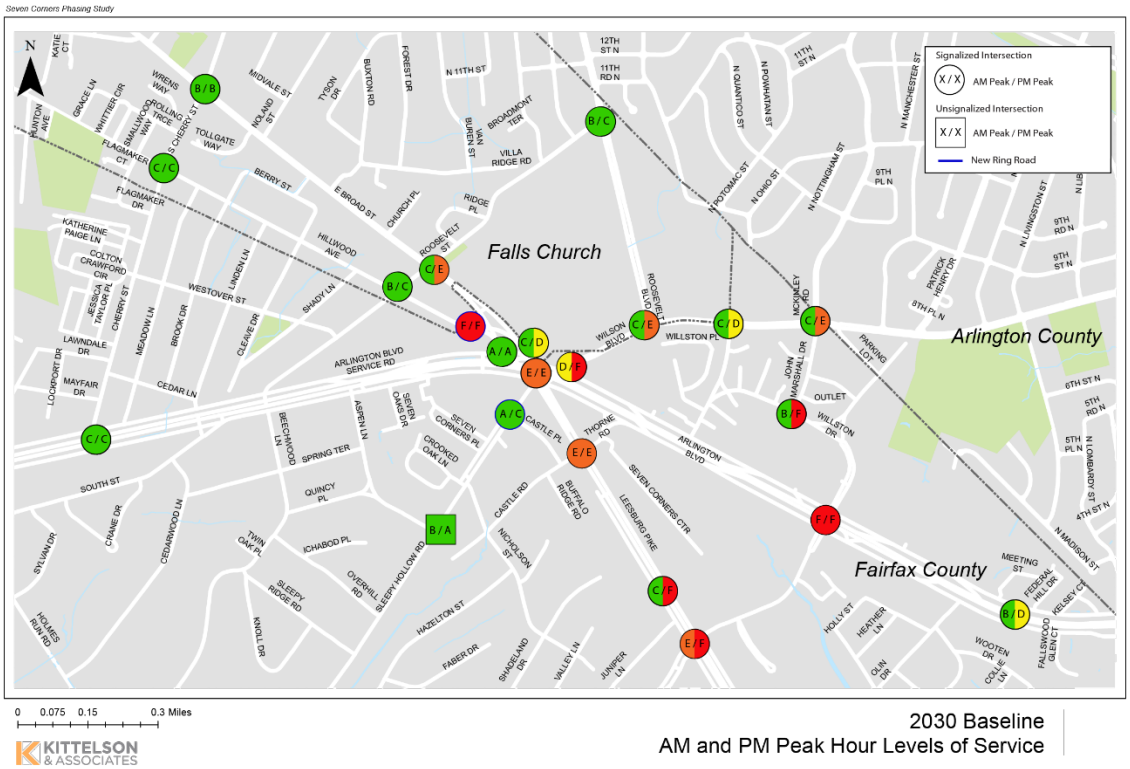


Table D-1: LOS and Delay for Typical Conditions and 2030 Baseline AM and PM Peak Hours

Intersection	Traffic Control	2018/2019 Typical Conditions				2030 Baseline Conditions			
		AM		PM		AM		PM	
		LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
#1: S Cherry Street/Arlington Boulevard (US 50)	Signalized	D	45.4	D	48.9	C	26.2	C	31.0
#2: S Cherry Street/Hillwood Avenue	Signalized	B	16.3	B	14.6	C	21.6	C	21.0
#3: S Cherry Street/E. Broad Street (VA 7)	Signalized	B	12.8	B	13.8	B	18.0	B	18.8
#6: South Street & S. Roosevelt Street/Hillwood Avenue	Signalized	C	21.0	C	33.3	B	15.8	C	30.7
#7: N Roosevelt Street/E. Broad Street (VA 7)	Signalized	B	16.6	D	49.1	C	20.6	E	75.0
#8: Sleepy Hollow Road/Aspen Lane	Unsignalized	B	14.0	A	3.0	B	14.0	A	4.8
#9: Sleepy Hollow Road/Castle Place	Signalized	A	6.6	B	11.5	A	9.5	C	22.5
#10: Castle Road &Thorne Road/Leesburg Pike (VA 7)	Signalized	E	58.2	D	54.7	E	56.3	E	59.0
#11: Seven Corners Center/Leesburg Pike (VA 7)	Signalized	B	18.8	E	59.6	C	23.3	F	98.3
#12: Patrick Henry Drive/Leesburg Pike (VA 7)	Signalized	F	84.2	F	81.8	E	63.8	F	86.7

#13: Arlington Boulevard service road/Arlington Boulevard (US 50)	Signalized	A	6.1	C	29.2	B	16.6	D	49.8
#14: Patrick Henry Drive/Arlington Boulevard (US 50)	Signalized	E	55.4	F	108.7	F	82.8	F	154.4
#15: John Marshall Drive/Patrick Henry Drive & Willston Drive	Signalized	B	14.7	C	26.1	B	18.0	F	96.9
#16: John Marshall Drive & N. McKinley Road/Wilson Boulevard	Signalized	C	25.3	D	38.3	C	28.3	E	77.8
#17: Peyton Randolph Drive/Wilson Boulevard	Signalized	C	20.6	C	30.4	C	21.6	D	37.7
#18: Roosevelt Boulevard/Wilson Boulevard	Signalized	C	24.4	E	55.4	C	33.2	E	63.2
#19: Roosevelt Boulevard/N. Roosevelt Street	Signalized	A	9.0	C	23.6	B	11.5	C	23.8
#20: Arlington Blvd WB/Wilson Blvd	Signalized	B	20.0	E	65.2	D	39.2	F	119.1
#21a: Sleepy Hollow Rd/Wilson Blvd/Broad St/Arlington Blvd EB	Signalized	E	56.8	E	62.0	E	67.2	E	68.3
#22: Broad St WB/Arlington Blvd WB	Signalized	B	14.2	D	44.1	C	20.6	D	39.4
#23: Broad St EB/Arlington Blvd WB	Signalized	A	5.9	A	6.6	A	6.1	A	7.1
#24: Broad St EB/Hillwood Ave	Signalized	E	76.9	F	107.2	F	103.6	F	177.3
#21b: Seven Corners Interchange	Signalized	F	96.7	F	141.5	F	130.0	F	187.2

Results show that there is significant travel delay in the study area in both the AM and PM peak periods, though the delay is most pronounced during the PM peak hour. A detailed discussion of results is provided for key locations:

- ***Seven Corners Interchange***: The main interchange operates at LOS F during both the AM and PM peak hours in Typical Conditions. It significantly degrades in both the 2030 AM and PM peak hours. Further, the level of delay is well above the threshold for LOS F and is leading to significant delays across the network.
- ***Castle Road & Thorne Road/Route 7:*** This intersection operates at LOS E during the PM peak hour in 2030 Baseline Conditions. This is a slight improvement from the Typical Conditions, where the intersection operates at LOS E in both the AM and PM peak hours. Both the AM and PM peak hours show a reduction in delay when compared to the Typical Conditions, where delay reduction can be attributed to the signal timing adjustments in 2030 Baseline Conditions.
- ***Patrick Henry Drive/Route 7:*** This intersection operates at LOS F during the PM peak hour and at LOS E in the AM peak hour in 2030 Baseline Conditions, unlike the Typical Conditions, in which both the AM and PM peak hours experienced LOS F. As noted above, improvement in delay in the AM peak hour is primarily due to the signal timing adjustments made in 2030 Baseline Conditions.
- ***Patrick Henry Drive/Route 50:*** This intersection operates at LOS F during both the AM peak hours and the PM peak hour in 2030 Baseline Conditions. Both the AM and PM peak hours show a significant increase in delay when compared to the Typical Conditions. Compared to the Typical Conditions, the 2030 Baseline scenario volumes increased considerably at this intersection, resulting in degraded intersection operations.
- ***Roosevelt St/Broad St:*** In the 2030 Baseline Conditions, the PM peak hour shows an increase in delay when compared to the Typical Conditions, with the PM peak hour operating at LOS E. Increase in vehicle delay is mostly due to the increase in vehicle volumes on Roosevelt Street that travel towards westbound Route 50 to avoid going through the interchange via Wilson Boulevard.

Network Performance

Three network performance measures are shown in **Table D-2**: *average delay*, *vehicle arrival,* and *latent demand*. The 2030 Baseline Conditions results show that during the PM peak hour, the network is more congested compared to the AM peak hour, where the average vehicle delay in the PM peak hour is 260 seconds of delay compared to approximately 157 seconds of delay in the AM peak hour. When compared to Typical Conditions, the network in the AM peak hour stays relatively the same, with only slight variations in performance. However, in the PM peak hour, the network has a large increase in delay, from 202 seconds of delay in the Typical Conditions to 260 seconds of delay in the 2030 Baseline Conditions.

Table D-2: Network Performance for Typical Conditions and 2030 Baseline AM and PM Peak Hours

Performance Measure	2018/2019 Typical Conditions		2030 Baseline Conditions	
	Weekday AM	Weekday PM	Weekday AM	Weekday PM
Average Delay (seconds)	154.8	201.7	157.1	260.2
Vehicle Arrival (vehicles)	20,222	20,131	20,455	20,727
Latent Demand (vehicles)	55	390	60	561

Transit Conditions

Minimal transit changes are expected to be implemented in the study area by 2030. Some routes previously suspended are likely to be reintroduced.

Bicycle Conditions

No new bicycle facilities are expected to be implemented in the study area by 2030. Because of this finding, the 2030 Baseline Conditions are consistent with 2018 and 2019 Typical Conditions.

Pedestrian Conditions

No new pedestrian facilities are expected to be implemented in the study area by 2030. The project team analyzed pedestrian conditions for Future Year 2030 by considering pedestrian crossing times. The reviews of LTS and observations of field conditions conducted with the 2018 and 2019 Typical Conditions Analysis are still applicable to 2030. Pedestrian crossing times were analyzed at signalized study intersections using VISSIM software.

CROSSING TIME

Average pedestrian crossing times at several signalized intersections in the study area were calculated for the AM and PM peak hours. The average pedestrian crossing time is defined as the time it takes a pedestrian to cross the mainline of the intersection. It considers the actual crossing time as well as delay waiting to walk. **Table D-3** provides a summary of crossing times at select major intersections, with crossing times presented in minutes.

Table D-3: Notable Pedestrian Crossing Times

Intersection	Crossing	Weekday AM (minutes)	Weekday PM (minutes)
Roosevelt St/Route 7	Route 7 (east side of intersection)	2.1	1.9
	Route 7 (west side of intersection)	2.5	2.0
Patrick Henry Dr/Route 7	Route 7 (south/east side of intersection)	1.9	1.9
Patrick Henry Dr/Route 50	Route 50 (east side of intersection)	1.4	1.5
	Route 50 (west side of intersection)	1.4	1.4
Interchange	Route 7 (east side of intersection)	3.3	3.3
	Route 7 (west side of intersection)	3.9	3.8

As shown in **Table D-3**, there are multiple locations in the study area where it takes pedestrians over two minutes to cross the major roadways, like Route 7 and Route 50. Generally, this is attributable to the longer crossing distances created by multiple vehicle travel lanes and long signal cycle lengths. Of note are the Route 7 crossing times for pedestrians within the Seven Corners Interchange. During the peak hours, it can take pedestrians up to four minutes to cross Route 7.

In addition to long crossing times, these major roadway facilities typically have minimal pedestrian facilities that are close to fast-moving traffic, making them uncomfortable to use. Like bicycle conditions, the major roadways serve as barriers for pedestrians to cross.

2030 BASELINE TRANSPORTATION CONSIDERATIONS

The project team identified five major multimodal considerations from the Baseline analysis to assist in developing phasing scenarios:

1. ***Complex movements at interchange.*** Travel movements are very complex, in particular on the north side of the interchange area. There are multiple turns that can be made in close proximity, and there are various stop bars where vehicles can queue that are not intuitive.

2. ***Number of movements at interchange.*** In addition to being complex, there are a high number of movements possible at the main interchange. There are seven legs of the intersection, six of which have full or nearly full access to the others, and one which has right-in and right-out access.

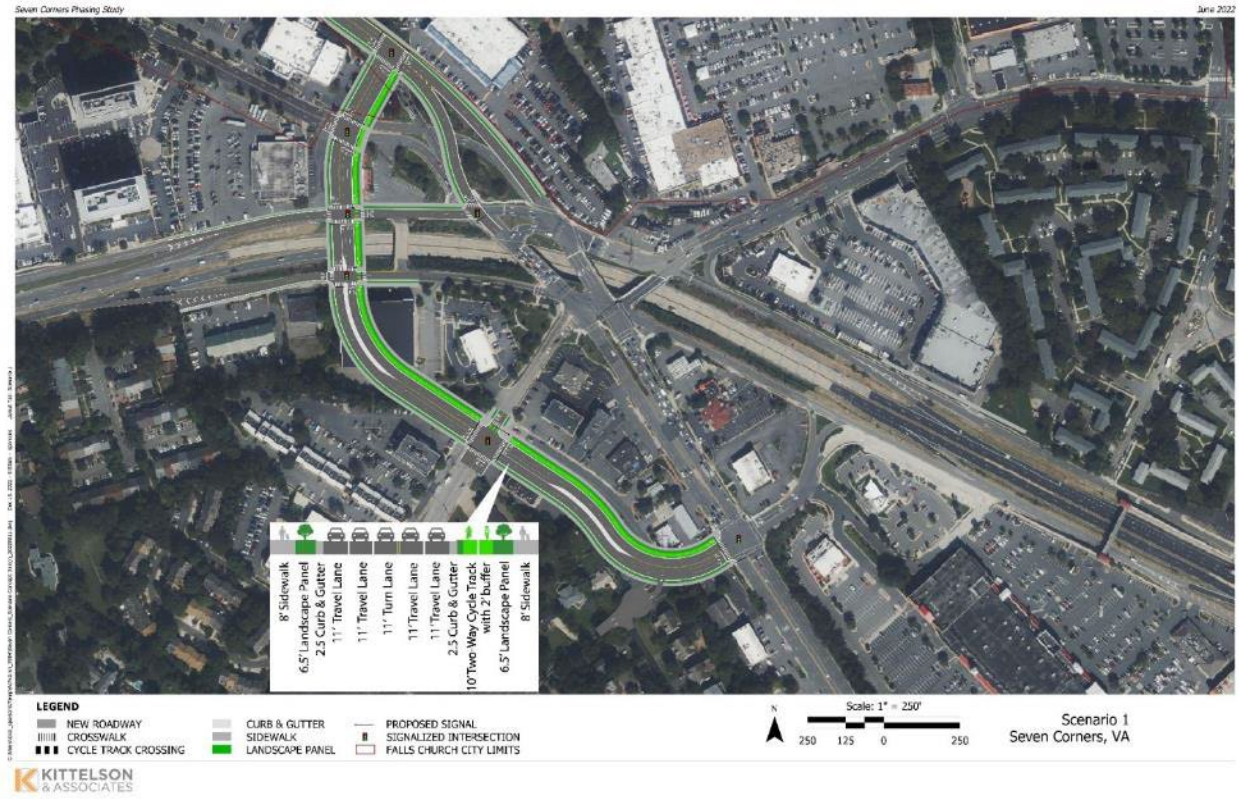
3. ***High-volume movements at interchange.*** Many of the movements are relatively high-volume, specifically the movements between Route 50 on the west and Wilson Boulevard as well as Route 50 on the west and Route 7.

4. ***Long pedestrian crossing***. The crossing time for pedestrians attempting to cross the central interchange is particularly long and confusing, and it can take multiple signal cycles to cross.

5. ***Lack of pedestrian and bicycle infrastructure***. Minimal pedestrian infrastructure exists in the area, and there is almost no bicycle infrastructure.

SCENARIO 1: RING ROAD WEST OF ROUTE 7 CONNECTING TO BROAD STREET

Figure D-3: Scenario 1



Scenario 1 Description

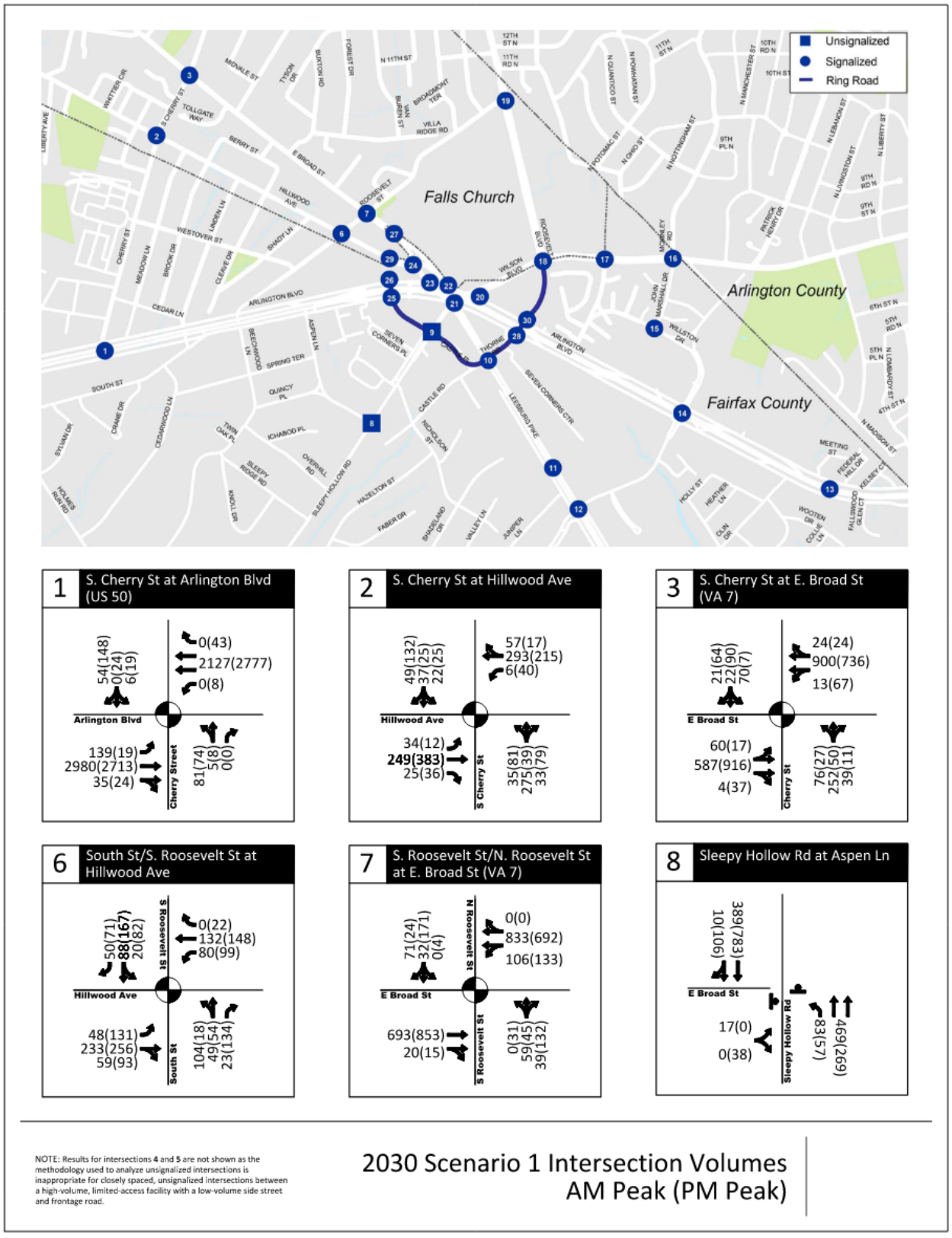
Scenario 1 includes Ring Road along the west side of the interchange connecting Broad Street in the north to Route 7 in the south. As noted in **Figure D-3**, Scenario 1 consists of:

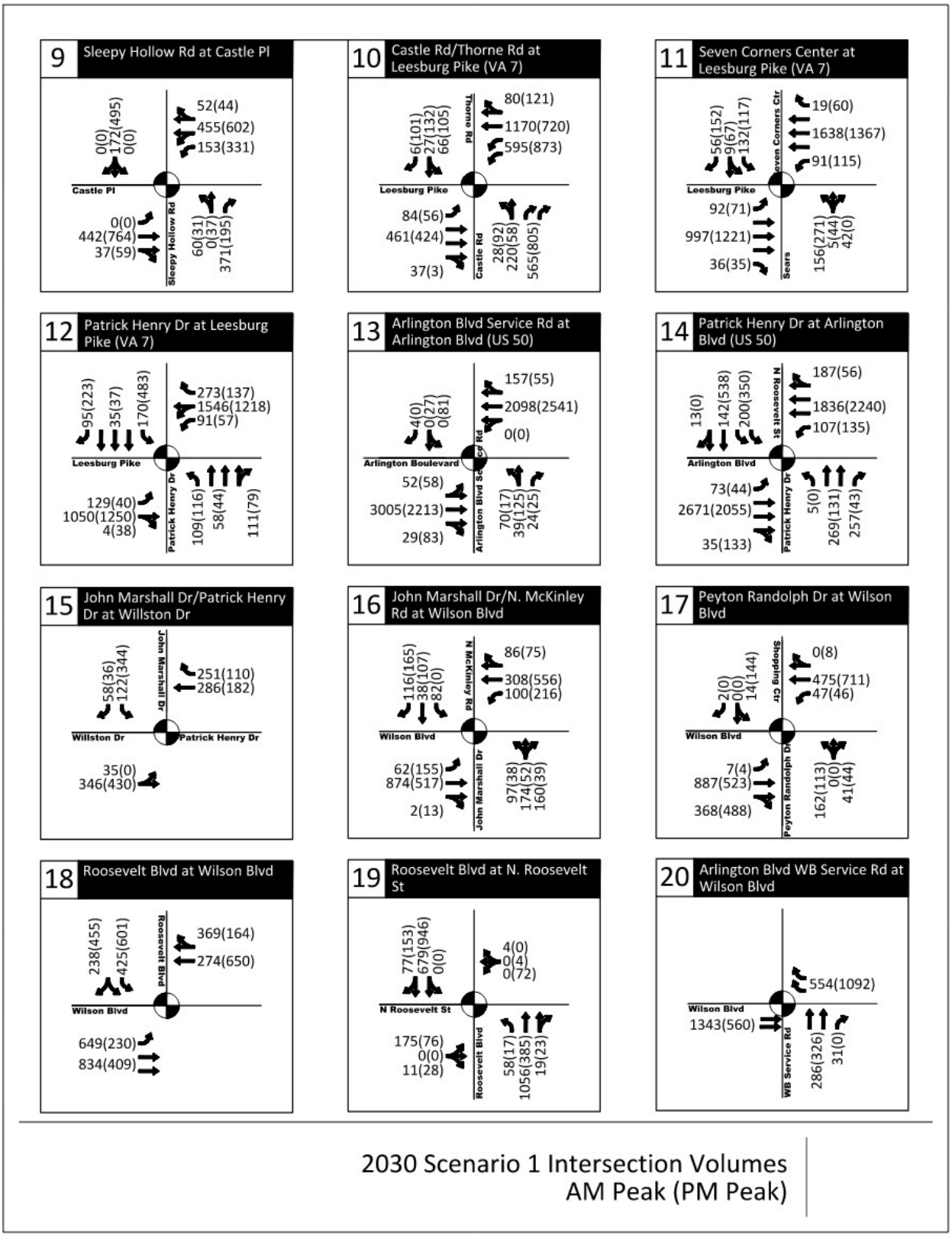
- Two motor vehicle travel lanes in each direction from Broad Street to Route 7.
- A bridge over the west leg of Route 50.
- A left-turn lane at each signalized intersection approach.
- A two-way cycle track on the inner loop, buffered from motor vehicle traffic.
- Sidewalks and landscape panels on both sides.
- Five new traffic signals at the two Route 50 Service Roads, Hillwood Avenue, Broad Street, and at Sleepy Hollow Road.
- Incorporation of Castle Place and a portion of Castle Road into Ring Road.
- Reconfiguration of the existing signal at Route 7 and Thorne Road to accommodate the east end of this Ring Road segment.

Vehicular Operations

This section discusses AM and PM peak hour vehicular operations for Scenario 1. Peak hour volume is provided by intersection movement in **Figure D-4**. Level of service (LOS) and delay are shown in **Figure D-5** and **Table D-4**.

Figure D-4: Peak Hour Volume by Movement for Scenario 1 AM and PM




9 Sleepy Hollow Rd at Castle Pl
Castle Pl
Sleepy Hollow Rd
0(0) 172(495) 0(0)
52(44) 455(602) 153(331)
0(0) 442(764) 37(59)
60(31) 0(37) 371(195)
10 Castle Rd/Thorne Rd at Leesburg Pike (VA 7)
Leesburg Pike
Thorne Rd
Castle Rd
6(101) 27(132) 66(105)
80(121) 1170(720) 595(873)
84(56) 461(424) 37(3)
28(92) 220(58) 565(805)
11 Seven Corners Center at Leesburg Pike (VA 7)
Leesburg Pike
Seven Corners Ctr
Sears
56(152) 9(67) 132(117)
19(60) 1638(1367) 91(115)
92(71) 997(1221) 36(35)
156(271) 5(44) 42(0)
12 Patrick Henry Dr at Leesburg Pike (VA 7)
Leesburg Pike
Patrick Henry Dr
95(223) 35(37) 170(483)
273(137) 1546(1218) 91(57)
129(40) 1050(1250) 4(38)
109(116) 58(44) 111(79)
13 Arlington Blvd Service Rd at Arlington Blvd (US 50)
Arlington Boulevard
Arlington Blvd Service Rd
4(0) 0(27) 0(81)
157(55) 2098(2541) 0(0)
52(58) 3005(2213) 29(83)
70(17) 39(125) 24(25)
14 Patrick Henry Dr at Arlington Blvd (US 50)
Arlington Blvd
N Roosevelt St
Patrick Henry Dr
13(0) 142(538) 200(350)
187(56) 1836(2240) 107(135)
73(44) 2671(2055) 35(133)
5(0) 269(131) 257(43)
15 John Marshall Dr/Patrick Henry Dr at Willston Dr
John Marshall Dr
Willston Dr
Patrick Henry Dr
58(36) 122(344)
251(110) 286(182)
35(0) 346(430)
16 John Marshall Dr/N. McKinley Rd at Wilson Blvd
Wilson Blvd
N McKinley Rd
John Marshall Dr
116(165) 38(107) 82(0)
86(75) 308(556) 100(216)
62(155) 874(517) 2(13)
97(38) 174(52) 160(39)
17 Peyton Randolph Dr at Wilson Blvd
Wilson Blvd
Shopping Ctr
Peyton Randolph Dr
2(0) 0(0) 14(144)
0(8) 475(711) 47(46)
7(4) 887(523) 368(488)
162(113) 0(0) 41(44)
18 Roosevelt Blvd at Wilson Blvd
Wilson Blvd
Roosevelt Blvd
238(455) 425(601)
369(164) 274(650)
649(230) 834(409)
19 Roosevelt Blvd at N. Roosevelt St
N Roosevelt St
Roosevelt Blvd
77(153) 679(946) 0(0)
4(0) 0(4) 0(72)
175(76) 0(0) 11(28)
58(17) 1056(385) 19(23)
20 Arlington Blvd WB Service Rd at Wilson Blvd
Wilson Blvd
WB Service Rd
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1343(560)
286(326) 31(0)
2030 Scenario 1 Intersection Volumes
AM Peak (PM Peak)

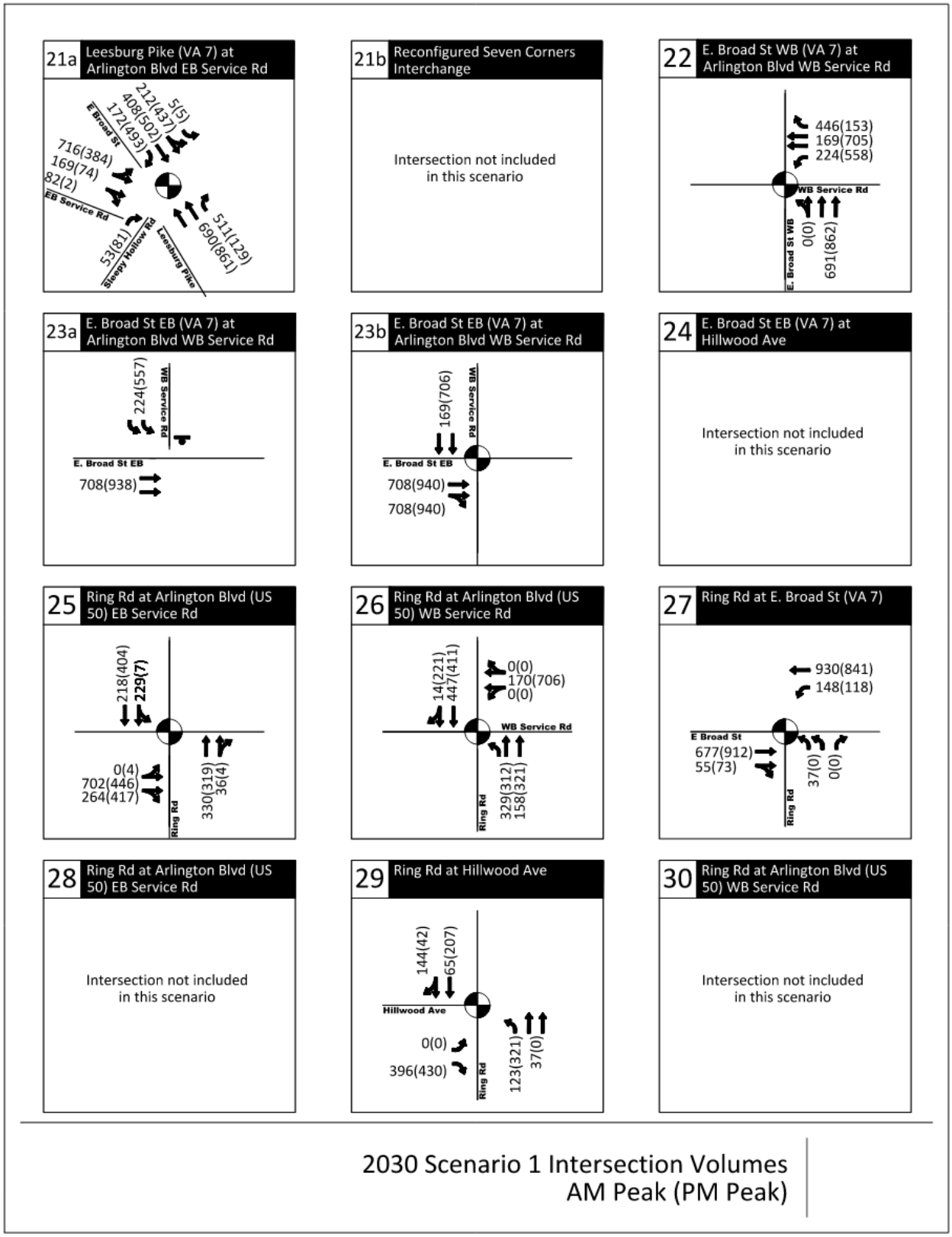

21a Leesburg Pike (VA 7) at Arlington Blvd EB Service Rd
E Broad St
EB Service Rd
Sleepy Hollow Rd
Leesburg Pike
5(5)
212(437)
408(502)
172(493)
716(384)
169(74)
82(2)
53(81)
511(129)
690(861)
21b Reconfigured Seven Corners Interchange
Intersection not included in this scenario
22 E. Broad St WB (VA 7) at Arlington Blvd WB Service Rd
WB Service Rd
E. Broad St WB
446(153)
169(705)
224(558)
0(0)
691(862)
23a E. Broad St EB (VA 7) at Arlington Blvd WB Service Rd
WB Service Rd
E. Broad St EB
224(557)
708(938)
23b E. Broad St EB (VA 7) at Arlington Blvd WB Service Rd
WB Service Rd
E. Broad St EB
169(706)
708(940)
708(940)
24 E. Broad St EB (VA 7) at Hillwood Ave
Intersection not included in this scenario
25 Ring Rd at Arlington Blvd (US 50) EB Service Rd
Ring Rd
218(404)
229(7)
0(4)
702(446)
264(417)
330(319)
36(4)
26 Ring Rd at Arlington Blvd (US 50) WB Service Rd
WB Service Rd
Ring Rd
14(221)
447(411)
0(0)
170(706)
0(0)
329(312)
158(321)
27 Ring Rd at E. Broad St (VA 7)
E Broad St
Ring Rd
930(841)
148(118)
677(912)
55(73)
37(0)
0(0)
28 Ring Rd at Arlington Blvd (US 50) EB Service Rd
Intersection not included in this scenario
29 Ring Rd at Hillwood Ave
Hillwood Ave
Ring Rd
144(42)
65(207)
0(0)
396(430)
123(321)
37(0)
30 Ring Rd at Arlington Blvd (US 50) WB Service Rd
Intersection not included in this scenario
2030 Scenario 1 Intersection Volumes
AM Peak (PM Peak)

Figure D-5: LOS for Scenario 1

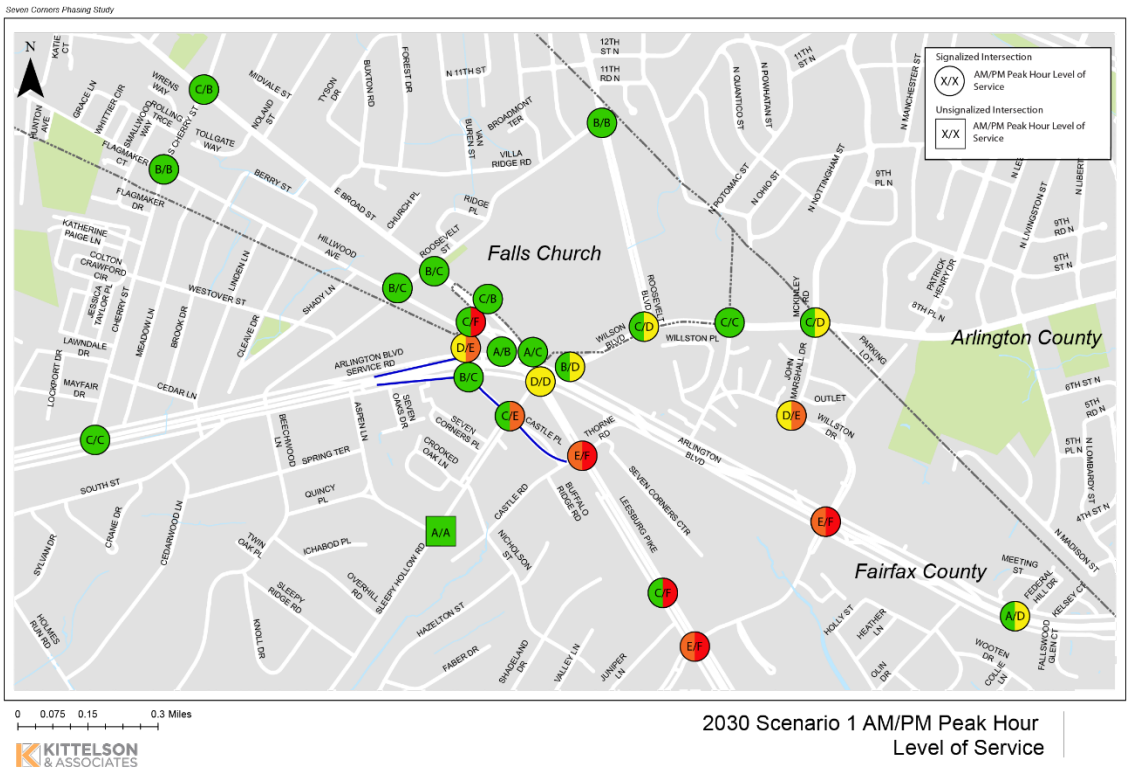


Table D-4: LOS and Delay for Scenario 1 AM and PM Peak Hours

Intersection	Traffic Control	2030 Scenario 1 AM		2030 Scenario 1 PM	
		LOS	Delay	LOS	Delay
#1: S Cherry Street/Arlington Boulevard (US 50)	Signalized	C	33.9	C	27.4
#2: S Cherry Street/Hillwood Avenue	Signalized	B	20.0	B	15.6
#3: S Cherry Street/E. Broad Street (VA 7)	Signalized	C	22.7	B	14.6
#6: South Street & S. Roosevelt Street/Hillwood Avenue	Signalized	B	15.3	C	22.3
#7: N Roosevelt Street/E. Broad Street (VA 7)	Signalized	B	16.5	C	28.1
#8: Sleepy Hollow Road/Aspen Lane	Unsignalized	A	2.9	A	5.5
#9: Sleepy Hollow Road/Castle Place	Signalized	C	30.5	E	73.6
#10: Castle Road &Thorne Road/Leesburg Pike (VA 7)	Signalized	E	55.5	F	88.3
#11: Seven Corners Center/Leesburg Pike (VA 7)	Signalized	D	46.0	D	46.8
#12: Patrick Henry Drive/Leesburg Pike (VA 7)	Signalized	E	60.8	F	80.2
#13: Arlington Boulevard service road/Arlington Boulevard (US 50)	Signalized	A	9.8	D	38.9
#14: Patrick Henry Drive/Arlington Boulevard (US 50)	Signalized	E	71.2	F	143.0
#15: John Marshall Drive & Willston Drive	Signalized	D	35.9	E	66.4
#16: John Marshall Drive & N. McKinley Road/Wilson Boulevard	Signalized	C	29.7	D	37.4
#17: Peyton Randolph Drive/Wilson Boulevard	Signalized	C	25.7	C	21.8
#18: Roosevelt Boulevard/Wilson Boulevard	Signalized	C	27.1	D	39.0
#19: Roosevelt Boulevard/N. Roosevelt Street	Signalized	B	14.9	B	11.3
#20: Arlington Blvd WB/Wilson Blvd	Signalized	B	13.6	D	39.8
#21a: Sleepy Hollow Rd/Wilson Blvd/Broad St/Arlington Blvd EB	Signalized	D	38.2	D	39.6
#22: Broad St WB/Arlington Blvd WB	Signalized	A	4.0	C	25.9
#23: Broad St EB/Arlington Blvd WB	Signalized	A	4.1	B	17.9
#25: Ring Rd/US 50 EB Off Ramp	Signalized	D	45.6	E	76.1
#26: Ring Rd/US 50 WB On Ramp	Signalized	B	12.8	C	26.4
#27: Ring Rd/E. Broad Street (VA 7)	Signalized	C	20.3	B	15.1
#29: Ring Rd/Hillwood Avenue	Signalized	C	28.5	F	80.9
#21b: Seven Corners Interchange Intersection	Signalized	D	48.8	E	60.5

Results indicate significant improvement in delays compared to 2030 Baseline conditions. Results show that most of the congestion occurs during the PM peak hour, with four intersections operating at LOS F. Key findings from the operational results are summarized below:

- During the PM peak hour, the intersection of Castle Road and Thorne Road at Leesburg Pike (VA 7) and Hillwood Avenue at Ring Road operate with LOS F, with an intersection vehicle delay of 88 seconds and 81 seconds, respectively. Congestion at these locations can be attributed to the diversion of traffic to the proposed Ring Road. However, it should be noted that this diversion as a result of the proposed Ring Road also improves intersection performance and reduces vehicle delays, especially around the main interchange.
- Other intersections that operate with LOS F during the PM peak hour are the intersections of Patrick Henry Drive at Arlington Boulevard (US 50) and Patrick Henry Drive at Leesburg Pike (VA 7). Note that these intersections also operate with LOS F in the 2030 Baseline Condition; therefore, high vehicle delays are not related to the proposed Ring Road.
- During the AM peak hour, all intersections operate at LOS E or better.

Network Performance

Network performance results are displayed in **Table D-5** for Scenario 1. 2030 Baseline results are also included for comparison.

Table D-5: Network Performance for 2030 Baseline and Scenario 1 AM and PM Peak Hours

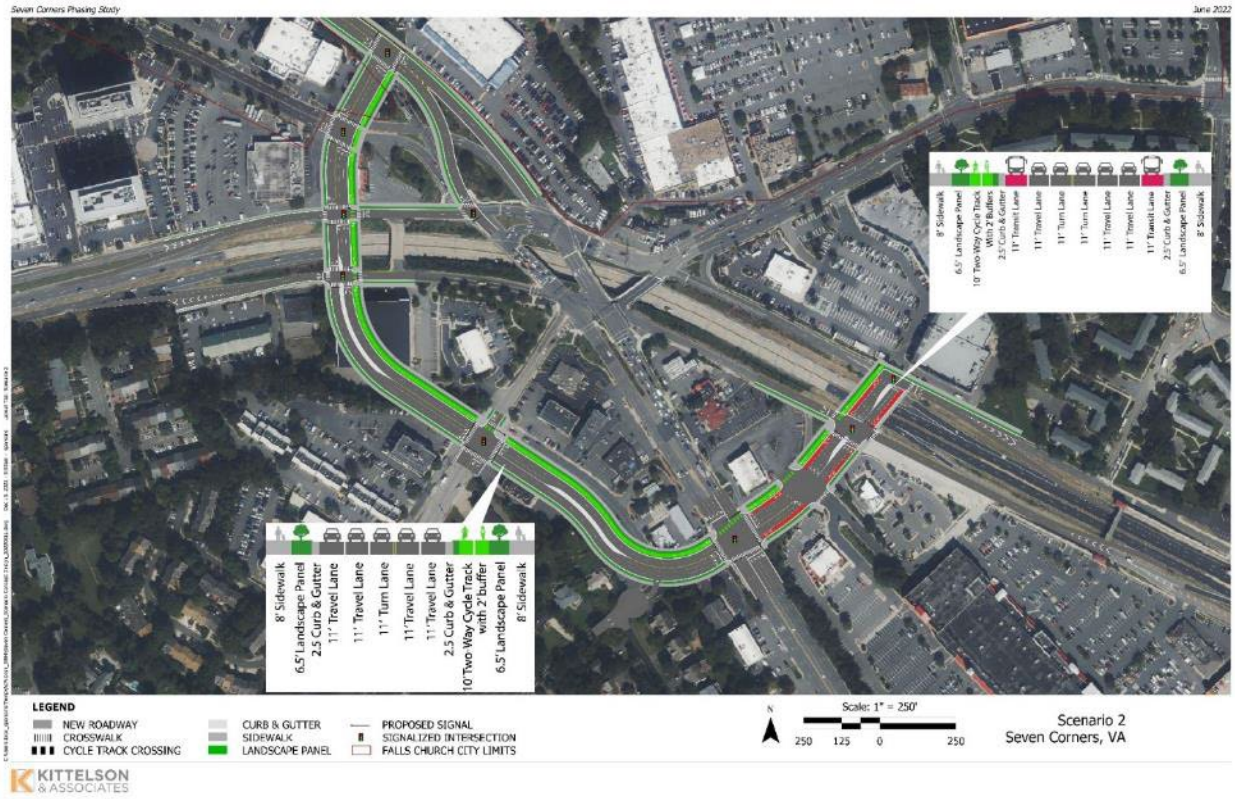
Performance Measure	2030 Baseline Conditions		2030 Scenario 1	
	AM	PM	AM	PM
Average Delay (seconds)	157.1	260.2	144.0	210.3
Vehicle Arrival (vehicles)	20,455	20,727	20,337	21,083
Latent Demand (vehicles)	60	561	47	248

Key findings from the network performance results are presented below:

- Compared to the AM peak hour, the extent of congestion during the PM peak hour can be better observed in the network performance results where PM conditions show increased delay and latent demand.
- Compared to the Baseline Conditions, Scenario 1 results in improved performance both in the AM and PM peak hours, where improvements are more pronounced in the PM peak hour. These improvements are largely due to the proposed Ring Road, which provides additional network capacity.

SCENARIO 2: RING ROAD FROM BROAD STREET TO ROUTE 50 WESTBOUND

Figure D-6: Scenario 2



Scenario 2 Description

Scenario 2 adds to Scenario 1 and extends Ring Road from Route 7 in the south over to Route 50 on the east. As noted in **Figure D-6**, Scenario 2 consists of:

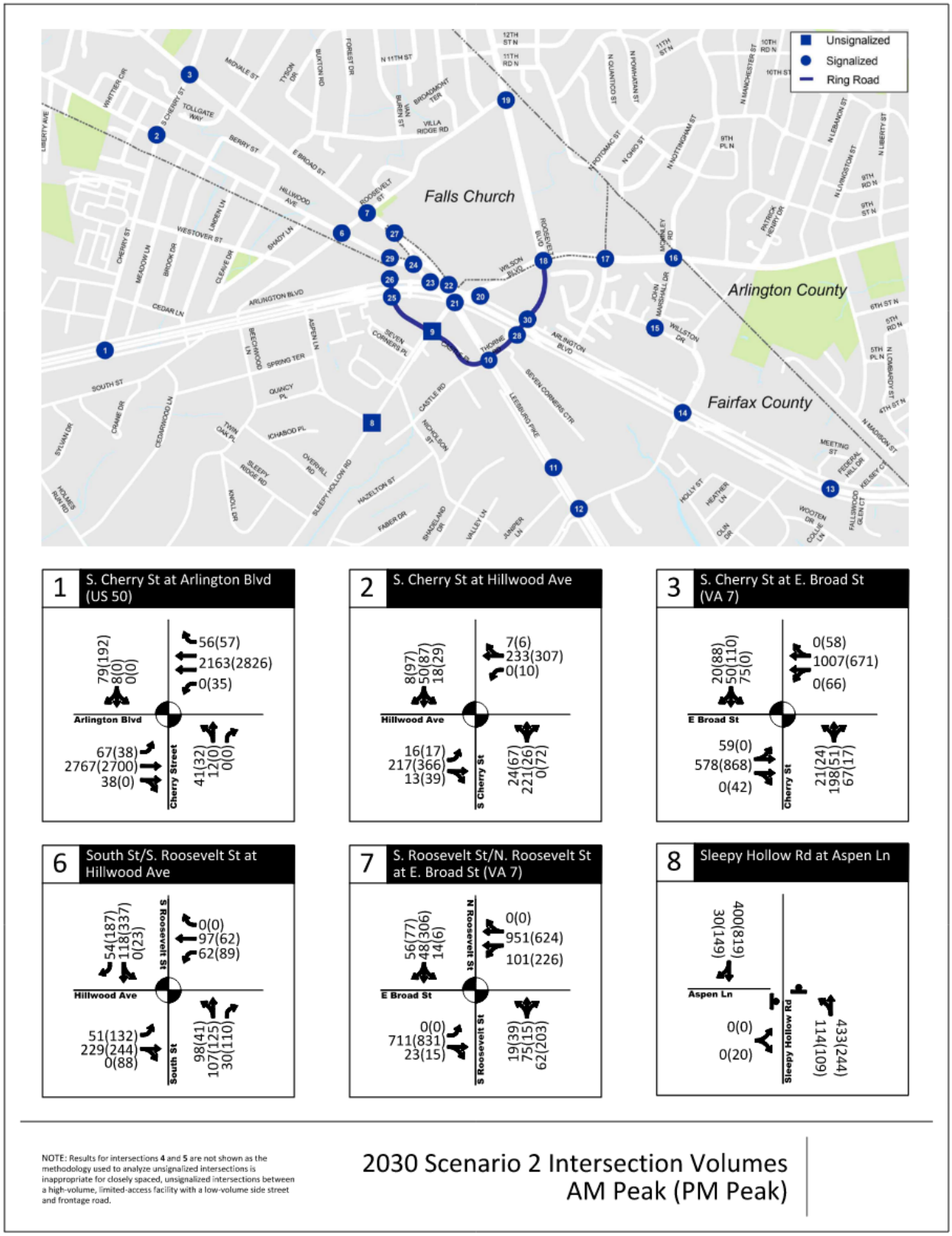
- Scenario 1 improvements
- Two motor vehicle travel lanes in each direction.
- An additional bridge over the east leg of Route 50 and adjusted Service Roads to connect to Route 50.
- Single or double left-turn lanes at major intersection approaches as shown in **Figure D-6**.
- A two-way cycle track on the inner loop, buffered from motor vehicle traffic.
- Sidewalks and landscape panels on both sides.
- Two additional new traffic signals at each Route 50 Service Road.
- A new unsignalized intersection at Ring Road (South) and Seven Corners Center.
- Exclusive transit lanes from Route 7 to Route 50.

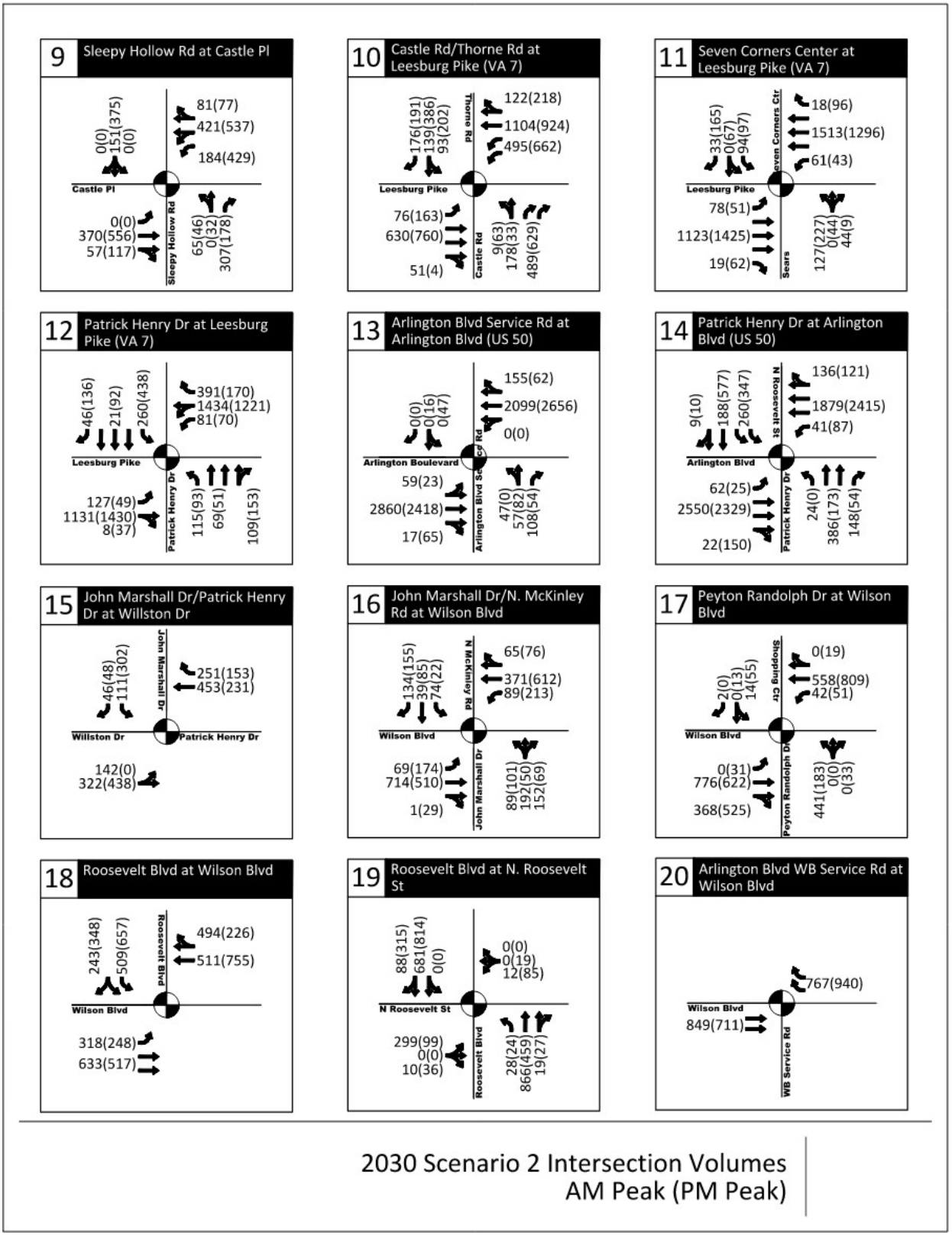
- Relocated Transit Center to the northwest of the Ring Road (South) along the eastbound Route 50 Service Road.

Vehicular Operations

This section discusses AM and PM peak hour vehicular operations for Scenario 2. Peak hour volume is provided by intersection movement in **Figure D-7**. LOS and delay are shown in **Figure D-8** and **Table D-6**.

Figure D-7: Peak Hour Volume by Movement for Scenario 2 AM and PM




9
Sleepy Hollow Rd at Castle Pl
0(0)
151(375)
0(0)
81(77)
421(537)
184(429)
Castle Pl
Sleepy Hollow Rd
0(0)
370(556)
57(117)
65(46)
0(32)
307(178)
10
Castle Rd/Thorne Rd at Leesburg Pike (VA 7)
176(191)
139(386)
93(202)
122(218)
1104(924)
495(662)
Thorne Rd
Leesburg Pike
76(163)
630(760)
51(4)
9(63)
178(33)
489(629)
Castle Rd
11
Seven Corners Center at Leesburg Pike (VA 7)
33(165)
0(67)
94(97)
18(96)
1513(1296)
61(43)
Seven Corners Ctr
Leesburg Pike
78(51)
1123(1425)
19(62)
127(227)
0(44)
44(9)
Sears
12
Patrick Henry Dr at Leesburg Pike (VA 7)
46(136)
21(92)
260(438)
391(170)
1434(1221)
81(70)
Leesburg Pike
Patrick Henry Dr
127(49)
1131(1430)
8(37)
115(93)
69(51)
109(153)
13
Arlington Blvd Service Rd at Arlington Blvd (US 50)
0(0)
0(16)
0(47)
155(62)
2099(2656)
0(0)
Arlington Boulevard
Arlington Blvd Service Rd
59(23)
2860(2418)
17(65)
47(0)
57(82)
108(54)
14
Patrick Henry Dr at Arlington Blvd (US 50)
9(10)
188(577)
260(347)
136(121)
1879(2415)
41(87)
N Roosevelt St
Arlington Blvd
62(25)
2550(2329)
22(150)
24(0)
386(173)
148(54)
Patrick Henry Dr
15
John Marshall Dr/Patrick Henry Dr at Willston Dr
46(48)
111(302)
251(153)
453(231)
John Marshall Dr
Willston Dr
Patrick Henry Dr
142(0)
322(438)
16
John Marshall Dr/N. McKinley Rd at Wilson Blvd
134(155)
39(85)
74(22)
65(76)
371(612)
89(213)
N McKinley Rd
Wilson Blvd
69(174)
714(510)
1(29)
89(101)
192(50)
152(69)
John Marshall Dr
17
Peyton Randolph Dr at Wilson Blvd
2(0)
0(13)
14(55)
0(19)
558(809)
42(51)
Shopping Ctr
Wilson Blvd
0(31)
776(622)
368(525)
441(183)
0(0)
0(33)
Peyton Randolph Dr
18
Roosevelt Blvd at Wilson Blvd
243(348)
509(657)
494(226)
511(755)
Roosevelt Blvd
Wilson Blvd
318(248)
633(517)
19
Roosevelt Blvd at N. Roosevelt St
88(315)
681(814)
0(0)
0(0)
0(19)
12(85)
N Roosevelt St
299(99)
0(0)
10(36)
28(24)
866(459)
19(27)
Roosevelt Blvd
20
Arlington Blvd WB Service Rd at Wilson Blvd
767(940)
Wilson Blvd
849(711)
WB Service Rd
2030 Scenario 2 Intersection Volumes
AM Peak (PM Peak)

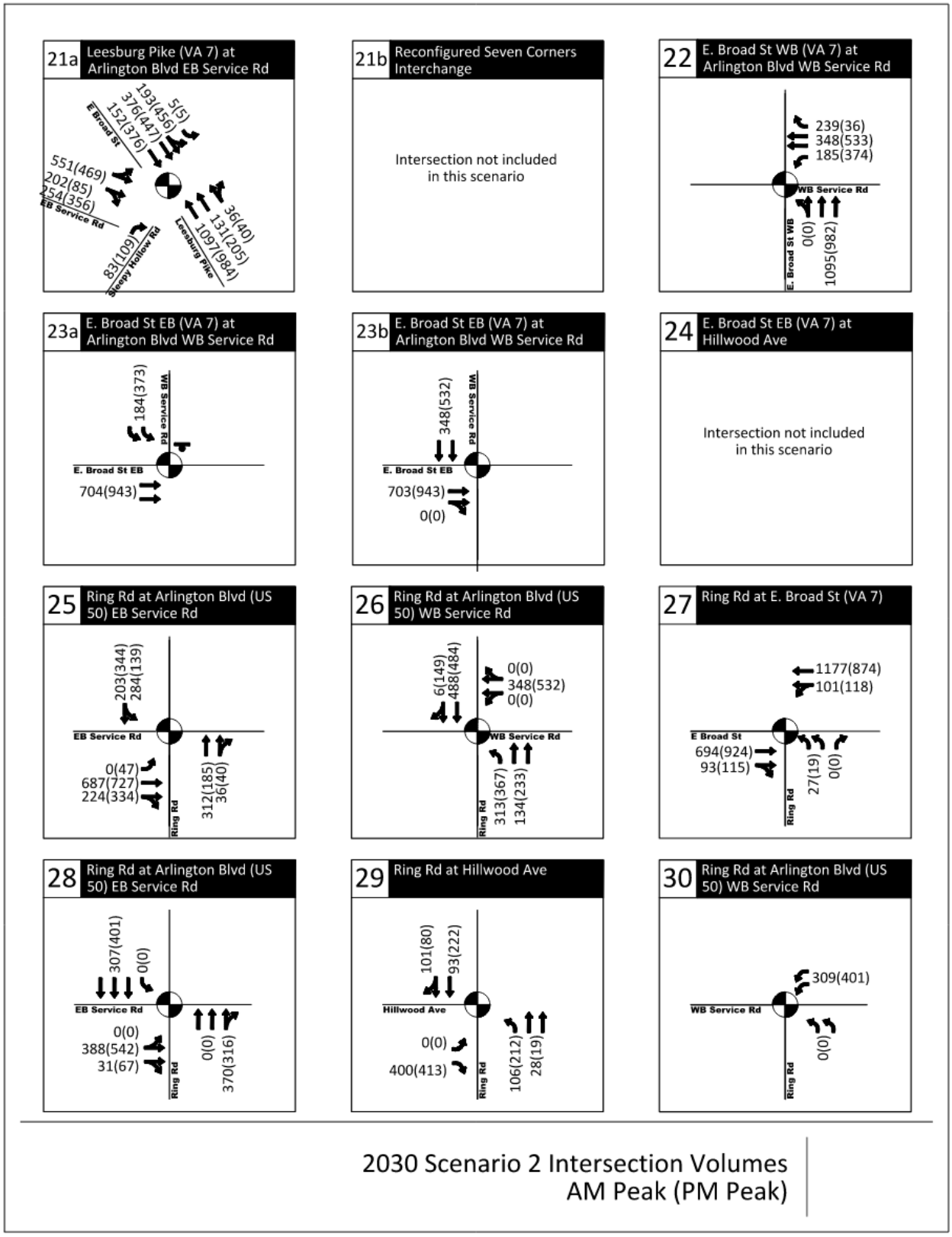

21a Leesburg Pike (VA 7) at Arlington Blvd EB Service Rd
E Broad St
5(5)
193(456)
376(447)
152(376)
551(469)
202(85)
254(356)
EB Service Rd
36(40)
131(205)
1097(984)
Leesburg Pike
83(109)
Sleepy Hollow Rd
21b Reconfigured Seven Corners Interchange
Intersection not included in this scenario
22 E. Broad St WB (VA 7) at Arlington Blvd WB Service Rd
239(36)
348(533)
185(374)
WB Service Rd
E. Broad St WB
0(0)
1095(982)
23a E. Broad St EB (VA 7) at Arlington Blvd WB Service Rd
WB Service Rd
184(373)
E. Broad St EB
704(943)
23b E. Broad St EB (VA 7) at Arlington Blvd WB Service Rd
WB Service Rd
348(532)
E. Broad St EB
703(943)
0(0)
24 E. Broad St EB (VA 7) at Hillwood Ave
Intersection not included in this scenario
25 Ring Rd at Arlington Blvd (US 50) EB Service Rd
203(344)
284(139)
EB Service Rd
0(47)
687(727)
224(334)
Ring Rd
312(185)
36(40)
26 Ring Rd at Arlington Blvd (US 50) WB Service Rd
6(149)
488(484)
0(0)
348(532)
0(0)
WB Service Rd
Ring Rd
313(367)
134(233)
27 Ring Rd at E. Broad St (VA 7)
1177(874)
101(118)
E Broad St
694(924)
93(115)
Ring Rd
27(19)
0(0)
28 Ring Rd at Arlington Blvd (US 50) EB Service Rd
307(401)
0(0)
EB Service Rd
0(0)
388(542)
31(67)
Ring Rd
0(0)
370(316)
29 Ring Rd at Hillwood Ave
101(80)
93(222)
Hillwood Ave
0(0)
400(413)
Ring Rd
106(212)
28(19)
30 Ring Rd at Arlington Blvd (US 50) WB Service Rd
309(401)
WB Service Rd
Ring Rd
0(0)
2030 Scenario 2 Intersection Volumes
AM Peak (PM Peak)

Figure D-8: LOS for Scenario 2

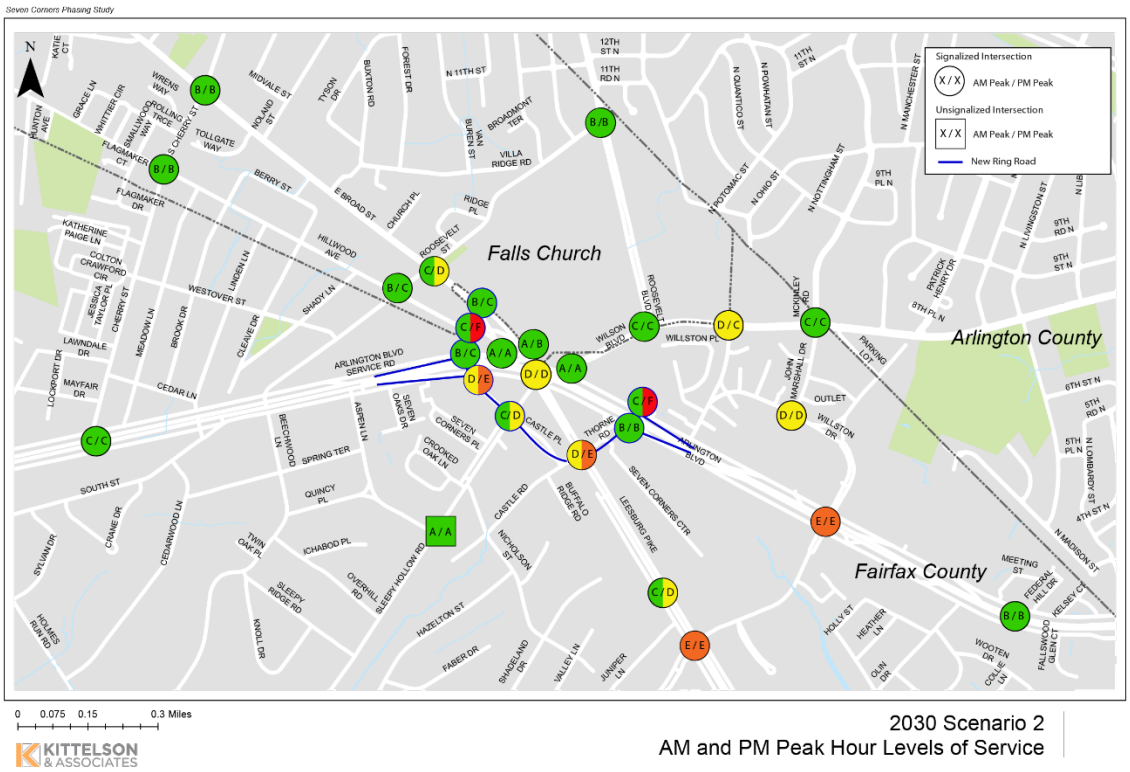


Table D-6: LOS and Delay for Scenario 2 AM and PM Peak Hours

Intersection	Traffic Control	2030 Scenario 2 AM		2030 Scenario 2 PM	
		LOS	Delay	LOS	Delay
#1: S Cherry Street/Arlington Boulevard (US 50)	Signalized	C	21.6	C	32.3
#2: S Cherry Street/Hillwood Avenue	Signalized	B	16.2	B	15.0
#3: S Cherry Street/E. Broad Street (VA 7)	Signalized	B	19.3	B	15.8
#6: South Street & S. Roosevelt Street/Hillwood Avenue	Signalized	B	15.8	C	29.5
#7: N Roosevelt Street/E. Broad Street (VA 7)	Signalized	C	24.3	D	47.5
#8: Sleepy Hollow Road/Aspen Lane	Unsignalized	A	2.9	A	6.6
#9: Sleepy Hollow Road/Castle Place	Signalized	C	20.5	D	42.5
#10: Castle Road &Thorne Road/Leesburg Pike (VA 7)	Signalized	D	49.3	E	66.5
#11: Seven Corners Center/Leesburg Pike (VA 7)	Signalized	C	29.5	D	51.3
#12: Patrick Henry Drive/Leesburg Pike (VA 7)	Signalized	E	59.1	E	73.3
#13: Arlington Boulevard service road/Arlington Boulevard (US 50)	Signalized	B	14.1	B	11.0
#14: Patrick Henry Drive/Arlington Boulevard (US 50)	Signalized	E	57.8	E	64.3
#15: John Marshall Drive & Willston Drive	Signalized	D	35.7	D	36.1
#16: John Marshall Drive & N. McKinley Road/Wilson Boulevard	Signalized	C	29.2	C	29.6
#17: Peyton Randolph Drive/Wilson Boulevard	Signalized	D	47.2	C	28.7
#18: Roosevelt Boulevard/Wilson Boulevard	Signalized	C	30.1	C	32.0
#19: Roosevelt Boulevard/N. Roosevelt Street	Signalized	B	14.7	B	12.4
#20: Arlington Blvd WB/Wilson Blvd	Signalized	A	5.1	A	6.4
#21a: Sleepy Hollow Rd/Wilson Blvd/Broad St/Arlington Blvd EB	Signalized	D	37.2	D	36.5
#22: Broad St WB/Arlington Blvd WB	Signalized	A	7.9	B	14.2
#23: Broad St EB/Arlington Blvd WB	Signalized	A	5.2	A	8.6
#25: Ring Rd/US 50 EB Off Ramp	Signalized	D	43.2	E	56.6
#26: Ring Rd/US 50 WB On Ramp	Signalized	B	15.8	C	24.4
#27: Ring Rd/E. Broad Street (VA 7)	Signalized	B	13.8	C	21.8
#28: Ring Rd/US 50 EB Off Ramp	Signalized	B	13.8	B	18.7
#29: Ring Rd/Hillwood Avenue	Signalized	C	28.5	F	87.3

#30: Ring Rd/US 50 WB Off Ramp	Signalized	C	22.3	F	83.1
#21b: Seven Corners Interchange Intersection	Signalized	D	41.8	E	55.2

Key findings from the operational results are summarized below:

- In Scenario 2, extending Ring Road towards westbound Arlington Boulevard (Route 50) improves overall intersection conditions both during the AM and PM peak hours. However, this extension also results in LOS F in the PM peak hours at Hillwood Avenue and Ring Road and Arlington Boulevard (US 50) westbound off-ramp intersections because of increased traffic.
- During the AM peak hour, similar to Scenario 1, all intersections operate at LOS E or better.

Network Performance

Network performance results are displayed in **Table D-7** for Scenario 2. 2030 Baseline results and Scenario 1 results are also included for comparison.

Table D-7: Network Performance for 2030 Baseline, Scenario 1, and Scenario 2 AM and PM Peak Hours

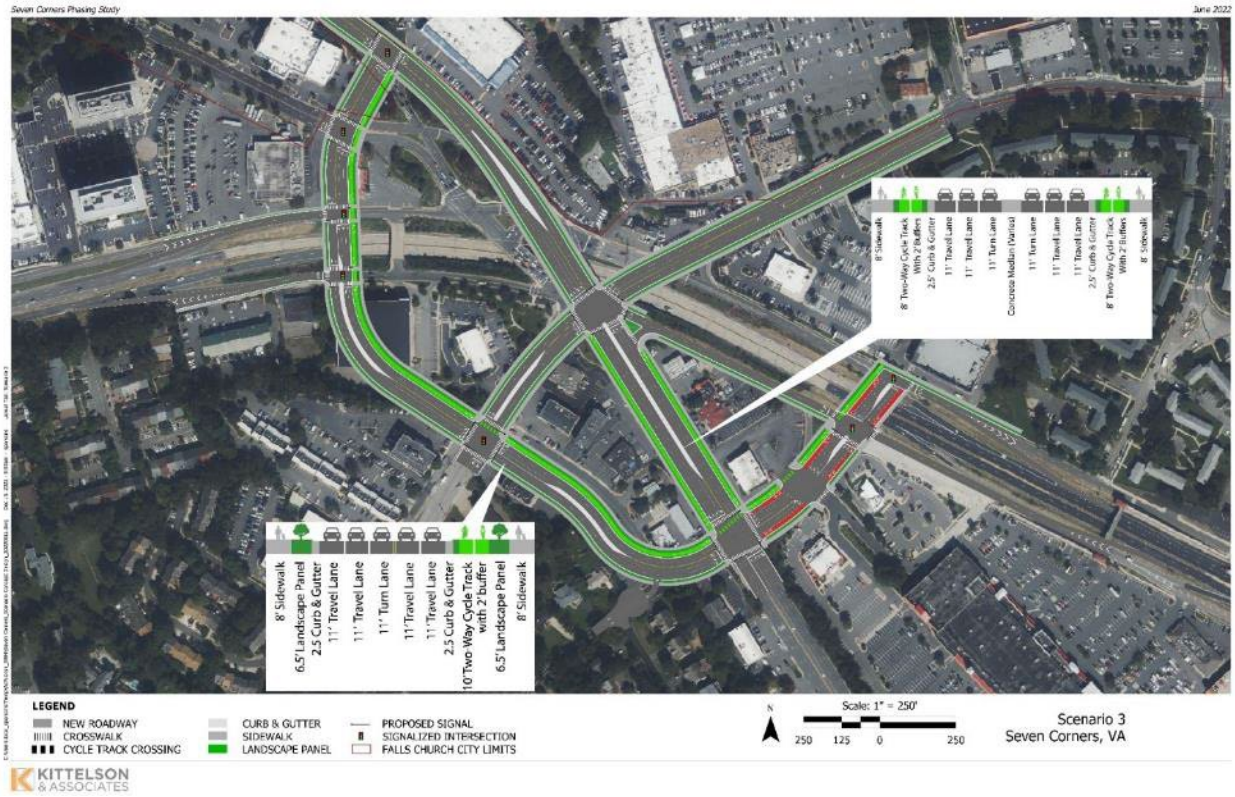
Performance Measure	2030 Baseline Conditions		2030 Scenario 1		2030 Scenario 2	
	AM	PM	AM	PM	AM	PM
Average Delay (seconds)	157.1	260.2	144.0	210.3	134.7	177.9
Vehicle Arrival (vehicles)	20,455	20,727	20,337	21,083	20,621	21,925
Latent Demand (vehicles)	60	561	47	248	38	236

Key findings from the network performance results are presented below:

- Compared to Scenario 1, Scenario 2 reduces network delay and increases network throughput during the PM peak hour. This is consistent with the intersection delay results discussed above.
- Similar to other scenarios, improvements in Scenario 2 are larger during the PM peak hour compared to the AM peak since PM peak is more critical with more network congestion.

SCENARIO 3: RECONFIGURATION OF THE MAIN INTERCHANGE

Figure D-9: Scenario 3



Scenario 3 Description

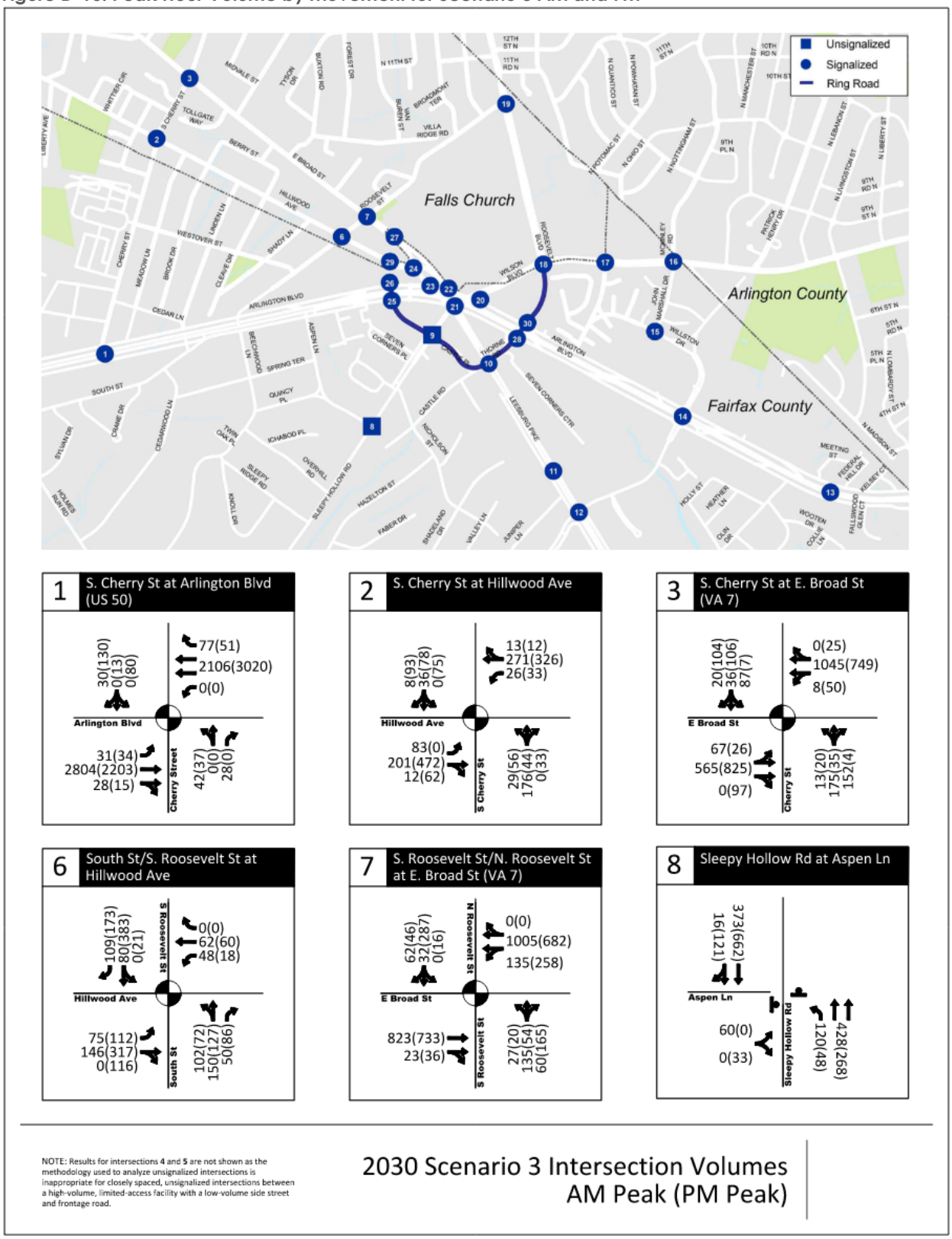
Scenario 3 adds to Scenario 2 by reconfiguring the main interchange of Broad Street, Wilson Boulevard, Route 50 Service Roads, Route 7, and Sleepy Hollow Road so that Wilson Boulevard and Sleepy Hollow Road directly connect, as noted in the Comprehensive Plan. As noted in **Figure D-9**, Scenario 3 consists of:

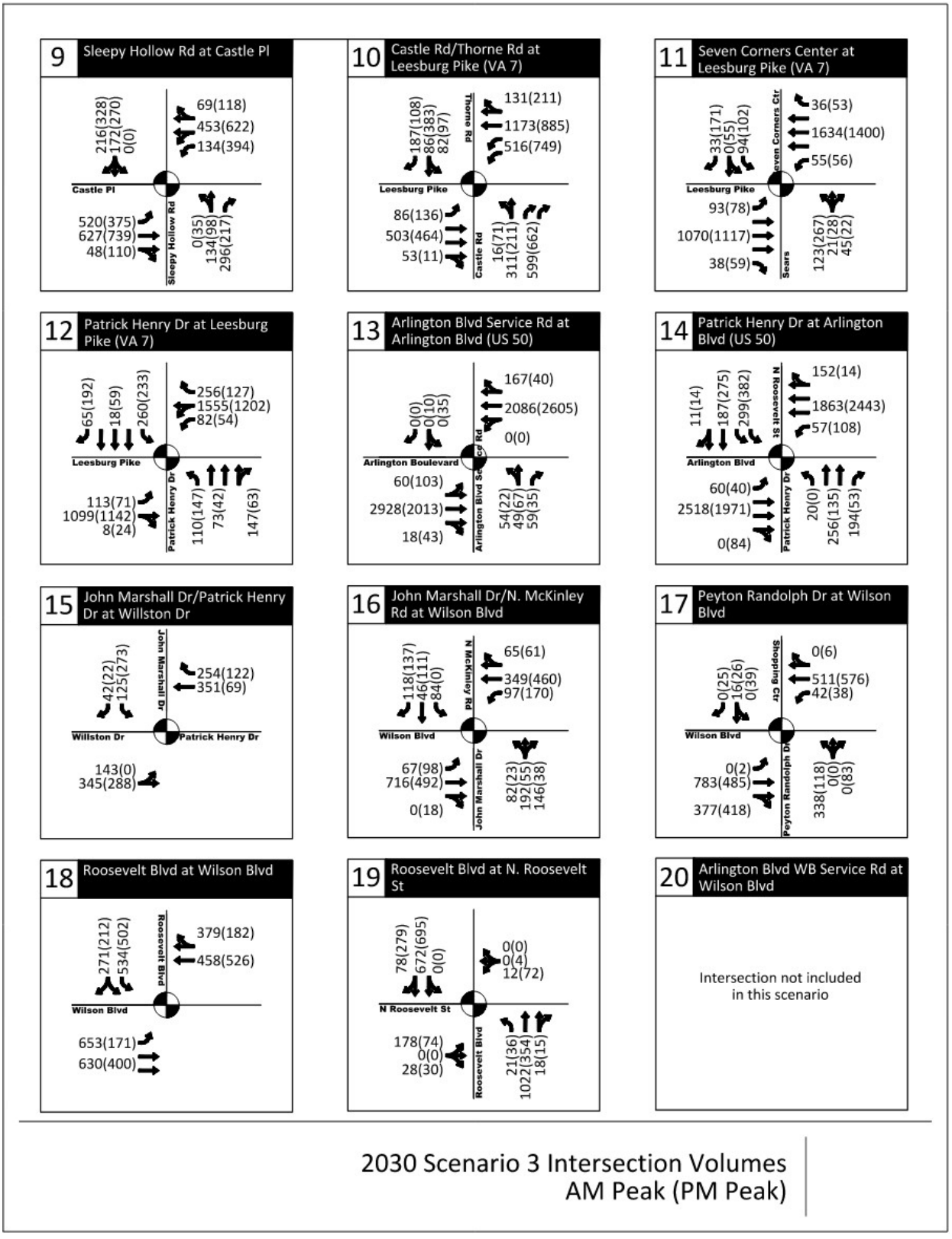
- Scenario 1 and 2 improvements
- One central signalized intersection that joins:
    - Route 7 to Broad Street, which is slightly realigned.
    - Sleepy Hollow Road to the west connecting to Wilson Boulevard on the east.
- A fifth leg of the central intersection accommodating two lanes of traffic to the east leg of the eastbound Route 50 frontage road.
- A right-in, right-out intersection between Sleepy Hollow Road and southbound Route 7, similar to existing conditions.
- Two-way cycle tracks on both sides of the south leg of Route 7, buffered from motor vehicle traffic.
- Sidewalks on both sides of all roads.
- Landscape panels in selected areas.

Vehicular Operations

This section discusses peak hour vehicular operations for Scenario 3 using the results obtained from VISSIM. **Figure D-10** shows travel volumes, while **Figure D-11** and **Table D-8** show intersection vehicle delay and LOS results for Scenario 3 during the AM and PM peak hours.

Figure D-10: Peak Hour Volume by Movement for Scenario 3 AM and PM




9 Sleepy Hollow Rd at Castle Pl
216(328)
172(270)
0(0)
69(118)
453(622)
134(394)
Castle Pl
520(375)
627(739)
48(110)
Sleepy Hollow Rd
0(35)
134(98)
296(217)
10 Castle Rd/Thorne Rd at Leesburg Pike (VA 7)
187(108)
86(383)
82(97)
Thorne Rd
131(211)
1173(885)
516(749)
Leesburg Pike
86(136)
503(464)
53(11)
Castle Rd
16(71)
311(211)
599(662)
11 Seven Corners Center at Leesburg Pike (VA 7)
33(171)
0(55)
94(102)
Seven Corners Ctr
36(53)
1634(1400)
55(56)
Leesburg Pike
93(78)
1070(1117)
38(59)
Sears
123(267)
21(28)
45(22)
12 Patrick Henry Dr at Leesburg Pike (VA 7)
65(192)
18(59)
260(233)
256(127)
1555(1202)
82(54)
Leesburg Pike
113(71)
1099(1142)
8(24)
Patrick Henry Dr
110(147)
73(42)
147(63)
13 Arlington Blvd Service Rd at Arlington Blvd (US 50)
0(0)
0(10)
0(35)
167(40)
2086(2605)
0(0)
Arlington Boulevard
60(103)
2928(2013)
18(43)
Arlington Blvd Service Rd
54(22)
49(67)
59(35)
14 Patrick Henry Dr at Arlington Blvd (US 50)
11(14)
187(275)
299(382)
N Roosevelt St
152(14)
1863(2443)
57(108)
Arlington Blvd
60(40)
2518(1971)
0(84)
Patrick Henry Dr
20(0)
256(135)
194(53)
15 John Marshall Dr/Patrick Henry Dr at Willston Dr
42(22)
125(273)
John Marshall Dr
254(122)
351(69)
Willston Dr
Patrick Henry Dr
143(0)
345(288)
16 John Marshall Dr/N. McKinley Rd at Wilson Blvd
118(137)
46(111)
84(0)
N McKinley Rd
65(61)
349(460)
97(170)
Wilson Blvd
67(98)
716(492)
0(18)
John Marshall Dr
82(23)
192(55)
146(38)
17 Peyton Randolph Dr at Wilson Blvd
0(25)
16(26)
0(39)
Shopping Ctr
0(6)
511(576)
42(38)
Wilson Blvd
0(2)
783(485)
377(418)
Peyton Randolph Dr
338(118)
0(0)
0(83)
18 Roosevelt Blvd at Wilson Blvd
271(212)
534(502)
Roosevelt Blvd
379(182)
458(526)
Wilson Blvd
653(171)
630(400)
19 Roosevelt Blvd at N. Roosevelt St
78(279)
672(695)
0(0)
0(0)
0(4)
12(72)
N Roosevelt St
178(74)
0(0)
28(30)
Roosevelt Blvd
21(36)
1022(354)
18(15)
20 Arlington Blvd WB Service Rd at Wilson Blvd
Intersection not included in this scenario
2030 Scenario 3 Intersection Volumes
AM Peak (PM Peak)

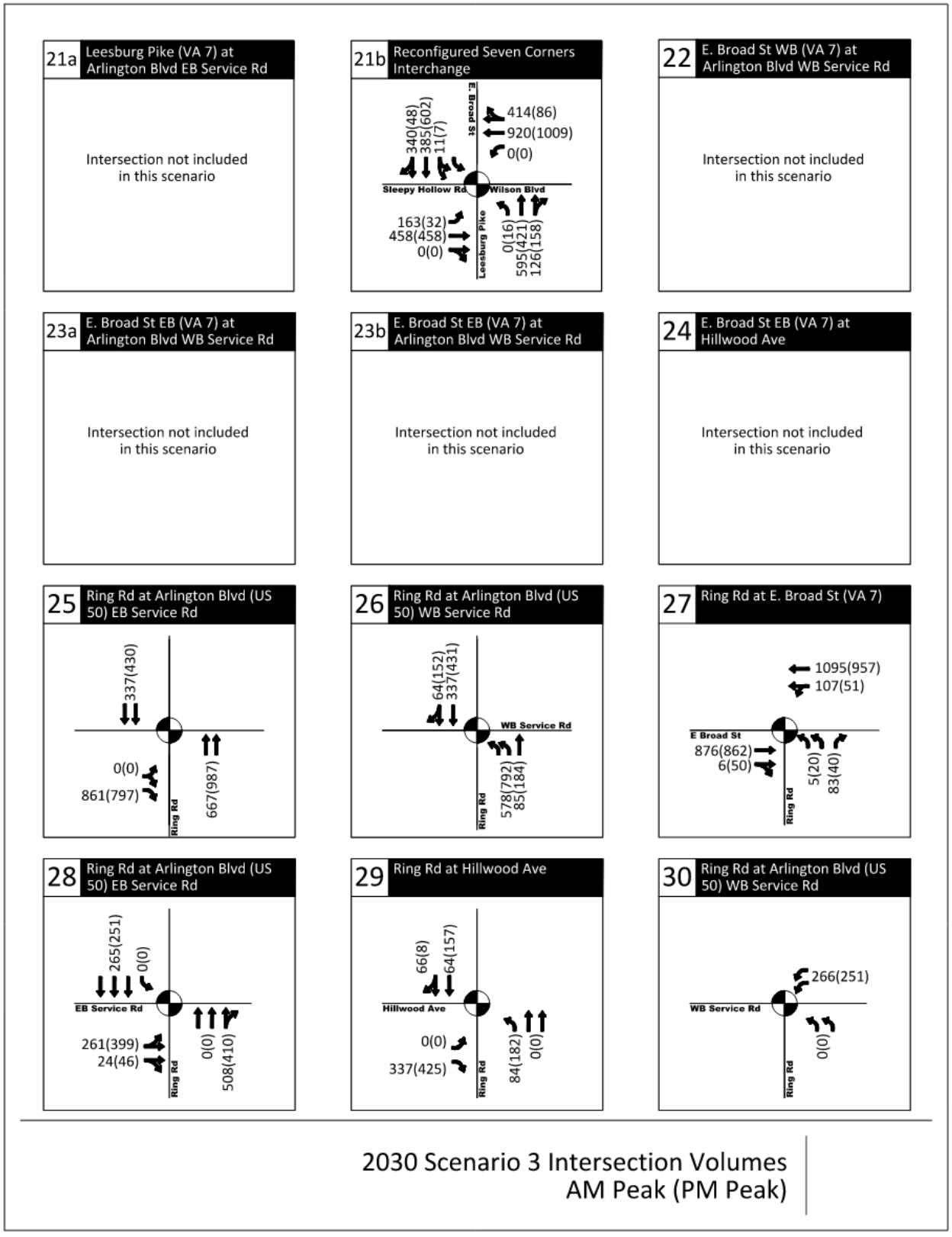

21a
Leesburg Pike (VA 7) at Arlington Blvd EB Service Rd
Intersection not included in this scenario
21b
Reconfigured Seven Corners Interchange
E. Broad St
Sleepy Hollow Rd
Wilson Blvd
Leesburg Pike
340(48)
385(602)
11(7)
414(86)
920(1009)
0(0)
163(32)
458(458)
0(0)
0(16)
595(421)
126(158)
22
E. Broad St WB (VA 7) at Arlington Blvd WB Service Rd
Intersection not included in this scenario
23a
E. Broad St EB (VA 7) at Arlington Blvd WB Service Rd
Intersection not included in this scenario
23b
E. Broad St EB (VA 7) at Arlington Blvd WB Service Rd
Intersection not included in this scenario
24
E. Broad St EB (VA 7) at Hillwood Ave
Intersection not included in this scenario
25
Ring Rd at Arlington Blvd (US 50) EB Service Rd
337(430)
0(0)
861(797)
Ring Rd
667(987)
26
Ring Rd at Arlington Blvd (US 50) WB Service Rd
64(152)
337(431)
WB Service Rd
Ring Rd
578(792)
85(184)
27
Ring Rd at E. Broad St (VA 7)
1095(957)
107(51)
E Broad St
876(862)
6(50)
Ring Rd
5(20)
83(40)
28
Ring Rd at Arlington Blvd (US 50) EB Service Rd
265(251)
0(0)
EB Service Rd
261(399)
24(46)
Ring Rd
0(0)
508(410)
29
Ring Rd at Hillwood Ave
66(8)
64(157)
Hillwood Ave
0(0)
337(425)
Ring Rd
84(182)
0(0)
30
Ring Rd at Arlington Blvd (US 50) WB Service Rd
266(251)
WB Service Rd
Ring Rd
0(0)
2030 Scenario 3 Intersection Volumes
AM Peak (PM Peak)

Figure D-11: LOS for Scenario 3

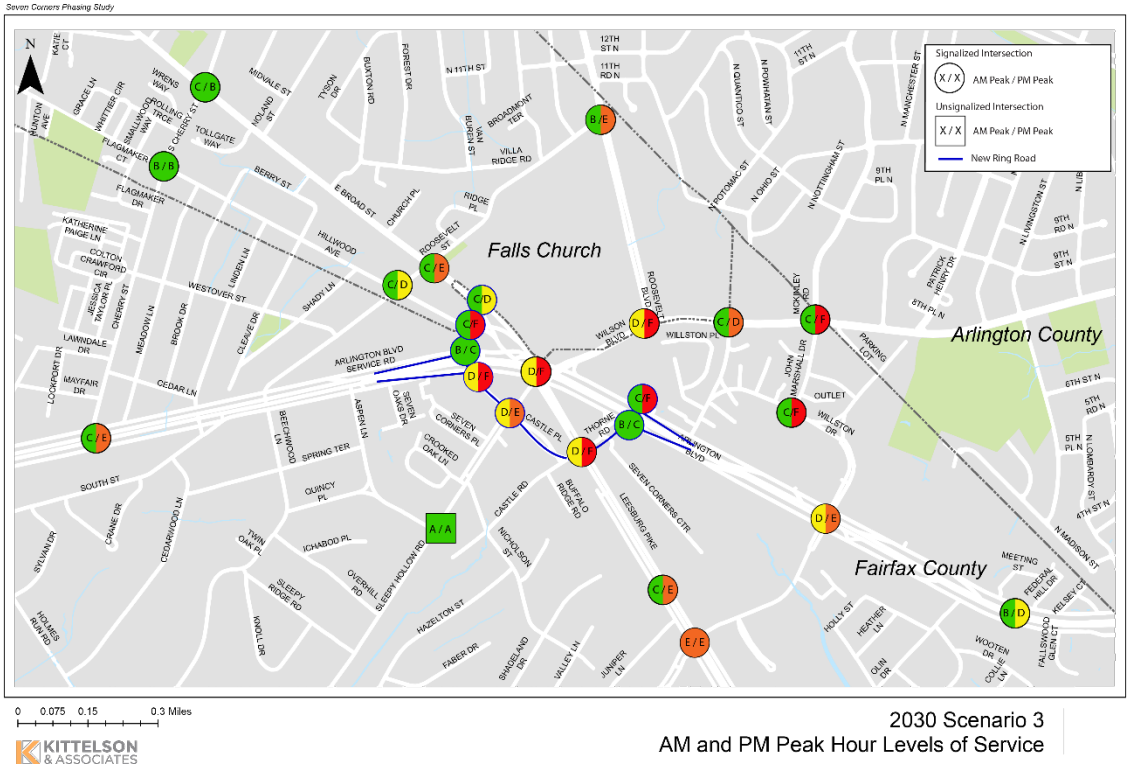


Table D-8: LOS and Delay for Scenario 3 AM and PM Peak Hours

Intersection	Traffic Control	2030 Scenario 3 AM		2030 Scenario 3 PM	
		LOS	Delay	LOS	Delay
#1: S Cherry Street/Arlington Boulevard (US 50)	Signalized	C	22.8	E	67.9
#2: S Cherry Street/Hillwood Avenue	Signalized	B	16.3	B	16.5
#3: S Cherry Street/E. Broad Street (VA 7)	Signalized	C	26.3	B	18.6
#6: South Street & S. Roosevelt Street/Hillwood Avenue	Signalized	C	20.2	D	50.7
#7: N Roosevelt Street/E. Broad Street (VA 7)	Signalized	C	21.7	E	78.3
#8: Sleepy Hollow Road/Aspen Lane	Unsignalized	A	3.9	A	4.7
#9: Sleepy Hollow Road/Castle Place	Signalized	D	37.9	E	77.7
#10: Castle Road &Thorne Road/Leesburg Pike (VA 7)	Signalized	D	43.3	F	98.4
#11: Seven Corners Center/Leesburg Pike (VA 7)	Signalized	C	28.7	E	60.6
#12: Patrick Henry Drive/Leesburg Pike (VA 7)	Signalized	E	71.0	E	69.0
#13: Arlington Boulevard service road/Arlington Boulevard (US 50)	Signalized	B	11.4	D	42.3
#14: Patrick Henry Drive/Arlington Boulevard (US 50)	Signalized	D	39.7	E	70.6
#15: John Marshall Drive & Willston Drive	Signalized	C	20.2	F	120.9
#16: John Marshall Drive & N. McKinley Road/Wilson Boulevard	Signalized	C	29.7	F	101.1
#17: Peyton Randolph Drive/Wilson Boulevard	Signalized	C	33.4	D	45.3
#18: Roosevelt Boulevard/Wilson Boulevard	Signalized	D	47.3	F	119.7
#19: Roosevelt Boulevard/N. Roosevelt Street	Signalized	B	13.1	E	62.7
#25: Ring Rd/US 50 EB Off Ramp	Signalized	D	43.4	F	119.4
#26: Ring Rd/US 50 WB On Ramp	Signalized	B	11.4	C	23.3
#27: Ring Rd/E. Broad Street (VA 7)	Signalized	C	29.3	D	21.8
#28: Ring Rd/US 50 EB On Ramp	Signalized	B	16.3	C	23.1
#29: Ring Rd/Hillwood Ave	Signalized	C	28.9	F	125.3
#30: Ring Rd/US 50 WB Off Ramp	Signalized	C	22.5	F	445.1
#21b: Seven Corners Interchange Intersection	Signalized	D	39.4	F	105.4

Key findings from the operational results are summarized below.

- During the PM peak hour, most intersections around the main intersection (i.e., reconfigured interchange) experience very high delays and operate at LOS E or LOS F. This is attributed to the insufficient intersection capacity at the main intersection after the reconfiguration, causing queue spillback at adjacent intersections and high intersection delays.
- During the AM peak hour, except for one intersection, all intersections operate at LOS D or better. This can be explained by the fact that the AM peak hour is not as critical from a capacity perspective. As a result, the main intersection (and intersections around) does not experience high delays compared to the PM peak hour.

Network Performance

Network performance results are displayed in **TableError! Reference source not found. D-9** for Scenario 3. 2030 baseline, 2030 Scenario 1, and 2030 Scenario 2 results are also included for comparison.

Table D-9: Network Performance for 2030 Baseline, Scenario 1, Scenario 2, and Scenario 3 AM and PM Peak Hours

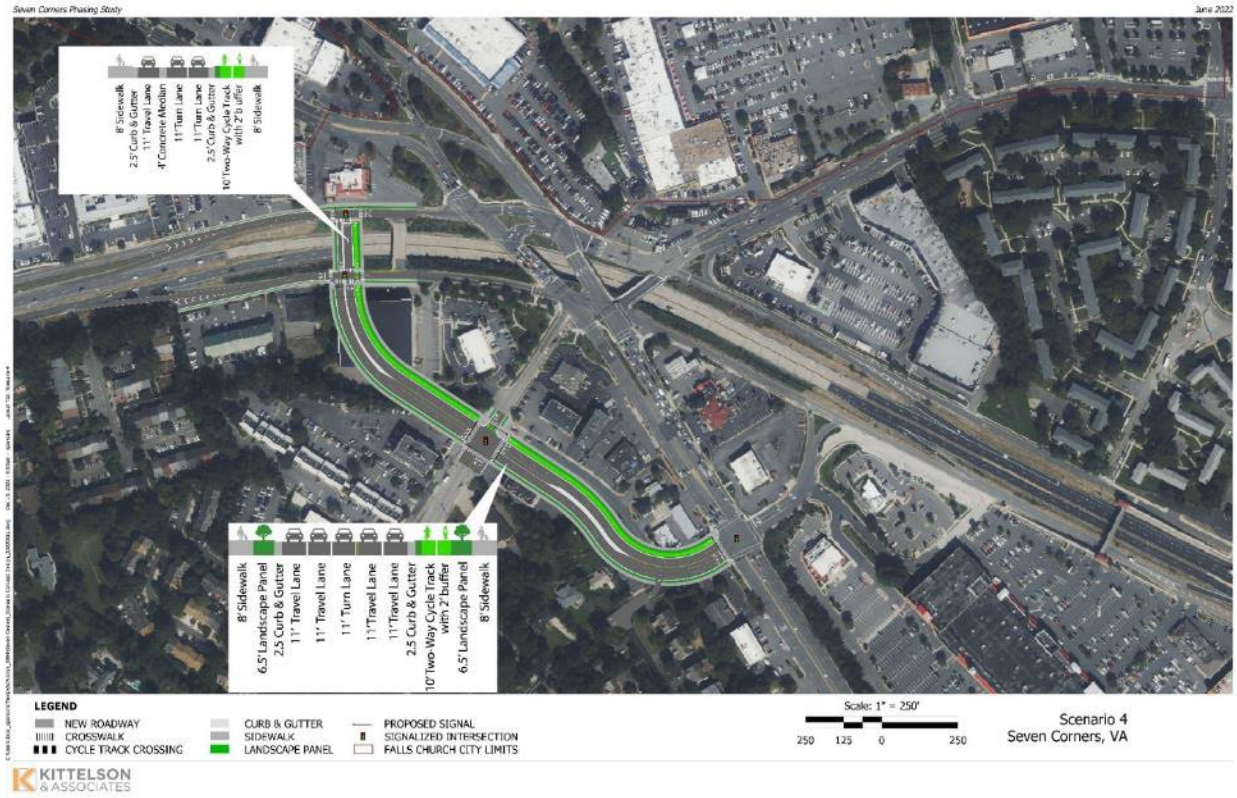
Performance Measure	2030 Baseline Conditions		2030 Scenario 1		2030 Scenario 2		2030 Scenario 3	
	AM	PM	AM	PM	AM	PM	AM	PM
Average Delay (seconds)	157.1	260.2	144.0	210.3	134.7	177.9	142.7	308.6
Vehicle Arrival (vehicles)	20,455	20,727	20,337	21,083	20,621	21,925	20,546	19,765
Latent Demand (vehicles)	60	561	47	248	38	236	33	1,094

Key findings from the network performance results are presented below:

- The extent of congestion during the PM peak hour can be better observed in the network performance results. Compared to the previous scenarios, average vehicle network delay increased significantly from 210 seconds in Scenario 1 and 178 seconds in Scenario 2 to approximately 310 seconds in Scenario 3. Additionally, network throughput also decreased substantially as a result of extended congestion in the network, resulting in over 1,000 unserved vehicles (latent demand) in the network.
- AM peak hour network performance results are similar to the intersection delay and LOS results. Scenario 3 performs similarly to the previous scenarios in the AM peak hour with comparable average network delay and unserved vehicles (latent demand).

SCENARIO 4: THE RING ROAD (WEST)

Figure D-12: Scenario 4



Scenario 4 Description

Scenario 4 responds to the request by the City of Falls Church to adjust the terminus of the Ring Road. Scenario 4 includes a shortened version of the Ring Road noted in Scenario 1 such that the Ring Road extends from Route 50 on the west to Route 7 on the south. As noted in **Figure D-12**, Scenario 4 consists of:

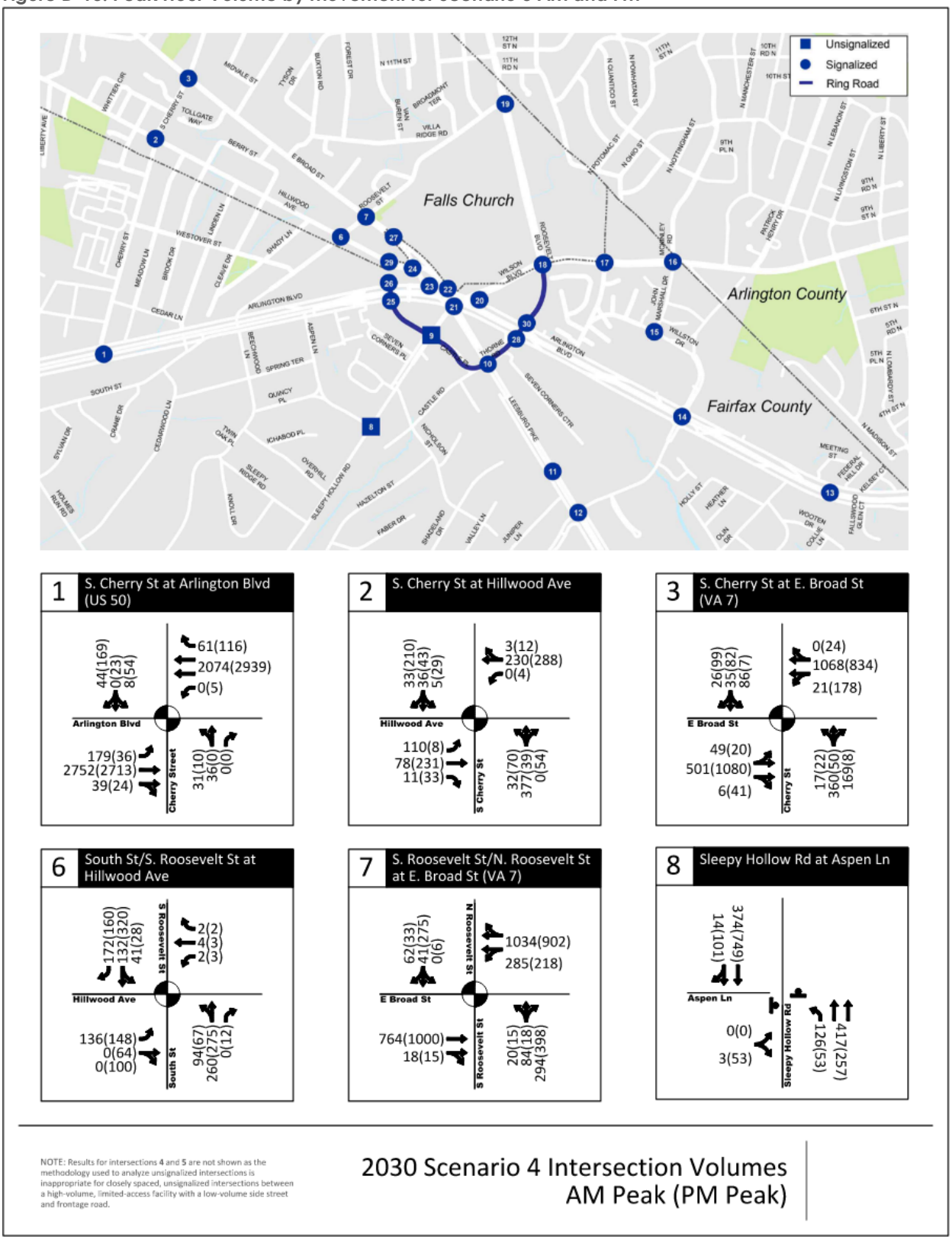
- Two motor vehicle travel lanes in each direction (except for the short segment between the Route 50 service roads, where one lane would be provided in the southbound direction)
- A bridge over the west leg of Route 50
- A left-turn lane at each signalized intersection approach
- A two-way cycle track on the inner loop, buffered from motor vehicle traffic.
- Sidewalks and landscape panels on both sides
- Three new traffic signals, at the two Route 50 Service Roads and at Sleepy Hollow Road
- Incorporation of Castle Place and a portion of Castle Road into the Ring Road
- Reconfiguration of the existing signal at Route 7 and Thorne Road to accommodate the east end of this Ring Road segment

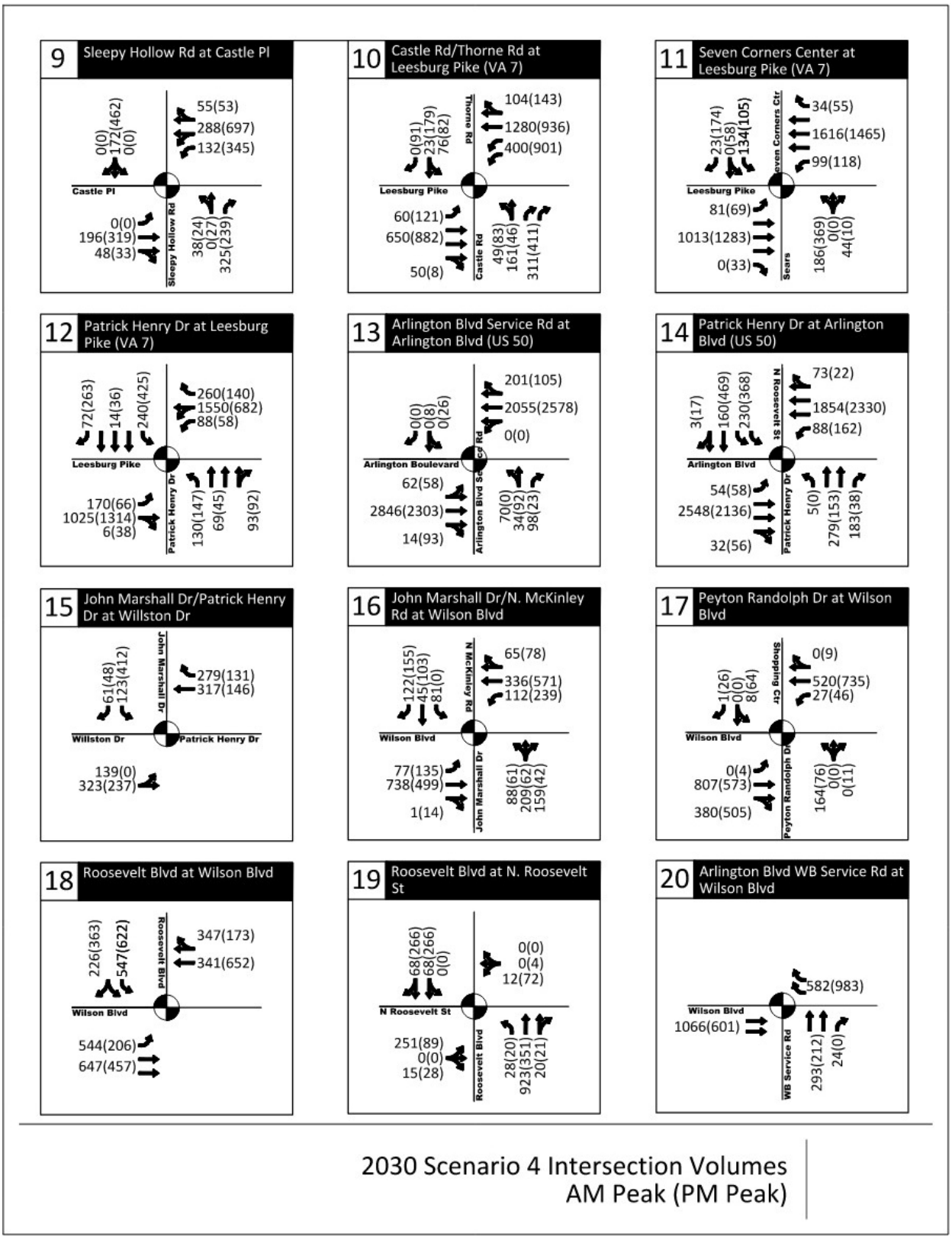
The existing central intersection of Seven Corners, linking Route 7, the Route 50 service roads, Wilson Boulevard, and Sleepy Hollow Road, would remain as they are today in Scenario 4.

Vehicular Operations

This section discusses peak hour vehicular operations for Scenario 4 using the results obtained from VISSIM. **Figure D-13** shows travel volumes, while **Figure D-14** and **Table D-10** show intersection vehicle delay and LOS results for Scenario 3 during the AM and PM peak hours.

Figure D-13: Peak Hour Volume by Movement for Scenario 3 AM and PM




9 Sleepy Hollow Rd at Castle Pl
0(0) 172(462) 0(0)
55(53) 288(697) 132(345)
Castle Pl
Sleepy Hollow Rd
0(0) 196(319) 48(33)
38(24) 0(27) 325(239)
10 Castle Rd/Thorne Rd at Leesburg Pike (VA 7)
0(91) 23(179) 76(82)
104(143) 1280(936) 400(901)
Thorne Rd
Leesburg Pike
Castle Rd
60(121) 650(882) 50(8)
49(83) 161(46) 311(411)
11 Seven Corners Center at Leesburg Pike (VA 7)
23(174) 0(58) 134(105)
34(55) 1616(1465) 99(118)
Seven Corners Ctr
Leesburg Pike
Sears
81(69) 1013(1283) 0(33)
186(369) 0(0) 44(10)
12 Patrick Henry Dr at Leesburg Pike (VA 7)
72(263) 14(36) 240(425)
260(140) 1550(682) 88(58)
Leesburg Pike
Patrick Henry Dr
170(66) 1025(1314) 6(38)
130(147) 69(45) 93(92)
13 Arlington Blvd Service Rd at Arlington Blvd (US 50)
0(0) 0(8) 0(26)
201(105) 2055(2578) 0(0)
Arlington Boulevard
Arlington Blvd Service Rd
62(58) 2846(2303) 14(93)
70(0) 34(92) 98(23)
14 Patrick Henry Dr at Arlington Blvd (US 50)
3(17) 160(469) 230(368)
73(22) 1854(2330) 88(162)
N Roosevelt St
Arlington Blvd
Patrick Henry Dr
54(58) 2548(2136) 32(56)
5(0) 279(153) 183(38)
15 John Marshall Dr/Patrick Henry Dr at Willston Dr
61(48) 123(412)
279(131) 317(146)
John Marshall Dr
Willston Dr
Patrick Henry Dr
139(0) 323(237)
16 John Marshall Dr/N. McKinley Rd at Wilson Blvd
122(155) 45(103) 81(0)
65(78) 336(571) 112(239)
N McKinley Rd
Wilson Blvd
John Marshall Dr
77(135) 738(499) 1(14)
88(61) 209(62) 159(42)
17 Peyton Randolph Dr at Wilson Blvd
1(26) 0(0) 8(64)
0(9) 520(735) 27(46)
Shopping Ctr
Wilson Blvd
Peyton Randolph Dr
0(4) 807(573) 380(505)
164(76) 0(0) 0(11)
18 Roosevelt Blvd at Wilson Blvd
226(363) 547(622)
347(173) 341(652)
Roosevelt Blvd
Wilson Blvd
544(206) 647(457)
19 Roosevelt Blvd at N. Roosevelt St
68(266) 68(266) 0(0)
0(0) 0(4) 12(72)
N Roosevelt St
Roosevelt Blvd
251(89) 0(0) 15(28)
28(20) 923(351) 20(21)
20 Arlington Blvd WB Service Rd at Wilson Blvd
582(983)
Wilson Blvd
1066(601)
WB Service Rd
293(212) 24(0)
2030 Scenario 4 Intersection Volumes
AM Peak (PM Peak)

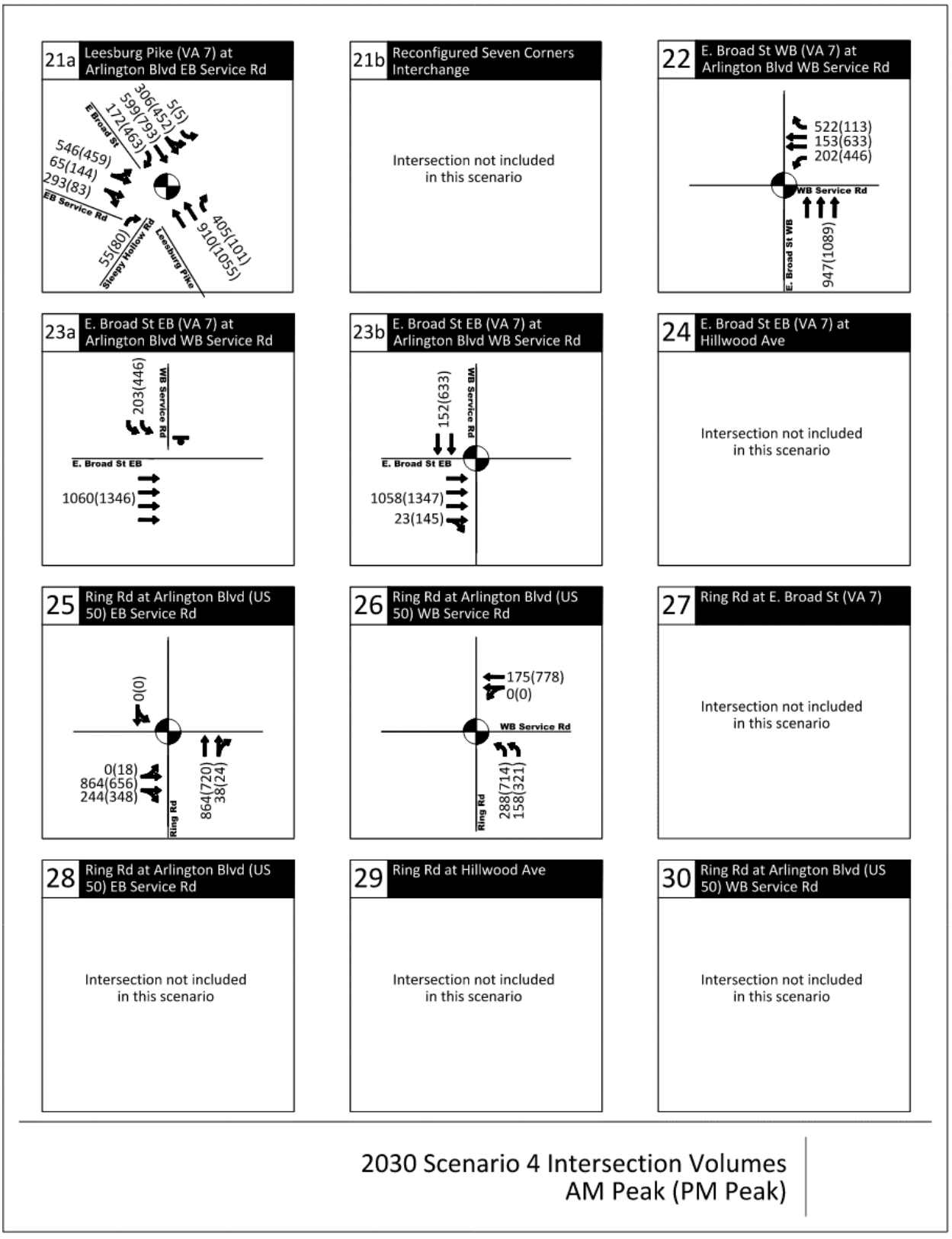

21a
Leesburg Pike (VA 7) at Arlington Blvd EB Service Rd
306(452)
599(793)
172(463)
5(5)
E Broad St
546(459)
65(144)
293(83)
EB Service Rd
55(80)
Sleepy Hollow Rd
Leesburg Pike
405(101)
910(1055)
21b
Reconfigured Seven Corners Interchange
Intersection not included in this scenario
22
E. Broad St WB (VA 7) at Arlington Blvd WB Service Rd
522(113)
153(633)
202(446)
WB Service Rd
E. Broad St WB
947(1089)
23a
E. Broad St EB (VA 7) at Arlington Blvd WB Service Rd
203(446)
WB Service Rd
E. Broad St EB
1060(1346)
23b
E. Broad St EB (VA 7) at Arlington Blvd WB Service Rd
152(633)
WB Service Rd
E. Broad St EB
1058(1347)
23(145)
24
E. Broad St EB (VA 7) at Hillwood Ave
Intersection not included in this scenario
25
Ring Rd at Arlington Blvd (US 50) EB Service Rd
0(0)
0(18)
864(656)
244(348)
Ring Rd
864(720)
38(24)
26
Ring Rd at Arlington Blvd (US 50) WB Service Rd
175(778)
0(0)
WB Service Rd
Ring Rd
288(714)
158(321)
27
Ring Rd at E. Broad St (VA 7)
Intersection not included in this scenario
28
Ring Rd at Arlington Blvd (US 50) EB Service Rd
Intersection not included in this scenario
29
Ring Rd at Hillwood Ave
Intersection not included in this scenario
30
Ring Rd at Arlington Blvd (US 50) WB Service Rd
Intersection not included in this scenario
2030 Scenario 4 Intersection Volumes
AM Peak (PM Peak)

Figure D-14: LOS for Scenario 4

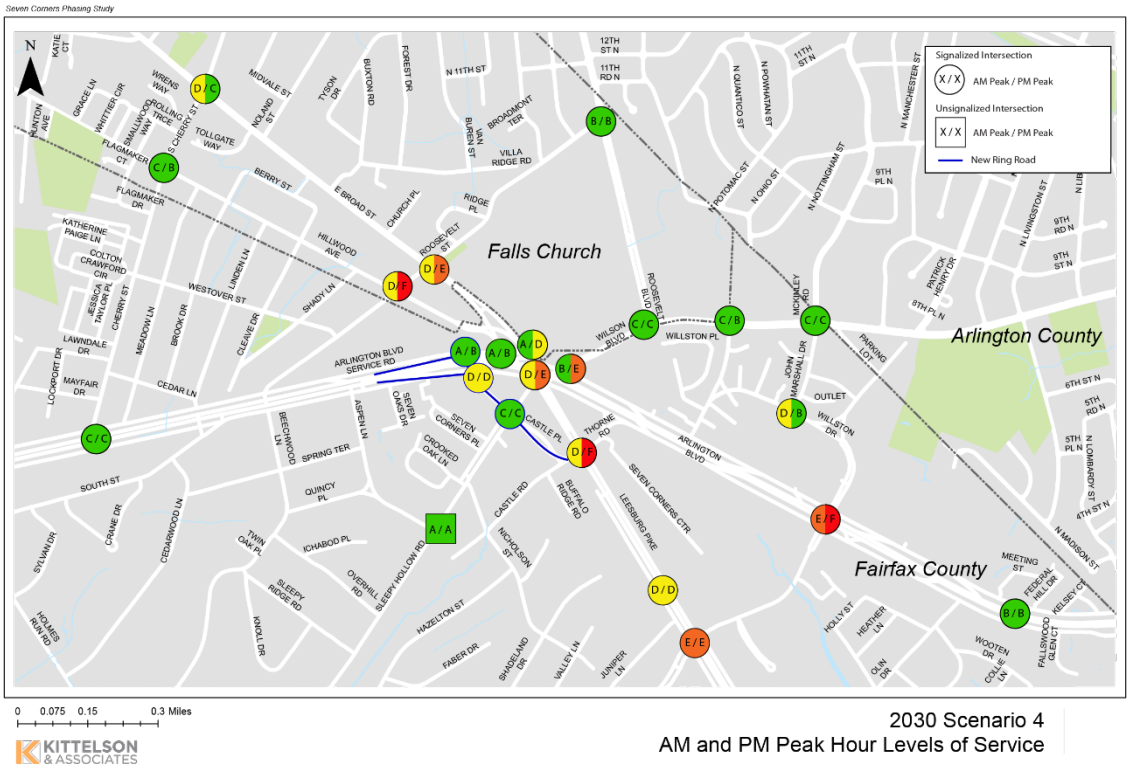


Table D-10: LOS and Delay for Scenario 4 AM and PM Peak Hours

Intersection	Traffic Control	2030 Scenario 4 AM		2030 Scenario 4 PM	
		LOS	Delay	LOS	Delay
#1: S. Cherry Street/Arlington Boulevard (US 50)	Signalized	C	27.2	C	34.6
#2: S. Cherry Street/Hillwood Avenue	Signalized	C	25.0	B	15.8
#3: S. Cherry Street/E. Broad Street (VA 7)	Signalized	D	35.6	C	21.2
#6: South Street & S. Roosevelt Street/Hillwood Avenue	Signalized	E	65.2	F	105.2
#7: N. Roosevelt Street/E. Broad Street (VA 7)	Signalized	D	46.9	E	71.7
#8: Sleepy Hollow Road/Aspen Lane	Unsignalized	A	2.7	A	4.5
#9: Sleepy Hollow Road/Castle Place	Signalized	C	27.5	C	29.6
#10: Castle Road &Thorne Road/Leesburg Pike (VA 7)	Signalized	D	47.0	F	82.2
#11: Seven Corners Center/Leesburg Pike (VA 7)	Signalized	D	37.7	D	52.6
#12: Patrick Henry Drive/Leesburg Pike (VA 7)	Signalized	E	66.7	E	74.4
#13: Arlington Boulevard service road/Arlington Boulevard (US 50)	Signalized	B	12.2	B	19.2
#14: Patrick Henry Drive/Arlington Boulevard (US 50)	Signalized	E	65.6	F	115.7
#15: John Marshall Drive & Willston Drive	Signalized	D	36.6	B	16.0
#16: John Marshall Drive & N. McKinley Road/Wilson Boulevard	Signalized	C	32.4	C	27.9
#17: Peyton Randolph Drive/Wilson Boulevard	Signalized	C	20.1	B	17.9
#18: Roosevelt Boulevard/Wilson Boulevard	Signalized	C	30.1	C	31.1
#19: Roosevelt Boulevard/N. Roosevelt Street	Signalized	B	14.4	B	11.9
#20: Arlington Blvd WB/Wilson Blvd	Signalized	B	12.9	E	58.5
#21a: Sleepy Hollow Rd/Wilson Blvd/Broad St/Arlington Blvd EB	Signalized	D	36.7	E	63.5
#22: Broad St WB/Arlington Blvd WB	Signalized	A	6.8	D	35.8
#23: Broad St EB/Arlington Blvd WB	Signalized	A	4.8	B	19.1
#25: Ring Rd/US 50 EB Off Ramp	Signalized	D	38.8	D	47.0
#26: Ring Rd/US 50 WB On Ramp	Signalized	A	8.9	B	16.5
#21b: Seven Corners Interchange (Intersection)	Signalized	D	45.5	F	121.1

Results show that most of the congestion occurs during the PM peak hour with four intersections operating at LOS F. Key findings from the operational results are summarized below:

- Ring Road improves vehicle delay somewhat at the main intersection (Seven Corner Interchange, which experiences over 140 seconds of vehicle delay in the 2030 Baseline scenario) and considerably at adjacent Route 50 ramp intersections compared to the existing and 2030 baseline conditions. However, this comes at the cost of increased delay at Castle Road and Thorne Road at Leesburg Pike (VA 7) intersection, which operates at LOS F during the PM peak hour (with an average vehicle delay of 82 seconds). High vehicle delay at this location is primarily attributed to the attraction of new vehicles that are travelling to/from Leesburg Pike (VA 7) to Route 50.
- South Street and South Roosevelt Street at Hillwood Avenue experiences over 100 seconds of vehicle delay in the PM peak hour. Vehicle delay at this location is due to the queue spillback from the Roosevelt Street and Broad Street intersection, which experience major bottlenecks since Hillwood Avenue does not connect to Broad Street (VA 7) anymore in this scenario. This lack of connection from Hillwood Avenue to Broad Street (VA 7) increases vehicle volumes considerably between these two intersections, leading to long delays, especially in the PM peak hour.
- Patrick Henry Drive and Arlington Boulevard (US 50) is another intersection that operates at LOS F during the PM peak hour. Congestion at this location is due to the high volumes and not related to the effect of the Ring Road. Note that this intersection operated with similar conditions in the baseline scenario.
- AM peak hour operates generally well with only three intersections operating at LOS E. This is because the study intersections have extra capacity during the AM peak hour compared to the PM peak hour.

Network Performance

Network performance results are displayed in **Table D-11** for Scenario 4. 2030 baseline results are also included for comparison.

Table D-11: Network Performance for 2030 Baseline and Scenario 4 AM and PM Peak Hours

Performance Measure	2030 Baseline Conditions		2030 Scenario 4	
	AM	PM	AM	PM
Average Delay (seconds)	157.1	260.2	138.9	205.2
Vehicle Arrival (vehicles)	20,455	20,727	20,435	21,624
Latent Demand (vehicles)	60	561	35	365

Key findings from the network results are summarized below.

- Compared to the 2030 Baseline Conditions, Scenario 4 reduces average network delay considerably during both peak hours. More reduction is observed in the PM peak hour compared to the AM peak hour.
- Network throughput also increases and latent demand decreases in Scenario 4 compared to the 2030 Baseline Conditions. Improvements are more evident in the PM peak hour since it experiences more congestion in the 2030 Baseline Conditions and, therefore, benefits more from the proposed Ring Road.

Transit Conditions

No changes to transit are expected with the implementation of Scenario 4.

Bicycle Conditions

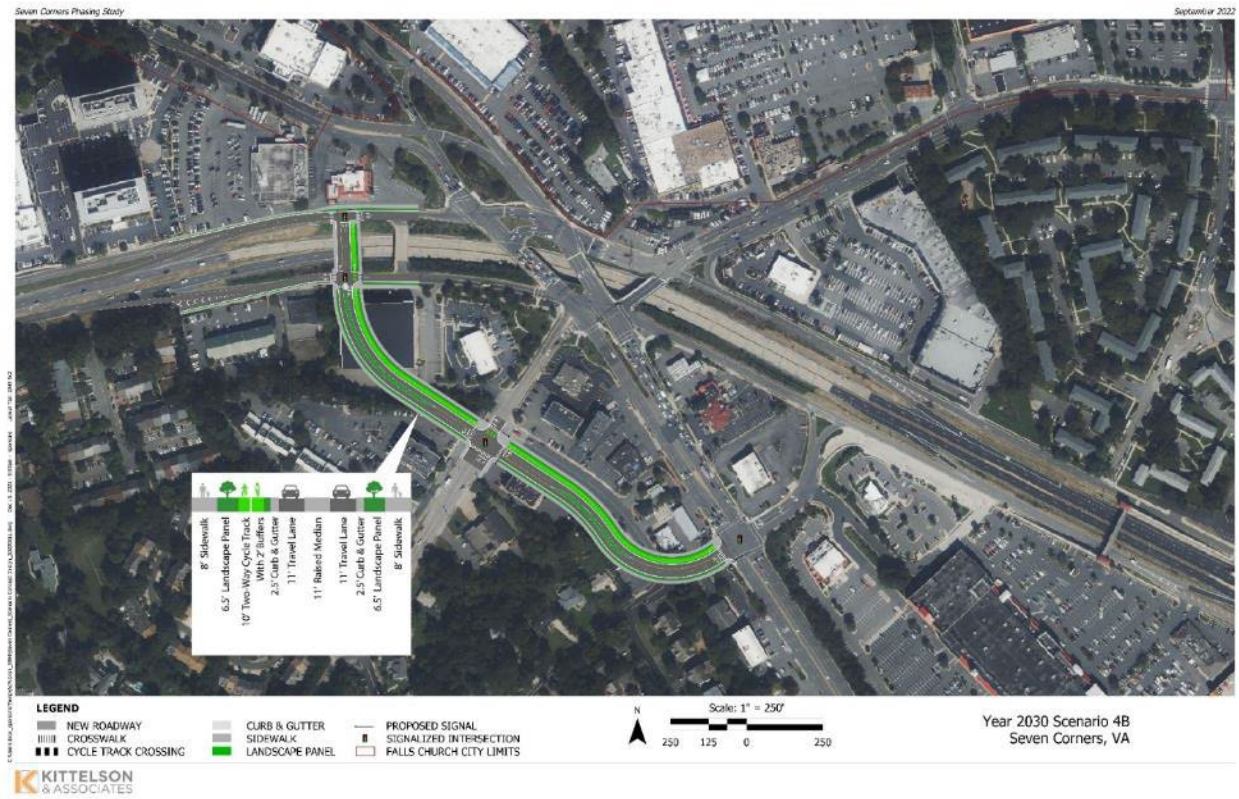
A two-way cycle track will be provided on the inner loop of this Ring Road segment. Because there are no existing or planned bicycle facilities on the roadways that intersect Ring Road (West), the design process will need to identify bicycle connections at either end of the cycle track.

Pedestrian Conditions

Eight-foot sidewalks with landscape panels will be provided on both sides of Ring Road (West). These will tie into existing sidewalks along the Route 50 frontage roads, Sleepy Hollow Road, and Route 7. However, minimal changes in crossing times at other area intersections are expected.

SCENARIO 4B: THE RING ROAD (WEST) – TWO LANE

Figure D-15: Scenario 4B



Scenario 4B Description

Scenario 4B responds to the resident request to consider a two-lane Ring Road, where only one lane in each direction is constructed. Scenario 4B includes the same extents of Ring Road as Scenario 4. Scenario 4B is not consistent with the Comprehensive Plan vision for the transportation network, as it includes one lane in each direction rather than two lanes in each direction. Further, no other scenario considers a network where Ring Road has one lane in each direction. As noted in **Figure D-15**, Scenario 4 consists of:

- One motor vehicle travel lane in each direction.

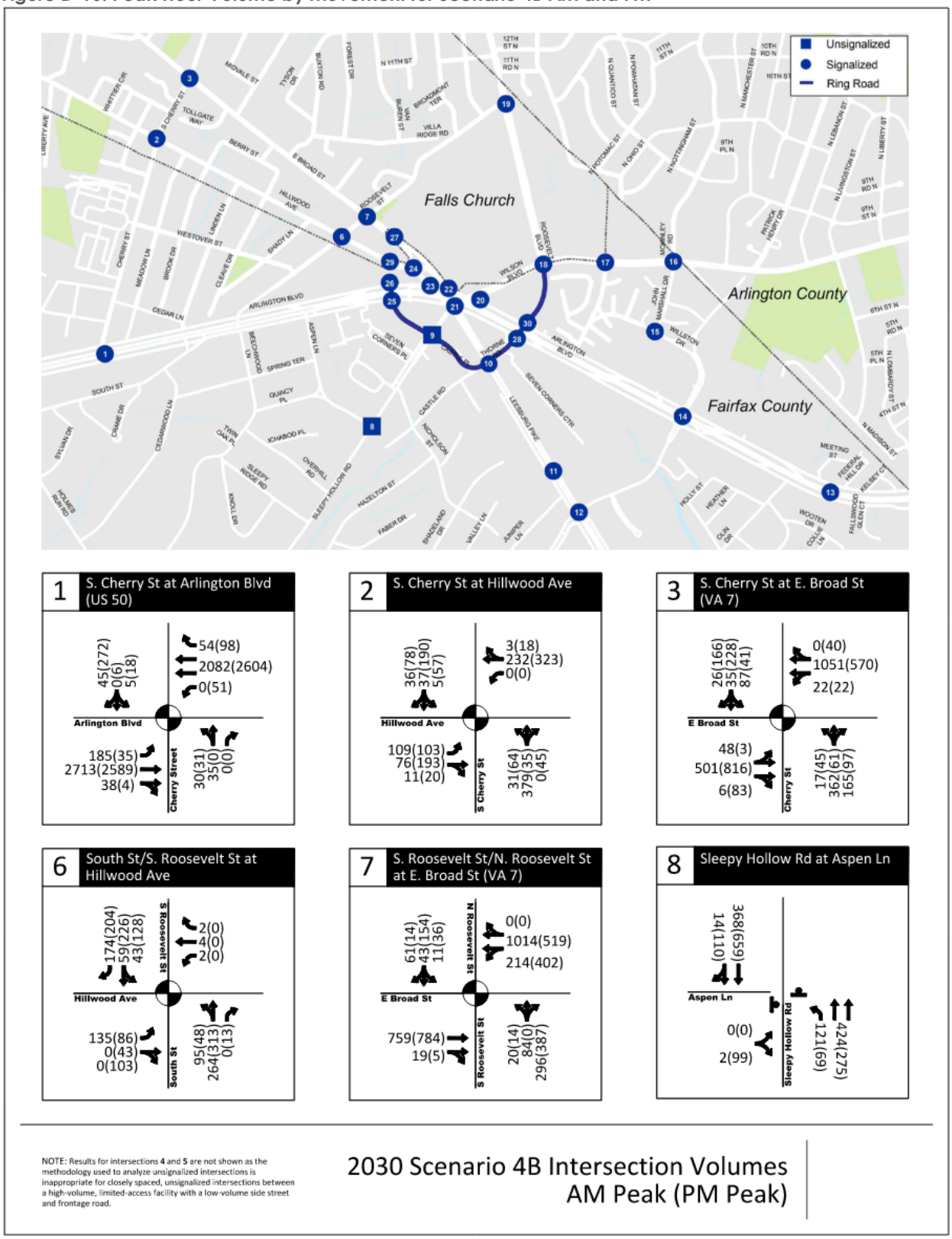
- A bridge over the west leg of Route 50.
- A left-turn lane at each signalized intersection approach.
- A two-way cycle track on the northeast side, buffered from motor vehicle traffic.
- Sidewalks and landscape panels on both sides.
- Three new traffic signals (at the two Route 50 service roads and at Sleepy Hollow Road).
- Incorporation of Castle Place and a portion of Castle Road into Ring Road.
- Reconfiguration of the existing signal at Route 7 and Thorne Road to accommodate the east end of this Ring Road segment.

The existing central intersection of Seven Corners that links Route 7, the Route 50 service roads, Wilson Boulevard, and Sleepy Hollow Road would remain as they are today in Phase 1.

Vehicular Operations

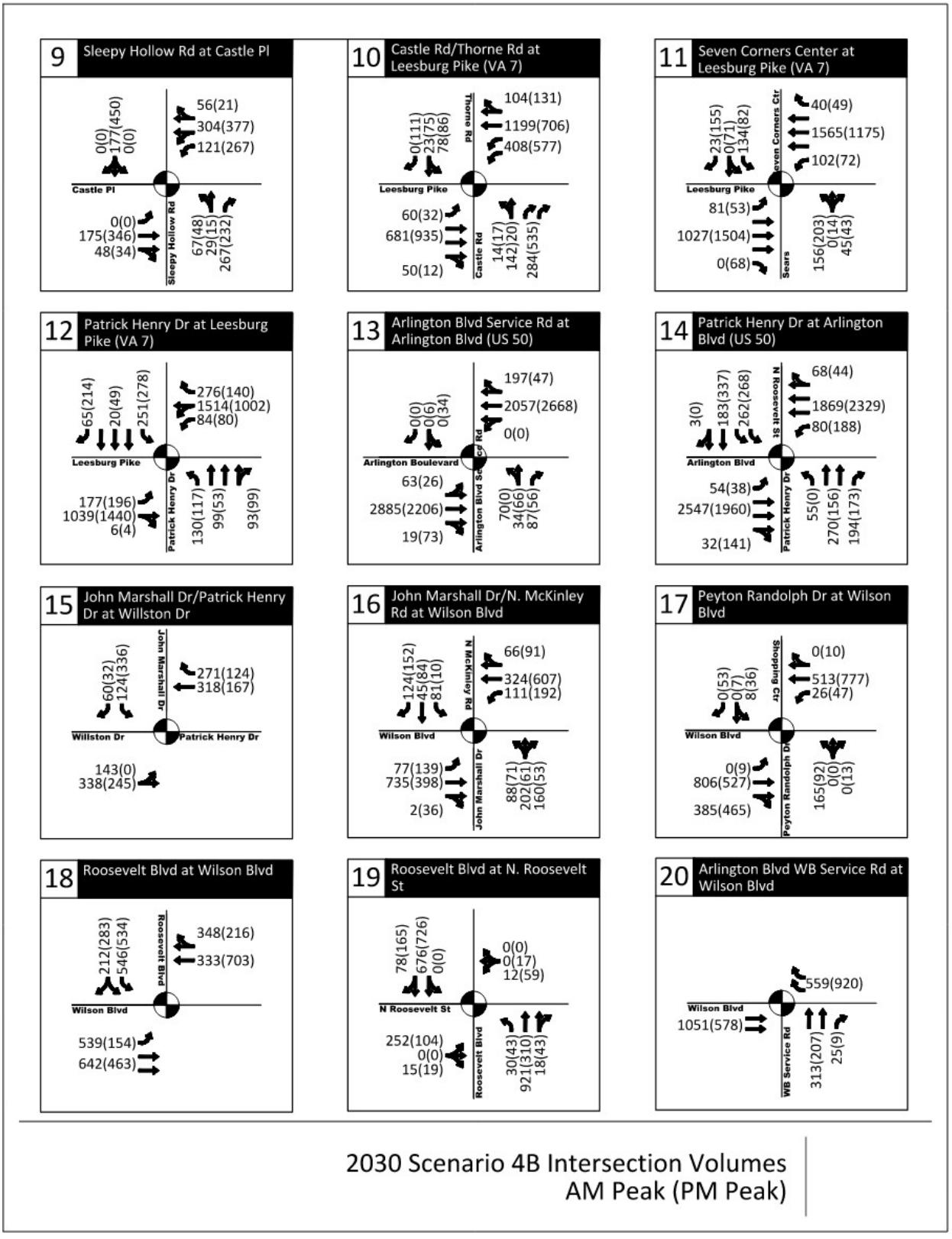
This section discusses peak hour vehicular operations for Scenario 4B using the results obtained from VISSIM. **Figure D-16** shows travel volumes, while **Figure D-17** and **Table D-12** show intersection vehicle delay and LOS results for Scenario 3 during the AM and PM peak hours.

Figure D-16: Peak Hour Volume by Movement for Scenario 4B AM and PM



NOTE: Results for intersections 4 and 5 are not shown as the methodology used to analyze unsignalized intersections is inappropriate for closely spaced, unsignalized intersections between a high-volume, limited-access facility with a low-volume side street and frontage road.

2030 Scenario 4B Intersection Volumes
AM Peak (PM Peak)


9 Sleepy Hollow Rd at Castle Pl
Castle Pl
Sleepy Hollow Rd
0(0)
177(450)
0(0)
56(21)
304(377)
121(267)
0(0)
175(346)
48(34)
67(48)
29(15)
267(232)
10 Castle Rd/Thorne Rd at Leesburg Pike (VA 7)
Thorne Rd
Leesburg Pike
Castle Rd
0(111)
23(75)
78(86)
104(131)
1199(706)
408(577)
60(32)
681(935)
50(12)
14(17)
142(20)
284(535)
11 Seven Corners Center at Leesburg Pike (VA 7)
Seven Corners Ctr
Leesburg Pike
Sears
23(155)
0(71)
134(82)
40(49)
1565(1175)
102(72)
81(53)
1027(1504)
0(68)
156(203)
0(14)
45(43)
12 Patrick Henry Dr at Leesburg Pike (VA 7)
Leesburg Pike
Patrick Henry Dr
65(214)
20(49)
251(278)
276(140)
1514(1002)
84(80)
177(196)
1039(1440)
6(4)
130(117)
99(53)
93(99)
13 Arlington Blvd Service Rd at Arlington Blvd (US 50)
Arlington Boulevard
Arlington Blvd Service Rd
0(0)
0(6)
0(34)
197(47)
2057(2668)
0(0)
63(26)
2885(2206)
19(73)
70(0)
34(66)
87(56)
14 Patrick Henry Dr at Arlington Blvd (US 50)
Arlington Blvd
N Roosevelt St
Patrick Henry Dr
3(0)
183(337)
262(268)
68(44)
1869(2329)
80(188)
54(38)
2547(1960)
32(141)
55(0)
270(156)
194(173)
15 John Marshall Dr/Patrick Henry Dr at Willston Dr
John Marshall Dr
Willston Dr
Patrick Henry Dr
60(32)
124(336)
271(124)
318(167)
143(0)
338(245)
16 John Marshall Dr/N. McKinley Rd at Wilson Blvd
N McKinley Rd
Wilson Blvd
John Marshall Dr
124(152)
45(84)
81(10)
66(91)
324(607)
111(192)
77(139)
735(398)
2(36)
88(71)
202(61)
160(53)
17 Peyton Randolph Dr at Wilson Blvd
Shopping Ctr
Wilson Blvd
Peyton Randolph Dr
0(53)
0(7)
8(36)
0(10)
513(777)
26(47)
0(9)
806(527)
385(465)
165(92)
0(0)
0(13)
18 Roosevelt Blvd at Wilson Blvd
Roosevelt Blvd
Wilson Blvd
212(283)
546(534)
348(216)
333(703)
539(154)
642(463)
19 Roosevelt Blvd at N. Roosevelt St
N Roosevelt St
Roosevelt Blvd
78(165)
676(726)
0(0)
0(0)
0(17)
12(59)
252(104)
0(0)
15(19)
30(43)
921(310)
18(43)
20 Arlington Blvd WB Service Rd at Wilson Blvd
Wilson Blvd
WB Service Rd
559(920)
1051(578)
313(207)
25(9)
2030 Scenario 4B Intersection Volumes
AM Peak (PM Peak)

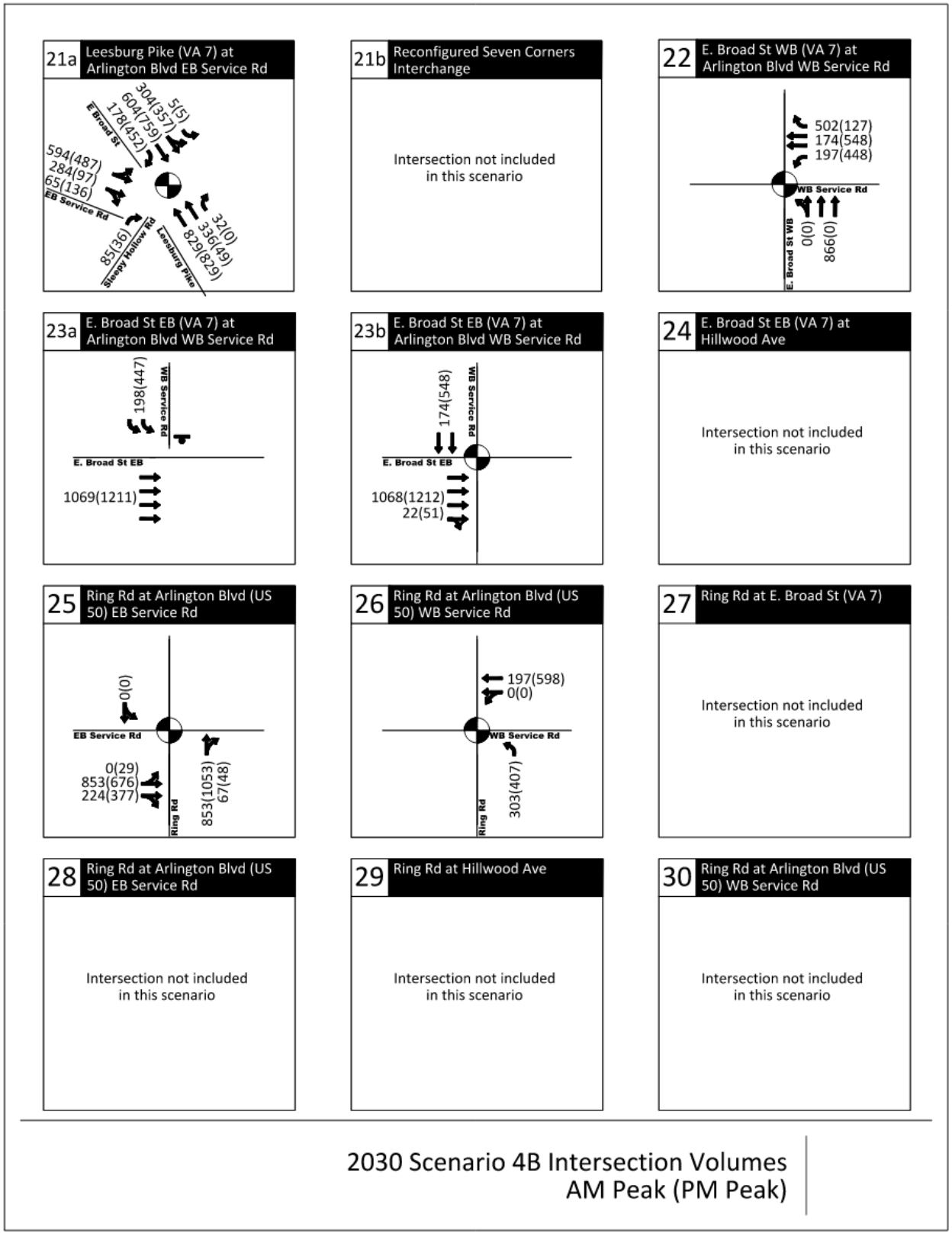

21a
Leesburg Pike (VA 7) at Arlington Blvd EB Service Rd
E Broad St
304(357)
604(759)
178(452)
5(5)
594(487)
284(97)
65(136)
EB Service Rd
85(36)
Sleepy Hollow Rd
Leesburg Pike
829(829)
336(49)
32(0)
21b
Reconfigured Seven Corners Interchange
Intersection not included in this scenario
22
E. Broad St WB (VA 7) at Arlington Blvd WB Service Rd
502(127)
174(548)
197(448)
WB Service Rd
E. Broad St WB
0(0)
866(0)
23a
E. Broad St EB (VA 7) at Arlington Blvd WB Service Rd
198(447)
WB Service Rd
E. Broad St EB
1069(1211)
23b
E. Broad St EB (VA 7) at Arlington Blvd WB Service Rd
174(548)
WB Service Rd
E. Broad St EB
1068(1212)
22(51)
24
E. Broad St EB (VA 7) at Hillwood Ave
Intersection not included in this scenario
25
Ring Rd at Arlington Blvd (US 50) EB Service Rd
0(0)
EB Service Rd
0(29)
853(676)
224(377)
Ring Rd
853(1053)
67(48)
26
Ring Rd at Arlington Blvd (US 50) WB Service Rd
197(598)
0(0)
WB Service Rd
Ring Rd
303(407)
27
Ring Rd at E. Broad St (VA 7)
Intersection not included in this scenario
28
Ring Rd at Arlington Blvd (US 50) EB Service Rd
Intersection not included in this scenario
29
Ring Rd at Hillwood Ave
Intersection not included in this scenario
30
Ring Rd at Arlington Blvd (US 50) WB Service Rd
Intersection not included in this scenario
2030 Scenario 4B Intersection Volumes
AM Peak (PM Peak)

Figure D-17: LOS for Scenario 4B

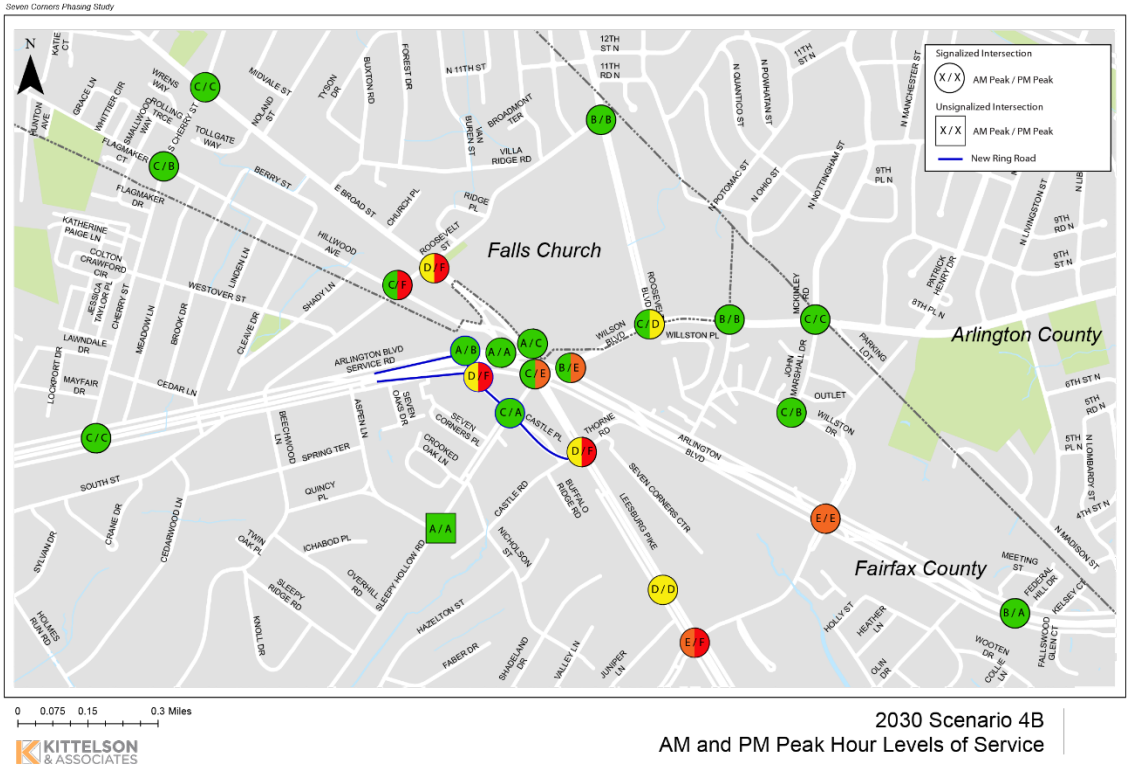


Table D-12: LOS and Delay for Scenario 4B AM and PM Peak Hours

Intersection	Traffic Control	2030 Scenario 4B AM		2030 Scenario 4B PM	
		LOS	Delay	LOS	Delay
#1: S Cherry Street/Arlington Boulevard (US 50)	Signalized	C	27.1	C	33.6
#2: S Cherry Street/Hillwood Avenue	Signalized	C	27.9	B	18.2
#3: S Cherry Street/E. Broad Street (VA 7)	Signalized	C	34.8	C	25.2
#6: South Street & S. Roosevelt Street/Hillwood Avenue	Signalized	C	28.4	F	106.9
#7: N Roosevelt Street/E. Broad Street (VA 7)	Signalized	D	37.7	F	91.3
#8: Sleepy Hollow Road/Aspen Lane	Unsignalized	A	2.8	A	5.3
#9: Sleepy Hollow Road/Castle Place	Signalized	C	31.9	A	5.3
#10: Castle Road &Thorne Road/Leesburg Pike (VA 7)	Signalized	D	38.4	F	143.0
#11: Seven Corners Center/Leesburg Pike (VA 7)	Signalized	C	29.3	F	83.3
#12: Patrick Henry Drive/Leesburg Pike (VA 7)	Signalized	E	79.7	F	93.2
#13: Arlington Boulevard service road/Arlington Boulevard (US 50)	Signalized	B	12.7	A	8.3
#14: Patrick Henry Drive/Arlington Boulevard (US 50)	Signalized	E	59.7	E	71.0
#15: John Marshall Drive/Patrick Henry Drive & Willston Drive	Signalized	C	21.8	B	17.2
#16: John Marshall Drive & N. McKinley Road/Wilson Boulevard	Signalized	C	33.1	C	29.6
#17: Peyton Randolph Drive/Wilson Boulevard	Signalized	B	19.8	B	18.0
#18: Roosevelt Boulevard/Wilson Boulevard	Signalized	C	31.1	D	39.9
#19: Roosevelt Boulevard/N. Roosevelt Street	Signalized	B	14.3	B	11.7
#20: Arlington Blvd WB/Wilson Blvd	Signalized	B	12.5	E	62.9
#21a: Sleepy Hollow Rd/Wilson Blvd/Broad St/Arlington Blvd EB	Signalized	C	32.7	E	66.6
#22: Broad St WB/Arlington Blvd WB	Signalized	A	4.7	C	23.9
#23: Broad St EB/Arlington Blvd WB	Signalized	A	4.8	A	6.5
#25: Ring Rd/US 50 EB Off Ramp	Signalized	D	41.3	F	91.0
#26: Ring Rd/US 50 WB On Ramp	Signalized	A	8.2	B	12.5
#21b: Seven Corners Interchange	Signalized	D	42.8	F	119.0

Results show that most of the congestion occurs during the PM peak hour, with seven intersections operating at LOS F. Key findings from the operational results are summarized below:

- Ring Road conditions at Sleepy Hollow Road as well as the main interchange improve compared to Scenario 4. In addition, AM peak hour conditions are similar, if not slightly improved, compared to Scenario 4.
- However, delay increases at intersections where vehicles are attempting to enter Ring Road, as demand into Ring Road is limited, which leads to delay. PM peak period delay at Castle Road and Route 7 as well as the Route 50 Eastbound service road and Ring Road increases significantly, both of which experience LOS F.
- PM peak period delay getting to these intersections is also increased, as delay seems to be cascading through the network. Intersections at Seven Corners Center and Route 7, Patrick Henry Drive and Route 7, and Roosevelt Street and Broad Street all experience considerably more PM peak period delay.

Network Performance

Network performance results are displayed in **Table D-13** for Scenario 4B. 2030 Baseline and Scenario 4 results are also included for comparison.

Table D-13: Network Performance for 2030 Baseline, Scenario 4, and Scenario 4B AM and PM Peak Hours

Performance Measure	2030 Baseline Conditions		2030 Scenario 4		2030 Scenario 4B	
	AM	PM	AM	PM	AM	PM
Average Delay (seconds)	157.1	260.2	138.9	205.2	134.0	224.1
Vehicle Arrival (vehicles)	20,455	20,727	20,435	21,624	20,522	20,884
Latent Demand (vehicles)	60	561	35	365	5	764

Key findings from the network results are summarized below:

- Compared to the 2030 Baseline Conditions, Scenario 4B reduces average network delay during both peak hours. More reduction is observed in the PM peak hour compared to the AM peak hour.
- Compared to Scenario 4, Scenario 4B has slightly improved AM peak hour conditions but worsened PM peak hour conditions.

Transit Conditions

No changes to transit are expected with the implementation of Scenario 4B.

Bicycle Conditions

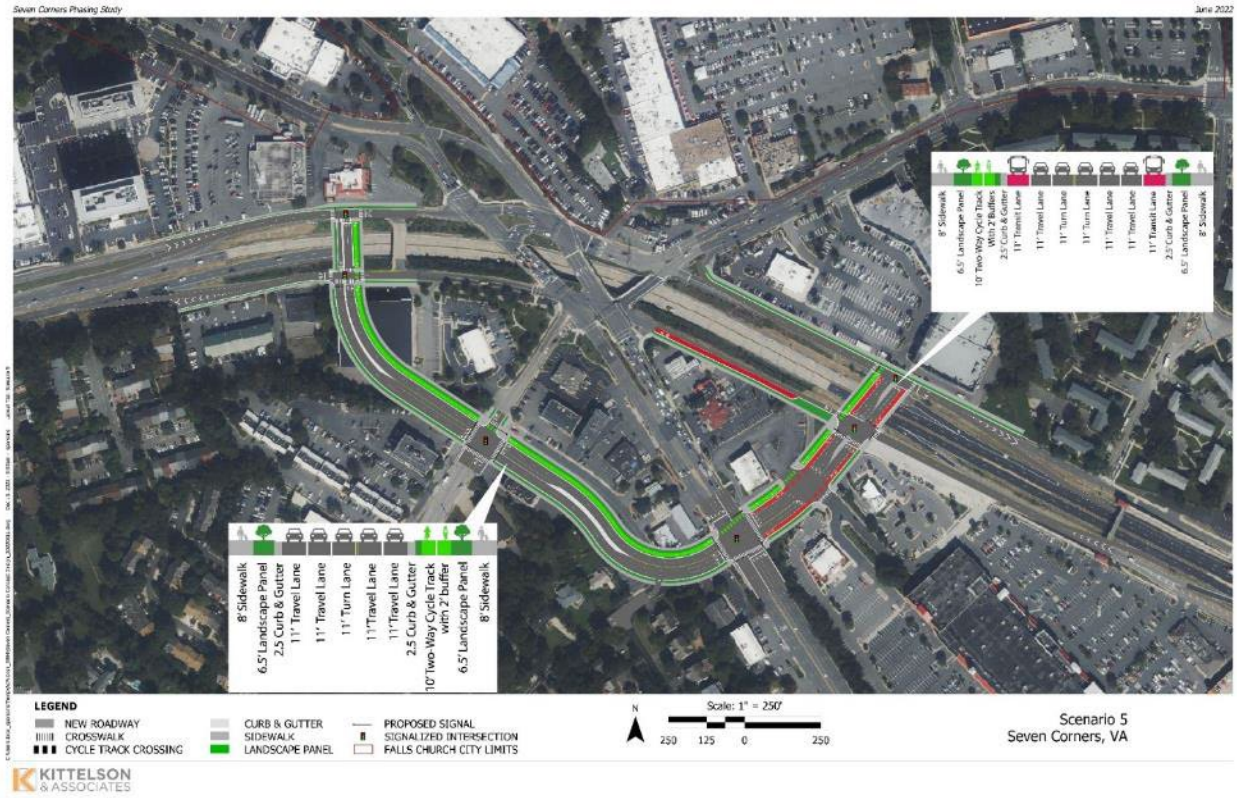
A two-way cycle track will be provided on the inner loop of this Ring Road segment. Because there are no existing or planned bicycle facilities on the roadways that intersect Ring Road (West), the design process will need to identify bicycle connections at either end of the cycle track.

Pedestrian Conditions

Eight-foot sidewalks with landscape panels will be provided on both sides of Ring Road (West). These will tie into existing sidewalks along the Route 50 frontage roads, Sleepy Hollow Road, and Route 7. However, minimal changes in crossing times at other area intersections are expected.

SCENARIO 5: THE RING ROAD (SOUTH)

Figure D-18: Scenario 5



Scenario 5 Description

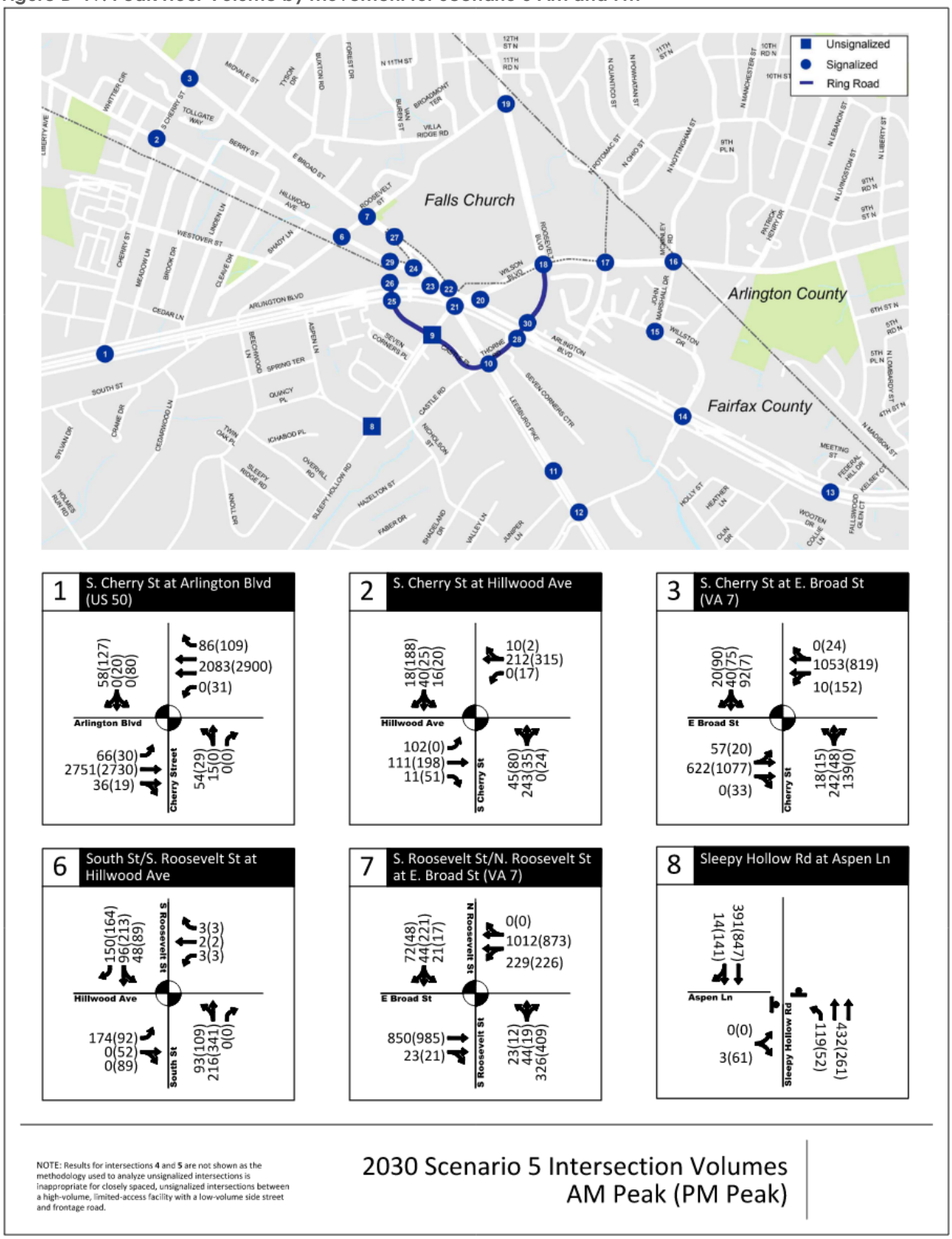
Scenario 5 adds to Scenario 4 and extends Ring Road from Route 7 to the south over to Route 50 on the east. As noted in **Figure D-18**, Scenario 5 consists of:

- Scenario 4 improvements
- Two motor vehicle travel lanes in each direction.
- A bridge over the east leg of Route 50 and adjusted service roads to connect to Route 50.
- Single or double left-turn lanes at major intersection approaches, as shown in **Figure D-18.**
- A two-way cycle track on the northwest side, buffered from motor vehicle traffic.
- Sidewalks and landscape panels on both sides.
- Two new traffic signals at each Route 50 service road.
- A new unsignalized intersection at Ring Road (South) and Seven Corners Center.
- Exclusive transit lanes.
- Relocated Transit Center to the northwest of the Ring Road (South) along the eastbound Route 50 service road.

Vehicular Operations

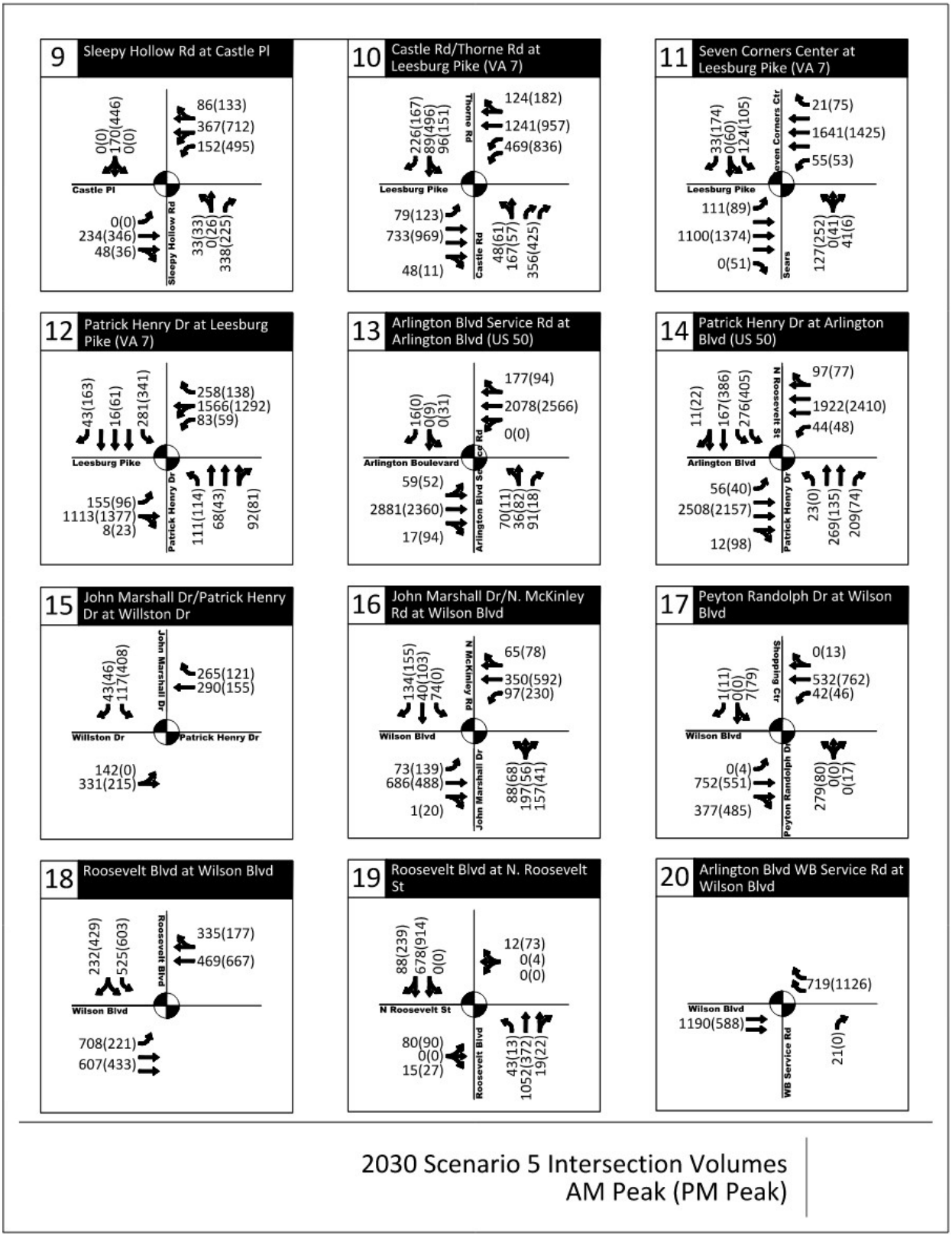
This section discusses peak hour vehicular operations for Scenario 5 using the results obtained from VISSIM. **Figure D-19** shows travel volumes, while **Figure D-20** and **Table D-14** show intersection vehicle delay and LOS results for Scenario 3 during the AM and PM peak hours.

Figure D-19: Peak Hour Volume by Movement for Scenario 5 AM and PM



NOTE: Results for intersections **4** and **5** are not shown as the methodology used to analyze unsignalized intersections is inappropriate for closely spaced, unsignalized intersections between a high-volume, limited-access facility with a low-volume side street and frontage road.

2030 Scenario 5 Intersection Volumes
AM Peak (PM Peak)


9 Sleepy Hollow Rd at Castle Pl
Castle Pl
Sleepy Hollow Rd
0(0) 170(446) 0(0)
86(133) 367(712) 152(495)
0(0) 234(346) 48(36)
33(33) 0(26) 338(225)
10 Castle Rd/Thorne Rd at Leesburg Pike (VA 7)
Leesburg Pike
Thorne Rd
Castle Rd
226(167) 89(496) 96(151)
124(182) 1241(957) 469(836)
79(123) 733(969) 48(11)
48(61) 167(57) 356(425)
11 Seven Corners Center at Leesburg Pike (VA 7)
Leesburg Pike
Seven Corners Ctr
Sears
33(174) 0(60) 124(105)
21(75) 1641(1425) 55(53)
111(89) 1100(1374) 0(51)
127(252) 0(41) 41(6)
12 Patrick Henry Dr at Leesburg Pike (VA 7)
Leesburg Pike
Patrick Henry Dr
43(163) 16(61) 281(341)
258(138) 1566(1292) 83(59)
155(96) 1113(1377) 8(23)
111(114) 68(43) 92(81)
13 Arlington Blvd Service Rd at Arlington Blvd (US 50)
Arlington Boulevard
Arlington Blvd Svc Rd
16(0) 0(9) 0(31)
177(94) 2078(2566) 0(0)
59(52) 2881(2360) 17(94)
70(11) 36(82) 91(18)
14 Patrick Henry Dr at Arlington Blvd (US 50)
Arlington Blvd
N Roosevelt St
Patrick Henry Dr
11(22) 167(386) 276(405)
97(77) 1922(2410) 44(48)
56(40) 2508(2157) 12(98)
23(0) 269(135) 209(74)
15 John Marshall Dr/Patrick Henry Dr at Willston Dr
Willston Dr
John Marshall Dr
Patrick Henry Dr
43(46) 117(408)
265(121) 290(155)
142(0) 331(215)
16 John Marshall Dr/N. McKinley Rd at Wilson Blvd
Wilson Blvd
N McKinley Rd
John Marshall Dr
134(155) 40(103) 74(0)
65(78) 350(592) 97(230)
73(139) 686(488) 1(20)
88(68) 197(56) 157(41)
17 Peyton Randolph Dr at Wilson Blvd
Wilson Blvd
Shopping Ctr
Peyton Randolph Dr
1(11) 0(0) 7(79)
0(13) 532(762) 42(46)
0(4) 752(551) 377(485)
279(80) 0(0) 0(17)
18 Roosevelt Blvd at Wilson Blvd
Wilson Blvd
Roosevelt Blvd
232(429) 525(603)
335(177) 469(667)
708(221) 607(433)
19 Roosevelt Blvd at N. Roosevelt St
N Roosevelt St
Roosevelt Blvd
88(239) 678(914) 0(0)
12(73) 0(4) 0(0)
80(90) 0(0) 15(27)
43(13) 1052(372) 19(22)
20 Arlington Blvd WB Service Rd at Wilson Blvd
Wilson Blvd
WB Service Rd
719(1126)
1190(588)
21(0)
2030 Scenario 5 Intersection Volumes
AM Peak (PM Peak)

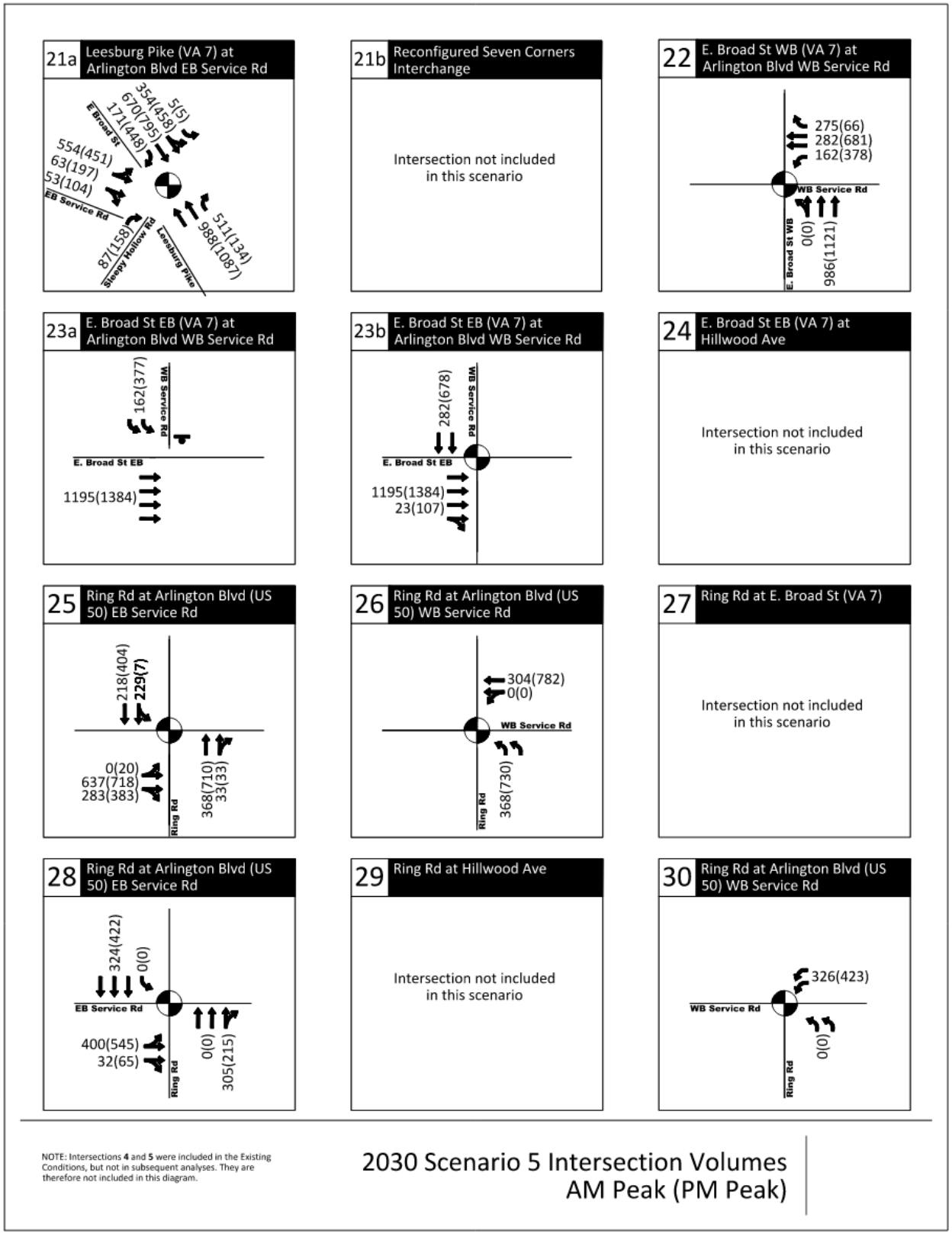

21a Leesburg Pike (VA 7) at Arlington Blvd EB Service Rd
E Broad St
354(458)
5(5)
670(795)
171(448)
554(451)
63(197)
53(104)
EB Service Rd
511(134)
988(1087)
87(158)
Sleepy Hollow Rd
Leesburg Pike
21b Reconfigured Seven Corners Interchange
Intersection not included in this scenario
22 E. Broad St WB (VA 7) at Arlington Blvd WB Service Rd
275(66)
282(681)
162(378)
WB Service Rd
E. Broad St WB
0(0)
986(1121)
23a E. Broad St EB (VA 7) at Arlington Blvd WB Service Rd
162(377)
WB Service Rd
E. Broad St EB
1195(1384)
23b E. Broad St EB (VA 7) at Arlington Blvd WB Service Rd
282(678)
WB Service Rd
E. Broad St EB
1195(1384)
23(107)
24 E. Broad St EB (VA 7) at Hillwood Ave
Intersection not included in this scenario
25 Ring Rd at Arlington Blvd (US 50) EB Service Rd
218(404)
229(7)
0(20)
637(718)
283(383)
Ring Rd
368(710)
33(33)
26 Ring Rd at Arlington Blvd (US 50) WB Service Rd
304(782)
0(0)
WB Service Rd
Ring Rd
368(730)
27 Ring Rd at E. Broad St (VA 7)
Intersection not included in this scenario
28 Ring Rd at Arlington Blvd (US 50) EB Service Rd
324(422)
0(0)
EB Service Rd
400(545)
32(65)
Ring Rd
0(0)
305(215)
29 Ring Rd at Hillwood Ave
Intersection not included in this scenario
30 Ring Rd at Arlington Blvd (US 50) WB Service Rd
326(423)
WB Service Rd
0(0)
Ring Rd
NOTE: Intersections 4 and 5 were included in the Existing Conditions, but not in subsequent analyses. They are therefore not included in this diagram.
2030 Scenario 5 Intersection Volumes
AM Peak (PM Peak)

Figure D-20: LOS for Scenario 5

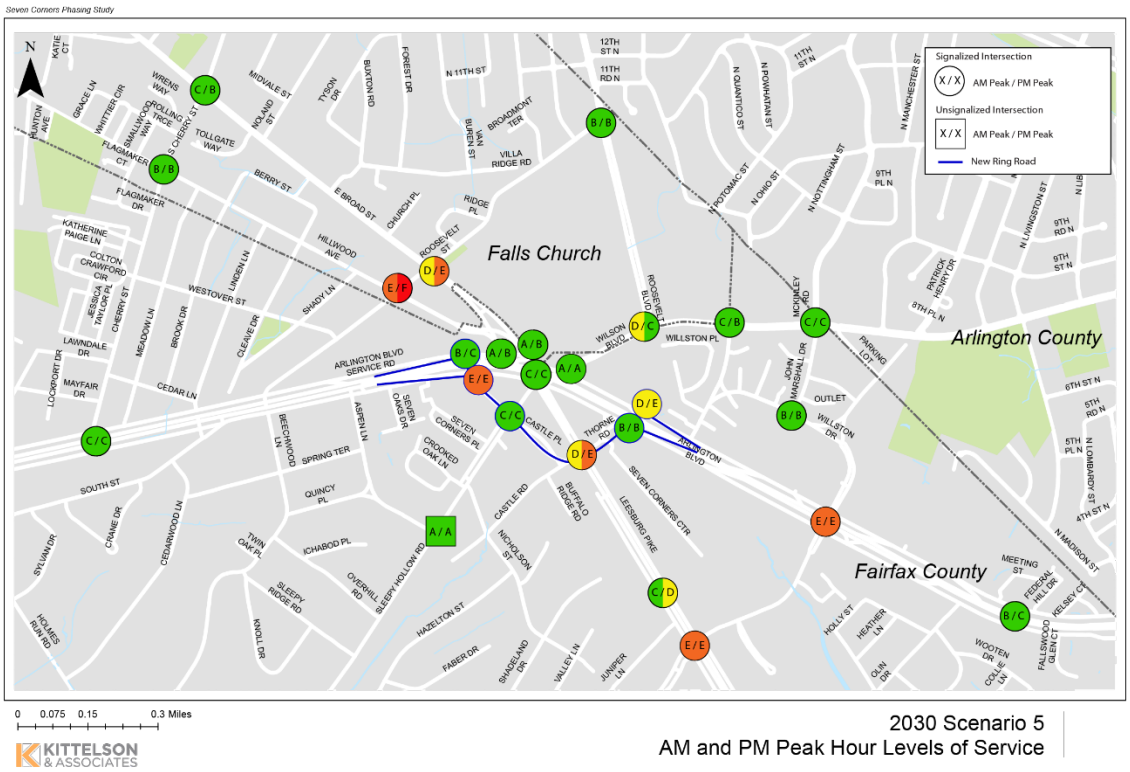


Table D-14: LOS and Delay for Scenario 5 AM and PM Peak Hours

Intersection	Traffic Control	2030 Scenario 5 AM		2030 Scenario 5 PM	
		LOS	Delay	LOS	Delay
#1: S Cherry Street/Arlington Boulevard (US 50)	Signalized	C	21.7	C	34.8
#2: S Cherry Street/Hillwood Avenue	Signalized	B	18.6	B	14.5
#3: S Cherry Street/E. Broad Street (VA 7)	Signalized	C	28.5	B	18.3
#6: South Street & S. Roosevelt Street/Hillwood Avenue	Signalized	E	60.4	F	92.4
#7: N Roosevelt Street/E. Broad Street (VA 7)	Signalized	D	47.1	E	60.8
#8: Sleepy Hollow Road/Aspen Lane	Unsignalized	A	2.7	A	4.7
#9: Sleepy Hollow Road/Castle Place	Signalized	C	24.7	C	29.1
#10: Castle Road &Thorne Road/Leesburg Pike (VA 7)	Signalized	D	49.2	E	70.9
#11: Seven Corners Center/Leesburg Pike (VA 7)	Signalized	C	30.5	D	43.5
#12: Patrick Henry Drive/Leesburg Pike (VA 7)	Signalized	E	64.4	E	56.0
#13: Arlington Boulevard service road/Arlington Boulevard (US 50)	Signalized	B	12.9	C	21.9
#14: Patrick Henry Drive/Arlington Boulevard (US 50)	Signalized	E	58.4	E	71.2
#15: John Marshall Drive & Willston Drive	Signalized	B	19.8	B	15.8
#16: John Marshall Drive & N. McKinley Road/Wilson Boulevard	Signalized	C	30.6	C	27.9
#17: Peyton Randolph Drive/Wilson Boulevard	Signalized	C	28.8	B	18.3
#18: Roosevelt Boulevard/Wilson Boulevard	Signalized	D	45.0	C	33.1
#19: Roosevelt Boulevard/N. Roosevelt Street	Signalized	B	11.9	B	11.1
#20: Arlington Blvd WB/Wilson Blvd	Signalized	A	3.1	A	5.8
#21a: Sleepy Hollow Rd/Wilson Blvd/Broad St/Arlington Blvd EB	Signalized	C	29.7	C	34.0
#22: Broad St WB/Arlington Blvd WB	Signalized	A	6.0	B	17.4
#23: Broad St EB/Arlington Blvd WB	Signalized	A	4.0	B	12.3
#25: Ring Rd/US 50 EB Off Ramp	Signalized	E	55.9	E	65.0
#26: Ring Rd/US 50 WB On Ramp	Signalized	B	12.7	C	25.9
#28: Ring Rd/US 50 EB On Ramp from Interchange	Signalized	B	19.3	B	16.9
#30: US 50 WB Off Ramp to Wilson/Ring Rd	Signalized	D	54.9	E	55.6
#21b: Seven Corners Interchange (Intersection)	Signalized	C	34.1	D	53.8

Key findings from the operational results are summarized below:

- The extension of Ring Road towards the Route 50 westbound off-ramp improves vehicular conditions even further compared to Scenario 4, especially in the PM peak hour. With this extension, only one intersection operates with LOS F during the PM peak hour in Scenario 5 compared to four intersections in Scenario 4. Additionally, vehicle delay during the PM peak hour at the main Seven Corners interchange is reduced from over 120 seconds in Scenario 4 to approximately 54 seconds in Scenario 5.
- Additionally, the most notable vehicle delay reductions in Scenario 5 during the PM peak hour occur at the intersections of Castle Road and Thorne Road at Leesburg Pike (VA 7) and Patrick Henry Drive and Arlington Boulevard (US 50). At the intersection of Castle Road and Thorne Road at Leesburg Pike (VA 7), the extension of Ring Road helps better distribution of traffic for vehicles travelling to/from Arlington Boulevard (Route 50) to/from Sleepy Hollow Road, alleviating some of the congestion at this intersection. At the intersection of Patrick Henry Drive and Arlington Boulevard (US 50), the extension of Ring Road similarly alleviates bottleneck to a certain extent, particularly by diverting some of the westbound left-turn traffic travelling from Arlington Boulevard (Route 50) to Patrick Henry Drive to Ring Road extension. This, in turn, helps increase intersection capacity and results in considerable reduction in vehicle delays.
- South Street and South Roosevelt Street at Hillwood Avenue intersections continue to operate at LOS F in the PM peak hour, due to the lack of connection from Hillwood Avenue to Broad Street, as previously discussed. However, intersection delay in the PM peak hour reduced in Scenario 5 to 92 seconds compared to the intersection delay of 105 seconds in Scenario 4.
- Similar to Scenario 4, none of the intersections operate at LOS F during the AM peak hour.

Network performance

Network performance results are displayed in **Table D-15** for Scenario 5. 2030 Baseline and 2030 Scenario 4 results are also included for comparison.

Table D-15: Network Performance for 2030 Baseline, Scenario 4, and Scenario 5 AM and PM Peak Hours

Performance Measure	2030 Baseline Conditions		2030 Scenario 4		2030 Scenario 5	
	AM	PM	AM	PM	AM	PM
Average Delay (seconds)	157.1	260.2	138.9	205.2	139.5	178.5
Vehicle Arrival (vehicles)	20,455	20,727	20,435	21,624	20,506	22,006
Latent Demand (vehicles)	60	561	35	365	45	188

Key findings from the network performance results are presented below:

- In the PM peak hour, the extension of Ring Road further improves network conditions and reduces average network delay from 205 seconds in Scenario 4 to approximately 180 seconds in Scenario 5. The operational improvements in Scenario 5 can also be observed from vehicle arrivals and latent demand, indicating Scenario 5 also increases network throughput. Operational improvements at the network level are even more pronounced in Scenario 5 compared to the 2030 Baseline Conditions.
- Compared to Scenario 4, Scenario 5 performs similarly during the AM peak hour with marginal changes in average network delay, vehicle arrivals, and latent demand.

Transit Conditions

Transit lanes will be constructed along Ring Road (South) along with a new Seven Corners Transit Center on the eastbound Route 50 service road to the northwest of the current location. However, marginal transit improvements are expected as a result of these changes. The exclusive transit lanes are too short to offer any significant improvements to transit in this scenario. The relocated Transit Center is unlikely to lead to major changes in transit service.

Bicycle Conditions

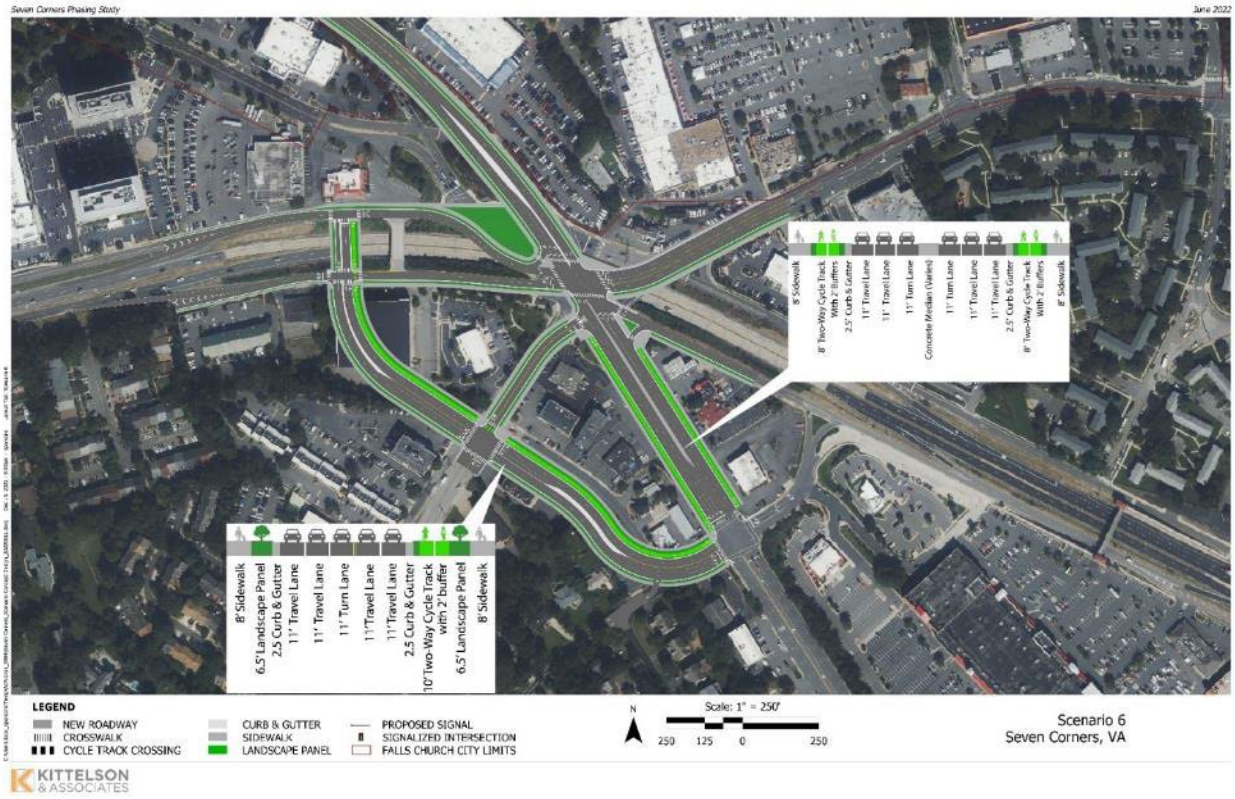
A two-way cycle track will be provided on the inner loop of Ring Road (South). Because there are no existing or planned bicycle facilities on the roadways that intersect Ring Road (South), except for the Ring Road (West) cycle track, the design process for this segment will need to identify bicycle connections at the northeast end of the cycle track.

Pedestrian Conditions

Eight-foot sidewalks with landscape panels will be provided on both sides of Ring Road (South). These will tie into existing sidewalks along the Route 50 frontage roads, Route 7, and Seven Corners Center. However, minimal changes in crossing times at other area intersections are expected.

SCENARIO 6: CENTRAL INTERCHANGE

Figure D-21: Scenario 6



Scenario 6 Description

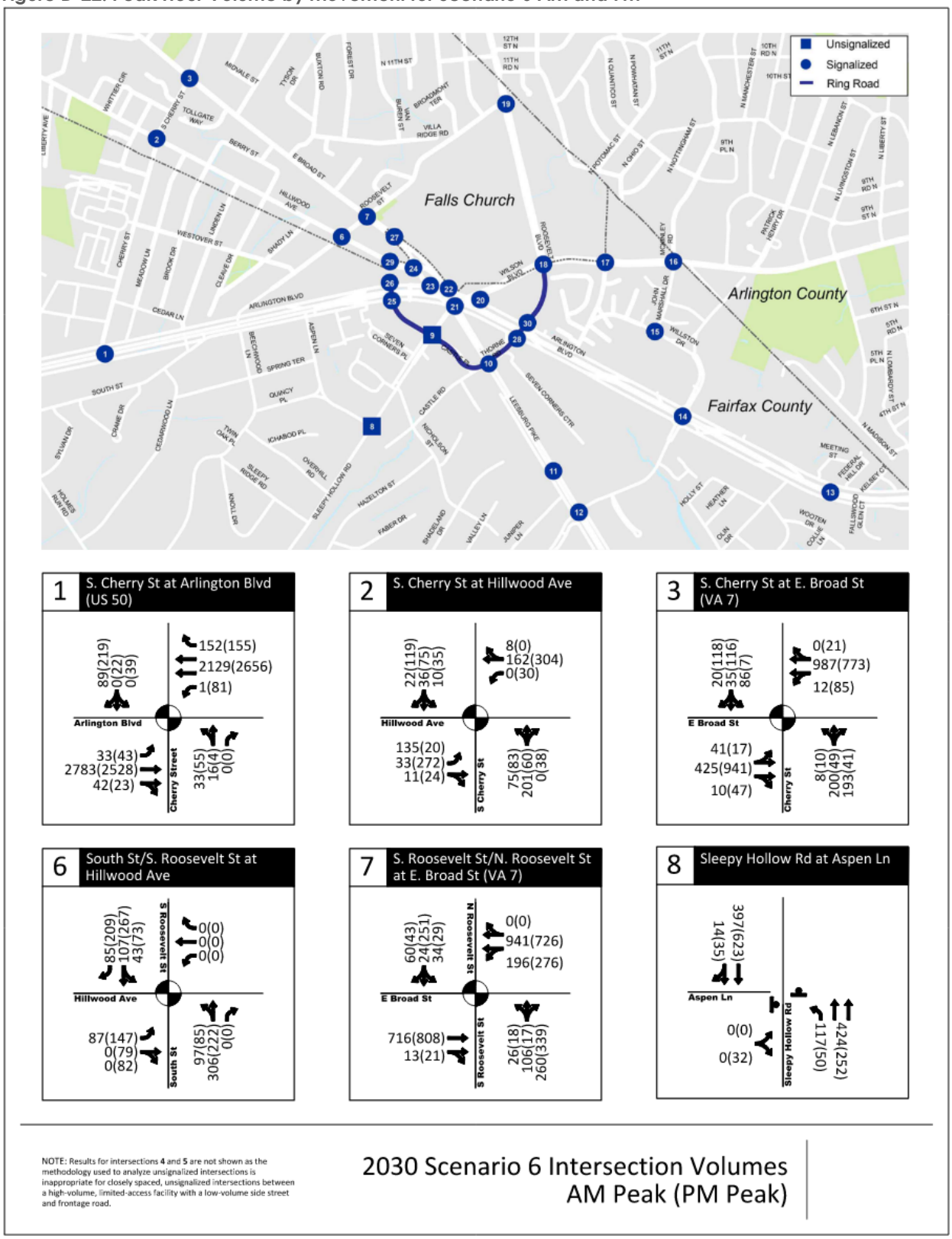
Scenario 6 adds to Scenario 4 by reconfiguring the main interchange of Broad Street, Wilson Boulevard, Route 50 service roads, Route 7, and Sleepy Hollow Road so that Wilson Boulevard and Route 50 service roads directly connect. As noted in **Figure D-21**, Scenario 6 consists of:

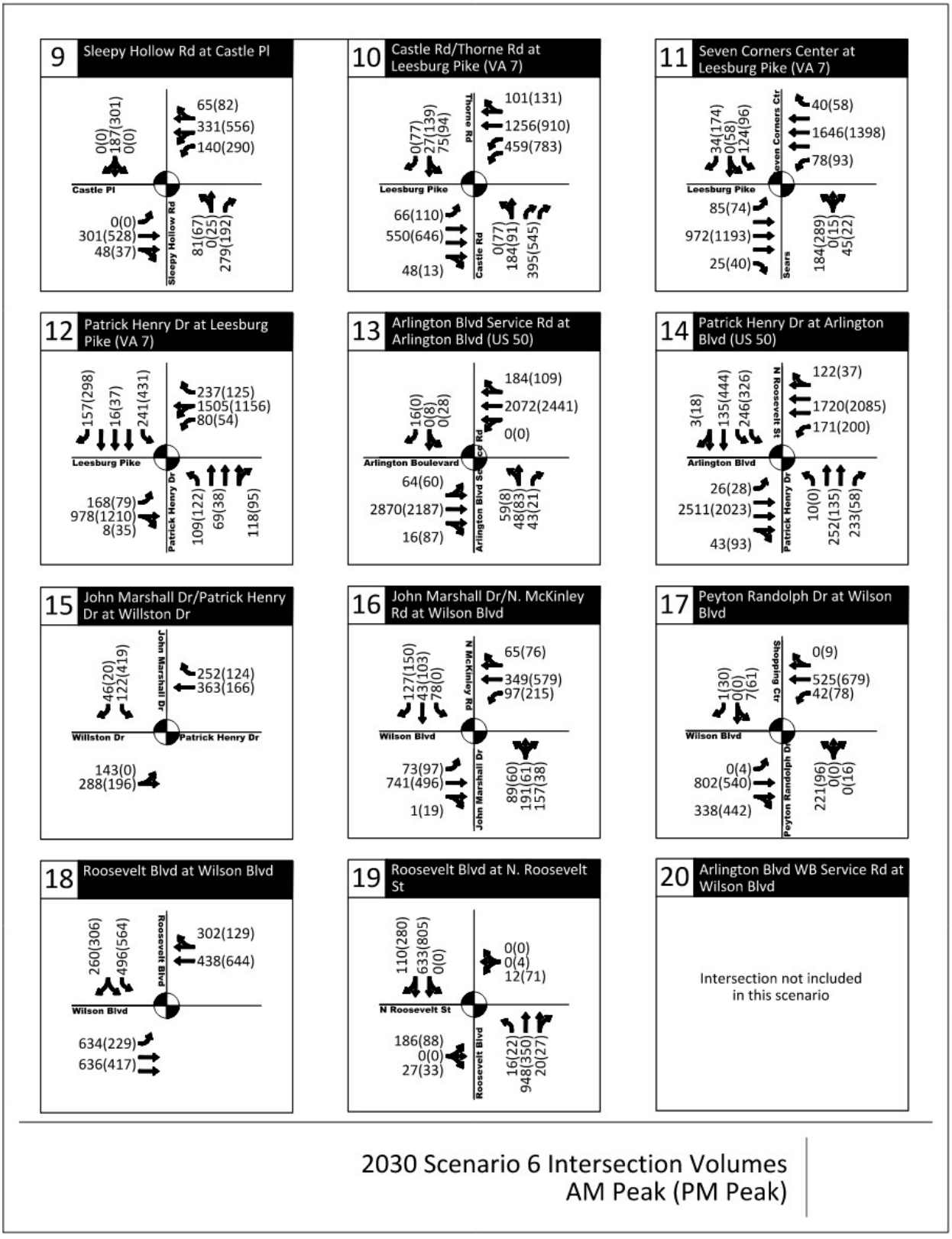
- Scenario 4 improvements
- One central signalized intersection that joins:
    - Route 7 to Broad Street, which is slightly realigned.
    - Route 50 service roads to the west connecting to Wilson Boulevard on the east.
- A fifth leg of the central intersection accommodating two lanes of traffic to the east leg of the eastbound Route 50 frontage road.
- A right-in, right-out intersection between Sleepy Hollow Road and southbound Route 7, similar to existing conditions.
- Two-way cycle tracks on both sides of the south leg of Route 7, buffered from motor vehicle traffic.
- Sidewalks on both sides of all roads.
- Landscape panels in selected areas.

Vehicular Operations

This section discusses peak hour vehicular operations for Scenario 6 using the results obtained from VISSIM. **Figure D-22** shows travel volumes, while **Figure D-23** and **Table D-16** show intersection vehicle delay and LOS results for Scenario 6 during the AM and PM peak hours.

Figure D-22: Peak Hour Volume by Movement for Scenario 6 AM and PM




9 Sleepy Hollow Rd at Castle Pl
Castle Pl
Sleepy Hollow Rd
0(0) 187(301) 0(0)
65(82) 331(556) 140(290)
0(0) 301(528) 48(37)
81(67) 0(25) 279(192)
10 Castle Rd/Thorne Rd at Leesburg Pike (VA 7)
Thorne Rd
Leesburg Pike
Castle Rd
0(77) 27(139) 75(94)
101(131) 1256(910) 459(783)
66(110) 550(646) 48(13)
0(77) 184(91) 395(545)
11 Seven Corners Center at Leesburg Pike (VA 7)
Seven Corners Ctr
Leesburg Pike
Sears
34(174) 0(58) 124(96)
40(58) 1646(1398) 78(93)
85(74) 972(1193) 25(40)
184(289) 0(15) 45(22)
12 Patrick Henry Dr at Leesburg Pike (VA 7)
Leesburg Pike
Patrick Henry Dr
157(298) 16(37) 241(431)
237(125) 1505(1156) 80(54)
168(79) 978(1210) 8(35)
109(122) 69(38) 118(95)
13 Arlington Blvd Service Rd at Arlington Blvd (US 50)
Arlington Boulevard
Arlington Blvd Svc Rd
16(0) 0(8) 0(28)
184(109) 2072(2441) 0(0)
64(60) 2870(2187) 16(87)
59(8) 48(83) 43(21)
14 Patrick Henry Dr at Arlington Blvd (US 50)
Arlington Blvd
N Roosevelt St
Patrick Henry Dr
3(18) 135(444) 246(326)
122(37) 1720(2085) 171(200)
26(28) 2511(2023) 43(93)
10(0) 252(135) 233(58)
15 John Marshall Dr/Patrick Henry Dr at Willston Dr
John Marshall Dr
Willston Dr
Patrick Henry Dr
46(20) 122(419)
252(124) 363(166)
143(0) 288(196)
16 John Marshall Dr/N. McKinley Rd at Wilson Blvd
N McKinley Rd
Wilson Blvd
John Marshall Dr
127(150) 43(103) 78(0)
65(76) 349(579) 97(215)
73(97) 741(496) 1(19)
89(60) 191(61) 157(38)
17 Peyton Randolph Dr at Wilson Blvd
Shopping Ctr
Wilson Blvd
Peyton Randolph Dr
1(30) 0(0) 7(61)
0(9) 525(679) 42(78)
0(4) 802(540) 338(442)
221(96) 0(0) 0(16)
18 Roosevelt Blvd at Wilson Blvd
Roosevelt Blvd
Wilson Blvd
260(306) 496(564)
302(129) 438(644)
634(229) 636(417)
19 Roosevelt Blvd at N. Roosevelt St
N Roosevelt St
Roosevelt Blvd
110(280) 633(805) 0(0)
0(0) 0(4) 12(71)
186(88) 0(0) 27(33)
16(22) 948(350) 20(27)
20 Arlington Blvd WB Service Rd at Wilson Blvd
Intersection not included in this scenario
2030 Scenario 6 Intersection Volumes
AM Peak (PM Peak)

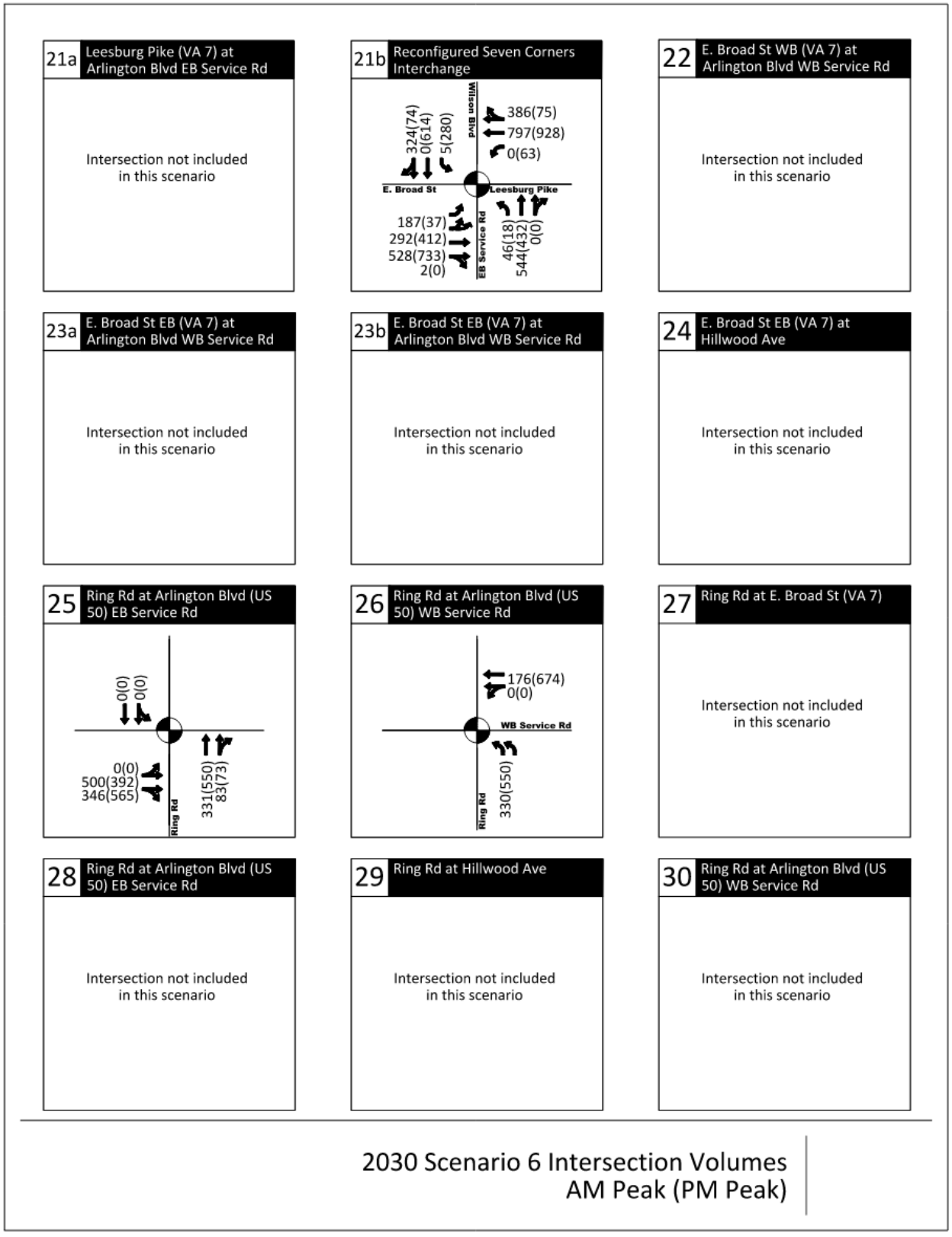

21a
Leesburg Pike (VA 7) at Arlington Blvd EB Service Rd
Intersection not included in this scenario
21b
Reconfigured Seven Corners Interchange
Wilson Blvd
386(75)
797(928)
0(63)
324(74)
0(614)
5(280)
E. Broad St
Leesburg Pike
187(37)
292(412)
528(733)
2(0)
EB Service Rd
46(18)
544(432)
0(0)
22
E. Broad St WB (VA 7) at Arlington Blvd WB Service Rd
Intersection not included in this scenario
23a
E. Broad St EB (VA 7) at Arlington Blvd WB Service Rd
Intersection not included in this scenario
23b
E. Broad St EB (VA 7) at Arlington Blvd WB Service Rd
Intersection not included in this scenario
24
E. Broad St EB (VA 7) at Hillwood Ave
Intersection not included in this scenario
25
Ring Rd at Arlington Blvd (US 50) EB Service Rd
0(0)
0(0)
0(0)
500(392)
346(565)
Ring Rd
331(550)
83(73)
26
Ring Rd at Arlington Blvd (US 50) WB Service Rd
176(674)
0(0)
WB Service Rd
Ring Rd
330(550)
27
Ring Rd at E. Broad St (VA 7)
Intersection not included in this scenario
28
Ring Rd at Arlington Blvd (US 50) EB Service Rd
Intersection not included in this scenario
29
Ring Rd at Hillwood Ave
Intersection not included in this scenario
30
Ring Rd at Arlington Blvd (US 50) WB Service Rd
Intersection not included in this scenario
2030 Scenario 6 Intersection Volumes
AM Peak (PM Peak)

Figure D-23: LOS for Scenario 6

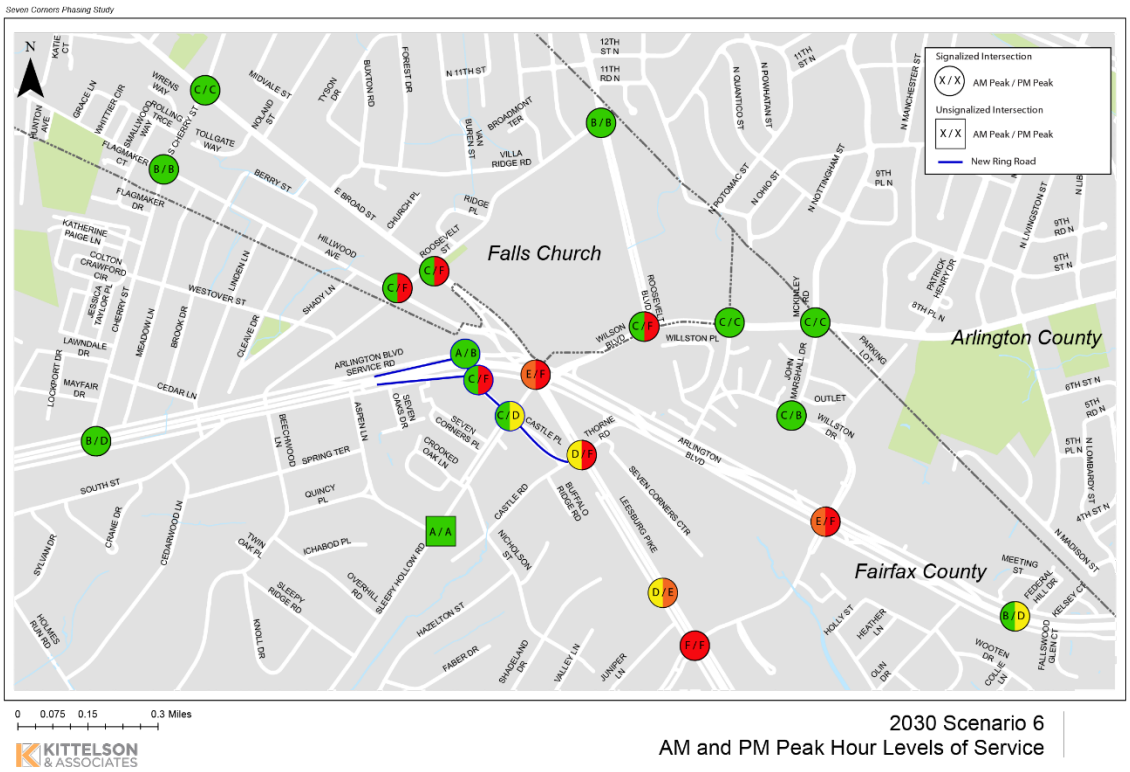


Table D-16: LOS and Delay for Scenario 6 AM and PM Peak Hours

Intersection	Traffic Control	2030 Scenario 6 AM		2030 Scenario 6 PM	
		LOS	Delay	LOS	Delay
#1: S Cherry Street/Arlington Boulevard (US 50)	Signalized	B	18.5	D	52.2
#2: S Cherry Street/Hillwood Avenue	Signalized	B	18.3	B	18.8
#3: S Cherry Street/E. Broad Street (VA 7)	Signalized	C	32.2	C	25.9
#6: South Street & S. Roosevelt Street/Hillwood Avenue	Signalized	C	26.1	F	158.5
#7: N Roosevelt Street/E. Broad Street (VA 7)	Signalized	C	33.4	F	98.8
#8: Sleepy Hollow Road/Aspen Lane	Unsignalized	A	2.9	A	9.0
#9: Sleepy Hollow Road/Castle Place	Signalized	C	23.0	D	43.1
#10: Castle Road &Thorne Road/Leesburg Pike (VA 7)	Signalized	D	53.4	F	103.2
#11: Seven Corners Center/Leesburg Pike (VA 7)	Signalized	D	38.6	E	67.4
#12: Patrick Henry Drive/Leesburg Pike (VA 7)	Signalized	F	91.5	F	80.4
#13: Arlington Boulevard service road/Arlington Boulevard (US 50)	Signalized	B	10.6	D	35.4
#14: Patrick Henry Drive/Arlington Boulevard (US 50)	Signalized	E	64.2	F	120.1
#15: John Marshall Drive & Willston Drive	Signalized	C	22.4	B	16.4
#16: John Marshall Drive & N. McKinley Road/Wilson Boulevard	Signalized	C	30.2	C	30.3
#17: Peyton Randolph Drive/Wilson Boulevard	Signalized	C	21.5	C	32.5
#18: Roosevelt Boulevard/Wilson Boulevard	Signalized	C	33.8	F	81.3
#19: Roosevelt Boulevard/N. Roosevelt Street	Signalized	B	12.9	B	19.2
#25: Ring Rd/US 50 EB Off Ramp	Signalized	C	34.6	F	99.5
#26: Ring Rd/US 50 WB On Ramp	Signalized	A	5.0	B	12.3
#21b: Seven Corners Interchange (Intersection)	Signalized	E	56.7	F	128.1

Key findings from the operational results are summarized below:

- In the PM peak hour, most intersections experience large delays due to the insufficient capacity at a few intersections. Specifically, the main intersection (Wilson Boulevard/Broad Street (VA 7)/US 50 Eastbound off-ramp, formerly the Seven Corners interchange) and the intersection of Roosevelt Street and Broad Street (VA 7) have capacity shortfalls, resulting in very long delays at these intersections as well as upstream intersections due to queue spillbacks.
- Similar to the previous scenarios, the AM peak hour operates better than the PM peak hour, with lower vehicle delays. However, compared to the previous scenarios, Scenario 6 results in higher vehicle delays. Notably, the intersection of Patrick Henry Drive and Leesburg Pike (VA 7) operates at

LOS F because of increased network congestion and also because Ring Road does not provide access to the US 50 westbound off-ramp.

Network performance

Network performance results are displayed in **Table D-17** for Scenario 6. Results from the relevant previous scenarios, including the 2030 Baseline Conditions, are also included for comparison.

Table D-17: Network Performance for 2030 Baseline, Scenario 4, Scenario 5, and Scenario 6 AM and PM Peak Hours

Performance Measure	2030 Baseline Conditions		2030 Scenario 4		2030 Scenario 5		2030 Scenario 6	
	AM	PM	AM	PM	AM	PM	AM	PM
Average Delay (seconds)	157.1	260.2	138.9	205.2	139.5	178.5	143.1	255.7
Vehicle Arrival (vehicles)	20,455	20,727	20,435	21,624	20,506	22,006	20,349	20,679
Latent Demand (vehicles)	60	561	35	365	45	188	68	661

Key findings from the network performance results are presented below:

- Overall network congestion during the PM peak hour in Scenario 6 (which was also discussed earlier), can also be observed from the network performance measures. Average network delay and unserved vehicles (latent demand) during the PM peak hour in Scenario 6 are substantially higher than Scenario 4 and Scenario 5. Compared to the 2030 Baseline Conditions, results show that Scenario 6 operates almost the same and does not result in any improvements in the network.
- During the AM peak hour, Scenario 6 operates similarly to the other scenarios, with slight degradation in network delay and unserved vehicles.

Transit Conditions

There will not be significant new bus infrastructure in the study area as part of the Central Interchange improvements. However, transit operations are likely to improve due to the improved vehicle connections provided by the reconfiguration of the Central Interchange.

Bicycle Conditions

Two-way cycle tracks will be provided on both sides of Route 7 south of the interchange. These will tie into the Ring Road (West) cycle track. In addition, shared-use paths will be provided on Wilson Boulevard, Broad Street, and Sleepy Hollow Road. These improvements would create connections that enable bicyclists to move relatively easily across Seven Corners in a manner that was previously not possible. Detailed design of the Central Interchange will need to identify how bicycle facilities connect with other bicycle facilities in the area.

Pedestrian Conditions

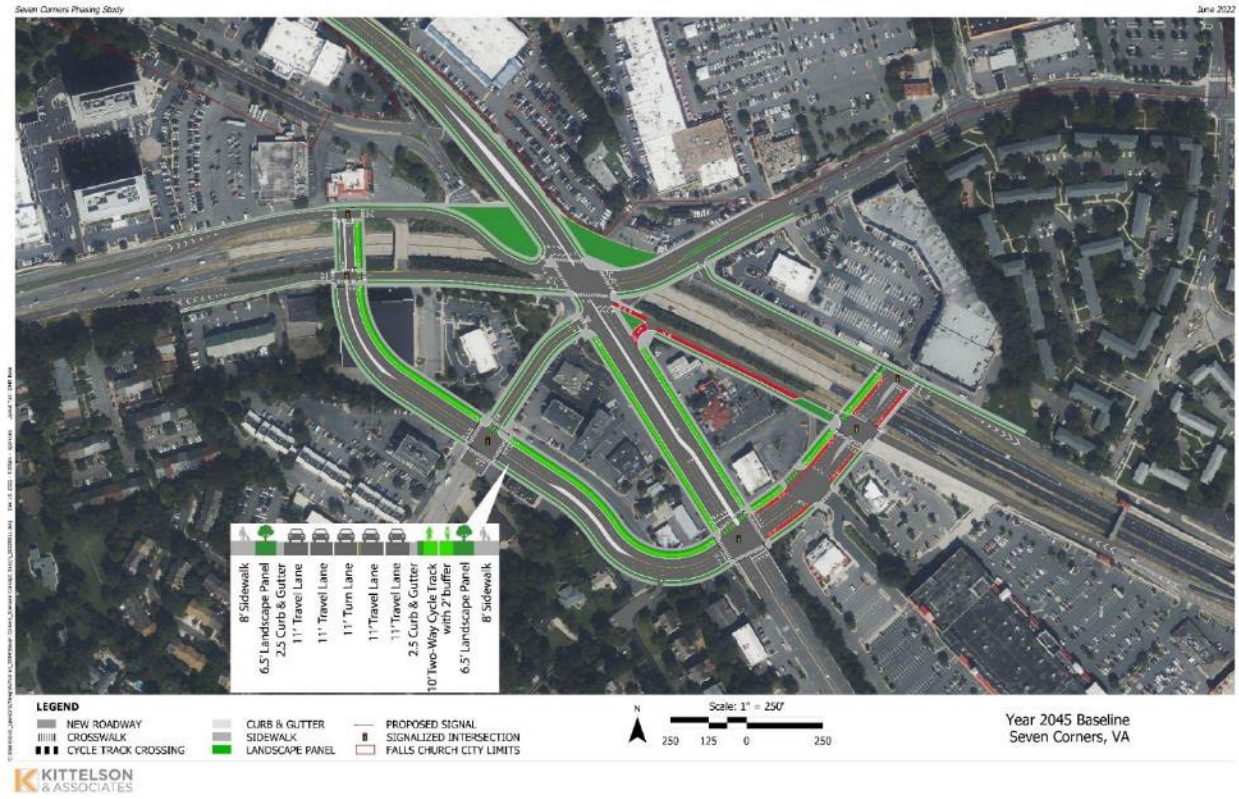
Sidewalks or shared-use paths will be provided on both sides of each of the roadways connecting to the Central Interchange. This includes Route 7, Broad Street, Wilson Boulevard, Sleepy Hollow Road, and the Route 50 service roads. While sidewalks exist along most of these links, they are typically minimal in size. These improvements would create connections that will enable pedestrians to move relatively easily across

Seven Corners in a manner that was previously not possible. The improvements would also significantly reduce the time it takes to cross the Central Interchange. Crossings of Route 7 or Broad Street that often require multiple signal cycles today will only require a single signal cycle with the reconstruction of the Central Interchange.

Build-Out Future Phasing Analysis (Year 2045)

2045 BASELINE: RING ROAD (SOUTH) PLUS CENTRAL INTERCHANGE

Figure D-24: 2045 Baseline



2045 Baseline Description

The 2045 Baseline combines the networks of 2030 Scenarios 5 and 6, as seen in **Figure D-24**, so that the 2045 Baseline includes the Central Interchange as well as Ring Road from Route 50 on the east to Route 50 on the west. The 2045 Baseline also includes improvement to transit as part of the Envision Route 7 BRT project,

which will include dedicated road space for bus operations in the Route 7 corridor between Tysons and the Mark Center.

ROADWAY NETWORK ADJUSTMENTS

The roadway network for the 2045 Baseline conditions includes all changes anticipated by the Metropolitan Washington Council of Governments (MWCOG) as noted in regional planning documents and included in its regional travel demand model. However, some adjustments and clarifications to roadway facilities in the study were necessary. The adjustment for Route 50 assumed in the 2030 Baseline is assumed in the 2045 Baseline as well.

TRANSIT NETWORK ADJUSTMENTS

The Envision Route 7 Bus Rapid Transit (BRT) project is anticipated in the corridor and is planned to shift vehicle travel lanes to exclusive transit use on Route 7 south of Seven Corners and along the Ring Road South and West segments. A BRT station is proposed at the Seven Corners Transit Center. Regional planning documents and the MWCOG travel demand model assume that Route 7 below Seven Corners will be widened from two to three lanes in each direction. However, Fairfax County has determined that this widening shall only accommodate the BRT service and not general traffic. As such, two general purpose travel lanes in each direction are assumed on Route 7 south of seven Corners.

Since the 2045 Baseline does not include the full Ring Road, the Envision Route 7 BRT corridor would most likely continue in an interim condition up Route 7 to Wilson Boulevard and then transition to Roosevelt Boulevard. The BRT service would then connect to the East Falls Church Metro station along Roosevelt Boulevard and Sycamore Street. At completion of all planned improvements, the Envision Route 7 corridor would most likely shift to Ring Road. An environmental process for the Envision Route 7 BRT effort will consider a variety of BRT alternatives and suggest adjustments as needed.

BICYCLE NETWORK ADJUSTMENTS

The project team coordinated with the Fairfax County Department of Transportation (FCDOT) to identify any bicycle connections that would be built by 2045. Through this coordination, it was determined that there are no new bicycle connections planned to be completed before 2045 except those completed in early phases of Seven Corners improvements.

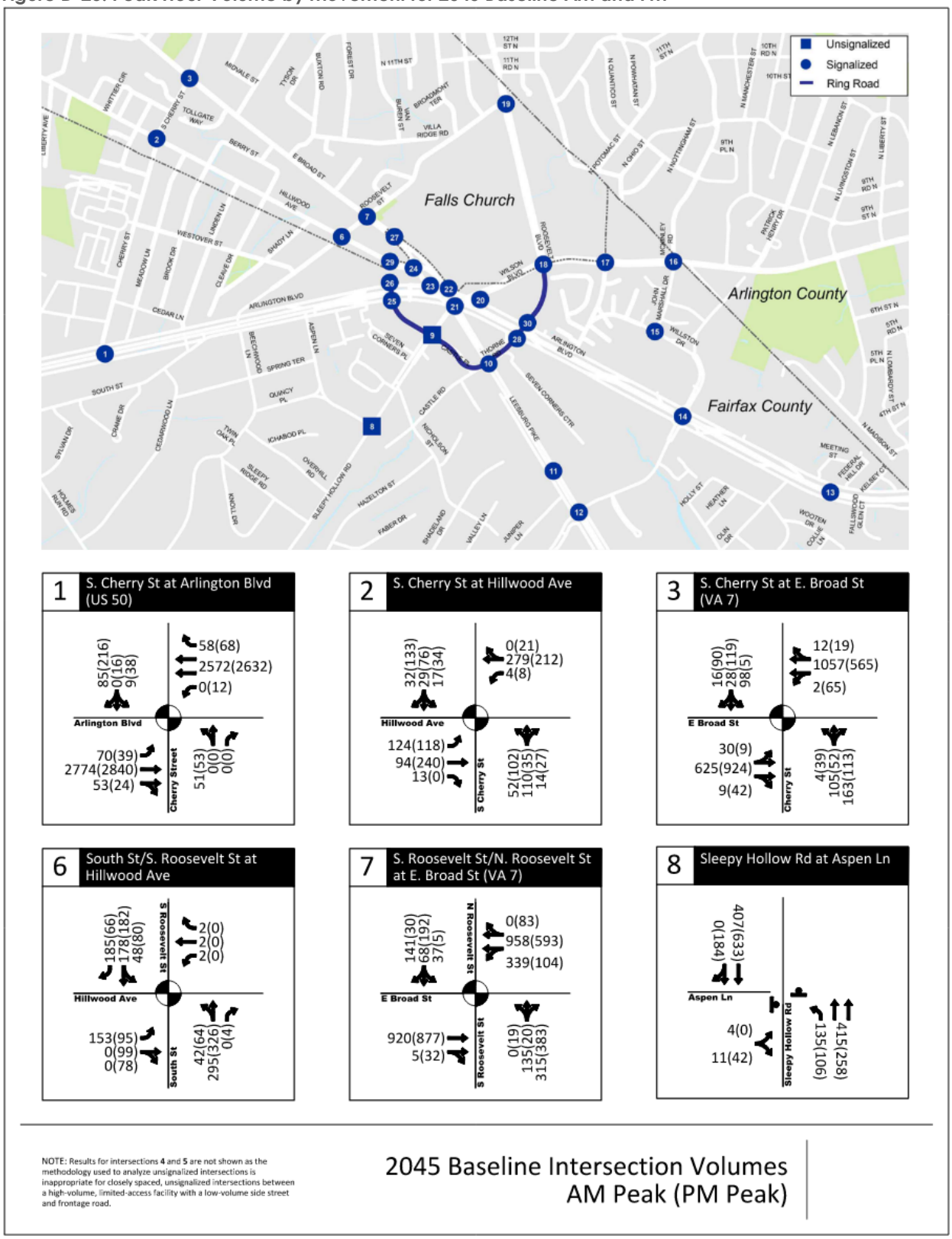
PEDESTRIAN NETWORK ADJUSTMENTS

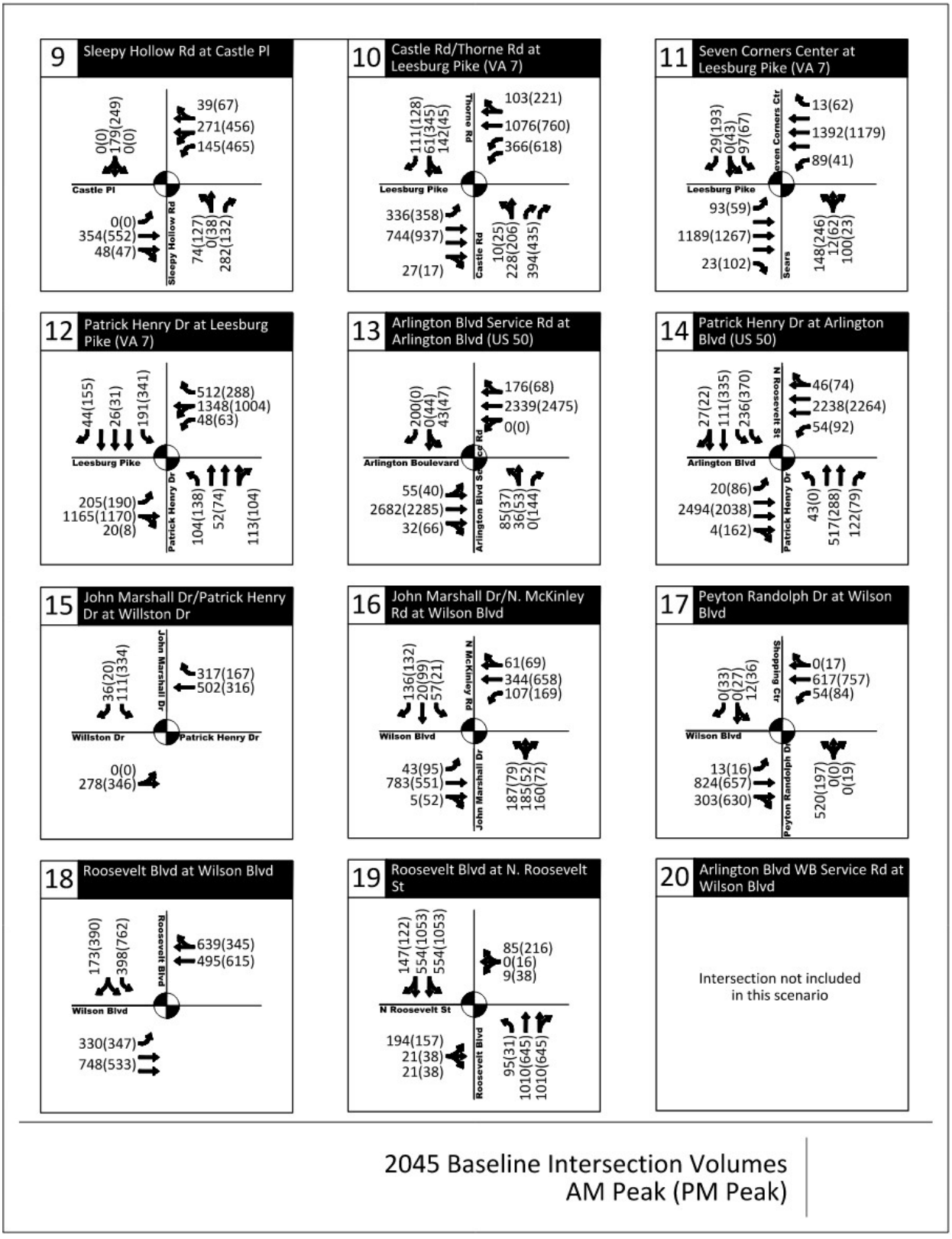
The project team coordinated with FCDOT to identify any pedestrian connections that would be built by 2045. Through this coordination, it was determined that there are no new pedestrian connections planned to be completed before 2045 except those completed in early phases of Seven Corners improvements.

Vehicular Operations

This section discusses peak hour vehicular operations for 2045 Baseline using the results obtained from VISSIM. **Figure D-25** shows travel volumes, while **Figure D-26** and **Table D-18** show intersection vehicle delay and level of service (LOS) results for the 2045 Baseline Scenario during the AM and PM peak hours.

Figure D-25: Peak Hour Volume by Movement for 2045 Baseline AM and PM




9 Sleepy Hollow Rd at Castle Pl
0(0)
179(249)
0(0)
39(67)
271(456)
145(465)
Castle Pl
0(0)
354(552)
48(47)
Sleepy Hollow Rd
74(127)
0(38)
282(132)
10 Castle Rd/Thorne Rd at Leesburg Pike (VA 7)
111(128)
61(345)
142(45)
Thorne Rd
103(221)
1076(760)
366(618)
Leesburg Pike
336(358)
744(937)
27(17)
Castle Rd
10(25)
228(206)
394(435)
11 Seven Corners Center at Leesburg Pike (VA 7)
29(193)
0(43)
97(67)
Seven Corners Ctr
13(62)
1392(1179)
89(41)
Leesburg Pike
93(59)
1189(1267)
23(102)
Sears
148(246)
12(62)
100(23)
12 Patrick Henry Dr at Leesburg Pike (VA 7)
44(155)
26(31)
191(341)
512(288)
1348(1004)
48(63)
Leesburg Pike
205(190)
1165(1170)
20(8)
Patrick Henry Dr
104(138)
52(74)
113(104)
13 Arlington Blvd Service Rd at Arlington Blvd (US 50)
200(0)
0(44)
43(47)
176(68)
2339(2475)
0(0)
Arlington Boulevard
55(40)
2682(2285)
32(66)
Arlington Blvd Service Rd
85(37)
36(53)
0(144)
14 Patrick Henry Dr at Arlington Blvd (US 50)
27(22)
111(335)
236(370)
N Roosevelt St
46(74)
2238(2264)
54(92)
Arlington Blvd
20(86)
2494(2038)
4(162)
Patrick Henry Dr
43(0)
517(288)
122(79)
15 John Marshall Dr/Patrick Henry Dr at Willston Dr
36(20)
111(334)
John Marshall Dr
317(167)
502(316)
Willston Dr
Patrick Henry Dr
0(0)
278(346)
16 John Marshall Dr/N. McKinley Rd at Wilson Blvd
136(132)
20(99)
57(21)
N McKinley Rd
61(69)
344(658)
107(169)
Wilson Blvd
43(95)
783(551)
5(52)
John Marshall Dr
187(79)
185(52)
160(72)
17 Peyton Randolph Dr at Wilson Blvd
0(33)
0(27)
12(36)
Shopping Ctr
0(17)
617(757)
54(84)
Wilson Blvd
13(16)
824(657)
303(630)
Peyton Randolph Dr
520(197)
0(0)
0(19)
18 Roosevelt Blvd at Wilson Blvd
173(390)
398(762)
Roosevelt Blvd
639(345)
495(615)
Wilson Blvd
330(347)
748(533)
19 Roosevelt Blvd at N. Roosevelt St
147(122)
554(1053)
554(1053)
85(216)
0(16)
9(38)
N Roosevelt St
194(157)
21(38)
21(38)
Roosevelt Blvd
95(31)
1010(645)
1010(645)
20 Arlington Blvd WB Service Rd at Wilson Blvd
Intersection not included in this scenario
2045 Baseline Intersection Volumes
AM Peak (PM Peak)

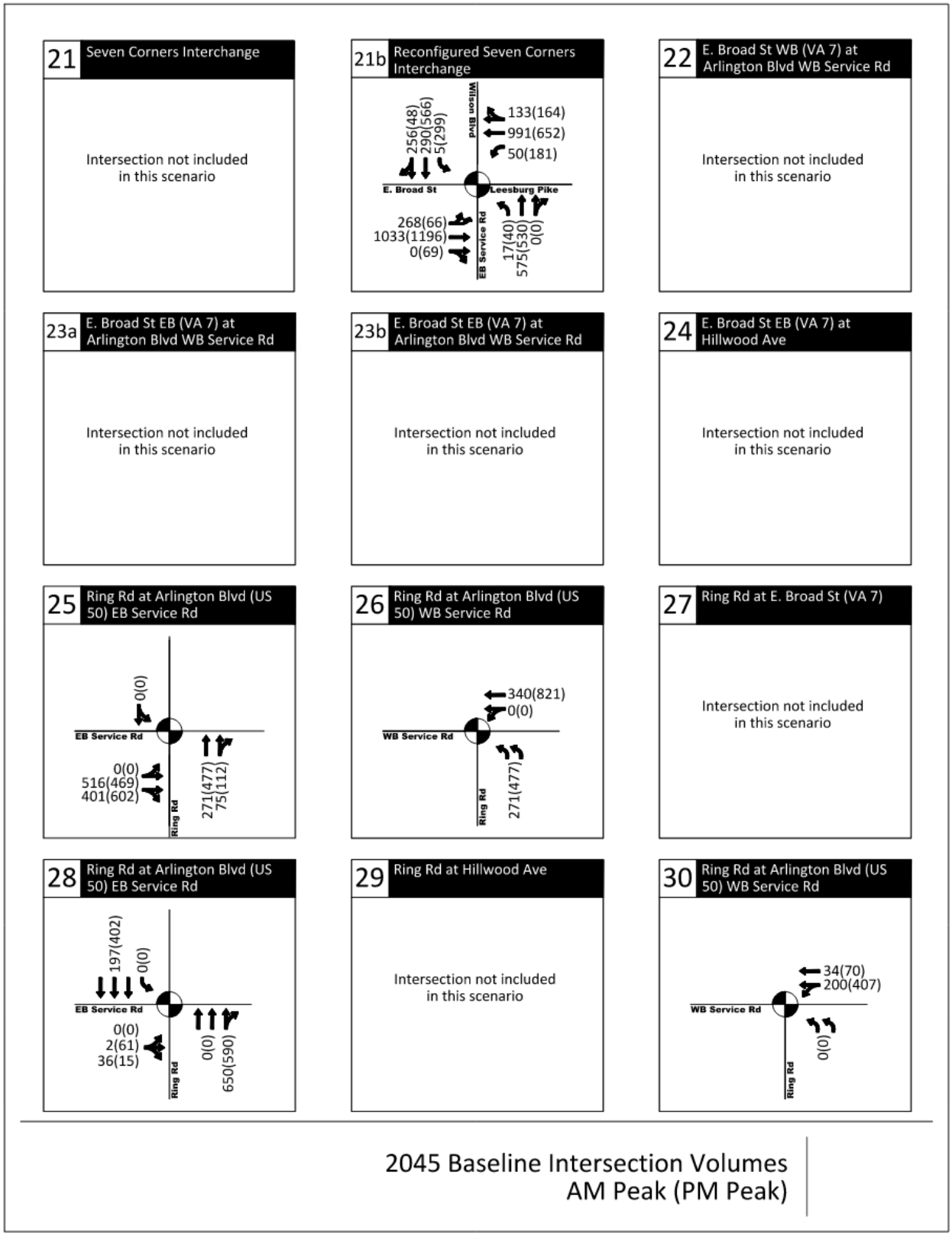

21
Seven Corners Interchange
Intersection not included in this scenario
21b
Reconfigured Seven Corners Interchange
Wilson Blvd
133(164)
991(652)
50(181)
256(48)
290(566)
5(299)
E. Broad St
Leesburg Pike
268(66)
1033(1196)
0(69)
EB Service Rd
17(40)
575(530)
0(0)
22
E. Broad St WB (VA 7) at Arlington Blvd WB Service Rd
Intersection not included in this scenario
23a
E. Broad St EB (VA 7) at Arlington Blvd WB Service Rd
Intersection not included in this scenario
23b
E. Broad St EB (VA 7) at Arlington Blvd WB Service Rd
Intersection not included in this scenario
24
E. Broad St EB (VA 7) at Hillwood Ave
Intersection not included in this scenario
25
Ring Rd at Arlington Blvd (US 50) EB Service Rd
0(0)
EB Service Rd
0(0)
516(469)
401(602)
Ring Rd
271(477)
75(112)
26
Ring Rd at Arlington Blvd (US 50) WB Service Rd
340(821)
0(0)
WB Service Rd
Ring Rd
271(477)
27
Ring Rd at E. Broad St (VA 7)
Intersection not included in this scenario
28
Ring Rd at Arlington Blvd (US 50) EB Service Rd
197(402)
0(0)
EB Service Rd
0(0)
2(61)
36(15)
Ring Rd
0(0)
650(590)
29
Ring Rd at Hillwood Ave
Intersection not included in this scenario
30
Ring Rd at Arlington Blvd (US 50) WB Service Rd
34(70)
200(407)
WB Service Rd
0(0)
Ring Rd
2045 Baseline Intersection Volumes
AM Peak (PM Peak)

Figure D-26: LOS for 2045 Baseline

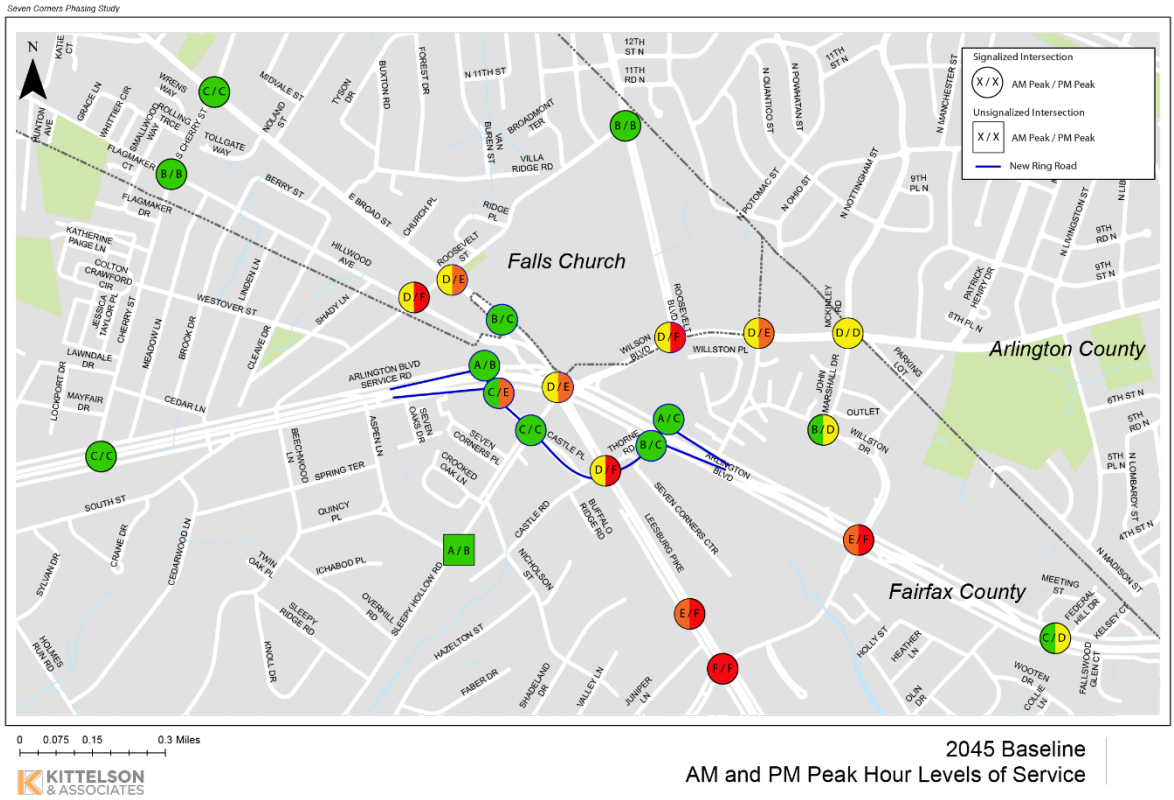


Table D-18: LOS and Delay for 2045 Baseline AM and PM Peak Hours

Intersection	Traffic Control	2045 Baseline AM		2045 Baseline PM	
		LOS	Delay	LOS	Delay
#1: S Cherry Street/Arlington Boulevard (US 50)	Signalized	C	22.4	C	31.3
#2: S Cherry Street/Hillwood Avenue	Signalized	B	18.5	B	19.2
#3: S Cherry Street/E. Broad Street (VA 7)	Signalized	C	31.5	C	23.1
#6: South Street & S. Roosevelt Street/Hillwood Avenue	Signalized	D	40.9	F	155.7
#7: N Roosevelt Street/E. Broad Street (VA 7)	Signalized	D	51.0	E	56.8
#8: Sleepy Hollow Road/Aspen Lane	Unsignalized	A	9.1	B	13.3
#9: Sleepy Hollow Road/Castle Place	Signalized	C	25.9	C	33.4
#10: Castle Road &Thorne Road/Leesburg Pike (VA 7)	Signalized	D	42.6	F	108.1
#11: Seven Corners Center/Leesburg Pike (VA 7)	Signalized	E	64.1	F	88.9
#12: Patrick Henry Drive/Leesburg Pike (VA 7)	Signalized	F	99.8	F	107.7
#13: Arlington Boulevard service road/Arlington Boulevard (US 50)	Signalized	C	23.5	D	48.8
#14: Patrick Henry Drive/Arlington Boulevard (US 50)	Signalized	E	56.9	F	116.0
#15: John Marshall Drive & Willston Drive	Signalized	B	15.5	D	50.6
#16: John Marshall Drive & N. McKinley Road/Wilson Boulevard	Signalized	D	35.4	D	45.1
#17: Peyton Randolph Drive/Wilson Boulevard	Signalized	D	50.8	E	68.7
#18: Roosevelt Boulevard/Wilson Boulevard	Signalized	D	38.0	F	81.8
#19: Roosevelt Boulevard/N. Roosevelt Street	Signalized	B	15.4	B	15.1
#25: Ring Rd/US 50 EB Off Ramp	Signalized	C	34.0	E	69.9
#26: Ring Rd/US 50 WB On Ramp	Signalized	A	8.1	B	10.5
#28: Ring Rd/US 50 WB Off-Ramp	Signalized	A	5.8	C	27.2
#30: Ring Rd/US 50 EB On-Ramp	Signalized	B	19.3	C	28.2
#21b: Seven Corners Interchange (Intersection)	Signalized	D	51.0	E	78.8

Key findings from the operational results are summarized below.

- During the PM peak hour, three neighboring intersections on Route 7 southeast of Ring Road operate with LOS F (i.e., the intersections of Castle Road and Thorne Road/Leesburg Pike (VA 7), Seven Corners Center/Leesburg Pike (VA 7), and Patrick Henry Drive/Leesburg Pike (VA 7)). High vehicle delay at these three intersections is mainly due the reduction of the through lanes to provide an exclusive bus lane for the future Route 7 BRT, but it is also due to the capacity limitations and queue

spillback that originates from the main intersection (i.e., Wilson Boulevard/Broad Street (VA 7)/US 50 Eastbound off-ramp intersection).

- Similar to the 2030 scenarios, other intersections that experience high vehicle delays during the PM peak hour are South Street and S Roosevelt Street/Hillwood Avenue and Patrick Henry Drive/Arlington Boulevard (US 50) intersections. Additionally, the intersection of Roosevelt Boulevard and Wilson Boulevard also operates at LOS F, with an intersection delay of 82 seconds. High delay at this intersection is due to the westbound queue spillback that originates from the main intersection (i.e., Wilson Boulevard/Broad Street (VA 7)/US 50 Eastbound off-ramp intersection), which also experiences 79 seconds of intersection delay.
- During the AM peak hour, one noteworthy change compared to the 2030 scenarios is the vehicle delay at the intersection of Patrick Henry Drive/Leesburg Pike (VA 7). In the 2045 Baseline Scenario, this intersection operates at LOS F, with approximately 100 seconds of intersection delay. High delay at this intersection are due to the lane repurposing for the future Route 7 BRT, which causes very high delays especially in the northwest direction on Broad Street (VA-7).

Network performance

Network performance results are displayed in **Table D-19** for the 2045 Baseline Scenario. Results from the 2030 Baseline as well as 2030 Scenario 5 are also included for comparison, as these two scenarios lay the foundation for the 2045 Baseline Scenario.

Table D-19: Network Performance for 2030 Baseline, Scenario 5, and 2045 Baseline AM and PM Peak Hours

Performance Measure	2030 Baseline		2030 Scenario 5		2045 Baseline Scenario	
	AM	PM	AM	PM	AM	PM
Average Delay (seconds)	157.1	260.2	139.5	178.5	184.0	237.8
Vehicle Arrival (vehicles)	20,455	20,727	20,506	22,006	20,858	21,725
Latent Demand (vehicles)	60	561	45	188	533	597

Key findings from the network performance results are presented below.

- Compared to the previous scenarios, the 2045 Baseline Scenario results in higher average network delay both during the AM and PM peak hours. As previously discussed, the increase in average delay is attributed to the reduction in lane capacity on Broad Street (VA-7) to accommodate exclusive bus lanes for the proposed BRT on the corridor.
- Unserved vehicles (i.e., latent demand) also increased in the network compared to the 2030 Scenario 1 and 2030 Scenario 2 during both peak hours. This is because network throughput decreased as a result of increased congestion, and, therefore, fewer vehicles were served. The increase in latent demand is more pronounced during the morning peak since the 2030 scenarios did not experience much congestion in the AM peak hour.

Transit Conditions

The Envision Route 7 BRT project will likely run additional BRT service through the study area. However, there will not be significant new bus infrastructure in the study area in the 2045 Baseline Conditions. The BRT is most likely to share lanes with vehicle travel on Route 7 and Wilson Boulevard to make the connection to Roosevelt Boulevard from Route 7 in the south until the full Ring Road is completed. Despite sharing lanes with vehicle travel, transit operations are likely to improve due to the improved vehicle connections enabled through the reconfiguration of the Central Interchange. It should be noted that the Envision Route

7 BRT environmental process may consider additional changes not envisioned with the Seven Corners Phasing Study.

Bicycle Conditions

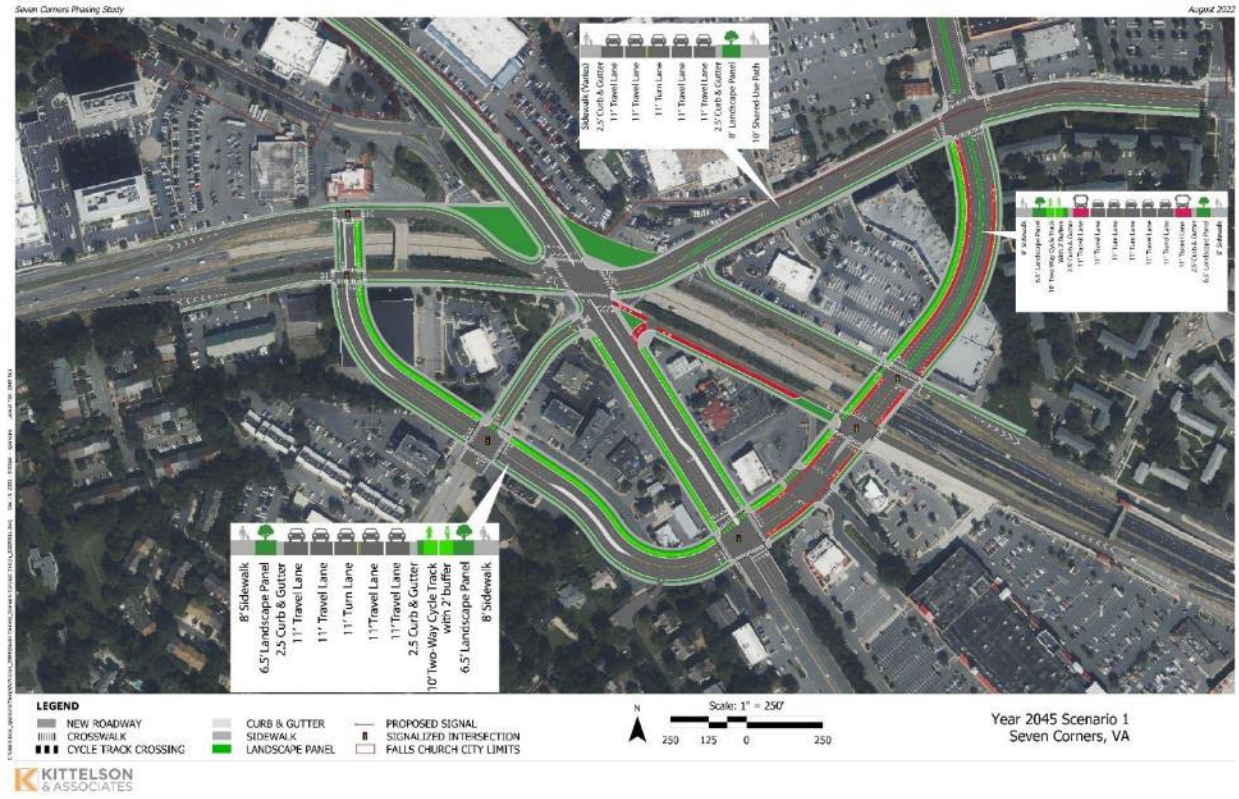
Two-way cycle tracks will be provided on both sides of Route 7 south of the interchange. These will tie into the Ring Road (West) cycle track. In addition, shared-use paths will be provided on Wilson Boulevard, Broad Street, and Sleepy Hollow Road. These improvements would create connections that will enable bicyclists to more easily move across Seven Corners in a manner that was previously not possible. Detailed design of the Central Interchange will need to identify how bicycle facilities connect with other bicycle facilities in the area.

Pedestrian Conditions

Sidewalks or shared-use paths will be provided on both sides of each of the roadways connecting to the Central Interchange. This includes Route 7, Broad Street, Wilson Boulevard, Sleepy Hollow Road, and the Route 50 service roads. While sidewalks exist along most of these links, they are typically minimal in size. These improvements would create connections that will enable pedestrians to move across Seven Corners relatively easily in a manner that was previously not possible. The improvements would also significantly reduce the time it takes to cross the Central Interchange. Crossings of Route 7 or Broad Street that often require multiple signal cycles today will only require a single signal cycle with the reconstruction of the Central Interchange.

2045 SCENARIO 1: THE RING ROAD (EAST)

Figure D-27: 2045 Scenario 1



2045 Build Scenario 1 Description

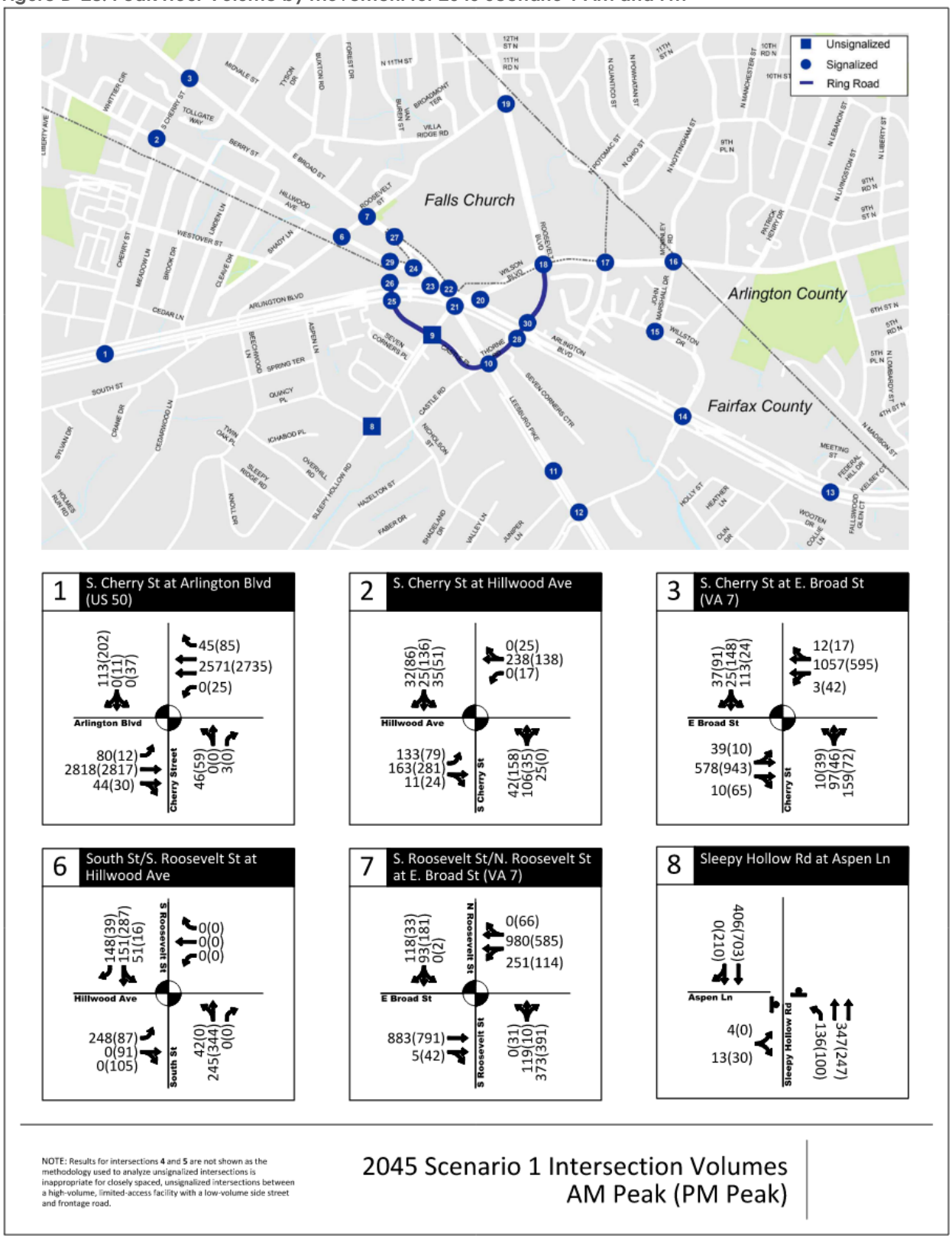
The remaining element in the Comprehensive Plan network is Ring Road from Route 50 on the east to the existing signalized intersection of Wilson Boulevard and Roosevelt Boulevard. **Figure D-27** shows this segment, which includes:

- 2045 Baseline scenario improvements
- Two general purpose motor vehicle travel lanes in each direction.
- One exclusive bus rapid transit (BRT) lane in each direction, as described below.
- Turn lanes at major intersection approaches, as shown in **Figure D-27**.
- A two-way cycle track on the west side, buffered from motor vehicle traffic.
- Sidewalks and landscape panels on both sides.

Vehicular Operations

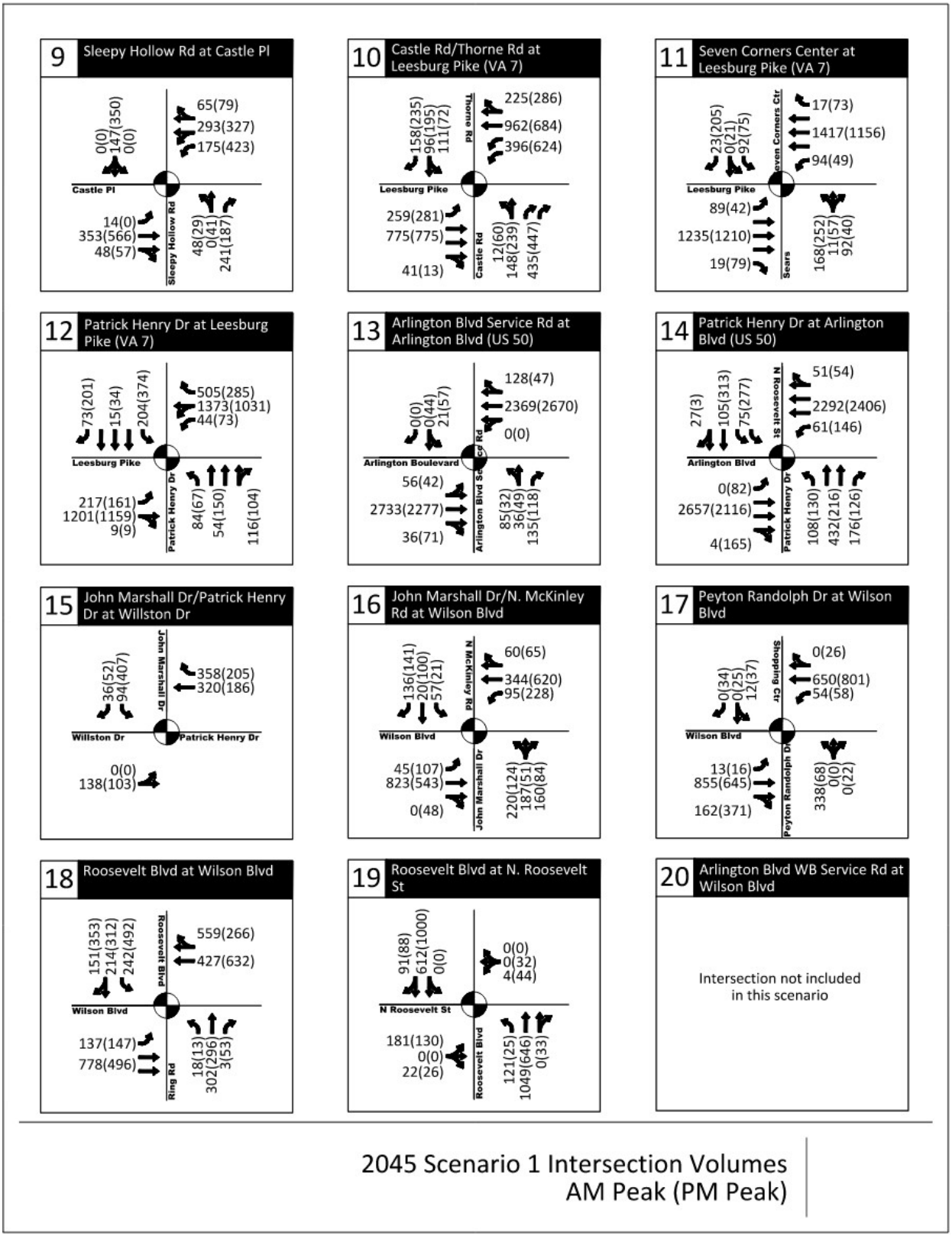
This section discusses peak hour vehicular operations for 2045 Scenario 1 using the results obtained from VISSIM. **Figure D-28** shows travel volumes, while **Figure D-29** and **Table D-20** shows intersection vehicle delay and LOS results for the 2045 Scenario 1 during the AM and PM peak hours.

Figure D-28: Peak Hour Volume by Movement for 2045 Scenario 1 AM and PM



NOTE: Results for intersections 4 and 5 are not shown as the methodology used to analyze unsignalized intersections is inappropriate for closely spaced, unsignalized intersections between a high-volume, limited-access facility with a low-volume side street and frontage road.

2045 Scenario 1 Intersection Volumes
AM Peak (PM Peak)


9 Sleepy Hollow Rd at Castle Pl
0(0) 147(350) 0(0)
65(79) 293(327) 175(423)
Castle Pl
14(0) 353(566) 48(57)
Sleepy Hollow Rd
48(29) 0(41) 241(187)
10 Castle Rd/Thorne Rd at Leesburg Pike (VA 7)
158(235) 96(195) 111(72)
Thorne Rd
225(286) 962(684) 396(624)
Leesburg Pike
259(281) 775(775) 41(13)
Castle Rd
12(60) 148(239) 435(447)
11 Seven Corners Center at Leesburg Pike (VA 7)
23(205) 0(21) 92(75)
Seven Corners Ctr
17(73) 1417(1156) 94(49)
Leesburg Pike
89(42) 1235(1210) 19(79)
Sears
168(252) 11(57) 92(40)
12 Patrick Henry Dr at Leesburg Pike (VA 7)
73(201) 15(34) 204(374)
505(285) 1373(1031) 44(73)
Leesburg Pike
217(161) 1201(1159) 9(9)
Patrick Henry Dr
84(67) 54(150) 116(104)
13 Arlington Blvd Service Rd at Arlington Blvd (US 50)
0(0) 0(44) 21(57)
128(47) 2369(2670) 0(0)
Arlington Boulevard
56(42) 2733(2277) 36(71)
Arlington Blvd Service Rd
85(32) 36(49) 135(118)
14 Patrick Henry Dr at Arlington Blvd (US 50)
27(3) 105(313) 75(277)
N Roosevelt St
51(54) 2292(2406) 61(146)
Arlington Blvd
0(82) 2657(2116) 4(165)
Patrick Henry Dr
108(130) 432(216) 176(126)
15 John Marshall Dr/Patrick Henry Dr at Willston Dr
36(52) 94(407)
John Marshall Dr
358(205) 320(186)
Willston Dr
Patrick Henry Dr
0(0) 138(103)
16 John Marshall Dr/N. McKinley Rd at Wilson Blvd
136(141) 20(100) 57(21)
N McKinley Rd
60(65) 344(620) 95(228)
Wilson Blvd
45(107) 823(543) 0(48)
John Marshall Dr
220(124) 187(51) 160(84)
17 Peyton Randolph Dr at Wilson Blvd
0(34) 0(25) 12(37)
Shopping Ctr
0(26) 650(801) 54(58)
Wilson Blvd
13(16) 855(645) 162(371)
Peyton Randolph Dr
338(68) 0(0) 0(22)
18 Roosevelt Blvd at Wilson Blvd
151(353) 214(312) 242(492)
Roosevelt Blvd
559(266) 427(632)
Wilson Blvd
137(147) 778(496)
Ring Rd
18(13) 302(296) 3(53)
19 Roosevelt Blvd at N. Roosevelt St
91(88) 612(1000) 0(0)
0(0) 0(32) 4(44)
N Roosevelt St
181(130) 0(0) 22(26)
Roosevelt Blvd
121(25) 1049(646) 0(33)
20 Arlington Blvd WB Service Rd at Wilson Blvd
Intersection not included in this scenario
2045 Scenario 1 Intersection Volumes
AM Peak (PM Peak)

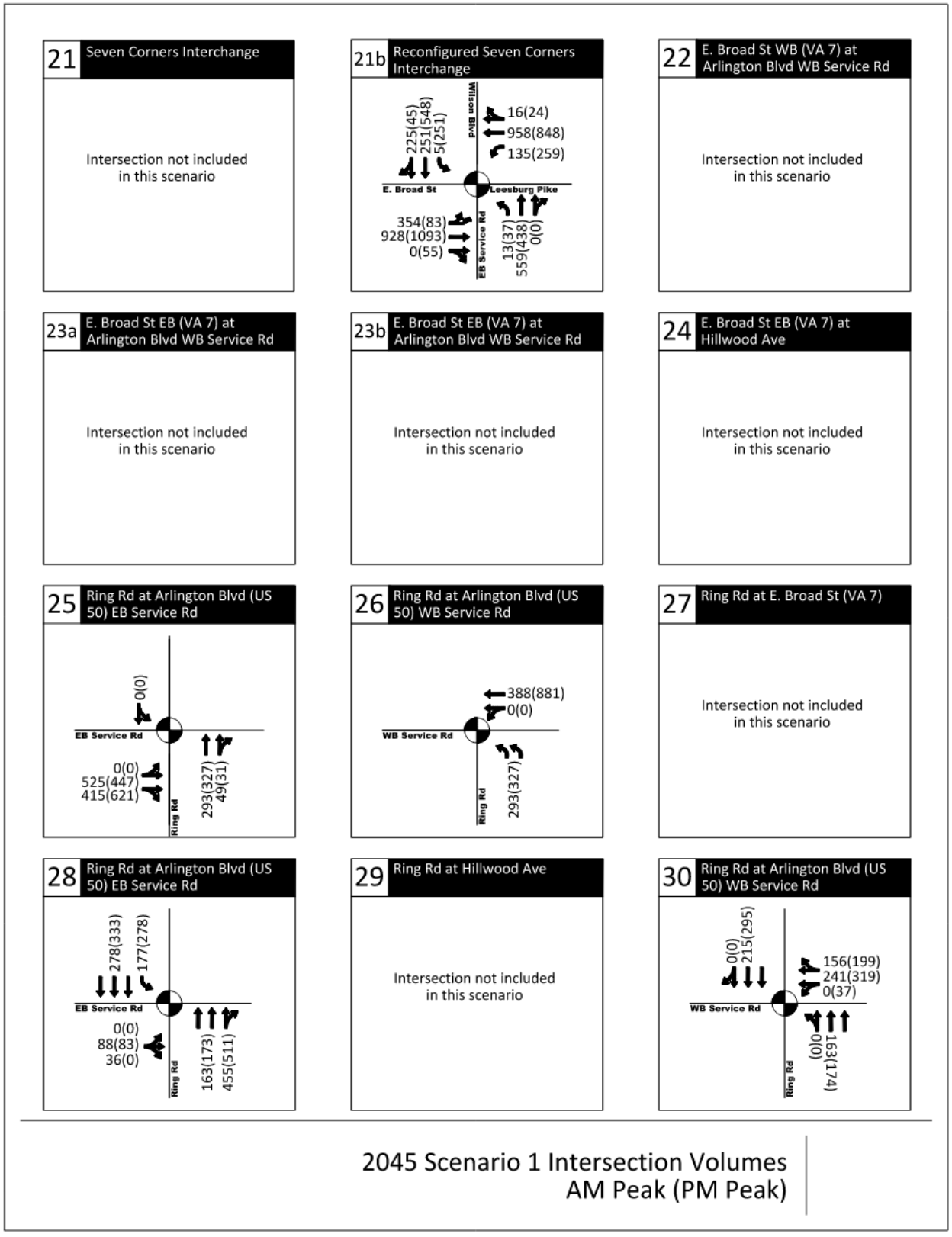

21
Seven Corners Interchange
Intersection not included in this scenario
21b
Reconfigured Seven Corners Interchange
Wilson Blvd
225(45)
251(548)
5(251)
16(24)
958(848)
135(259)
E. Broad St
Leesburg Pike
354(83)
928(1093)
0(55)
EB Service Rd
13(37)
559(438)
0(0)
22
E. Broad St WB (VA 7) at Arlington Blvd WB Service Rd
Intersection not included in this scenario
23a
E. Broad St EB (VA 7) at Arlington Blvd WB Service Rd
Intersection not included in this scenario
23b
E. Broad St EB (VA 7) at Arlington Blvd WB Service Rd
Intersection not included in this scenario
24
E. Broad St EB (VA 7) at Hillwood Ave
Intersection not included in this scenario
25
Ring Rd at Arlington Blvd (US 50) EB Service Rd
0(0)
EB Service Rd
0(0)
525(447)
415(621)
Ring Rd
293(327)
49(31)
26
Ring Rd at Arlington Blvd (US 50) WB Service Rd
388(881)
0(0)
WB Service Rd
Ring Rd
293(327)
27
Ring Rd at E. Broad St (VA 7)
Intersection not included in this scenario
28
Ring Rd at Arlington Blvd (US 50) EB Service Rd
278(333)
177(278)
EB Service Rd
0(0)
88(83)
36(0)
Ring Rd
163(173)
455(511)
29
Ring Rd at Hillwood Ave
Intersection not included in this scenario
30
Ring Rd at Arlington Blvd (US 50) WB Service Rd
0(0)
215(295)
156(199)
241(319)
0(37)
WB Service Rd
0(0)
Ring Rd
163(174)
2045 Scenario 1 Intersection Volumes
AM Peak (PM Peak)

Figure D-29: LOS for 2045 Scenario 1

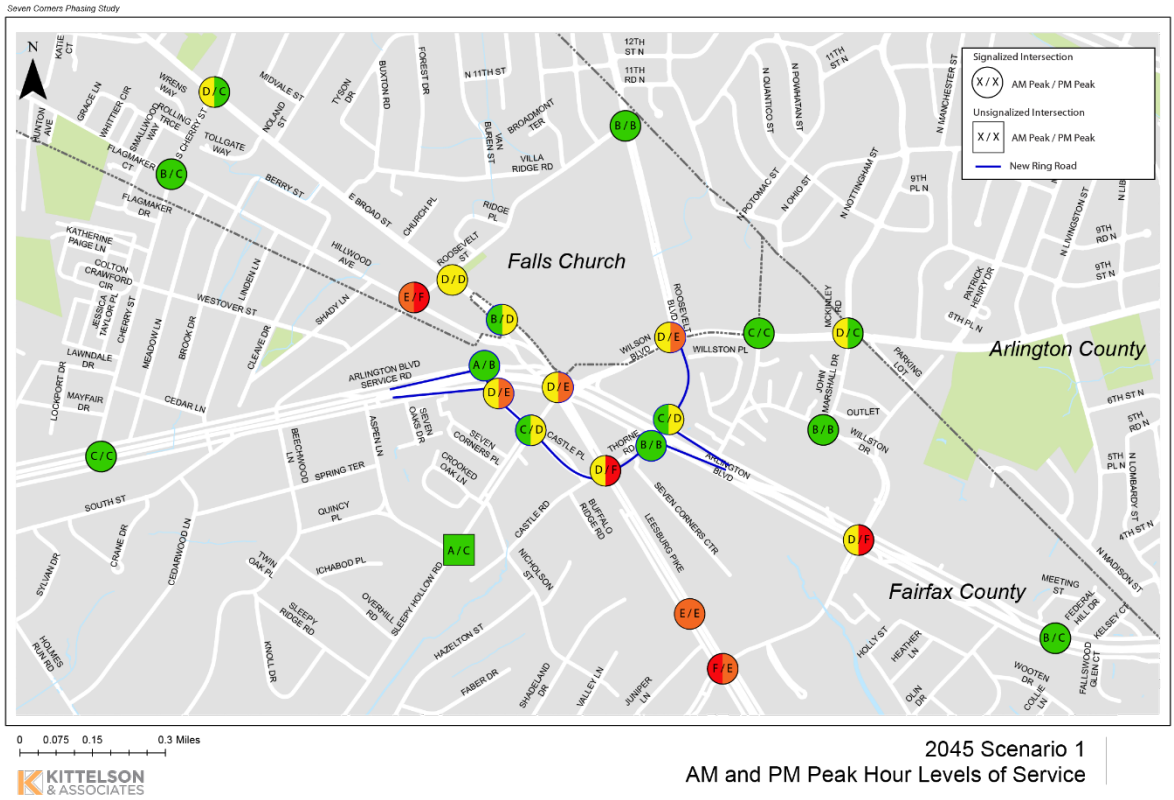


Table D-20: LOS and Delay for 2045 Scenario 1 AM and PM Peak Hours

Intersection	Traffic Control	2045 Build Scenario 1 AM		2045 Build Scenario 1 PM	
		LOS	Delay	LOS	Delay
#1: S Cherry Street/Arlington Boulevard (US 50)	Signalized	C	20.5	C	30.2
#2: S Cherry Street/Hillwood Avenue	Signalized	B	18.0	C	20.8
#3: S Cherry Street/E. Broad Street (VA 7)	Signalized	D	35.4	C	22.9
#6: South Street & S. Roosevelt Street/Hillwood Avenue	Signalized	E	60.7	F	116.8
#7: N Roosevelt Street/E. Broad Street (VA 7)	Signalized	D	39.9	D	54.1
#8: Sleepy Hollow Road/Aspen Lane	Unsignalized	A	7.3	C	15.6
#9: Sleepy Hollow Road/Castle Place	Signalized	C	21.6	D	38.5
#10: Castle Road &Thorne Road/Leesburg Pike (VA 7)	Signalized	D	46.1	F	113.1
#11: Seven Corners Center/Leesburg Pike (VA 7)	Signalized	E	69.8	E	76.0
#12: Patrick Henry Drive/Leesburg Pike (VA 7)	Signalized	F	95.9	E	72.9
#13: Arlington Boulevard service road/Arlington Boulevard (US 50)	Signalized	B	14.8	C	23.5
#14: Patrick Henry Drive/Arlington Boulevard (US 50)	Signalized	D	42.8	F	109.3
#15: John Marshall Drive & Willston Drive	Signalized	B	13.9	B	14.8
#16: John Marshall Drive & N. McKinley Road/Wilson Boulevard	Signalized	D	37.1	C	31.7
#17: Peyton Randolph Drive/Wilson Boulevard	Signalized	C	31.3	C	33.6
#18: Roosevelt Boulevard/Wilson Boulevard	Signalized	D	37.5	E	65.7
#19: Roosevelt Boulevard/N. Roosevelt Street	Signalized	B	15.1	B	12.9
#25: Ring Rd/US 50 EB Off Ramp	Signalized	D	35.6	E	63.6
#26: Ring Rd/US 50 WB On Ramp	Signalized	A	9.7	B	10.2
#28: Ring Rd/US 50 WB Off-Ramp	Signalized	C	34.3	D	35.0
#30: Ring Rd/US 50 EB On-Ramp	Signalized	B	18.3	B	15.0
#21b: Seven Corners Interchange (Intersection)	Signalized	D	45.4	E	74.7

Key findings from the operational results are summarized below:

- The extension of Ring Road towards Wilson Boulevard and providing a connection to Roosevelt Boulevard leads to some improvements in intersection delay. With this extension, during the PM peak hour, intersection delay is reduced at the main intersection (i.e., Wilson Boulevard/Broad Street (VA 7)/US 50 Eastbound off-ramp intersection), as vehicles traveling from Roosevelt Boulevard to Broad

Street (or vice versa) can now use Ring Road, shifting traffic away from the main intersection. However, this change also resulted in slightly increased intersection delay at the intersection of Castle Road and Thorne Road/Leesburg Pike (VA 7).

- Reduced congestion at the main intersection reduced the extent of queue spillback to upstream intersections. As a result, upstream intersections generally experience lower vehicle delays, especially in the PM peak hour (e.g., the intersection of Roosevelt Boulevard and Wilson Boulevard, where intersection delay is reduced from 82 seconds to 66 seconds).
- Compared to the 2045 Baseline Scenario, the 2045 Build Scenario 1 operates similarly during the AM peak hour.

Network performance

Network performance results are displayed in **Table D-21.** for the 2045 Build Scenario 1. Results from the previous scenarios are also included for comparison.

Table D-21: Network Performance for 2030 Baseline and Scenario 1 AM and PM Peak Hours

Performance Measure	2030 Baseline		2030 Scenario 5		2045 Baseline		2045 Scenario 1	
	AM	PM	AM	PM	AM	PM	AM	PM
Average Delay (seconds)	157.1	260.2	157.1	260.2	184.0	237.8	176.6	230.1
Vehicle Arrival (vehicles)	20,455	20,727	20,455	20,727	20,858	21,725	20,801	21,333
Latent Demand (vehicles)	60	561	60	561	533	597	426	586

Key findings from the network performance results are presented below:

- Both in the AM and PM peak hour, the extension of Ring Road towards Roosevelt Boulevard slightly reduces average network delay by providing an alternative path between Broad Street (VA-7) and Roosevelt Boulevard. This improvement also resulted in a reduction in latent demand (i.e., unserved vehicles in the network).
- Compared to the 2030 scenarios, the 2045 Build Scenario 1 results in higher average network delay during both peak hours. As previously discussed, the increase in average network delay (and latent demand) is mainly due to the reduction of capacity on Route 7 to provide exclusive lanes for the proposed Route 7 BRT.

Transit Conditions

2045 Scenario 1 will build on the transit improvements noted in the 2045 Baseline. The completion of Ring Road would enable the Envision Route 7 BRT corridor to use the exclusive transit lanes planned along Ring Road instead of general travel lanes along Route 7 and Wilson Boulevard. The exclusive transit lanes along a more direct connection will likely improve transit operations in the area. More detailed analysis will be performed as part of the Envision Route 7 BRT environmental process. As part of that process, additional changes not envisioned with the Seven Corners Phasing Study may be advanced.

Bicycle Conditions

A two-way cycle track will be provided on the west side of Ring Road (East), extending the cycle tracks that will be built on the west and south segments of Ring Road in previous phases. At the north end of Ring Road (East), connections would be made to existing bike lanes on Roosevelt Boulevard and a planned shared-use path along Wilson Boulevard.

Pedestrian Conditions

Eight-foot sidewalks with landscape panels will be provided on both sides of Ring Road (East). These will tie into existing sidewalks along the Route 50 frontage roads and Wilson Boulevard.

Appendix E
Traffic Analysis Details

Traffic Analysis Details

Existing Condition AM

Intersection Information					Existing AM				
No.	Intersection	Traffic Control	Approach	Movement	LOS	Average Queue (feet)	Max Queue (feet)	Delay (sec)	Volumes
1	S. Cherry Street/Arlington Boulevard (US 50)	Signalized	EB	EBL	F	18	116	137.6	30
				EBT	D	129	894	47.3	2467
				EBR	D	131	898	38.6	56
			EB Approach		D			48.1	
			WB	WBL	F	15	91	119.8	25
				WBT	C	270	1198	23.1	1979
				WBR	B	1	82	12.1	148
			WB Approach		C			23.5	
			NB	NBL	F	155	294	491.8	29
				NBT	F	155	294	225.5	11
				NBR	F	161	301	90.7	26
			NB Approach		F			289.4	
			SB	SBL	F	252	544	220.2	78
				SBT	F	252	544	216.3	14
				SBR	F	257	548	189.4	55
			SB Approach		F			208.3	
			Overall LOS		D			45.4	
2	S. Cherry Street/Hillwood Avenue	Signalized	EB	EBL	A	0	0	0.0	0
				EBT	B	24	302	17.5	444
				EBR	A	1	84	8.6	110
			EB Approach		B			15.7	
			WB	WBL	B	0	16	19.2	2
				WBT	B	6	169	11.3	181
				WBR	A	5	172	8.3	10
			WB Approach		B			11.2	
			NB	NBL	C	17	160	27.9	88
				NBT	C	17	160	26.9	64
				NBR	B	34	203	19.3	11
			NB Approach		C			26.9	
			SB	SBL	B	5	112	16.7	49
				SBT	A	5	112	6.2	49
				SBR	B	9	144	14.0	7
			SB Approach		B			11.6	
			Overall LOS		B			16.3	
3	S. Cherry Street/E. Broad Street (VA 7)	Signalized	EB	EBL	C	8	158	27.2	30
				EBT	A	8	158	6.6	698
				EBR	A	8	158	4.8	49
			EB Approach		A			7.3	
			WB	WBL	C	26	371	20.4	9
				WBT	B	26	371	10.7	932
				WBR	B	32	391	12.3	91
			WB Approach		B			11.0	
			NB	NBL	E	24	167	58.5	19
				NBT	D	24	167	42.5	64
				NBR	E	24	167	57.5	6
			NB Approach		D			46.9	
			SB	SBL	D	26	162	53.9	24
				SBT	D	26	162	48.9	49
				SBR	D	26	162	49.5	10
			SB Approach		D			50.4	
			Overall LOS		B			12.8	
4	South Street/Arlington Boulevard	Unsignalized	EB	EBL	#N/A	#N/A	#N/A	#N/A	#N/A
				EBT	A	2	246	1.4	2571
				EBR	#N/A	#N/A	#N/A	#N/A	#N/A
			EB Approach		A			1.4	
			WB	WBL	E	2	58	35.5	14
				WBT	A	21	427	7.9	2105
				WBR	#N/A	#N/A	#N/A	#N/A	#N/A
			WB Approach		A			8.1	
			NB	NBL	F	31	176	131.8	35
				NBT	#N/A	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A	#N/A
			NB Approach		F			131.8	
			SB	SBL	#N/A	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A			#N/A	
			Overall LOS		F			131.8	
5	South Street/Arlington Boulevard side street (north side)	Unsignalized	EB	EBL	B	1	63	11.2	28
				EBT	B	1	63	10.1	29
				EBR	B	1	63	12.0	4
			EB Approach		B			10.7	
			WB	WBL	B	3	142	11.9	57
				WBT	A	3	142	7.1	67
				WBR	A	3	142	7.5	77
			WB Approach		A			8.6	
			NB	NBL	A	4	143	0.0	0
				NBT	C	4	143	23.3	48
				NBR	#N/A	#N/A	#N/A	#N/A	#N/A
			NB Approach		C			23.3	
			SB	SBL	A	1	63	0.0	0
				SBT	B	1	59	13.3	17
				SBR	A	1	53	5.0	30
			SB Approach		A			8.0	
			Overall LOS		C			23.3	

"N/A" represents movements that are not allowed, or do not exist

Existing Condition AM

Intersection Information					Existing AM				
No.	Intersection	Traffic Control	Approach	Movement	LOS	Average Queue (feet)	Max Queue (feet)	Delay (sec)	Volumes
6	South Street/S. Roosevelt Street/Hillwood Avenue	Signalized	EB	EBL	C	2	52	29.8	36
				EBT	C	54	561	20.0	504
				EBR	C	68	593	25.8	31
			EB Approach		C			21.0	
			WB	WBL	C	2	125	28.2	33
				WBT	B	9	189	12.5	150
				WBR	A	10	203	9.0	25
			WB Approach		B			14.6	
			NB	NBL	B	13	174	17.6	32
				NBT	B	13	174	17.8	68
				NBR	B	18	186	13.0	76
			NB Approach		B			15.7	
			SB	SBL	C	49	291	32.1	212
				SBT	C	49	291	21.7	47
				SBR	B	8	278	13.0	22
			SB Approach		C			28.8	
			Overall LOS		C			21.0	
7	N. Roosevelt Street/E. Broad Street (VA 7)	Signalized	EB	EBL	N/A	#N/A	#N/A		
				EBT	A	12	218	7.9	567
				EBR	A	18	249	8.3	185
			EB Approach		A			8.0	
			WB	WBL	B	37	485	18.5	7
				WBT	B	37	485	13.0	970
				WBR	N/A	#N/A	#N/A		
			WB Approach		B			13.0	
			NB	NBL	E	46	239	56.8	57
				NBT	D	46	239	52.7	52
				NBR	N/A				19
			NB Approach		D			54.9	
			SB	SBL	N/A				20
				SBT	E	40	225	55.4	88
				SBR	D	40	225	53.3	21
			SB Approach		E			55.8	
			Overall LOS		B			16.6	
8	Sleepy Hollow Road/Aspen Lane	Unsignalized	EB	EBL	C	2	65	20.8	13
				EBT	N/A				
				EBR	A	2	65	8.8	17
			EB Approach		B			14.0	
			WB	WBL	N/A				
				WBT	N/A				
				WBR	N/A				
			WB Approach		N/A				
			NB	NBL	A	15	398	7.3	221
				NBT	A	9	340	6.3	543
				NBR	N/A				
			NB Approach		A			6.6	
			SB	SBL	N/A				
				SBT	A	0	0	1.7	305
				SBR	A	0	0	1.3	26
			SB Approach		A			1.7	
			Overall LOS		B			14.0	
9	Sleepy Hollow Road/Castle Place	Unsignalized	EB	EBL	N/A				
				EBT	N/A				
				EBR	N/A				
			EB Approach		N/A				
			WB	WBL	A	1	67	9.1	105
				WBT	N/A				
				WBR	A	0	66	8.2	4
			WB Approach		A			4.6	
			NB	NBL	N/A				
				NBT	A	0	20	2.7	183
				NBR	A	2	98	4.5	318
			NB Approach		A			6.6	
			SB	SBL	B	4	122	14.4	4
				SBT	A	9	140	2.4	216
				SBR	N/A				
			SB Approach		A			2.6	
			Overall LOS		A			6.6	
10	Castle Road &Thorne Road/Leesburg Pike (VA 7)	Signalized	EB	EBL	D	24	303	37.2	107
				EBT	B	48	390	15.9	1172
				EBR	B	61	424	14.4	13
			EB Approach		B			17.6	
			WB	WBL	C	12	183	27.4	168
				WBT	F	429	1201	103.0	1451
				WBR	E	429	1201	79.2	29
			WB Approach		F			94.9	
			NB	NBL	F	138	602	93.8	81
				NBT	E	138	602	65.6	184
				NBR	D	143	609	36.7	152
			NB Approach		E			60.5	
			SB	SBL	F	53	205	87.1	64
				SBT	E	53	205	63.6	10
				SBR	E	55	210	56.5	73
			SB Approach		E			70.3	
			Overall LOS		E			58.2	

"N/A" represents movements that are not allowed, or do not exist

Existing Condition AM

Intersection Information					Existing AM				
No.	Intersection	Traffic Control	Approach	Movement	LOS	Average Queue (feet)	Max Queue (feet)	Delay (sec)	Volumes
11	Seven Corners Center/Leesburg Pike (VA 7)	Signalized	EB	EBL	D	29	189	55.0	107
				EBT	C	56	399	20.3	1235
				EBR	A	1	119	8.5	38
			EB Approach		C			22.7	
			WB	WBL	B	2	65	17.4	36
				WBT	B	43	453	11.2	1607
				WBR	A	1	66	3.6	70
			WB Approach		B			11.0	
			NB	NBL	F	60	154	96.4	34
				NBT	E	60	154	68.1	2
				NBR	E	60	154	66.5	20
			NB Approach		F			84.7	
			SB	SBL	E	32	178	73.2	76
				SBT	F	32	178	81.1	10
				SBR	B	3	73	11.7	67
			SB Approach		D			46.8	
			Overall LOS		B			18.8	
12	Patrick Henry Drive/Leesburg Pike (VA 7)	Signalized	EB	EBL	F	48	335	82.0	105
				EBT	C	90	509	24.1	1165
				EBR	C	9	194	20.9	61
			EB Approach		C			28.5	
			WB	WBL	F	13	107	124.4	50
				WBT	F	954	1666	129.4	1481
				WBR	F	957	1667	125.4	260
			WB Approach		F			128.7	
			NB	NBL	F	21	448	82.5	131
				NBT	F	56	443	83.8	93
				NBR	F	28	441	87.8	110
			NB Approach		F			84.6	
			SB	SBL	E	59	223	78.6	182
				SBT	E	59	223	76.9	16
				SBR	D	24	200	40.3	104
			SB Approach		E			65.3	
			Overall LOS		F			84.2	
13	Arlington Boulevard service road/Arlington Boulevard (US 50)	Signalized	EB	EBL	D	18	432	47.5	15
				EBT	A	18	432	3.4	2817
				EBR	B	18	432	13.9	25
			EB Approach		A			3.7	
			WB	WBL	C	23	345	34.1	5
				WBT	A	23	345	5.6	2007
				WBR	A	23	345	5.6	48
			WB Approach		A			5.7	
			NB	NBL	F	37	178	83.1	62
				NBT	F	37	178	91.6	8
				NBR	D	9	174	35.1	19
			NB Approach		E			73.6	
			SB	SBL	F	12	91	88.2	17
				SBT	F	12	91	100.1	5
				SBR	A	1	76	9.1	13
			SB Approach		E			60.5	
			Overall LOS		A			6.1	
14	Patrick Henry Drive/Arlington Boulevard (US 50)	Signalized	EB	EBL	F	83	329	143.2	132
				EBT	D	578	1604	52.2	2526
				EBR	D	584	1611	48.0	35
			EB Approach		E			56.6	
			WB	WBL	F	159	728	87.4	123
				WBT	C	159	728	26.7	1879
				WBR	C	162	785	26.3	78
			WB Approach		C			30.3	
			NB	NBL	F	55	232	128.4	69
				NBT	F	122	460	88.8	277
				NBR	E	98	448	79.7	183
			NB Approach		F			90.8	
			SB	SBL	F	152	463	202.4	159
				SBT	F	110	423	90.1	187
				SBR	F	110	423	88.2	35
			SB Approach		F			136.8	
			Overall LOS		E			55.4	
15	John Marshall Drive/Patrick Henry Drive & Willston Drive	Signalized	EB	EBL	C	19	299	20.8	69
				EBT	B	19	299	14.7	239
				EBR	N/A				
			EB Approach		B			16.1	
			WB	WBL	N/A				
				WBT	A	12	259	9.8	200
				WBR	B	21	340	13.9	248
			WB Approach		B			12.1	
			NB	NBL	N/A				
				NBT	N/A				
				NBR	N/A				
			NB Approach		N/A				
			SB	SBL	B	16	166	17.9	145
				SBT	N/A				
				SBR	C	18	178	22.9	33
			SB Approach		B			18.8	
			Overall LOS		B			14.7	

"N/A" represents movements that are not allowed, or do not exist

Existing Condition AM

Intersection Information					Existing AM				
No.	Intersection	Traffic Control	Approach	Movement	LOS	Average Queue (feet)	Max Queue (feet)	Delay (sec)	Volumes
16	John Marshall Drive & N. McKinley Road/Wilson Boulevard	Signalized	EB	EBL	B	4	92	17.0	47
				EBT	B	53	408	18.9	791
				EBR	B	58	420	14.6	13
			EB Approach		B			18.7	
			WB	WBL	D	16	134	48.9	67
				WBT	C	17	179	22.5	327
				WBR	B	18	190	18.9	59
			WB Approach		C			26.0	
			NB	NBL	D	88	503	47.5	99
				NBT	D	88	503	40.2	125
				NBR	D	90	506	39.4	108
			NB Approach		D			42.1	
			SB	SBL	C	12	115	34.8	64
				SBT	C	8	92	24.7	65
				SBR	A	1	54	5.8	43
			SB Approach		C			23.8	
			Overall LOS		C			25.3	
17	Peyton Randolph Drive/Wilson Boulevard	Signalized	EB	EBL	B	72	573	12.3	20
				EBT	C	72	573	21.3	776
				EBR	B	76	581	11.3	284
			EB Approach		B			18.5	
			WB	WBL	B	3	72	18.8	42
				WBT	B	15	197	10.9	410
				WBR	A	26	234	8.1	18
			WB Approach		B			11.5	
			NB	NBL	E	60	315	57.2	141
				NBT	A	60	315	0.0	0
				NBR	C	10	273	32.5	57
			NB Approach		D			50.1	
			SB	SBL	D	5	65	52.3	15
				SBT	E	5	65	58.4	3
				SBR	A	6	72	7.0	2
			SB Approach		D			48.7	
			Overall LOS		C			20.6	
18	Roosevelt Boulevard/Wilson Boulevard	Signalized	EB	EBL	C	77	666	21.5	614
				EBT	B	45	757	12.2	755
				EBR	N/A				
			EB Approach		B			16.4	
			WB	WBL	N/A				
				WBT	C	49	313	30.3	238
				WBR	B	71	352	16.9	318
			WB Approach		C			22.6	
			NB	NBL	N/A				
				NBT	N/A				
				NBR	N/A				
			NB Approach		N/A				
			SB	SBL	D	93	384	47.1	336
				SBT	N/A				
				SBR	D	98	389	42.3	243
			SB Approach		D			45.1	
			Overall LOS		C			24.4	
19	Roosevelt Boulevard/N. Roosevelt Street	Signalized	EB	EBL	C	4	85	20.7	42
				EBT	A	4	85	0.0	
				EBR	C	4	85	25.3	4
			EB Approach		C			21.1	
			WB	WBL	A	0	0	0.0	
				WBT	A	0	0	0.0	
				WBR	A	0	0	0.0	
			WB Approach		#N/A				
			NB	NBL	C	3	70	33.5	27
				NBT	A	18	264	8.5	899
				NBR	A	18	264	0.0	
			NB Approach		A			9.2	
			SB	SBL	A	16	211	0.0	
				SBT	A	16	211	8.0	536
				SBR	A	17	212	7.2	109
			SB Approach		A			7.9	
			Overall LOS		A			9.0	
20	Arlington Blvd WB/Wilson Blvd	Signalized	EB	EBL	N/A				
				EBT	A	42	376	4.8	1166
				EBR	N/A				
			EB Approach		A			4.8	
			WB	WBL	N/A				
				WBT	N/A				
				WBR	B	13	206	12.5	477
			WB Approach		B			12.5	
			NB	NBL	N/A				
				NBT	F	231	520	132.3	289
				NBR	F	135	406	102.4	123
			NB Approach		F			123.4	
			SB	SBL	N/A				
				SBT	N/A				
				SBR	N/A				
			SB Approach		N/A				
			Overall LOS		B			20.0	

"N/A" represents movements that are not allowed, or do not exist

Existing Condition AM

Intersection Information					Existing AM				
No.	Intersection	Traffic Control	Approach	Movement	LOS	Average Queue (feet)	Max Queue (feet)	Delay (sec)	Volumes
21	Sleepy Hollow Rd/Wilson Blvd/Broad St/Arlington Blvd EB	Signalized	EB	EBLU to 7	E	2	64	67.1	14
				EBL to Wilson	E	252	1016	68.2	583
				EBR to Route 7	E	52	267	64.2	245
				EBT to 50	E	4	335	73.8	53
			EB Approach		E			67.4	
			NB	NBR from Sleepy	C	23	187	21.3	186
				NBT	F	419	704	86.2	1104
				NBR from 7 to Wilson	F	419	704	91.9	403
				NBR from 7 to 50	F	417	705	166.2	7
			NB Approach		F			80.8	
			SB	SBL to Wilson	C	97	226	24.1	181
				SBT to Route 7	C	97	226	20.7	811
				SBR to Sleepy	D	97	226	35.6	177
				SBL to 50	C	97	226	32.2	461
			SB Approach		C			25.9	
			Overall LOS		E			56.8	
22	Broad St WB/Arlington Blvd WB	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A	
				EBT	#N/A	#N/A	#N/A	#N/A	
				EBR	#N/A	#N/A	#N/A	#N/A	
			EB Approach		#N/A			#N/A	
			WB	WBL	C	78	318	33.5	261
				WBT	C	78	318	34.3	200
				WBR	A	75	383	7.1	301
			WB Approach		C			23.3	
			NB	NBT from 7 to 7	A	6	247	7.5	752
				NBU	B	39	225	10.9	3
				NBL	A	39	225	8.5	361
			NB Approach		A			7.9	
			SB	SBL	#N/A	#N/A	#N/A	#N/A	
				SBT	#N/A	#N/A	#N/A	#N/A	
				SBR	#N/A	#N/A	#N/A	#N/A	
			SB Approach		#N/A			#N/A	
			Overall LOS		B			14.2	
23a	Broad St EB/Arlington Blvd WB	Unsignalized	EB	EBL	N/A				
				EBT	A	3	96	2.1	1376
				EBR	N/A				
			EB Approach		A			2.1	1376
			WB	WBL	N/A				
				WBT	N/A				
				WBR	N/A				
			WB Approach		N/A				
			NB	NBL	N/A				
				NBT	N/A				
				NBR	N/A				
			NB Approach		N/A				
			SB	SBL	C	59	202	24.4	266
				SBT	N/A				
				SBR	N/A				
			SB Approach		C			24.4	266
			Overall LOS		A			5.7	
23b	Broad St EB/Arlington Blvd WB	Signalized	EB	EBL	N/A				
				EBT	A	98	172	1.4	1370
				EBR	A	8	179	6.1	2
			EB Approach		A			1.4	
			WB	WBL	N/A				
				WBT	N/A				
				WBR	N/A				
			WB Approach		N/A				
			NB	NBL	N/A				
				NBT	N/A				
				NBR	N/A				
			NB Approach		N/A				
			SB	SBL	N/A				
				SBT	B	36	238	10.3	562
				SBR	N/A				
			SB Approach		B			10.3	
			Overall LOS		A			5.9	
24*	Broad St EB/Hillwood Ave	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A	
				EBT	#N/A	#N/A	#N/A	#N/A	
				EBR	E	123	531	73.3	773
			EB Approach		E	123	531	73.3	773
			WB	WBL	#N/A	#N/A	#N/A	#N/A	
				WBT	#N/A	#N/A	#N/A	#N/A	216
				WBR	#N/A	#N/A	#N/A	#N/A	
			WB Approach		#N/A	27	358	#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A	
				NBT	#N/A	#N/A	#N/A	#N/A	
				NBR	#N/A	#N/A	#N/A	#N/A	
			NB Approach		#N/A			#N/A	
			SB	SBL	#N/A	#N/A	#N/A	#N/A	
				SBT	F	27	358	81.5	597
				SBR	#N/A	#N/A	#N/A	#N/A	
			SB Approach		F	27	358	81.5	597
			Overall LOS		E			76.9	

* LOS, queue length, and delay for the WB movement at this intersection are not reported because the movement is related to the signal operations at intersections 22 and 23b.

"N/A" represents movements that are not allowed, or do not exist

Existing Condition PM

Intersection Information					Existing PM				
No.	Intersection	Traffic Control	Approach	Movement	LOS	Average Queue (feet)	Max Queue (feet)	Delay (sec)	Volumes
1	S. Cherry Street/Arlington Boulevard (US 50)	Signalized	EB	EBL	F	24	182	128.0	55
				EBT	D	90	547	45.2	2426
				EBR	F	91	552	95.9	25
			EB Approach		D			47.5	
			WB	WBL	F	33	171	111.3	51
				WBT	C	306	1178	24.2	1985
				WBR	B	1	74	10.7	72
			WB Approach		C			25.9	
			NB	NBL	F	91	284	151.0	29
				NBT	F	91	284	168.2	31
				NBR	F	95	291	139.2	6
			NB Approach		F			158.0	
			SB	SBL	F	434	836	403.1	66
				SBT	F	434	836	512.9	22
				SBR	F	439	841	302.2	45
			SB Approach		F			387.1	
			Overall LOS		D			48.9	
2	S. Cherry Street/Hillwood Avenue	Signalized	EB	EBL	A	0	0	0.0	0
				EBT	B	20	281	13.1	433
				EBR	A	1	71	8.5	86
			EB Approach		B			12.3	
			WB	WBL	B	0	42	11.8	15
				WBT	B	22	305	15.1	410
				WBR	B	20	307	16.7	16
			WB Approach		B			15.0	
			NB	NBL	C	12	140	26.4	73
				NBT	C	12	140	24.6	42
				NBR	B	26	184	14.9	22
			NB Approach		C			24.0	
			SB	SBL	A	3	84	7.8	23
				SBT	B	3	84	12.1	59
				SBR	B	7	117	14.7	25
			SB Approach		B			11.8	
			Overall LOS		B			14.6	
3	S. Cherry Street/E. Broad Street (VA 7)	Signalized	EB	EBL	B	6	150	18.6	5
				EBT	A	6	150	5.4	835
				EBR	A	6	150	0.0	0
			EB Approach		A			5.5	
			WB	WBL	A	20	254	0.0	0
				WBT	A	20	254	9.9	858
				WBR	B	25	275	12.1	27
			WB Approach		A			10.0	
			NB	NBL	E	22	158	64.6	22
				NBT	E	22	158	55.9	30
				NBR	D	22	158	45.8	17
			NB Approach		E			56.2	
			SB	SBL	D	61	291	54.5	26
				SBT	E	61	291	55.0	120
				SBR	D	61	291	52.9	34
			SB Approach		D			54.5	
			Overall LOS		B			13.8	
4	South Street/Arlington Boulevard	Unsignalized	EB	EBL	#N/A	#N/A	#N/A	#N/A	#N/A
				EBT	A	18	208	2.6	2491
				EBR	#N/A	#N/A	#N/A	#N/A	#N/A
			EB Approach		A			2.6	
			WB	WBL	F	60	533	54.4	178
				WBT	B	42	949	11.1	2044
				WBR	#N/A	#N/A	#N/A	#N/A	#N/A
			WB Approach		B			14.6	
			NB	NBL	F	41	224	140.5	39
				NBT	#N/A	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A	#N/A
			NB Approach		F			140.5	
			SB	SBL	#N/A	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A			#N/A	
			Overall LOS		F			140.5	
5	South Street/Arlington Boulevard side street (north side)	Unsignalized	EB	EBL	B	1	70	10.6	69
				EBT	A	1	70	1.8	2
				EBR	A	1	70	9.3	6
			EB Approach		B			10.3	
			WB	WBL	A	2	111	0.0	0
				WBT	A	2	111	8.9	54
				WBR	B	2	111	13.8	116
			WB Approach		B			12.2	
			NB	NBL	A	6	147	6.0	48
				NBT	B	6	147	14.3	71
				NBR	#N/A	#N/A	#N/A	#N/A	#N/A
			NB Approach		B			11.0	
			SB	SBL	A	1	44	9.9	4
				SBT	B	1	41	11.0	10
				SBR	A	0	36	4.7	13
			SB Approach		A			7.8	
			Overall LOS		B			12.2	

"N/A" represents movements that are not allowed, or do not exist

Existing Condition PM

Intersection Information					Existing PM				
No.	Intersection	Traffic Control	Approach	Movement	LOS	Average Queue (feet)	Max Queue (feet)	Delay (sec)	Volumes
6	South Street & S. Roosevelt Street/Hillwood Avenue	Signalized	EB	EBL	D	14	269	47.0	63
				EBT	B	30	401	19.0	384
				EBR	B	42	434	17.1	32
			EB Approach		C			22.5	
			WB	WBL	C	2	163	31.3	21
				WBT	C	36	411	23.9	366
				WBR	C	40	428	23.4	39
			WB Approach		C			24.2	
			NB	NBL	C	39	333	29.3	71
				NBT	C	39	333	30.3	80
				NBR	C	45	344	21.8	108
			NB Approach		C			26.5	
			SB	SBL	E	180	405	71.2	243
				SBT	E	180	405	61.0	40
				SBR	D	86	399	48.0	36
			SB Approach		E			67.3	
			Overall LOS		C			33.3	
7	N. Roosevelt Street/E. Broad Street (VA 7)	Signalized	EB	EBL	N/A	#N/A	#N/A		
				EBT	B	58	443	19.4	615
				EBR	D	70	474	40.2	172
			EB Approach		C			23.9	
			WB	WBL	E	33	315	58.3	18
				WBT	B	33	315	11.6	770
				WBR	N/A	#N/A	#N/A		
			WB Approach		B			12.6	
			NB	NBL	E	86	351	73.2	44
				NBT	E	86	351	61.6	123
				NBR	N/A				15
			NB Approach		E			64.1	
			SB	SBL	N/A				25
				SBT	F	450	1078	287.9	128
				SBR	F	450	1078	289.7	35
			SB Approach		F			289.7	
			Overall LOS		D			49.1	
8	Sleepy Hollow Road/Aspen Lane	Unsignalized	EB	EBL	A	1	45	0.0	0
				EBT	N/A				
				EBR	A	1	45	8.7	22
			EB Approach		A			8.7	
			WB	WBL	N/A				
				WBT	N/A				
				WBR	N/A				
			WB Approach		N/A				
			NB	NBL	A	4	195	7.9	50
				NBT	A	1	137	2.8	306
				NBR	N/A				
			NB Approach		A			3.5	
			SB	SBL	N/A				
				SBT	A	0	0	2.3	573
				SBR	A	0	0	4.9	67
			SB Approach		A			2.6	
			Overall LOS		A			8.7	
9	Sleepy Hollow Road/Castle Place	Unsignalized	EB	EBL	N/A				
				EBT	N/A				
				EBR	N/A				
			EB Approach		N/A				
			WB	WBL	C	32	270	21.2	288
				WBT	N/A				
				WBR	A	31	269	0.0	0
			WB Approach		B			12.8	
			NB	NBL	N/A				
				NBT	A	0	3	5.9	60
				NBR	A	10	186	8.7	236
			NB Approach		A			3.5	
			SB	SBL	B	19	221	16.3	27
				SBT	A	67	339	5.1	312
				SBR	N/A				
			SB Approach		A			6.0	
			Overall LOS		B			12.8	
10	Castle Road &Thorne Road/Leesburg Pike (VA 7)	Signalized	EB	EBL	D	29	438	42.6	106
				EBT	D	134	596	37.6	1331
				EBR	D	155	630	37.1	22
			EB Approach		D			37.9	
			WB	WBL	E	76	419	59.3	282
				WBT	E	207	617	77.6	1131
				WBR	D	207	617	41.2	25
			WB Approach		E			73.4	
			NB	NBL	F	143	539	104.1	121
				NBT	F	143	539	84.1	69
				NBR	D	148	546	43.1	205
			NB Approach		E			68.9	
			SB	SBL	E	84	347	70.3	63
				SBT	E	84	347	59.3	98
				SBR	C	87	352	34.2	181
			SB Approach		D			48.1	
			Overall LOS		D			54.7	

"N/A" represents movements that are not allowed, or do not exist

Existing Condition PM

Intersection Information					Existing PM				
No.	Intersection	Traffic Control	Approach	Movement	LOS	Average Queue (feet)	Max Queue (feet)	Delay (sec)	Volumes
16	John Marshall Drive & N. McKinley Road/Wilson Boulevard	Signalized	EB	EBL	C	6	99	23.1	61
				EBT	C	46	288	21.7	517
				EBR	C	52	299	22.9	86
			EB Approach		C			22.0	
			WB	WBL	E	69	459	69.0	138
				WBT	D	75	495	36.0	683
				WBR	C	78	505	32.0	65
			WB Approach		D			40.8	
			NB	NBL	E	201	635	69.4	153
				NBT	E	201	635	65.1	124
				NBR	E	204	620	59.4	131
			NB Approach		E			64.9	
			SB	SBL	C	4	67	31.1	26
				SBT	C	10	112	30.9	73
				SBR	B	2	69	12.3	58
			SB Approach		C			24.1	
			Overall LOS		D			38.3	
17	Peyton Randolph Drive/Wilson Boulevard	Signalized	EB	EBL	B	88	548	16.6	25
				EBT	B	88	548	19.8	579
				EBR	C	92	556	24.6	402
			EB Approach		C			21.7	
			WB	WBL	C	9	113	32.2	71
				WBT	C	105	549	32.0	793
				WBR	C	124	586	29.5	24
			WB Approach		C			32.0	
			NB	NBL	E	77	367	67.9	131
				NBT	E	77	367	70.4	29
				NBR	D	10	289	43.3	39
			NB Approach		E			63.4	
			SB	SBL	D	17	92	47.7	46
				SBT	D	17	92	48.9	18
				SBR	B	21	99	13.4	35
			SB Approach		D			35.8	
			Overall LOS		C			30.4	
18	Roosevelt Boulevard/Wilson Boulevard	Signalized	EB	EBL	D	129	593	47.8	354
				EBT	B	19	333	14.5	459
				EBR	N/A				
			EB Approach		C			29.0	
			WB	WBL	N/A				
				WBT	D	160	611	42.4	682
				WBR	C	185	651	32.7	256
			WB Approach		D			39.8	
			NB	NBL	N/A				
				NBT	N/A				
				NBR	N/A				
			NB Approach		N/A				
			SB	SBL	F	373	1099	99.0	538
				SBT	N/A				
				SBR	F	378	1103	115.0	277
			SB Approach		F			104.4	
			Overall LOS		E			55.4	
19	Roosevelt Boulevard/N. Roosevelt Street	Signalized	EB	EBL	D	69	359	49.0	128
				EBT	A	69	359	0.0	
				EBR	E	69	359	55.1	85
			EB Approach		D			51.4	
			WB	WBL	B	0	4	10.6	
				WBT	A	0	15	0.8	
				WBR	A	0	3	0.0	
			WB Approach		A			6.9	
			NB	NBL	C	2	59	32.8	12
				NBT	B	16	186	10.5	591
				NBR	A	16	186	0.0	
			NB Approach		B			10.9	
			SB	SBL	A	106	561	0.0	
				SBT	C	106	561	28.2	750
				SBR	C	106	562	25.4	148
			SB Approach		C			27.7	
			Overall LOS		C			23.6	
20	Arlington Blvd WB/Wilson Blvd	Signalized	EB	EBL	N/A				
				EBT	A	22	304	5.5	776
				EBR	N/A				
			EB Approach		A			5.5	
			WB	WBL	N/A				
				WBT	N/A				
				WBR	F	314	841	99.1	925
			WB Approach		F			99.1	
			NB	NBL	N/A				
				NBT	F	520	1118	314.0	249
				NBR	F	417	1040	268.3	47
			NB Approach		F			306.8	
			SB	SBL	N/A				
				SBT	N/A				
				SBR	N/A				
			SB Approach		N/A				
			Overall LOS		E			65.2	

"N/A" represents movements that are not allowed, or do not exist

Existing Condition PM

Intersection Information					Existing PM				
No.	Intersection	Traffic Control	Approach	Movement	LOS	Average Queue (feet)	Max Queue (feet)	Delay (sec)	Volumes
21	Sleepy Hollow Rd/Wilson Blvd/Broad St/Arlington Blvd EB	Signalized	EB	EBLU to 7	F	80	402	112.3	39
				EBL to Wilson	E	391	1334	75.3	349
				EBR to Route 7	E	51	674	78.6	359
				EBT to 50	E	6	284	78.2	99
			EB Approach		E			78.7	
			NB	NBR from Sleepy	C	12	132	26.7	89
				NBT	F	383	708	94.2	1162
				NBR from 7 to Wilson	E	383	708	74.1	274
				NBR from 7 to 50	F	379	709	100.6	25
			NB Approach		F			86.8	
			SB	SBL to Wilson	D	127	237	41.5	153
				SBT to Route 7	C	127	237	25.4	941
				SBR to Sleepy	C	127	237	24.0	267
				SBL to 50	D	127	237	48.4	359
			SB Approach		C			31.4	
			Overall LOS		E			62.0	
22	Broad St WB/Arlington Blvd WB	Signalized	WB	WBL	E	227	350	62.9	394
				WBT	A	0	0	0.0	0
				WBR	F	227	350	116.8	311
			WB Approach		F			86.7	
			NB	NBT from 7 to 7	A	91	302	0.0	0
				NBU	B	91	302	17.1	442
				NBL	A	227	350	0.0	0
			NB Approach		B			17.1	
			Overall LOS		D			44.1	
23a	Broad St EB/Arlington Blvd WB	Unsignalized	EB	EBL	N/A				
				EBT	B	63	214	11.5	1466
				EBR	N/A				
			EB Approach		B			11.5	
			WB	WBL	N/A				
				WBT	N/A				
				WBR	N/A				
			WB Approach		N/A				
			NB	NBL	N/A				
				NBT	N/A				
				NBR	N/A				
			NB Approach		N/A				
			SB	SBL	A	8	125	4.5	324
				SBT	N/A				
				SBR	N/A				
			SB Approach		A			4.5	
			Overall LOS		A			1.4	
23b	Broad St EB/Arlington Blvd WB	Signalized	EB	EBL	N/A				
				EBT	A	17	184	2.5	1461
				EBR	A	90	253	9.7	12
			EB Approach		A			9.6	
			WB	WBL	N/A				
				WBT	N/A				
				WBR	N/A				
			WB Approach		#N/A				
			NB	NBL	N/A				
				NBT	N/A				
				NBR	N/A				
			NB Approach		N/A				
			SB	SBL	N/A				
				SBT	A	90	253	0.0	826
				SBR	N/A				
			SB Approach		#N/A				
			Overall LOS		A			6.6	
24*	Broad St EB/Hillwood Ave	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A	
				EBT	#N/A	#N/A	#N/A	#N/A	
				EBR	E	120	566	78.1	758
			EB Approach		E	120	566	78.1	758
			WB	WBL	#N/A	#N/A	#N/A	#N/A	
				WBT	#N/A	#N/A	#N/A	#N/A	410
				WBR	#N/A	#N/A	#N/A	#N/A	
			WB Approach		#N/A	#N/A	#N/A	#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A	
				NBT	#N/A	#N/A	#N/A	#N/A	
				NBR	#N/A	#N/A	#N/A	#N/A	
			NB Approach		#N/A			#N/A	
			SB	SBL	#N/A	#N/A	#N/A	#N/A	
				SBT	F	162	740	140.4	678
				SBR	#N/A	#N/A	#N/A	#N/A	
			SB Approach		F	162	740	140.4	678
			Overall LOS		F			107.2	

* LOS, queue length, and delay for the WB movement at this intersection are not reported because the movement is related to the signal operations at intersections 22 and 23b.

"N/A" represents movements that are not allowed, or do not exist

2030 Baseline AM

Intersection Information					2030 Baseline AM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
1	S. Cherry Street/Arlington Boulevard (US 50)	Signalized	EB	EBL	F	366	222.6	109
				EBT	B	380	18.7	2810
				EBR	C	383	28.1	43
			EB Approach		C		26.3	
			WB	WBL	F	109	120.0	23
				WBT	B	923	15.6	2086
				WBR	B	124	15.5	62
			WB Approach		B		16.7	
			NB	NBL	F	303	261.3	52
				NBT	F	303	140.8	10
				NBR	F	305	113.7	29
			NB Approach		F		201.0	
			SB	SBL	F	285	134.3	9
				SBT	F	285	104.6	12
				SBR	D	285	49.0	64
			SB Approach		E		65.9	
			Overall LOS		C		26.2	
2	S. Cherry Street/Hillwood Avenue	Signalized	EB	EBL	B	97	11.4	66
				EBT	B	136	11.9	230
				EBR	A	32	5.7	16
			EB Approach		B		11.4	
			WB	WBL	A	0	0.0	0
				WBT	B	156	11.6	150
				WBR	A	159	9.7	23
			WB Approach		B		11.3	
			NB	NBL	C	365	32.6	97
				NBT	D	365	35.6	155
				NBR	C	409	31.6	22
			NB Approach		C		34.2	
			SB	SBL	C	184	34.2	108
				SBT	C	184	27.7	15
				SBR	C	217	20.5	8
			SB Approach		C		32.6	
			Overall LOS		C		21.6	
3	S. Cherry Street/E. Broad Street (VA 7)	Signalized	EB	EBL	B	226	13.8	25
				EBT	A	226	9.3	708
				EBR	A	226	8.2	90
			EB Approach		A		9.3	
			WB	WBL	C	487	20.2	8
				WBT	B	487	14.0	1047
				WBR	B	508	13.6	43
			WB Approach		B		14.0	
			NB	NBL	E	453	62.5	43
				NBT	D	453	46.2	171
				NBR	E	453	60.4	59
			NB Approach		D		51.8	
			SB	SBL	E	120	65.2	36
				SBT	D	120	47.8	1
				SBR	D	120	50.5	13
			SB Approach		E		61.0	
			Overall LOS		B		18.0	
6	South Street & S. Roosevelt Street/Hillwood Avenue	Signalized	EB	EBL	B	45	14.9	21
				EBT	B	281	15.1	333
				EBR	C	314	21.1	6
			EB Approach		B		15.2	
			WB	WBL	B	101	19.5	33
				WBT	B	167	10.3	110
				WBR	A	185	9.5	20
			WB Approach		B		12.1	
			NB	NBL	B	161	18.1	63
				NBT	B	161	17.4	65
				NBR	B	173	11.3	53
			NB Approach		B		15.9	
			SB	SBL	C	226	21.9	139
				SBT	B	226	18.7	45
				SBR	A	153	7.0	18
			SB Approach		B		19.9	
			Overall LOS		B		15.8	
7	N. Roosevelt Street/E. Broad Street (VA 7)	Signalized	EB	EBL	N/A	#N/A		
				EBT	C	414	24.6	667
				EBR	B	445	19.8	132
			EB Approach		C		23.8	
			WB	WBL	B	549	19.8	39
				WBT	B	549	11.3	1070
				WBR	N/A	#N/A		
			WB Approach		B		11.6	
			NB	NBL	D	183	47.6	15
				NBT	D	183	45.6	92
				NBR	N/A			0
			NB Approach		D		45.9	
			SB	SBL	N/A			45
				SBT	E	224	56.5	31
				SBR	E	224	61.9	32
			SB Approach		E		61.4	
			Overall LOS		C		20.6	

2030 Baseline AM

Intersection Information					2030 Baseline AM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
8	Sleepy Hollow Road/Aspen Lane	Unsignalized	EB	EBL	C	52	20.4	10
				EBT	N/A			
				EBR	A	52	8.7	12
			EB Approach		B		14.0	
			WB	WBL	N/A			
				WBT	N/A			
				WBR	N/A			
			WB Approach		N/A			
			NB	NBL	A	452	7.7	241
				NBT	A	394	6.8	374
				NBR	N/A			
			NB Approach		A		7.2	
			SB	SBL	N/A			
				SBT	A	0	1.7	396
				SBR	A	0	1.3	27
			SB Approach		A		1.7	
			Overall LOS		B		14.0	
9	Sleepy Hollow Road/Castle Place	Unsignalized	EB	EBL	N/A			
				EBT	N/A			
				EBR	N/A			
			EB Approach		N/A			
			WB	WBL	B	161	14.2	202
				WBT	N/A			
				WBR	B	160	17.3	28
			WB Approach		A		9.5	
			NB	NBL	N/A			
				NBT	A	27	2.8	114
				NBR	A	74	3.6	231
			NB Approach		A		7.2	
			SB	SBL	A	248	6.0	33
				SBT	A	230	4.0	208
				SBR	N/A			
			SB Approach		A		4.3	
			Overall LOS		A		9.5	
10	Castle Road &Thorne Road/Leesburg Pike (VA 7)	Signalized	EB	EBL	C	323	31.0	127
				EBT	B	417	16.0	987
				EBR	B	451	16.7	55
			EB Approach		B		17.7	
			WB	WBL	C	181	28.2	192
				WBT	F	1261	101.3	1318
				WBR	F	1261	110.4	70
			WB Approach		F		92.8	
			NB	NBL	E	515	69.0	97
				NBT	E	515	59.6	179
				NBR	B	521	19.1	130
			NB Approach		D		49.5	
			SB	SBL	E	185	78.7	69
				SBT	E	185	59.6	4
				SBR	D	189	45.6	30
			SB Approach		E		68.3	
			Overall LOS		E		56.3	
11	Seven Corners Center/Leesburg Pike (VA 7)	Signalized	EB	EBL	D	113	37.1	73
				EBT	C	397	21.2	1088
				EBR	A	54	3.2	18
			EB Approach		C		21.9	
			WB	WBL	C	38	29.7	20
				WBT	B	485	16.4	1499
				WBR	A	67	4.3	68
			WB Approach		B		16.0	
			NB	NBL	F	273	128.0	62
				NBT	A	273	0.0	0
				NBR	E	273	68.9	41
			NB Approach		F		104.5	
			SB	SBL	E	185	75.0	102
				SBT	E	185	72.0	10
				SBR	B	85	11.8	81
			SB Approach		D		48.3	
			Overall LOS		C		23.3	
12	Patrick Henry Drive/Leesburg Pike (VA 7)	Signalized	EB	EBL	F	464	107.9	109
				EBT	C	512	22.9	1099
				EBR	C	187	20.9	29
			EB Approach		C		30.3	
			WB	WBL	F	168	80.7	97
				WBT	F	1482	81.6	1363
				WBR	F	1486	80.7	421
			WB Approach		F		81.4	
			NB	NBL	E	444	73.8	107
				NBT	F	446	83.5	88
				NBR	E	424	76.6	100
			NB Approach		E		77.7	
			SB	SBL	F	496	82.7	295
				SBT	F	496	84.3	12
				SBR	D	230	53.9	129
			SB Approach		E		74.2	
			Overall LOS		E		63.8	

2030 Baseline AM

Intersection Information					2030 Baseline AM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
13	Arlington Boulevard service road/Arlington Boulevard (US 50)	Signalized	EB	EBL	D	1443	41.7	90
				EBT	B	1443	17.0	2991
				EBR	C	1443	22.6	39
			EB Approach		B		17.8	
			WB	WBL	D	544	54.0	2
				WBT	A	544	9.5	2225
				WBR	A	544	9.6	21
			WB Approach		A		9.5	
			NB	NBL	F	229	83.5	64
				NBT	F	229	117.8	59
				NBR	C	189	34.5	19
			NB Approach		F		91.2	
			SB	SBL	F	93	90.6	19
				SBT	F	93	97.3	7
				SBR	B	81	10.6	9
			SB Approach		E		71.4	
			Overall LOS		B		16.6	
14	Patrick Henry Drive/Arlington Boulevard (US 50)	Signalized	EB	EBL	F	188	155.8	63
				EBT	F	1677	91.3	2731
				EBR	F	1674	87.0	110
			EB Approach		F		92.5	
			WB	WBL	F	918	125.0	159
				WBT	C	918	34.4	1952
				WBR	C	964	31.7	162
			WB Approach		D		40.5	
			NB	NBL	F	635	172.0	125
				NBT	F	864	111.6	327
				NBR	F	735	92.6	213
			NB Approach		F		116.9	
			SB	SBL	F	868	286.4	200
				SBT	F	821	165.6	154
				SBR	F	821	186.6	19
			SB Approach		F		231.5	
			Overall LOS		F		82.8	
15	John Marshall Drive/Patrick Henry Drive & Willston Drive	Signalized	EB	EBL	C	288	24.1	82
				EBT	B	288	15.5	214
				EBR	N/A			
			EB Approach		B		17.9	
			WB	WBL	N/A			
				WBT	B	387	12.3	224
				WBR	B	454	18.1	317
			WB Approach		B		15.7	
			NB	NBL	N/A			
				NBT	N/A			
				NBR	N/A			
			NB Approach		N/A			
			SB	SBL	C	283	22.0	122
				SBT	N/A			
				SBR	C	295	23.8	127
			SB Approach		C		22.9	
			Overall LOS		B		18.0	
16	John Marshall Drive & N. McKinley Road/Wilson Boulevard	Signalized	EB	EBL	B	159	18.7	107
				EBT	C	438	20.9	791
				EBR	B	450	15.6	17
			EB Approach		C		20.5	
			WB	WBL	D	189	54.6	108
				WBT	C	198	24.5	348
				WBR	C	209	20.6	64
			WB Approach		C		30.3	
			NB	NBL	D	596	50.2	98
				NBT	D	596	50.0	163
				NBR	D	598	43.7	159
			NB Approach		D		47.7	
			SB	SBL	D	128	39.1	82
				SBT	C	77	27.1	38
				SBR	A	104	8.9	146
			SB Approach		C		20.8	
			Overall LOS		C		28.3	
17	Peyton Randolph Drive/Wilson Boulevard	Signalized	EB	EBL	B	569	11.8	11
				EBT	C	569	20.4	868
				EBR	B	577	10.5	223
			EB Approach		B		18.3	
			WB	WBL	B	78	18.4	53
				WBT	B	222	12.2	528
				WBR	B	259	11.7	13
			WB Approach		B		12.8	
			NB	NBL	E	350	63.4	186
				NBT	A	350	0.0	0
				NBR	D	217	43.6	34
			NB Approach		E		60.4	
			SB	SBL	D	57	47.2	15
				SBT	D	57	51.2	6
				SBR	A	64	6.7	4
			SB Approach		D		41.7	
			Overall LOS		C		21.6	

2030 Baseline AM

Intersection Information					2030 Baseline AM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
18	Roosevelt Boulevard/Wilson Boulevard	Signalized	EB	EBL	C	796	31.6	699
				EBT	B	803	15.4	717
				EBR	N/A			
			EB Approach		C		23.4	
			WB	WBL	N/A			
				WBT	D	482	48.1	325
				WBR	C	522	31.2	391
			WB Approach		D		38.9	
			NB	NBL	N/A			
				NBT	N/A			
				NBR	N/A			
			NB Approach		N/A			
			SB	SBL	D	593	45.0	384
				SBT	N/A			
				SBR	D	598	46.4	407
			SB Approach		D		45.7	
			Overall LOS		C		33.2	
19	Roosevelt Boulevard/N. Roosevelt Street	Signalized	EB	EBL	C	179	22.1	117
				EBT	A	179	0.0	
				EBR	C	179	24.6	27
			EB Approach		C		22.6	
			WB	WBL	A	0	0.7	
				WBT	A	0	0.0	
				WBR	A	0	0.0	
			WB Approach		A		0.7	
			NB	NBL	C	53	31.3	13
				NBT	B	345	12.1	1063
				NBR	B	345	11.5	
			NB Approach		B		12.3	
			SB	SBL	A	195	0.0	
				SBT	A	195	8.5	613
				SBR	A	196	7.5	115
			SB Approach		A		8.3	
			Overall LOS		B		11.5	
20	Arlington Blvd WB/Wilson Blvd	Signalized	EB	EBL	N/A			
				EBT	A	376	5.4	1256
				EBR	N/A			
			EB Approach		A		5.4	
			WB	WBL	N/A			
				WBT	N/A			
				WBR	C	413	27.2	725
			WB Approach		C		27.2	
			NB	NBL	N/A			
				NBT	F	1282	299.1	337
				NBR	F	1200	259.3	58
			NB Approach		F		293.2	
			SB	SBL	N/A			
				SBT	N/A			
				SBR	N/A			
			SB Approach		N/A			
			Overall LOS		D		39.2	
21	Sleepy Hollow Rd/Wilson Blvd/Broad St/Arlington Blvd EB	Signalized	EB	EBLU to 7	A	0	0.0	0
				EBL to Wilson	F	1665	105.4	602
				EBR to Route 7	F	520	104.6	284
				EBT to 50	F	734	109.4	38
			EB Approach		F		105.3	
			NB	NBR from Sleepy	B	147	19.3	117
				NBT	F	709	85.6	931
				NBR from 7 to Wilson	F	709	94.1	411
				NBR from 7 to 50	F	709	90.3	32
			NB Approach		F		82.8	
			SB	SBL to Wilson	D	237	41.2	243
				SBT to Route 7	B	237	16.4	754
				SBR to Sleepy	C	237	34.1	214
				SBL to 50	D	237	51.5	422
			SB Approach		C		31.5	
			Overall LOS		E		67.2	
22	Broad St WB/Arlington Blvd WB	Signalized	WB	WBL	E	330	57.8	331
				WBT	D	330	45.2	196
				WBR	B	395	12.6	532
			WB Approach		C		32.7	
			NB	NBT from 7 to 7	A	116	6.6	710
				NBU	B	129	17.3	3
				NBL	A	129	6.9	216
			NB Approach		A		6.7	
			Overall LOS		C		20.6	

2030 Baseline AM

Intersection Information					2030 Baseline AM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
23a	Broad St EB/Arlington Blvd WB	Unsignalized	EB	EBL	N/A			
				EBT	A	120	3.8	1318
				EBR	N/A			
			EB Approach		A		3.8	
			WB	WBL	N/A			
				WBT	N/A			
				WBR	N/A			
			WB Approach		N/A			
			NB	NBL	N/A			
				NBT	N/A			
				NBR	N/A			
			NB Approach		N/A			
			SB	SBL	C	213	32.4	334
				SBT	N/A			
				SBR	N/A			
			SB Approach		C		32.4	
			Overall LOS		A		9.5	
23b	Broad St EB/Arlington Blvd WB	Signalized	EB	EBL	N/A			
				EBT	A	175	1.5	1312
				EBR	A	179	2.6	17
			EB Approach		A		1.6	
			WB	WBL	N/A			
				WBT	N/A			
				WBR	N/A			
			WB Approach		N/A			
			NB	NBL	N/A			
				NBT	N/A			
				NBR	N/A			
			NB Approach		N/A			
			SB	SBL	N/A			
				SBT	A	242	8.9	414
				SBR	N/A			
			SB Approach		A		8.9	
			Overall LOS		A		6.1	
24*	Broad St EB/Hillwood Ave	Signalized	EB	EBL	#N/A	#N/A	#N/A	
				EBT	#N/A	#N/A	#N/A	
				EBR	E	350	64.0	630
			EB Approach		E	350	64.0	630
			WB	WBL	#N/A	#N/A	#N/A	
				WBT	#N/A	#N/A	#N/A	196
				WBR	#N/A	#N/A	#N/A	
			WB Approach		#N/A	#N/A	#N/A	
			NB	NBL	#N/A	#N/A	#N/A	
				NBT	#N/A	#N/A	#N/A	
				NBR	#N/A	#N/A	#N/A	
			NB Approach		#N/A		#N/A	
			SB	SBL	#N/A	#N/A	#N/A	
				SBT	F	#N/A	140.0	681
				SBR	#N/A	#N/A	#N/A	
			SB Approach		F	#N/A	140.0	681
			Overall LOS		F		103.6	

* LOS, queue length, and delay for the WB movement at this intersection are not reported because the movement is related to the signal operations at intersections 22 and 23b.

"N/A" represents movements that are not allowed, or do not exist

2030 Baseline PM

Intersection Information					2030 Baseline PM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
1	S. Cherry Street/Arlington Boulevard (US 50)	Signalized	EB	EBL	F	150	108.3	44
				EBT	C	213	20.2	2635
				EBR	F	217	85.1	23
			EB Approach		C		22.2	
			WB	WBL	F	218	121.9	69
				WBT	C	1188	26.8	2918
				WBR	B	46	15.0	28
			WB Approach		C		28.8	
			NB	NBL	F	222	147.9	72
				NBT	F	222	96.0	20
				NBR	A	222	0.0	0
			NB Approach		F		136.6	
			SB	SBL	F	556	156.6	31
				SBT	F	556	161.2	20
				SBR	F	556	166.0	97
			SB Approach		F		163.4	
			Overall LOS		C		31.0	
2	S. Cherry Street/Hillwood Avenue	Signalized	EB	EBL	B	45	17.9	26
				EBT	B	232	14.5	373
				EBR	A	56	8.4	47
			EB Approach		B		14.1	
			WB	WBL	B	63	12.1	37
				WBT	B	189	13.2	284
				WBR	B	191	14.8	18
			WB Approach		B		13.2	
			NB	NBL	C	227	32.2	93
				NBT	C	227	30.3	41
				NBR	C	271	22.0	60
			NB Approach		C		28.6	
			SB	SBL	D	382	35.6	182
				SBT	C	382	28.1	9
				SBR	C	415	33.9	123
			SB Approach		C		34.7	
			Overall LOS		C		21.0	
3	S. Cherry Street/E. Broad Street (VA 7)	Signalized	EB	EBL	C	275	30.0	18
				EBT	A	275	7.4	700
				EBR	A	275	8.0	193
			EB Approach		A		7.9	
			WB	WBL	C	466	25.5	35
				WBT	B	466	17.7	851
				WBR	B	487	17.6	100
			WB Approach		B		18.0	
			NB	NBL	E	161	61.6	23
				NBT	D	161	52.8	36
				NBR	D	161	41.8	27
			NB Approach		D		51.7	
			SB	SBL	E	340	60.5	7
				SBT	E	340	58.2	76
				SBR	E	340	59.1	114
			SB Approach		E		58.8	
			Overall LOS		B		18.8	
6	South Street & S. Roosevelt Street/Hillwood Avenue	Signalized	EB	EBL	D	97	36.1	42
				EBT	C	813	29.8	472
				EBR	C	838	23.9	77
			EB Approach		C		29.4	
			WB	WBL	D	328	41.7	101
				WBT	C	325	22.0	161
				WBR	B	342	12.7	10
			WB Approach		C		29.0	
			NB	NBL	D	300	40.4	87
				NBT	C	300	33.2	30
				NBR	C	312	32.0	135
			NB Approach		D		35.0	
			SB	SBL	D	387	38.3	89
				SBT	C	387	29.7	302
				SBR	C	390	22.8	42
			SB Approach		C		30.8	
			Overall LOS		C		30.7	
7	N. Roosevelt Street/E. Broad Street (VA 7)	Signalized	EB	EBL	N/A	#N/A		
				EBT	E	665	57.0	637
				EBR	D	696	51.3	16
			EB Approach		E		56.8	
			WB	WBL	F	865	91.6	101
				WBT	D	865	43.9	845
				WBR	N/A	#N/A		
			WB Approach		D		49.0	
			NB	NBL	E	208	67.9	30
				NBT	E	208	56.0	31
				NBR	N/A			21
			NB Approach		E		65.0	
			SB	SBL	N/A			45
				SBT	F	1420	175.9	319
				SBR	F	1420	174.5	12
			SB Approach		F		175.8	
			Overall LOS		E		75.0	

"N/A" represents movements that are not allowed, or do not exist

2030 Baseline PM

Intersection Information					2030 Baseline PM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
8	Sleepy Hollow Road/Aspen Lane	Unsignalized	EB	EBL	A	62	0.0	0
				EBT	N/A			
				EBR	B	62	11.4	37
			EB Approach		B		11.4	
			WB	WBL	N/A			
				WBT	N/A			
				WBR	N/A			
			WB Approach		N/A			
			NB	NBL	B	215	13.6	93
				NBT	A	157	6.3	217
				NBR	N/A			
			NB Approach		A		8.5	
			SB	SBL	N/A			
				SBT	A	0	2.6	689
				SBR	A	0	5.6	109
			SB Approach		A		3.0	
			Overall LOS		B		11.4	
9	Sleepy Hollow Road/Castle Place	Unsignalized	EB	EBL	N/A			
				EBT	N/A			
				EBR	N/A			
			EB Approach		N/A			
			WB	WBL	D	525	47.8	403
				WBT	N/A			
				WBR	A	524	0.0	0
			WB Approach		C		27.8	
			NB	NBL	N/A			
				NBT	A	6	4.1	13
				NBR	A	114	5.7	218
			NB Approach		A		8.5	
			SB	SBL	B	286	17.1	47
				SBT	A	594	6.8	383
				SBR	N/A			
			SB Approach		A		7.9	
			Overall LOS		C		27.8	
10	Castle Road &Thorne Road/Leesburg Pike (VA 7)	Signalized	EB	EBL	D	235	47.8	29
				EBT	E	611	57.5	1259
				EBR	A	646	0.0	0
			EB Approach		E		57.3	
			WB	WBL	F	961	91.9	443
				WBT	D	498	44.6	1245
				WBR	D	498	48.7	54
			WB Approach		E		56.7	
			NB	NBL	F	609	81.2	74
				NBT	F	609	91.7	88
				NBR	E	615	62.9	223
			NB Approach		E		73.0	
			SB	SBL	F	386	112.5	91
				SBT	F	386	105.9	47
				SBR	E	391	55.8	227
			SB Approach		E		76.4	
			Overall LOS		E		59.0	
11	Seven Corners Center/Leesburg Pike (VA 7)	Signalized	EB	EBL	F	153	111.5	56
				EBT	F	1417	165.3	1382
				EBR	F	848	128.0	35
			EB Approach		F		162.4	
			WB	WBL	E	232	67.0	85
				WBT	B	428	16.1	1277
				WBR	A	35	2.9	26
			WB Approach		B		19.0	
			NB	NBL	F	471	209.7	286
				NBT	F	471	110.7	47
				NBR	A	471	0.0	0
			NB Approach		F		195.7	
			SB	SBL	F	198	82.5	118
				SBT	E	198	73.5	65
				SBR	B	178	15.7	157
			SB Approach		D		49.9	
			Overall LOS		F		98.3	
12	Patrick Henry Drive/Leesburg Pike (VA 7)	Signalized	EB	EBL	F	567	153.7	168
				EBT	E	566	62.7	1309
				EBR	D	48	51.6	19
			EB Approach		E		72.8	
			WB	WBL	F	455	137.6	126
				WBT	E	788	61.5	1010
				WBR	E	793	59.3	338
			WB Approach		E		67.5	
			NB	NBL	F	452	115.1	125
				NBT	F	427	115.9	42
				NBR	F	422	116.2	70
			NB Approach		F		115.6	
			SB	SBL	F	1659	141.2	443
				SBT	F	1659	196.9	33
				SBR	F	1660	144.3	260
			SB Approach		F		144.8	
			Overall LOS		F		86.7	

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2030 Baseline PM

Intersection Information					2030 Baseline PM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
13	Arlington Boulevard service road/Arlington Boulevard (US 50)	Signalized	EB	EBL	D	687	45.5	52
				EBT	B	687	14.6	2167
				EBR	B	687	16.0	60
			EB Approach		B		15.4	
			WB	WBL	A	1677	0.0	0
				WBT	E	1677	76.3	2484
				WBR	E	1677	69.6	34
			WB Approach		E		76.2	
			NB	NBL	E	309	64.5	30
				NBT	E	309	73.1	76
				NBR	D	264	44.7	110
			NB Approach		E		57.5	
			SB	SBL	F	471	114.4	134
				SBT	F	471	108.6	19
				SBR	F	471	87.0	20
			SB Approach		F		110.6	
			Overall LOS		D		49.8	
14	Patrick Henry Drive/Arlington Boulevard (US 50)	Signalized	EB	EBL	F	290	157.7	132
				EBT	F	1676	151.3	2030
				EBR	F	1670	167.8	32
			EB Approach		F		151.9	
			WB	WBL	F	1695	272.7	166
				WBT	F	1695	124.4	2167
				WBR	F	1693	123.8	118
			WB Approach		F		134.4	
			NB	NBL	F	347	191.6	85
				NBT	E	355	55.2	269
				NBR	D	305	45.9	64
			NB Approach		F		81.5	
			SB	SBL	F	1266	314.1	222
				SBT	F	1264	298.5	538
				SBR	F	1264	141.1	15
			SB Approach		F		299.9	
			Overall LOS		F		154.4	
15	John Marshall Drive/Patrick Henry Drive & Willston Drive	Signalized	EB	EBL	F	990	87.7	11
				EBT	F	990	115.2	383
				EBR	N/A			
			EB Approach		F		114.4	
			WB	WBL	N/A			
				WBT	B	225	13.9	221
				WBR	B	1025	12.6	243
			WB Approach		B		13.2	
			NB	NBL	N/A			
				NBT	N/A			
				NBR	N/A			
			NB Approach		N/A			
			SB	SBL	F	850	195.5	308
				SBT	N/A			
				SBR	F	861	169.6	22
			SB Approach		F		193.7	
			Overall LOS		F		96.9	
16	John Marshall Drive & N. McKinley Road/Wilson Boulevard	Signalized	EB	EBL	C	175	31.1	119
				EBT	C	253	24.7	475
				EBR	D	265	48.8	12
			EB Approach		C		26.4	
			WB	WBL	F	1574	234.4	205
				WBT	F	1571	112.0	453
				WBR	F	1572	111.6	65
			WB Approach		F		146.7	
			NB	NBL	E	420	76.6	52
				NBT	D	420	43.8	53
				NBR	C	423	33.3	133
			NB Approach		D		45.1	
			SB	SBL	C	50	32.5	16
				SBT	E	258	74.2	102
				SBR	C	212	25.4	153
			SB Approach		D		44.2	
			Overall LOS		E		77.8	
17	Peyton Randolph Drive/Wilson Boulevard	Signalized	EB	EBL	B	606	11.6	2
				EBT	C	606	29.6	458
				EBR	D	614	39.0	432
			EB Approach		C		34.1	
			WB	WBL	C	83	30.7	37
				WBT	C	430	29.8	611
				WBR	C	467	31.0	8
			WB Approach		C		29.9	
			NB	NBL	E	451	78.8	156
				NBT	A	451	0.0	0
				NBR	D	354	51.4	52
			NB Approach		E		72.0	
			SB	SBL	D	112	46.5	94
				SBT	A	112	0.0	0
				SBR	B	120	13.9	20
			SB Approach		D		40.8	
			Overall LOS		D		37.7	

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2030 Baseline PM

Intersection Information					2030 Baseline PM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
18	Roosevelt Boulevard/Wilson Boulevard	Signalized	EB	EBL	C	319	32.7	215
				EBT	B	212	17.8	344
				EBR	N/A			
			EB Approach		C		23.6	
			WB	WBL	N/A			
				WBT	D	557	44.9	484
				WBR	C	597	32.5	287
			WB Approach		D		40.3	
			NB	NBL	N/A			
				NBT	N/A			
				NBR	N/A			
			NB Approach		N/A			
			SB	SBL	F	1141	115.4	542
				SBT	N/A			
				SBR	F	1142	131.2	197
			SB Approach		F		119.6	
			Overall LOS		E		63.2	
19	Roosevelt Boulevard/N. Roosevelt Street	Signalized	EB	EBL	C	121	31.4	62
				EBT	A	121	0.0	
				EBR	D	121	50.7	24
			EB Approach		D		36.8	
			WB	WBL	A	28	9.5	
				WBT	A	11	2.9	
				WBR	A	29	0.0	
			WB Approach		A		9.1	
			NB	NBL	C	87	30.2	38
				NBT	A	180	9.7	507
				NBR	A	180	7.1	
			NB Approach		B		11.0	
			SB	SBL	A	888	0.0	
				SBT	C	888	31.8	697
				SBR	C	889	29.9	336
			SB Approach		C		31.2	
			Overall LOS		C		23.8	
20	Arlington Blvd WB/Wilson Blvd	Signalized	EB	EBL	N/A			
				EBT	A	255	6.7	472
				EBR	N/A			
			EB Approach		A		6.7	
			WB	WBL	N/A			
				WBT	N/A			
				WBR	F	898	203.9	674
			WB Approach		F		203.9	
			NB	NBL	N/A			
				NBT	F	1187	483.4	129
				NBR	A	1187	0.0	0
			NB Approach		F		418.5	
			SB	SBL	N/A			
				SBT	N/A			
				SBR	N/A			
			SB Approach		N/A			
			Overall LOS		F		119.1	
21	Sleepy Hollow Rd/Wilson Blvd/Broad St/Arlington Blvd EB	Signalized	EB	EBLU to 7	F	9	143.3	12
				EBL to Wilson	F	1634	124.1	325
				EBR to Route 7	F	1518	137.6	385
				EBT to 50	F	426	132.7	112
			EB Approach		F		131.8	
			NB	NBR from Sleepy	C	71	26.5	29
				NBT	E	700	75.4	1500
				NBR from 7 to Wilson	E	700	75.5	59
				NBR from 7 to 50	F	701	86.3	7
			NB Approach		E		74.5	
			SB	SBL to Wilson	D	252	38.5	90
				SBT to Route 7	C	252	28.5	849
				SBR to Sleepy	C	252	24.5	369
				SBL to 50	D	252	45.3	432
			SB Approach		C		32.3	
			Overall LOS		E		68.3	
22	Broad St WB/Arlington Blvd WB	Signalized	WB	WBL	F	356	154.6	292
				WBT	E	356	68.5	447
				WBR	C	421	28.1	47
			WB Approach		F		98.1	
			NB	NBT from 7 to 7	A	357	8.2	1127
				NBU	A	283	0.0	0
				NBL	B	283	11.8	383
			NB Approach		A		9.1	
			Overall LOS		D		39.4	

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2030 Baseline PM

Intersection Information					2030 Baseline PM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
23a	Broad St EB/Arlington Blvd WB	Unsignalized	EB	EBL	N/A			
				EBT	A	128	7.4	1488
				EBR	N/A			
			EB Approach		A		7.4	
			WB	WBL	N/A			
				WBT	N/A			
				WBR	N/A			
			WB Approach		N/A			
			NB	NBL	N/A			
				NBT	N/A			
				NBR	N/A			
			NB Approach		N/A			
			SB	SBL	D	224	52.0	287
				SBT	N/A			
				SBR	N/A			
			SB Approach		D		52.0	
			Overall LOS		B		14.6	
23b	Broad St EB/Arlington Blvd WB	Signalized	EB	EBL	N/A			
				EBT	A	180	1.5	1489
				EBR	A	188	2.0	40
			EB Approach		A		1.5	
			WB	WBL	N/A			
				WBT	N/A			
				WBR	N/A			
			WB Approach		N/A			
			NB	NBL	N/A			
				NBT	N/A			
				NBR	N/A			
			NB Approach		N/A			
			SB	SBL	N/A			
				SBT	B	263	10.8	830
				SBR	N/A			
			SB Approach		B		10.8	
			Overall LOS		A		7.1	
24*	Broad St EB/Hillwood Ave	Signalized	EB	EBL	#N/A	#N/A	#N/A	
				EBT	#N/A	#N/A	#N/A	
				EBR	F	970	162.4	829
			EB Approach		F	970	162.4	829
			WB	WBL	#N/A	#N/A	#N/A	
				WBT	#N/A	#N/A	#N/A	410
				WBR	#N/A	#N/A	#N/A	
			WB Approach		#N/A	#N/A	#N/A	
			NB	NBL	#N/A	#N/A	#N/A	
				NBT	#N/A	#N/A	#N/A	
				NBR	#N/A	#N/A	#N/A	
			NB Approach		#N/A		#N/A	
			SB	SBL	#N/A	#N/A	#N/A	
				SBT	F	#N/A	195.4	660
				SBR	#N/A	#N/A	#N/A	
			SB Approach		F	#N/A	195.4	660
			Overall LOS		F		177.3	

* LOS, queue length, and delay for the WB movement at this intersection are not reported because the movement is related to the signal operations at intersections 22 and 23b.

"N/A" represents movements that are not allowed, or do not exist

2030 Scenario 1 AM

Intersection Information					2030 Scenario 1 AM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
1	S. Cherry Street/Arlington Boulevard (US 50)	Signalized	EB	EBL	F	787	184.1	139
				EBT	C	1497	29.6	2980
				EBR	C	1497	21.0	35
			EB Approach		D		36.3	
			WB	WBL	A	0	0.0	0
				WBT	B	940	18.5	2127
				WBR	A	0	0.0	0
			WB Approach		B		18.5	
			NB	NBL	F	403	335.4	81
				NBT	F	403	125.5	5
				NBR	A	405	0.0	0
			NB Approach		F		323.2	
			SB	SBL	F	217	137.7	6
				SBT	A	217	0.0	0
				SBR	C	217	20.9	54
			SB Approach		C		32.6	
			Overall LOS		C		33.9	
2	S. Cherry Street/Hillwood Avenue	Signalized	EB	EBL	C	55	25.0	34
				EBT	B	164	13.9	249
				EBR	A	40	6.6	25
			EB Approach		B		14.5	
			WB	WBL	B	27	11.8	6
				WBT	B	259	15.9	293
				WBR	B	261	14.9	57
			WB Approach		B		15.6	
			NB	NBL	C	475	32.9	35
				NBT	C	475	29.9	275
				NBR	C	519	25.5	33
			NB Approach		C		29.8	
			SB	SBL	C	112	29.9	22
				SBT	B	112	16.4	37
				SBR	B	145	14.5	49
			SB Approach		B		18.3	
			Overall LOS		B		20.0	
3	S. Cherry Street/E. Broad Street (VA 7)	Signalized	EB	EBL	C	254	21.7	60
				EBT	A	254	9.8	587
				EBR	A	260	5.7	4
			EB Approach		B		10.9	
			WB	WBL	C	379	22.8	13
				WBT	B	379	13.7	900
				WBR	B	393	16.8	24
			WB Approach		B		13.9	
			NB	NBL	D	599	49.4	76
				NBT	D	599	53.4	252
				NBR	E	599	55.3	39
			NB Approach		D		52.8	
			SB	SBL	E	231	69.8	70
				SBT	E	231	61.3	22
				SBR	D	231	54.4	21
			SB Approach		E		65.3	
			Overall LOS		C		22.7	
6	South Street & S. Roosevelt Street/Hillwood Avenue	Signalized	EB	EBL	B	58	15.5	48
				EBT	B	275	16.3	233
				EBR	B	308	14.6	59
			EB Approach		B		15.9	
			WB	WBL	B	186	14.4	80
				WBT	B	239	11.4	132
				WBR	A	250	0.0	0
			WB Approach		B		12.5	
			NB	NBL	C	160	21.6	104
				NBT	C	160	20.0	49
				NBR	B	171	13.2	23
			NB Approach		C		20.1	
			SB	SBL	B	132	17.2	20
				SBT	B	132	14.4	88
				SBR	A	103	7.1	50
			SB Approach		B		12.5	
			Overall LOS		B		15.3	
7	N. Roosevelt Street/E. Broad Street (VA 7)	Signalized	EB	EBL	#N/A	#N/A	#N/A	
				EBT	A	207	7.2	693
				EBR	A	238	5.8	20
			EB Approach		A		7.2	
			WB	WBL	B	450	16.2	106
				WBT	B	450	17.9	833
				WBR	A	450	3.1	
			WB Approach		B		16.9	
			NB	NBL	A	179	0.0	0
				NBT	D	179	49.6	59
				NBR	D	179	44.1	39
			NB Approach		D		47.4	
			SB	SBL	A	197	0.0	0
				SBT	D	197	44.2	32
				SBR	D	197	49.5	71
			SB Approach		D		47.9	
			Overall LOS		B		16.5	

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2030 Scenario 1 AM

Intersection Information					2030 Scenario 1 AM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
8	Sleepy Hollow Road/Aspen Lane	Unsignalized	EB	EBL	B	48	12.9	17
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	A	48	0.0	0
			EB Approach		B		12.9	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	A	176	4.5	83
				NBT	A	118	3.2	469
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		A		3.4	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	A	0	1.8	389
				SBR	A	0	1.3	10
			SB Approach		A		1.7	
			Overall LOS		B		12.9	
9	Sleepy Hollow Road/Castle Place	Signalized	EB	EBL	B	0	14.0	0
				EBT	C	264	21.2	442
				EBR	C	264	24.9	37
			EB Approach		N/A			
			WB	WBL	B	129	11.1	153
				WBT	A	92	2.6	455
				WBR	A	92	2.8	52
			WB Approach		A		4.6	
			NB	NBL	F	418	84.5	60
				NBT	A	418	0.0	0
				NBR	F	815	80.7	371
			NB Approach		F		81.2	
			SB	SBL	A	179	0.6	0
				SBT	C	179	27.5	172
				SBR	A	179	0.0	0
			SB Approach		C		27.5	
			Overall LOS		C		30.5	
10	Castle Road &Thorne Road/Leesburg Pike (VA 7)	Signalized	EB	EBL	C	133	33.4	84
				EBT	D	241	43.6	461
				EBR	D	241	35.9	37
			EB Approach		D		41.6	
			WB	WBL	E	491	59.4	595
				WBT	E	1008	63.8	1170
				WBR	D	1008	36.4	80
			WB Approach		E		61.2	
			NB	NBL	D	690	52.1	28
				NBT	D	690	49.0	220
				NBR	D	690	47.0	565
			NB Approach		D		47.7	
			SB	SBL	F	223	96.5	66
				SBT	F	223	92.7	27
				SBR	F	223	99.4	6
			SB Approach		F		95.6	
			Overall LOS		E		55.5	
11	Seven Corners Center/Leesburg Pike (VA 7)	Signalized	EB	EBL	E	198	57.0	92
				EBT	D	432	41.7	997
				EBR	C	57	25.9	36
			EB Approach		D		42.4	
			WB	WBL	D	147	45.9	91
				WBT	A	462	9.8	1638
				WBR	A	29	1.5	19
			WB Approach		B		11.6	
			NB	NBL	F	1081	428.9	156
				NBT	F	1081	153.3	5
				NBR	E	1081	75.3	42
			NB Approach		F		349.0	
			SB	SBL	F	186	80.0	132
				SBT	E	186	71.7	9
				SBR	B	81	13.2	56
			SB Approach		E		60.6	
			Overall LOS		D		46.0	
12	Patrick Henry Drive/Leesburg Pike (VA 7)	Signalized	EB	EBL	F	439	104.2	129
				EBT	B	416	19.3	1050
				EBR	B	12	17.1	4
			EB Approach		C		28.5	
			WB	WBL	F	149	81.7	91
				WBT	E	1476	79.1	1546
				WBR	E	1480	75.0	273
			WB Approach		E		78.7	
			NB	NBL	E	433	68.2	109
				NBT	E	443	70.8	58
				NBR	E	365	69.4	111
			NB Approach		E		69.2	
			SB	SBL	E	230	76.8	170
				SBT	E	230	75.3	35
				SBR	D	186	43.6	95
			SB Approach		E		66.1	
			Overall LOS		E		60.8	

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2030 Scenario 1 AM

Intersection Information					2030 Scenario 1 AM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
13	Arlington Boulevard service road/Arlington Boulevard (US 50)	Signalized	EB	EBL	D	894	46.7	52
				EBT	A	894	7.3	3005
				EBR	B	894	14.7	29
			EB Approach		A		8.1	
			WB	WBL	A	420	0.0	0
				WBT	A	420	6.7	2098
				WBR	A	420	8.2	157
			WB Approach		A		6.8	
			NB	NBL	F	243	84.8	70
				NBT	F	243	136.7	39
				NBR	E	200	79.4	24
			NB Approach		F		99.0	
			SB	SBL	A	0	0.0	0
				SBT	A	0	0.0	0
				SBR	A	41	8.7	4
			SB Approach		A		8.7	
			Overall LOS		A		9.8	
14	Patrick Henry Drive/Arlington Boulevard (US 50)	Signalized	EB	EBL	F	214	125.4	73
				EBT	D	1645	54.5	2671
				EBR	D	1646	48.1	35
			EB Approach		E		56.3	
			WB	WBL	F	627	94.2	107
				WBT	C	627	26.0	1836
				WBR	C	670	25.5	187
			WB Approach		C		29.4	
			NB	NBL	F	36	104.2	5
				NBT	F	637	90.7	269
				NBR	F	646	98.1	257
			NB Approach		F		94.4	
			SB	SBL	F	1234	504.6	200
				SBT	F	1233	352.3	142
				SBR	F	1233	168.0	13
			SB Approach		F		431.4	
			Overall LOS		E		71.2	
15	John Marshall Drive/Patrick Henry Drive & Willston Drive	Signalized	EB	EBL	D	664	52.7	35
				EBT	E	664	55.5	346
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		E		55.3	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	C	306	26.8	286
				WBR	B	675	13.4	251
			WB Approach		C		20.5	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		N/A			
			SB	SBL	D	242	43.0	122
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	D	254	39.5	58
			SB Approach		D		41.8	
			Overall LOS		D		35.9	
16	John Marshall Drive & N. McKinley Road/Wilson Boulevard	Signalized	EB	EBL	B	102	19.9	62
				EBT	C	469	20.7	874
				EBR	B	480	13.4	2
			EB Approach		C		20.7	
			WB	WBL	E	192	55.8	100
				WBT	C	199	25.2	308
				WBR	C	209	23.6	86
			WB Approach		C		31.1	
			NB	NBL	E	587	60.1	97
				NBT	D	587	50.6	174
				NBR	D	589	49.3	160
			NB Approach		D		52.2	
			SB	SBL	D	132	38.3	82
				SBT	C	58	24.1	38
				SBR	A	81	8.2	116
			SB Approach		C		21.2	
			Overall LOS		C		29.7	
17	Peyton Randolph Drive/Wilson Boulevard	Signalized	EB	EBL	B	660	15.7	7
				EBT	C	660	27.1	887
				EBR	C	668	20.3	368
			EB Approach		C		25.1	
			WB	WBL	B	86	19.9	47
				WBT	B	188	11.7	475
				WBR	A	225	0.0	0
			WB Approach		B		12.4	
			NB	NBL	E	421	67.0	162
				NBT	A	421	0.0	0
				NBR	D	332	41.0	41
			NB Approach		E		61.8	
			SB	SBL	D	47	53.0	14
				SBT	A	47	0.0	0
				SBR	C	54	30.5	2
			SB Approach		D		50.2	
			Overall LOS		C		25.7	

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2030 Scenario 1 AM

Intersection Information					2030 Scenario 1 AM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
18	Roosevelt Boulevard/Wilson Boulevard	Signalized	EB	EBL	C	702	26.5	649
				EBT	B	798	14.6	834
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		B		19.8	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	C	353	33.7	274
				WBR	C	392	20.9	369
			WB Approach		C		26.3	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		N/A			
			SB	SBL	D	419	45.1	425
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	D	424	42.9	238
			SB Approach		D		44.3	
			Overall LOS		C		27.1	
19	Roosevelt Boulevard/N. Roosevelt Street	Signalized	EB	EBL	C	216	27.7	175
				EBT	A	216	0.0	0
				EBR	C	216	30.0	11
			EB Approach		C		27.8	
			WB	WBL	A	0	0.0	0
				WBT	A	0	0.0	0
				WBR	A	8	1.4	4
			WB Approach		A		1.4	
			NB	NBL	D	94	38.6	58
				NBT	B	352	12.6	1056
				NBR	B	352	11.3	19
			NB Approach		B		13.9	
			SB	SBL	A	263	0.0	0
				SBT	B	263	13.4	679
				SBR	B	264	11.3	77
			SB Approach		B		13.2	
			Overall LOS		B		14.9	
20	Arlington Blvd WB/Wilson Blvd	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	A	370	2.7	1343
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		A		2.7	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	A	173	6.2	554
			WB Approach		A		6.2	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	F	431	123.8	286
				NBR	F	317	112.5	31
			NB Approach		F		122.7	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		B		13.6	
21	Sleepy Hollow Rd/Wilson Blvd/Broad St/Arlington Blvd EB	Signalized	EB (EB Service Rd)	EBLU to 7	E	537	58.7	1
				EBL to Wilson	C	537	29.0	715
				EBR to Route 7	D	154	36.5	82
				EBT to 50	D	410	48.6	169
			EB Approach		C		33.1	
			NB Leesburg Pike	NBR from Sleepy	B	99	12.1	53
				NBT	D	680	49.1	690
				NBR from 7 to Wilson	E	680	76.7	487
				NBR from 7 to 50	E	680	60.1	24
			NB Approach		E		58.4	
			SB Broad St	SBL to Wilson	C	222	25.8	5
				SBT to Route 7	A	222	5.8	408
				SBR to Sleepy	C	222	21.9	172
				SBL to 50	C	222	25.4	212
			SB Approach		B		16.2	
			Overall LOS		D		38.2	
22	Broad St WB/Arlington Blvd WB	Signalized	EB	EBL	#N/A	#N/A	#N/A	
				EBT	#N/A	#N/A	#N/A	
				EBR	#N/A	#N/A	#N/A	
			WB	WBL	B	244	10.6	224
				WBT	B	244	12.1	169
				WBR	A	133	5.5	446
			WB Approach		A		8.2	
			NB	NBT from 7 to 7	A	73	2.7	691
				NBU	#N/A	#N/A	#N/A	#N/A
				NBL	#N/A	#N/A	#N/A	#N/A
			NB Approach		A		0.3	
			SB	SBL	#N/A	#N/A	#N/A	
				SBT	#N/A	#N/A	#N/A	
				SBR	#N/A	#N/A	#N/A	
			SB Approach		#N/A		#N/A	
			Overall LOS		A		4.0	

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2030 Scenario 1 AM

Intersection Information					2030 Scenario 1 AM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
23	Broad St EB/Arlington Blvd WB	Unsignalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	A	77	1.1	708
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		A		1.1	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		N/A	
			SB	SBL	A	127	1.1	224
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		A		1.1	
			Overall LOS		A		1.1	
23	Broad St EB/Arlington Blvd WB	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	A	136	2.6	708
				EBR	A	0	0.0	0
			EB Approach		A		2.6	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		#N/A	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	B	119	17.3	169
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		B		17.3	
			Overall LOS		A		4.1	
25	Ring Road at Arligton Blvd EB	Signalized	EB	EBL	A	802	0.0	0
				EBT	D	802	39.7	702
				EBR	D	802	41.0	264
			EB Approach		D		40.1	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	F	448	85.5	330
				NBR	E	448	73.1	36
			NB Approach		F		87.3	
			SB	SBL	B	203	11.9	229
				SBT	A	203	8.3	218
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		B		10.2	
			Overall LOS		D		45.6	
26	Ring Road at Arligton Blvd WB	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		#N/A		#N/A	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	B	82	19.8	170
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		B		19.8	
			NB	NBL	A	198	5.9	329
				NBT	A	104	6.3	158
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		A		6.0	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	B	211	17.0	447
				SBR	C	211	29.8	14
			SB Approach		B		17.4	
			Overall LOS		B		12.8	
27	Ring Road at E. Broad St	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	C	410	23.5	677
				EBR	C	410	26.4	55
			EB Approach		C		23.7	
			WB	WBL	D	447	35.9	148
				WBT	B	447	12.6	930
				WBR	B	447	10.1	55
			WB Approach		B		15.6	
			NB	NBL	D	128	47.8	37
				NBT	A	128	0.0	0
				NBR	A	128	0.0	0
			NB Approach		D		47.8	
			SB	SBL	D	138	46.6	31
				SBT	D	138	47.0	7
				SBR	D	138	42.3	33
			SB Approach		D		44.7	
			Overall LOS		C		20.3	

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2030 Scenario 1 AM

Intersection Information					2030 Scenario 1 AM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
29	Ring Road at Hillwood Ave	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	C	438	34.0	396
			EB Approach		C		34.0	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	B	124	16.9	123
				NBT	C	80	22.2	37
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		B		18.2	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	C	223	21.1	65
				SBR	C	223	25.3	144
			SB Approach		C		24.0	
			Overall LOS		C		28.5	

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2030 Scenario 1 PM

Intersection Information					2030 Scenario 1 PM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
1	S. Cherry Street/Arlington Boulevard (US 50)	Signalized	EB	EBL	F	72	129.0	19
				EBT	C	159	21.1	2713
				EBR	F	163	84.1	24
			EB Approach		C		22.4	
			WB	WBL	F	53	144.5	8
				WBT	C	1178	24.4	2777
				WBR	B	48	12.6	43
			WB Approach		C		24.6	
			NB	NBL	F	203	89.7	74
				NBT	F	203	86.3	8
				NBR	A	203	0.0	0
			NB Approach		F		89.3	
			SB	SBL	F	457	98.1	19
				SBT	F	457	110.5	24
				SBR	F	457	109.6	148
			SB Approach		F		108.6	
			Overall LOS		C		27.4	
2	S. Cherry Street/Hillwood Avenue	Signalized	EB	EBL	B	29	16.8	12
				EBT	B	241	14.0	383
				EBR	A	47	7.8	36
			EB Approach		B		13.5	
			WB	WBL	B	91	16.8	40
				WBT	B	157	13.6	215
				WBR	B	160	15.1	17
			WB Approach		B		14.2	
			NB	NBL	C	197	27.9	81
				NBT	C	197	27.9	39
				NBR	C	240	20.0	79
			NB Approach		C		24.7	
			SB	SBL	B	137	16.5	25
				SBT	C	137	24.0	25
				SBR	A	170	9.9	132
			SB Approach		B		12.7	
			Overall LOS		B		15.6	
3	S. Cherry Street/E. Broad Street (VA 7)	Signalized	EB	EBL	C	245	26.4	17
				EBT	A	245	5.6	916
				EBR	A	245	5.1	37
			EB Approach		A		5.9	
			WB	WBL	C	433	22.0	67
				WBT	B	433	12.5	736
				WBR	B	454	11.1	24
			WB Approach		B		13.3	
			NB	NBL	E	169	60.6	27
				NBT	D	169	49.2	50
				NBR	D	169	40.3	11
			NB Approach		D		51.6	
			SB	SBL	E	285	60.5	7
				SBT	D	285	54.0	90
				SBR	D	285	53.4	64
			SB Approach		D		54.0	
			Overall LOS		B		14.6	
6	South Street & S. Roosevelt Street/Hillwood Avenue	Signalized	EB	EBL	D	404	37.6	131
				EBT	C	596	30.9	256
				EBR	C	628	25.6	93
			EB Approach		C		31.7	
			WB	WBL	B	227	16.6	99
				WBT	A	191	8.8	148
				WBR	A	191	9.3	22
			WB Approach		B		11.7	
			NB	NBL	B	155	19.4	18
				NBT	B	155	19.0	54
				NBR	B	167	13.3	134
			NB Approach		B		15.3	
			SB	SBL	C	330	26.2	82
				SBT	C	330	23.4	167
				SBR	B	291	12.7	71
			SB Approach		C		21.8	
			Overall LOS		C		22.3	
7	N. Roosevelt Street/E. Broad Street (VA 7)	Signalized	EB	EBL	#N/A	#N/A	#N/A	
				EBT	C	433	33.8	853
				EBR	C	464	33.7	15
			EB Approach		C		33.8	
			WB	WBL	C	326	23.6	133
				WBT	B	326	10.8	692
				WBR	B	326	10.4	
			WB Approach		B		12.8	
			NB	NBL	E	318	59.2	31
				NBT	D	318	38.7	45
				NBR	D	318	49.5	132
			NB Approach		D		48.6	
			SB	SBL	D	284	50.3	4
				SBT	D	284	47.4	171
				SBR	D	284	43.9	24
			SB Approach		D		47.1	
			Overall LOS		C		28.1	

"N/A" represents movements that are not allowed, or do not exist

2030 Scenario 1 PM

Intersection Information					2030 Scenario 1 PM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
8	Sleepy Hollow Road/Aspen Lane	Unsignalized	EB	EBL	A	68	0.0	0
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	B	68	14.9	38
			EB Approach		B		14.9	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	B	246	15.7	57
				NBT	A	188	5.9	269
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		A		7.6	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	A	0	4.2	783
				SBR	A	0	4.6	106
			SB Approach		A		4.3	
			Overall LOS		B		14.9	
9	Sleepy Hollow Road/Castle Place	Signalized	EB	EBL	A	0	0.0	0
				EBT	E	497	57.8	764
				EBR	E	497	59.3	59
			EB Approach		N/A			
			WB	WBL	E	821	79.1	331
				WBT	F	821	128.4	602
				WBR	F	821	115.7	44
			WB Approach		F		111.2	
			NB	NBL	F	276	97.7	31
				NBT	E	276	65.7	37
				NBR	C	342	23.4	195
			NB Approach		D		38.1	
			SB	SBL	A	427	0.0	0
				SBT	D	427	44.5	495
				SBR	A	427	0.0	0
			SB Approach		D		44.5	
			Overall LOS		E		73.6	
10	Castle Road &Thorne Road/Leesburg Pike (VA 7)	Signalized	EB	EBL	C	122	29.4	56
				EBT	D	224	43.4	424
				EBR	D	224	43.4	3
			EB Approach		D		41.8	
			WB	WBL	F	1424	164.9	873
				WBT	E	1424	58.4	720
				WBR	D	1424	43.2	121
			WB Approach		F		111.6	
			NB	NBL	F	621	111.3	92
				NBT	F	621	110.3	58
				NBR	E	621	69.2	805
			NB Approach		E		75.8	
			SB	SBL	F	356	98.6	105
				SBT	F	356	82.8	132
				SBR	F	356	85.8	101
			SB Approach		F		88.6	
			Overall LOS		F		88.3	
11	Seven Corners Center/Leesburg Pike (VA 7)	Signalized	EB	EBL	D	143	45.7	71
				EBT	D	504	44.5	1221
				EBR	C	2	24.9	35
			EB Approach		D		44.1	
			WB	WBL	E	478	72.0	115
				WBT	C	547	25.9	1367
				WBR	A	57	4.5	60
			WB Approach		C		28.5	
			NB	NBL	F	376	138.4	271
				NBT	F	376	85.4	44
				NBR	A	376	0.0	0
			NB Approach		F		131.0	
			SB	SBL	F	185	94.7	117
				SBT	F	185	93.4	67
				SBR	C	185	23.4	152
			SB Approach		E		62.2	
			Overall LOS		D		46.8	
12	Patrick Henry Drive/Leesburg Pike (VA 7)	Signalized	EB	EBL	E	101	63.9	40
				EBT	C	537	23.6	1250
				EBR	C	112	25.3	38
			EB Approach		C		24.9	
			WB	WBL	F	114	96.1	57
				WBT	F	1319	95.3	1218
				WBR	E	1322	78.7	137
			WB Approach		F		93.8	
			NB	NBL	F	413	106.9	116
				NBT	F	433	104.0	44
				NBR	F	415	99.7	79
			NB Approach		F		104.0	
			SB	SBL	F	1665	148.9	483
				SBT	F	1665	191.5	37
				SBR	F	1661	139.2	223
			SB Approach		F		148.1	
			Overall LOS		F		80.2	

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2030 Scenario 1 PM

Intersection Information					2030 Scenario 1 PM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
13	Arlington Boulevard service road/Arlington Boulevard (US 50)	Signalized	EB	EBL	E	662	65.8	58
				EBT	B	662	16.0	2213
				EBR	B	662	14.6	83
			EB Approach		B		17.1	
			WB	WBL	A	1322	0.0	0
				WBT	D	1322	54.3	2541
				WBR	D	1322	51.7	55
			WB Approach		D		54.3	
			NB	NBL	E	257	62.9	17
				NBT	E	257	76.7	125
				NBR	D	215	53.0	25
			NB Approach		E		71.7	
			SB	SBL	F	311	111.5	81
				SBT	F	311	103.7	27
				SBR	A	311	0.0	0
			SB Approach		F		109.5	
			Overall LOS		D		38.9	
14	Patrick Henry Drive/Arlington Boulevard (US 50)	Signalized	EB	EBL	F	124	159.9	44
				EBT	F	1680	153.5	2055
				EBR	F	1679	140.7	133
			EB Approach		F		152.9	
			WB	WBL	F	1661	330.6	135
				WBT	F	1661	108.9	2240
				WBR	F	1658	102.1	56
			WB Approach		F		121.0	
			NB	NBL	A	0	0.0	0
				NBT	E	206	58.6	131
				NBR	E	159	57.3	43
			NB Approach		E		58.3	
			SB	SBL	F	1265	245.9	350
				SBT	F	1263	229.6	538
				SBR	A	1263	0.0	0
			SB Approach		F		236.0	
			Overall LOS		F		143.0	
15	John Marshall Drive/Patrick Henry Drive & Willston Drive	Signalized	EB	EBL	A	913	0.0	0
				EBT	E	913	64.0	430
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		E		64.0	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	B	186	13.4	182
				WBR	A	637	9.5	110
			WB Approach		B		11.9	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		N/A			
			SB	SBL	F	812	112.5	344
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	F	824	105.7	36
			SB Approach		F		111.9	
			Overall LOS		E		66.4	
16	John Marshall Drive & N. McKinley Road/Wilson Boulevard	Signalized	EB	EBL	C	202	26.3	155
				EBT	C	254	20.7	517
				EBR	C	265	31.6	13
			EB Approach		C		22.1	
			WB	WBL	F	873	98.8	216
				WBT	D	857	38.7	556
				WBR	D	866	35.8	75
			WB Approach		D		53.8	
			NB	NBL	E	211	68.5	38
				NBT	C	211	34.4	52
				NBR	C	214	21.1	39
			NB Approach		D		40.4	
			SB	SBL	A	0	0.0	0
				SBT	D	173	49.8	107
				SBR	B	135	11.7	165
			SB Approach		C		26.7	
			Overall LOS		D		37.4	
17	Peyton Randolph Drive/Wilson Boulevard	Signalized	EB	EBL	B	622	13.1	4
				EBT	B	622	16.0	523
				EBR	C	630	22.5	488
			EB Approach		B		19.1	
			WB	WBL	C	85	24.8	46
				WBT	B	314	14.0	711
				WBR	B	351	13.2	8
			WB Approach		B		14.7	
			NB	NBL	E	250	62.2	113
				NBT	A	250	0.0	0
				NBR	C	203	34.2	44
			NB Approach		D		54.4	
			SB	SBL	D	147	48.3	114
				SBT	A	147	0.0	0
				SBR	A	154	0.0	0
			SB Approach		D		48.3	
			Overall LOS		C		21.8	

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2030 Scenario 1 PM

Intersection Information					2030 Scenario 1 PM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
18	Roosevelt Boulevard/Wilson Boulevard	Signalized	EB	EBL	C	311	32.7	230
				EBT	B	239	18.6	409
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		C		23.7	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	C	457	21.8	650
				WBR	B	497	16.2	164
			WB Approach		C		20.7	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		N/A			
			SB	SBL	E	827	55.8	601
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	E	831	71.4	455
			SB Approach		E		62.5	
			Overall LOS		D		39.0	
19	Roosevelt Boulevard/N. Roosevelt Street	Signalized	EB	EBL	C	129	25.0	76
				EBT	A	129	0.0	0
				EBR	C	129	27.1	28
			EB Approach		C		25.6	
			WB	WBL	A	4	0.9	72
				WBT	A	6	0.7	4
				WBR	A	0	0.0	0
			WB Approach		A		0.9	
			NB	NBL	C	60	26.7	17
				NBT	A	127	9.5	385
				NBR	A	127	6.4	23
			NB Approach		B		10.0	
			SB	SBL	A	325	0.0	0
				SBT	B	325	11.4	946
				SBR	A	326	9.7	153
			SB Approach		B		11.2	
			Overall LOS		B		11.3	
20	Arlington Blvd WB/Wilson Blvd	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	A	244	4.1	560
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		A		4.1	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	C	585	34.9	1092
			WB Approach		C		34.9	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	F	1164	187.5	326
				NBR	A	1089	0.0	0
			NB Approach		F		187.5	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		D		39.8	
21	Sleepy Hollow Rd/Wilson Blvd/Broad St/Arlington Blvd EB	Signalized	EB (EB Service Rd)	EBLU to 7	A	0	0.0	0
				EBL to Wilson	C	198	33.6	384
				EBR to Route 7	D	151	49.2	2
				EBT to 50	C	91	31.2	74
			EB Approach		C		33.3	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	0
			NB Leesburg Pike	NBR from Sleepy	A	97	9.5	81
				NBT	D	514	48.2	861
				NBR from 7 to Wilson	C	514	33.1	121
				NBR from 7 to 50	B	508	15.2	8
			NB Approach		D		43.3	
			SB Broad St	SBL to Wilson	C	250	32.9	5
				SBT to Route 7	C	250	26.5	502
				SBR to Sleepy	D	250	45.2	493
				SBL to 50	D	250	46.3	437
			SB Approach		D		38.8	
			Overall LOS		D		39.6	
22	Broad St WB/Arlington Blvd WB	Signalized	EB	EBL	#N/A	#N/A	#N/A	
				EBT	#N/A	#N/A	#N/A	
				EBR	#N/A	#N/A	#N/A	
			EB Approach		#N/A		#N/A	
			WB	WBL	E	336	64.7	558
				WBT	C	336	27.1	705
				WBR	A	400	7.0	153
			WB Approach		D		39.7	
			NB	NBT from 7 to 7	A	56	3.3	862
				NBU	A	336	0.0	0
				NBL	#N/A	#N/A	#N/A	#N/A
			NB Approach		A		3.3	
			SB	SBL	#N/A	#N/A	#N/A	
				SBT	#N/A	#N/A	#N/A	
				SBR	#N/A	#N/A	#N/A	
			SB Approach		#N/A		#N/A	
			Overall LOS		C		25.9	

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2030 Scenario 1 PM

Intersection Information					2030 Scenario 1 PM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
23	Broad St EB/Arlington Blvd WB	Unsignalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	A	128	8.8	938
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		A		8.827851	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		N/A	
			SB	SBL	C	236	29.3	557
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		C		29.3	
			Overall LOS		B		16.5	
23	Broad St EB/Arlington Blvd WB	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	B	448	10.8	940
				EBR	A	69	0.0	0
			EB Approach		B		10.8	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		#N/A	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	C	271	21.0	706
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		C		21.0	
			Overall LOS		B		17.9	
25	Ring Road at Arligton Blvd EB	Signalized	EB	EBL	D	1544	47.0	4
				EBT	E	1544	65.3	446
				EBR	E	1544	70.9	417
			EB Approach		E		67.7	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	F	597	159.3	319
				NBR	F	597	115.7	4
			NB Approach		F		133.1	
			SB	SBL	B	180	17.8	7
				SBT	A	180	7.1	404
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		A		7.3	
			Overall LOS		E		76.1	
26	Ring Road at Arligton Blvd WB	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		#N/A		#N/A	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	C	341	32.2	706
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		C		32.2	
			NB	NBL	C	222	20.4	312
				NBT	C	218	27.3	321
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		C		23.9	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	B	233	16.8	411
				SBR	C	233	33.2	221
			SB Approach		C		22.5	
			Overall LOS		C		26.4	
27	Ring Road at E. Broad St	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	B	372	10.8	912
				EBR	B	372	11.8	73
			EB Approach		B		10.9	
			WB	WBL	C	461	27.7	118
				WBT	B	461	14.2	841
				WBR	B	461	15.1	49
			WB Approach		B		15.8	
			NB	NBL	A	0	0.0	0
				NBT	A	0	0.0	0
				NBR	A	0	0.0	0
			NB Approach		#N/A			
			SB	SBL	D	138	52.0	32
				SBT	D	138	48.8	58
				SBR	D	138	41.7	7
			SB Approach		D		49.4	
			Overall LOS		B		15.1	

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2030 Scenario 1 PM

Intersection Information					2030 Scenario 1 PM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
29	Ring Road at Hillwood Ave	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	F	803	139.3	430
			EB Approach		F		139.3	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	C	244	27.9	321
				NBT	A	0	0.0	0
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		C		27.9	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	D	257	50.0	207
				SBR	D	257	44.5	42
			SB Approach		D		49.1	
			Overall LOS		F		80.9	

"N/A" represents movements that are not allowed, or do not exist

2030 Scenario 2 AM

Intersection Information					2030 Scenario 2 AM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
1	S. Cherry Street/Arlington Boulevard (US 50)	Signalized	EB	EBL	F	211	180.9	67
				EBT	C	467	20.4	2767
				EBR	C	471	26.3	38
			EB Approach		C		24.2	
			WB	WBL	A	0	0.0	0
				WBT	B	956	15.1	2163
				WBR	B	91	13.1	56
			WB Approach		B		15.0	
			NB	NBL	F	170	135.2	41
				NBT	F	170	98.2	12
				NBR	A	172	0.0	0
			NB Approach		F		126.8	
			SB	SBL	A	225	0.0	0
				SBT	F	225	94.4	8
				SBR	B	225	19.7	79
			SB Approach		C		26.6	
			Overall LOS		C		21.6	
2	S. Cherry Street/Hillwood Avenue	Signalized	EB	EBL	C	42	20.1	16
				EBT	B	141	14.2	217
				EBR	A	30	6.4	13
			EB Approach		B		14.1	
			WB	WBL	A	0	0.0	0
				WBT	B	191	14.6	233
				WBR	B	193	13.3	7
			WB Approach		B		14.5	
			NB	NBL	C	254	24.2	24
				NBT	C	254	20.4	221
				NBR	A	297	0.0	0
			NB Approach		C		20.8	
			SB	SBL	C	86	26.1	18
				SBT	A	86	9.0	50
				SBR	B	120	13.6	8
			SB Approach		B		13.5	
			Overall LOS		B		16.2	
3	S. Cherry Street/E. Broad Street (VA 7)	Signalized	EB	EBL	B	209	15.7	59
				EBT	A	209	8.0	578
				EBR	A	215	0.0	0
			EB Approach		A		8.7	
			WB	WBL	A	338	0.0	0
				WBT	B	338	11.7	1007
				WBR	A	353	0.0	0
			WB Approach		B		11.7	
			NB	NBL	D	476	52.3	21
				NBT	D	476	51.4	198
				NBR	D	476	53.4	67
			NB Approach		D		51.9	
			SB	SBL	E	248	56.8	75
				SBT	D	248	51.3	50
				SBR	D	248	51.7	20
			SB Approach		D		54.2	
			Overall LOS		B		19.3	
6	South Street & S. Roosevelt Street/Hillwood Avenue	Signalized	EB	EBL	B	63	14.8	51
				EBT	B	278	15.5	229
				EBR	A	311	0.0	0
			EB Approach		B		15.4	
			WB	WBL	B	160	11.7	62
				WBT	B	188	10.7	97
				WBR	A	204	0.0	0
			WB Approach		B		11.1	
			NB	NBL	C	254	25.5	98
				NBT	C	254	22.9	107
				NBR	B	266	16.0	30
			NB Approach		C		23.1	
			SB	SBL	A	157	0.0	0
				SBT	B	157	13.4	118
				SBR	A	120	5.1	54
			SB Approach		B		10.8	
			Overall LOS		B		15.8	
7	N. Roosevelt Street/E. Broad Street (VA 7)	Signalized	EB	EBL	#N/A	#N/A	#N/A	
				EBT	B	278	10.2	711
				EBR	A	309	8.8	23
			EB Approach		B		10.1	
			WB	WBL	C	578	32.2	101
				WBT	C	578	27.0	951
				WBR	C	578	27.0	
			WB Approach		C		27.4	
			NB	NBL	D	258	50.0	19
				NBT	D	258	46.4	75
				NBR	D	258	42.7	62
			NB Approach		D		45.4	
			SB	SBL	D	191	51.8	14
				SBT	D	191	51.8	48
				SBR	D	191	50.1	56
			SB Approach		D		51.0	
			Overall LOS		C		24.3	
8	Sleepy Hollow Road/Aspen Lane	Unsignalized	EB	EBL	A	0	0.0	0
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	A	0	0.0	0
			EB Approach		#N/A			
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	A	204	5.3	114
				NBT	A	157	3.3	433
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		A		3.7	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	A	0	1.9	400
				SBR	A	0	1.3	30
			SB Approach		A		1.8	
			Overall LOS		A		3.7	

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2030 Scenario 2 AM

Intersection Information					2030 Scenario 2 AM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
9	Sleepy Hollow Road/Castle Place	Signalized	EB	EBL	A	0	0.0	0
				EBT	C	235	20.9	370
				EBR	C	235	21.5	57
			EB Approach		N/A			
			WB	WBL	B	153	11.3	184
				WBT	A	87	2.3	421
				WBR	A	87	2.8	81
			WB Approach		A		4.8	
			NB	NBL	D	340	52.5	65
				NBT	A	340	0.0	0
				NBR	D	523	44.4	307
			NB Approach		D		45.8	
			SB	SBL	A	182	0.0	0
				SBT	C	182	28.2	151
				SBR	A	182	0.0	0
			SB Approach		C		28.2	
			Overall LOS		C		20.5	
10	Castle Road &Thorne Road/Leesburg Pike (VA 7)	Signalized	EB	EBL	C	97	28.9	76
				EBT	D	256	38.9	630
				EBR	C	256	34.8	51
			EB Approach		D		37.6	
			WB	WBL	E	337	58.5	495
				WBT	E	947	55.7	1104
				WBR	D	947	54.9	122
			WB Approach		E		56.5	
			NB	NBL	D	586	54.3	9
				NBT	D	586	48.5	178
				NBR	D	586	45.6	489
			NB Approach		D		46.5	
			SB	SBL	F	336	83.3	93
				SBT	D	336	35.5	139
				SBR	C	336	33.9	176
			SB Approach		D		45.7	
			Overall LOS		D		49.3	
11	Seven Corners Center/Leesburg Pike (VA 7)	Signalized	EB	EBL	E	266	55.9	78
				EBT	D	498	38.1	1123
				EBR	C	77	20.2	19
			EB Approach		D		40.0	
			WB	WBL	C	93	29.0	61
				WBT	A	404	9.2	1513
				WBR	A	22	1.2	18
			WB Approach		A		9.8	
			NB	NBL	F	308	126.1	127
				NBT	A	308	0.0	0
				NBR	E	308	72.7	44
			NB Approach		F		112.4	
			SB	SBL	E	178	75.0	94
				SBT	A	178	0.0	0
				SBR	A	45	8.6	33
			SB Approach		E		57.7	
			Overall LOS		C		29.5	
12	Patrick Henry Drive/Leesburg Pike (VA 7)	Signalized	EB	EBL	F	433	124.7	127
				EBT	B	491	20.0	1131
				EBR	B	18	18.9	8
			EB Approach		C		30.5	
			WB	WBL	E	150	72.7	81
				WBT	E	1467	73.0	1434
				WBR	E	1472	69.1	391
			WB Approach		E		72.2	
			NB	NBL	E	42	74.0	115
				NBT	E	447	75.8	69
				NBR	E	417	74.2	109
			NB Approach		E		74.5	
			SB	SBL	F	344	84.9	260
				SBT	F	344	89.4	21
				SBR	D	145	45.4	46
			SB Approach		E		79.6	
			Overall LOS		E		59.1	
13	Arlington Boulevard service road/Arlington Boulevard (US 50)	Signalized	EB	EBL	C	887	34.5	59
				EBT	A	887	6.6	2860
				EBR	A	887	9.8	17
			EB Approach		A		7.1	
			WB	WBL	A	419	0.0	0
				WBT	A	419	6.9	2099
				WBR	A	419	8.2	155
			WB Approach		A		7.0	
			NB	NBL	F	641	83.2	47
				NBT	F	641	191.6	57
				NBR	F	660	241.9	108
			NB Approach		F		193.2	
			SB	SBL	A	0	0.0	0
				SBT	A	0	0.0	0
				SBR	A	0	0.0	0
			SB Approach		#N/A			
			Overall LOS		B		14.1	
14	Patrick Henry Drive/Arlington Boulevard (US 50)	Signalized	EB	EBL	F	175	127.6	62
				EBT	D	1648	47.7	2550
				EBR	D	1648	44.0	22
			EB Approach		D		49.5	
			WB	WBL	F	661	99.8	41
				WBT	C	661	29.3	1879
				WBR	C	696	28.9	136
			WB Approach		C		30.7	
			NB	NBL	F	92	130.5	24
				NBT	F	809	108.4	386
				NBR	F	786	101.8	148
			NB Approach		F		107.6	
			SB	SBL	F	994	235.3	260
				SBT	F	970	160.6	188
				SBR	F	970	157.0	9
			SB Approach		F		203.0	
			Overall LOS		E		57.8	

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2030 Scenario 2 AM

Intersection Information					2030 Scenario 2 AM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
15	John Marshall Drive/Patrick Henry Drive & Willston Drive	Signalized	EB	EBL	C	608	33.0	142
				EBT	C	608	26.3	322
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		C		28.4	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	D	602	44.4	453
				WBR	C	771	29.3	251
			WB Approach		D		39.0	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		N/A			
			SB	SBL	D	225	39.0	111
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	D	237	44.0	46
			SB Approach		D		40.5	
			Overall LOS		D		35.7	
16	John Marshall Drive & N. McKinley Road/Wilson Boulevard	Signalized	EB	EBL	B	109	18.3	69
				EBT	B	382	19.3	714
				EBR	B	394	11.1	1
			EB Approach		B		19.2	
			WB	WBL	E	173	55.3	89
				WBT	C	215	25.1	371
				WBR	C	226	21.9	65
			WB Approach		C		29.8	
			NB	NBL	E	641	56.3	89
				NBT	D	641	52.0	192
				NBR	D	641	47.5	152
			NB Approach		D		51.3	
			SB	SBL	D	123	39.5	74
				SBT	C	70	25.0	39
				SBR	A	96	9.2	134
			SB Approach		C		20.8	
			Overall LOS		C		29.2	
17	Peyton Randolph Drive/Wilson Boulevard	Signalized	EB	EBL	A	682	0.0	0
				EBT	C	682	31.2	776
				EBR	C	690	22.3	368
			EB Approach		C		28.4	
			WB	WBL	C	70	23.8	42
				WBT	B	228	17.4	558
				WBR	A	265	0.0	0
			WB Approach		B		17.9	
			NB	NBL	F	1234	135.6	441
				NBT	A	1234	0.0	0
				NBR	A	0	0.0	0
			NB Approach		F		135.6	
			SB	SBL	D	42	50.8	14
				SBT	A	42	0.0	0
				SBR	C	49	27.6	2
			SB Approach		D		47.9	
			Overall LOS		D		47.2	
18	Roosevelt Boulevard/Wilson Boulevard	Signalized	EB	EBL	C	382	21.2	318
				EBT	B	425	12.3	633
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		B		15.3	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	C	519	30.9	511
				WBR	C	559	28.6	494
			WB Approach		C		29.8	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		N/A			
			SB	SBL	D	524	49.0	509
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	D	530	50.3	243
			SB Approach		D		49.4	
			Overall LOS		C		30.1	
19	Roosevelt Boulevard/N. Roosevelt Street	Signalized	EB	EBL	C	343	28.9	299
				EBT	A	343	0.0	0
				EBR	D	343	35.6	10
			EB Approach		C		29.2	
			WB	WBL	A	7	1.0	12
				WBT	A	0	0.0	0
				WBR	A	6	0.0	0
			WB Approach		A		1.0	
			NB	NBL	D	70	38.1	28
				NBT	B	285	11.7	866
				NBR	B	285	10.8	19
			NB Approach		B		12.5	
			SB	SBL	A	248	0.0	0
				SBT	B	248	11.9	681
				SBR	B	249	10.4	88
			SB Approach		B		11.7	
			Overall LOS		B		14.7	
20	Arlington Blvd WB/Wilson Blvd	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	A	270	3.8	849
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		A		3.8	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	A	263	6.5	767
			WB Approach		A		6.5	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		#N/A	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		A		5.1	

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2030 Scenario 2 AM

Intersection Information					2030 Scenario 2 AM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
21	Sleepy Hollow Rd/Wilson Blvd/Broad St/Arlington Blvd EB	Signalized	EB	EBLU to 7	A	553	0.0	0
				EBL to Wilson	C	553	28.6	551
				EBR to Route 7	D	398	42.2	254
				EBT to 50	D	221	46.7	202
			EB Approach		D		35.7	
			NB	NBR from Sleepy	B	105	17.9	83
				NBT	E	626	55.6	1097
				NBR from 7 to Wilson	D	626	50.9	131
				NBR from 7 to 50	C	627	33.4	36
			NB Approach		D		52.2	
			SB	SBL to Wilson	C	229	25.4	5
				SBT to Route 7	A	229	5.0	376
				SBR to Sleepy	C	229	24.9	152
				SBL to 50	C	229	22.6	193
			SB Approach		B		16.1	
			Overall LOS		D		37.2	
22	Broad St WB/Arlington Blvd WB	Signalized	WB	WBL	B	306	15.3	185
				WBT	C	306	20.1	348
				WBR	B	166	15.1	239
			WB Approach		B		17.4	
			NB	NBT from 7 to 7	A	137	8.8	1095
				NBU	#N/A	#N/A	#N/A	#N/A
				NBL	#N/A	#N/A	#N/A	#N/A
			NB Approach		A		0.4	
			SB	SBL	#N/A	#N/A	#N/A	
				SBT	#N/A	#N/A	#N/A	
				SBR	#N/A	#N/A	#N/A	
			SB Approach		#N/A		#N/A	
			Overall LOS		A		7.9	
23	Broad St EB/Arlington Blvd WB	Unsignalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	A	79	1.2	704
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		A		1.2	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		N/A			
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		N/A			
			SB	SBL	A	130	1.3	184
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		A		1.3	
			Overall LOS		A		1.3	
23	Broad St EB/Arlington Blvd WB	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	A	131	2.7	703
				EBR	A	0	0.0	0
			EB Approach		A		2.7	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		#N/A	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	B	236	15.8	348
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		B		15.8	
			Overall LOS		A		5.2	
25	Ring Road at Arlington Blvd EB	Signalized	EB	EBL	A	793	0.0	0
				EBT	D	793	37.2	687
				EBR	D	793	39.0	224
			EB Approach		D		37.7	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	F	434	87.2	312
				NBR	E	434	74.3	36
			NB Approach		F		84.1	
			SB	SBL	B	203	15.4	284
				SBT	B	203	10.1	203
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		B		13.2	
			Overall LOS		D		43.2	
26	Ring Road at Arlington Blvd WB	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		#N/A		#N/A	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	B	96	19.2	348
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		B		19.2	
			NB	NBL	A	196	6.2	313
				NBT	A	88	4.9	134
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		A		5.8	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	C	226	22.0	488
				SBR	D	226	50.8	6
			SB Approach		C		22.3	
			Overall LOS		B		15.8	

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2030 Scenario 2 AM

Intersection Information					2030 Scenario 2 AM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
27	Ring Road at E. Broad St	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	C	465	22.5	694
				EBR	C	465	23.3	93
			EB Approach		C		22.6	
			WB	WBL	A	444	9.1	101
				WBT	A	444	7.0	1177
				WBR	B	444	13.9	56
			WB Approach		A		7.4	
			NB	NBL	C	97	27.2	27
				NBT	A	97	0.0	0
				NBR	A	97	0.0	0
			NB Approach		C		27.2	
			SB	SBL	C	133	32.9	8
				SBT	A	133	0.0	0
				SBR	C	133	29.0	65
			SB Approach		C		29.4	
			Overall LOS		B		13.8	
28	Ring Road at Arlington Blvd EB	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	C	210	24.0	368
				EBR	B	210	17.2	31
			EB Approach		C		23.5	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	A	455	0.0	0
				NBR	E	455	60.1	370
			NB Approach		E		60.1	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	B	230	12.1	307
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		B		12.1	
			Overall LOS		B		13.8	
29	Ring Road at Hillwood Ave	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	C	452	34.6	400
			EB Approach		C		34.6	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	B	85	16.3	106
				NBT	A	29	9.0	28
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		B		14.8	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	C	160	20.2	93
				SBR	C	160	24.8	101
			SB Approach		C		22.6	
			Overall LOS		C		28.5	
30	Ring Road at Arlington Blvd WB	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		#N/A		#N/A	
			WB	WBL	C	458	22.3	309
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		C		22.3	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		#N/A	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		C		22.3	

"N/A" represents movements that are not allowed, or do not exist

2030 Scenario 2 PM

Intersection Information					2030 Scenario 2 PM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
1	S. Cherry Street/Arlington Boulevard (US 50)	Signalized	EB	EBL	F	127	114.5	38
				EBT	C	232	23.0	2700
				EBR	A	236	0.0	0
			EB Approach		C		24.2	
			WB	WBL	F	124	116.4	35
				WBT	C	1206	32.7	2826
				WBR	B	56	16.1	57
			WB Approach		C		33.4	
			NB	NBL	F	177	168.8	32
				NBT	A	177	0.0	0
				NBR	A	177	0.0	0
			NB Approach		F		168.8	
			SB	SBL	A	494	0.0	0
				SBT	A	494	0.0	0
				SBR	F	494	102.6	192
			SB Approach		F		102.6	
			Overall LOS		C		32.3	
2	S. Cherry Street/Hillwood Avenue	Signalized	EB	EBL	B	34	15.0	17
				EBT	B	243	13.2	366
				EBR	A	51	8.0	39
			EB Approach		B		12.7	
			WB	WBL	B	35	12.4	10
				WBT	B	198	13.7	307
				WBR	B	201	14.7	6
			WB Approach		B		13.6	
			NB	NBL	C	162	29.1	67
				NBT	C	162	29.2	26
				NBR	B	206	16.6	72
			NB Approach		C		23.6	
			SB	SBL	B	184	16.1	29
				SBT	B	184	18.0	87
				SBR	B	217	11.4	97
			SB Approach		B		14.7	
			Overall LOS		B		15.0	
3	S. Cherry Street/E. Broad Street (VA 7)	Signalized	EB	EBL	A	171	0.0	0
				EBT	A	171	5.2	868
				EBR	A	171	5.2	42
			EB Approach		A		5.2	
			WB	WBL	C	388	22.3	66
				WBT	B	388	13.1	671
				WBR	B	409	13.5	58
			WB Approach		B		13.9	
			NB	NBL	E	200	69.8	24
				NBT	E	200	56.6	51
				NBR	D	200	44.1	17
			NB Approach		E		57.7	
			SB	SBL	A	317	0.0	0
				SBT	D	317	53.8	110
				SBR	D	317	51.7	88
			SB Approach		D		52.9	
			Overall LOS		B		15.8	
6	South Street & S. Roosevelt Street/Hillwood Avenue	Signalized	EB	EBL	D	436	42.8	132
				EBT	C	561	24.3	244
				EBR	C	594	22.3	88
			EB Approach		C		29.2	
			WB	WBL	B	163	16.7	89
				WBT	A	120	9.1	62
				WBR	A	120	0.0	0
			WB Approach		B		13.6	
			NB	NBL	E	494	64.3	41
				NBT	E	494	64.1	125
				NBR	D	505	53.1	110
			NB Approach		E		59.8	
			SB	SBL	C	380	29.0	23
				SBT	C	380	21.3	337
				SBR	B	361	13.1	187
			SB Approach		B		18.8	
			Overall LOS		C		29.5	
7	N. Roosevelt Street/E. Broad Street (VA 7)	Signalized	EB	EBL	#N/A	#N/A	#N/A	
				EBT	D	432	45.4	831
				EBR	D	463	45.0	15
			EB Approach		D		45.4	
			WB	WBL	D	501	48.0	226
				WBT	C	501	21.4	624
				WBR	C	501	21.0	
			WB Approach		C		27.9	
			NB	NBL	E	389	78.2	39
				NBT	E	389	59.0	15
				NBR	E	389	61.4	203
			NB Approach		E		63.8	
			SB	SBL	F	887	100.7	6
				SBT	F	887	87.9	306
				SBR	F	887	87.9	77
			SB Approach		F		88.1	
			Overall LOS		D		47.5	
8	Sleepy Hollow Road/Aspen Lane	Unsignalized	EB	EBL	A	46	0.0	0
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	B	46	11.8	20
			EB Approach		B		11.8	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	C	393	21.1	109
				NBT	B	335	11.9	244
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		B		14.7	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	A	0	2.9	819
				SBR	A	0	7.2	149
			SB Approach		A		3.6	
			Overall LOS		B		14.7	

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2030 Scenario 2 PM

Intersection Information					2030 Scenario 2 PM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
9	Sleepy Hollow Road/Castle Place	Signalized	EB	EBL	A	0	0.0	0
				EBT	D	427	54.2	556
				EBR	E	427	58.3	117
			EB Approach		N/A			
			WB	WBL	D	651	49.4	429
				WBT	C	514	30.0	537
				WBR	C	514	24.6	77
			WB Approach		D		37.6	
			NB	NBL	E	251	73.1	46
				NBT	D	251	54.6	32
				NBR	C	312	26.8	178
			NB Approach		D		38.6	
			SB	SBL	A	410	0.0	0
				SBT	D	410	36.1	375
				SBR	A	410	0.0	0
			SB Approach		D		36.1	
			Overall LOS		D		42.5	
10	Castle Road &Thorne Road/Leesburg Pike (VA 7)	Signalized	EB	EBL	E	397	69.3	163
				EBT	E	404	59.1	760
				EBR	E	404	77.1	4
			EB Approach		E		61.0	
			WB	WBL	E	989	62.4	662
				WBT	E	989	76.5	924
				WBR	E	989	60.4	218
			WB Approach		E		69.4	
			NB	NBL	F	644	335.2	63
				NBT	F	644	308.8	33
				NBR	E	644	72.2	629
			NB Approach		F		105.9	
			SB	SBL	D	246	37.2	202
				SBT	C	246	33.4	386
				SBR	D	246	36.3	191
			SB Approach		D		35.1	
			Overall LOS		E		66.5	
11	Seven Corners Center/Leesburg Pike (VA 7)	Signalized	EB	EBL	F	377	85.3	51
				EBT	E	977	73.2	1425
				EBR	D	418	50.5	62
			EB Approach		E		73.5	
			WB	WBL	D	108	51.3	43
				WBT	B	457	16.2	1296
				WBR	A	53	4.7	96
			WB Approach		B		16.5	
			NB	NBL	F	287	96.4	227
				NBT	F	287	89.6	44
				NBR	E	287	62.8	9
			NB Approach		F		94.2	
			SB	SBL	F	184	89.4	97
				SBT	F	184	88.5	67
				SBR	C	185	20.7	165
			SB Approach		D		54.8	
			Overall LOS		D		51.3	
12	Patrick Henry Drive/Leesburg Pike (VA 7)	Signalized	EB	EBL	F	120	93.7	49
				EBT	D	564	49.3	1430
				EBR	D	125	41.6	37
			EB Approach		D		50.6	
			WB	WBL	E	153	77.3	70
				WBT	E	890	68.3	1221
				WBR	E	895	62.4	170
			WB Approach		E		68.1	
			NB	NBL	F	458	164.6	93
				NBT	F	458	171.9	51
				NBR	F	464	145.5	153
			NB Approach		F		156.1	
			SB	SBL	F	1529	101.7	438
				SBT	F	1529	111.8	92
				SBR	F	482	87.6	136
			SB Approach		F		100.2	
			Overall LOS		E		73.3	
13	Arlington Boulevard service road/Arlington Boulevard (US 50)	Signalized	EB	EBL	D	461	38.2	23
				EBT	A	461	8.2	2418
				EBR	A	461	9.7	65
			EB Approach		A		8.5	
			WB	WBL	A	536	0.0	0
				WBT	A	536	9.0	2656
				WBR	A	536	9.5	62
			WB Approach		A		9.0	
			NB	NBL	A	263	0.0	0
				NBT	E	263	77.8	82
				NBR	D	219	50.2	54
			NB Approach		E		66.9	
			SB	SBL	E	178	76.8	47
				SBT	E	178	66.6	16
				SBR	A	176	0.0	0
			SB Approach		E		74.2	
			Overall LOS		B		11.0	
14	Patrick Henry Drive/Arlington Boulevard (US 50)	Signalized	EB	EBL	F	95	110.8	25
				EBT	F	1581	80.1	2329
				EBR	C	1671	33.8	150
			EB Approach		C		33.0	
			WB	WBL	F	1044	124.6	87
				WBT	C	1044	33.7	2415
				WBR	C	1101	32.3	121
			WB Approach		D		36.6	
			NB	NBL	A	0	0.0	0
				NBT	E	199	55.2	173
				NBR	D	152	50.5	54
			NB Approach		D		54.1	
			SB	SBL	F	1261	227.9	347
				SBT	F	1260	200.4	577
				SBR	F	1260	111.8	10
			SB Approach		F		209.7	
			Overall LOS		E		64.3	

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2030 Scenario 2 PM

Intersection Information					2030 Scenario 2 PM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
15	John Marshall Drive/Patrick Henry Drive & Willston Drive	Signalized	EB	EBL	A	634	0.0	0
				EBT	D	634	37.7	438
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		D		37.7	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	B	213	17.6	231
				WBR	A	325	9.3	153
			WB Approach		B		14.3	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		N/A			
			SB	SBL	E	577	59.4	302
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	E	589	56.3	48
			SB Approach		E		59.0	
			Overall LOS		D		36.1	
16	John Marshall Drive & N. McKinley Road/Wilson Boulevard	Signalized	EB	EBL	C	215	26.7	174
				EBT	B	265	19.4	510
				EBR	B	277	15.6	29
			EB Approach		C		21.0	
			WB	WBL	E	462	61.6	213
				WBT	C	462	28.1	612
				WBR	C	470	24.8	76
			WB Approach		D		35.8	
			NB	NBL	E	307	61.9	101
				NBT	D	307	38.4	50
				NBR	C	310	26.8	69
			NB Approach		D		45.5	
			SB	SBL	C	54	30.9	22
				SBT	C	133	32.5	85
				SBR	B	129	11.2	155
			SB Approach		B		19.8	
			Overall LOS		C		29.6	
17	Peyton Randolph Drive/Wilson Boulevard	Signalized	EB	EBL	B	671	18.3	31
				EBT	C	671	26.2	622
				EBR	C	679	30.7	525
			EB Approach		C		28.0	
			WB	WBL	C	87	28.1	51
				WBT	B	396	18.6	809
				WBR	B	432	16.9	19
			WB Approach		B		19.1	
			NB	NBL	E	462	69.6	183
				NBT	A	462	0.0	0
				NBR	D	351	51.5	33
			NB Approach		E		66.9	
			SB	SBL	D	116	44.0	55
				SBT	D	116	43.4	13
				SBR	A	123	0.0	0
			SB Approach		D		43.9	
			Overall LOS		C		28.7	
18	Roosevelt Boulevard/Wilson Boulevard	Signalized	EB	EBL	D	378	36.2	248
				EBT	B	343	19.4	517
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		C		24.9	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	C	533	22.7	755
				WBR	B	573	18.2	226
			WB Approach		C		21.7	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		N/A			
			SB	SBL	D	599	43.6	657
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	D	604	54.3	348
			SB Approach		D		47.3	
			Overall LOS		C		32.0	
19	Roosevelt Boulevard/N. Roosevelt Street	Signalized	EB	EBL	C	149	24.4	99
				EBT	A	149	0.0	0
				EBR	C	149	26.4	36
			EB Approach		C		24.9	
			WB	WBL	A	6	0.7	85
				WBT	A	10	0.9	19
				WBR	A	3	0.0	0
			WB Approach		A		0.8	
			NB	NBL	C	69	30.8	24
				NBT	A	166	9.7	459
				NBR	A	166	7.7	27
			NB Approach		B		10.6	
			SB	SBL	A	386	0.0	0
				SBT	B	386	12.9	814
				SBR	B	387	12.6	315
			SB Approach		B		12.8	
			Overall LOS		B		12.4	
20	Arlington Blvd WB/Wilson Blvd	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	A	170	2.1	711
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		A		2.1	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	B	373	13.7	940
			WB Approach		B		13.7	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		#N/A	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		A		6.4	

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2030 Scenario 2 PM

Intersection Information					2030 Scenario 2 PM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
21	Sleepy Hollow Rd/Wilson Blvd/Broad St/Arlington Blvd EB	Signalized	EB	EBLU to 7	A	0	0.0	0
				EBL to Wilson	D	525	36.0	469
				EBR to Route 7	D	476	44.0	356
				EBT to 50	D	25	44.4	85
			EB Approach		D		39.9	
			NB	NBR from Sleepy	B	129	15.6	109
				NBT	D	514	42.8	984
				NBR from 7 to Wilson	D	514	36.8	205
				NBR from 7 to 50	C	514	28.2	40
			NB Approach		D		39.2	
			SB	SBL to Wilson	C	238	31.7	5
				SBT to Route 7	B	238	17.6	447
				SBR to Sleepy	D	238	43.0	376
				SBL to 50	C	238	34.9	456
			SB Approach		C		31.3	
			Overall LOS		D		36.5	
22	Broad St WB/Arlington Blvd WB	Signalized	WB	WBL	C	312	20.8	374
				WBT	C	312	23.8	533
				WBR	B	180	16.0	36
			WB Approach		C		22.3	
			NB	NBT from 7 to 7	A	205	6.4	982
				NBU	A	312	0.0	0
				NBL	#N/A	#N/A	#N/A	#N/A
			NB Approach		A		6.4	
			SB	SBL	#N/A	#N/A	#N/A	
				SBT	#N/A	#N/A	#N/A	
				SBR	#N/A	#N/A	#N/A	
			SB Approach		#N/A		#N/A	
			Overall LOS		B		14.2	
23	Broad St EB/Arlington Blvd WB	Unsignalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	A	120	3.6	943
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		A		3.6	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		N/A			
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		N/A			
			SB	SBL	B	215	12.6	373
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		B		12.6	
			Overall LOS		A		6.2	
23	Broad St EB/Arlington Blvd WB	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				SBT	A	281	5.2	943
				SBR	A	20	0.0	0
			EB Approach		A		5.2	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		B		15.1	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		#N/A	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	B	258	15.1	532
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		B		15.1	
			Overall LOS		A		8.6	
25	Ring Road at Arlington Blvd EB	Signalized	EB	EBL	E	855	57.4	47
				EBT	D	855	45.7	727
				EBR	D	855	53.1	334
			EB Approach		D		48.6	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	F	546	129.3	185
				NBR	F	546	114.3	40
			NB Approach		F		107.3	
			SB	SBL	C	192	28.1	139
				SBT	A	192	9.0	344
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		B		14.5	
			Overall LOS		E		56.6	
26	Ring Road at Arlington Blvd WB	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		#N/A		#N/A	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	B	177	19.4	532
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		B		19.4	
			NB	NBL	C	229	27.5	367
				NBT	C	226	21.8	233
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		C		25.3	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	C	237	24.4	484
				SBR	D	237	38.2	149
			SB Approach		C		27.6	
			Overall LOS		C		24.4	

"N/A" represents movements that are not allowed, or do not exist

2030 Scenario 2 PM

Intersection Information					2030 Scenario 2 PM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
27	Ring Road at E. Broad St	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	A	255	7.8	924
				EBR	A	255	9.6	115
			EB Approach		A		8.0	
			WB	WBL	D	507	52.2	118
				WBT	C	507	26.9	874
				WBR	C	507	26.5	21
			WB Approach		C		29.8	
			NB	NBL	D	63	40.8	19
				NBT	A	63	0.0	0
				NBR	A	63	0.0	0
			NB Approach		D		40.8	
			SB	SBL	E	145	65.3	17
				SBT	E	145	69.1	71
				SBR	E	145	60.9	43
			SB Approach		E		66.0	
			Overall LOS		C		21.8	
28	Ring Road at Arlington Blvd EB	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	A	197	9.4	542
				EBR	C	197	24.0	67
			EB Approach		B		11.0	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	A	224	0.0	0
				NBR	C	224	27.2	316
			NB Approach		C		27.2	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	C	291	23.5	401
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		C		23.5	
			Overall LOS		B		18.7	
29	Ring Road at Hillwood Ave	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	F	773	142.4	413
			EB Approach		F		142.4	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	C	234	32.0	212
				NBT	C	81	21.3	19
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		C		31.1	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	E	271	57.0	222
				SBR	D	271	49.8	80
			SB Approach		E		55.1	
			Overall LOS		F		87.3	
30	Ring Road at Arlington Blvd WB	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		#N/A		#N/A	
			WB	WBL	F	851	83.1	401
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		F		83.1	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		#N/A	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		F		83.1	

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2030 Scenario 3 AM

Intersection Information					2030 Scenario 3 AM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
1	S. Cherry Street/Arlington Boulevard (US 50)	Signalized	EB	EBL	F	108	204.0	31
				EBT	C	444	20.6	2804
				EBR	B	447	18.6	28
			EB Approach		C		22.6	
			WB	WBL	A	0	0.0	0
				WBT	B	964	14.4	2106
				WBR	A	66	9.5	77
			WB Approach		B		14.2	
			NB	NBL	F	246	328.0	42
				NBT	A	246	0.0	0
				NBR	F	246	135.0	28
			NB Approach		F		250.8	
			SB	SBL	A	213	0.0	0
				SBT	A	213	0.0	0
				SBR	F	213	103.2	30
			SB Approach		F		103.2	
			Overall LOS		C		22.8	
2	S. Cherry Street/Hillwood Avenue	Signalized	EB	EBL	C	88	21.1	83
				EBT	B	140	14.6	201
				EBR	A	30	6.9	12
			EB Approach		B		16.1	
			WB	WBL	B	56	14.9	26
				WBT	B	215	16.0	271
				WBR	B	217	15.0	13
			WB Approach		B		15.8	
			NB	NBL	C	197	20.3	29
				NBT	B	197	18.5	176
				NBR	A	240	0.0	0
			NB Approach		B		18.8	
			SB	SBL	A	70	0.0	0
				SBT	A	70	9.9	36
				SBR	A	104	5.9	8
			SB Approach		A		9.1	
			Overall LOS		B		16.3	
3	S. Cherry Street/E. Broad Street (VA 7)	Signalized	EB	EBL	C	259	30.1	67
				EBT	B	259	10.4	565
				EBR	A	259	0.0	0
			EB Approach		B		12.4	
			WB	WBL	C	439	26.1	8
				WBT	B	439	17.9	1045
				WBR	A	459	0.0	0
			WB Approach		B		17.9	
			NB	NBL	D	533	50.8	13
				NBT	E	533	57.4	175
				NBR	D	533	53.6	152
			NB Approach		E		55.4	
			SB	SBL	F	336	82.9	87
				SBT	E	336	73.7	36
				SBR	E	336	71.6	20
			SB Approach		E		79.0	
			Overall LOS		C		26.3	
6	South Street & S. Roosevelt Street/Hillwood Avenue	Signalized	EB	EBL	B	90	19.7	75
				EBT	B	179	13.5	146
				EBR	A	211	0.0	0
			EB Approach		B		15.6	
			WB	WBL	B	134	13.4	48
				WBT	A	115	9.4	62
				WBR	A	115	0.0	0
			WB Approach		B		11.1	
			NB	NBL	C	399	33.1	102
				NBT	D	399	37.6	150
				NBR	C	410	22.7	50
			NB Approach		C		33.7	
			SB	SBL	A	124	0.0	0
				SBT	B	124	12.7	80
				SBR	A	121	6.2	109
			SB Approach		A		9.0	
			Overall LOS		C		20.2	
7	N. Roosevelt Street/E. Broad Street (VA 7)	Signalized	EB	EBL	#N/A	#N/A	#N/A	
				EBT	B	339	12.2	823
				EBR	A	370	9.4	23
			EB Approach		B		12.1	
			WB	WBL	C	506	34.1	135
				WBT	C	506	20.2	1005
				WBR	A	506	4.4	
			WB Approach		C		21.3	
			NB	NBL	D	347	49.7	27
				NBT	D	347	51.4	135
				NBR	D	347	48.1	60
			NB Approach		D		50.3	
			SB	SBL	A	170	0.0	0
				SBT	D	170	48.5	32
				SBR	D	170	44.2	62
			SB Approach		D		45.7	
			Overall LOS		C		21.7	
8	Sleepy Hollow Road/Aspen Lane	Unsignalized	EB	EBL	B	91	16.2	60
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	A	92	0.0	0
			EB Approach		B		16.2	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	A	204	5.4	120
				NBT	A	146	3.8	428
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		A		4.2	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	A	0	1.7	373
				SBR	A	0	1.3	16
			SB Approach		A		1.7	
			Overall LOS		B		16.2	

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2030 Scenario 3 AM

Intersection Information					2030 Scenario 3 AM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
9	Sleepy Hollow Road/Castle Place	Signalized	EB	EBL	D	563	42.0	520
				EBT	C	369	29.8	627
				EBR	C	369	22.0	48
			EB Approach		N/A			
			WB	WBL	B	138	17.6	134
				WBT	A	168	5.3	453
				WBR	A	168	7.8	69
			WB Approach		A		8.1	
			NB	NBL	A	1000	0.0	0
				NBT	F	1000	115.8	134
				NBR	F	1089	85.1	296
			NB Approach		F		94.6	
			SB	SBL	A	254	0.0	0
				SBT	D	254	43.4	172
				SBR	C	254	28.1	216
			SB Approach		C		34.9	
			Overall LOS		D		37.9	
10	Castle Road &Thorne Road/Leesburg Pike (VA 7)	Signalized	EB	EBL	D	182	36.7	86
				EBT	C	268	22.2	503
				EBR	D	268	36.7	53
			EB Approach		C		25.3	
			WB	WBL	D	748	42.2	516
				WBT	D	748	39.3	1173
				WBR	C	748	26.5	131
			WB Approach		D		39.2	
			NB	NBL	F	772	111.2	16
				NBT	F	772	102.2	311
				NBR	E	772	58.4	599
			NB Approach		E		74.0	
			SB	SBL	F	235	124.1	82
				SBT	C	235	33.4	86
				SBR	C	235	26.4	187
			SB Approach		D		50.7	
			Overall LOS		D		43.3	
11	Seven Corners Center/Leesburg Pike (VA 7)	Signalized	EB	EBL	E	274	67.3	93
				EBT	D	477	36.8	1070
				EBR	B	71	18.7	38
			EB Approach		D		40.0	
			WB	WBL	C	87	25.4	55
				WBT	A	471	8.7	1634
				WBR	A	55	2.9	36
			WB Approach		A		9.1	
			NB	NBL	F	330	121.4	123
				NBT	F	330	135.0	21
				NBR	E	330	75.0	45
			NB Approach		F		112.1	
			SB	SBL	E	177	74.4	94
				SBT	A	177	0.0	0
				SBR	B	48	10.1	33
			SB Approach		E		57.7	
			Overall LOS		C		28.7	
12	Patrick Henry Drive/Leesburg Pike (VA 7)	Signalized	EB	EBL	F	410	124.5	113
				EBT	B	467	19.1	1099
				EBR	B	22	17.7	8
			EB Approach		C		28.8	
			WB	WBL	F	268	100.7	82
				WBT	F	1582	96.5	1555
				WBR	F	1585	89.3	256
			WB Approach		F		95.7	
			NB	NBL	E	448	73.8	110
				NBT	F	451	81.3	73
				NBR	F	451	92.8	147
			NB Approach		F		83.9	
			SB	SBL	F	382	84.1	260
				SBT	F	382	84.8	18
				SBR	B	143	18.9	65
			SB Approach		E		71.8	
			Overall LOS		E		71.0	
13	Arlington Boulevard service road/Arlington Boulevard (US 50)	Signalized	EB	EBL	D	1002	44.6	60
				EBT	A	1002	8.4	2928
				EBR	B	1002	11.3	18
			EB Approach		A		9.1	
			WB	WBL	A	388	0.0	0
				WBT	A	388	6.3	2086
				WBR	A	388	7.7	167
			WB Approach		A		6.4	
			NB	NBL	F	358	83.2	54
				NBT	F	358	162.2	49
				NBR	F	354	126.9	59
			NB Approach		F		123.0	
			SB	SBL	A	0	0.0	0
				SBT	A	0	0.0	0
				SBR	A	0	0.0	0
			SB Approach		#N/A			
			Overall LOS		B		11.4	
14	Patrick Henry Drive/Arlington Boulevard (US 50)	Signalized	EB	EBL	F	173	121.7	60
				EBT	D	1333	36.0	2518
				EBR	A	1636	0.0	0
			EB Approach		C		22.9	
			WB	WBL	F	629	96.0	57
				WBT	C	629	29.8	1863
				WBR	C	670	28.6	152
			WB Approach		C		31.5	
			NB	NBL	F	84	98.5	20
				NBT	F	460	87.0	256
				NBR	F	462	84.0	194
			NB Approach		F		86.2	
			SB	SBL	F	908	187.0	299
				SBT	F	827	125.7	187
				SBR	F	827	129.4	11
			SB Approach		F		162.7	
			Overall LOS		D		39.7	

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2030 Scenario 3 AM

Intersection Information					2030 Scenario 3 AM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
15	John Marshall Drive/Patrick Henry Drive & Willston Drive	Signalized	EB	EBL	C	499	28.7	143
				EBT	C	499	21.8	345
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		C		23.8	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	B	346	12.7	351
				WBR	B	559	15.8	254
			WB Approach		B		14.0	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		N/A			
			SB	SBL	C	230	31.7	125
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	C	241	34.2	42
			SB Approach		C		32.3	
			Overall LOS		C		20.2	
16	John Marshall Drive & N. McKinley Road/Wilson Boulevard	Signalized	EB	EBL	B	127	19.6	67
				EBT	B	398	19.9	716
				EBR	A	410	0.0	0
			EB Approach		B		19.8	
			WB	WBL	E	205	58.7	97
				WBT	C	213	25.9	349
				WBR	C	224	23.9	65
			WB Approach		C		31.9	
			NB	NBL	E	578	59.8	82
				NBT	D	578	44.7	192
				NBR	D	573	48.5	146
			NB Approach		D		49.0	
			SB	SBL	D	137	42.7	84
				SBT	C	83	24.5	46
				SBR	A	90	8.9	118
			SB Approach		C		23.2	
			Overall LOS		C		29.7	
17	Peyton Randolph Drive/Wilson Boulevard	Signalized	EB	EBL	A	684	0.0	0
				EBT	C	684	28.7	783
				EBR	C	692	20.3	377
			EB Approach		C		26.0	
			WB	WBL	C	79	24.9	42
				WBT	B	188	14.6	511
				WBR	A	225	0.0	0
			WB Approach		B		15.3	
			NB	NBL	F	950	87.6	338
				NBT	A	950	0.0	0
				NBR	A	0	0.0	0
			NB Approach		F		87.6	
			SB	SBL	A	48	0.0	0
				SBT	D	48	50.0	16
				SBR	A	55	0.0	0
			SB Approach		D		50.0	
			Overall LOS		C		33.4	
18	Roosevelt Boulevard/Wilson Boulevard	Signalized	EB	EBL	D	1051	52.1	653
				EBT	C	727	21.8	630
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		D		37.3	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	E	600	55.4	458
				WBR	D	640	48.4	379
			WB Approach		D		52.2	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		N/A			
			SB	SBL	E	540	56.2	534
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	E	545	61.6	271
			SB Approach		E		58.0	
			Overall LOS		D		47.3	
19	Roosevelt Boulevard/N. Roosevelt Street	Signalized	EB	EBL	C	261	26.8	178
				EBT	A	261	0.0	0
				EBR	C	261	30.5	28
			EB Approach		C		27.3	
			WB	WBL	A	7	0.9	12
				WBT	A	0	0.0	0
				WBR	A	6	0.0	0
			WB Approach		A		0.9	
			NB	NBL	C	62	34.9	21
				NBT	B	311	11.9	1022
				NBR	B	311	11.4	18
			NB Approach		B		12.4	
			SB	SBL	A	217	0.0	0
				SBT	B	217	10.5	672
				SBR	A	218	8.9	78
			SB Approach		B		10.3	
			Overall LOS		B		13.1	
20	Arlington Blvd WB/Wilson Blvd	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		#N/A		#N/A	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		#N/A	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		B		13.1	

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2030 Scenario 3 AM

Intersection Information					2030 Scenario 3 AM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
21	E. Broad St/Leesburg Pike at Wilson Blvd/Sleepy Hollow Rd (aka Seven Corners Interchange)	Signalized	EB	EBL	C	280	33.8	163
				EBT	C	280	31.0	458
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		C		32.8	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	D	638	39.0	920
				WBR	D	638	38.5	414
			WB Approach		D		38.9	
			NB	NBL	A	394	0.0	0
				NBT	D	394	40.9	595
				NBR	D	394	51.8	126
			NB Approach		D		42.8	
			SB	SBL	E	482	76.0	11
				SBT	D	482	36.8	385
				SBR	D	482	53.2	340
			SB Approach		D		45.0	
			Overall LOS		D		39.4	
22	Broad St WB/Arlington Blvd WB	Signalized	WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBT from 7 to 7	#N/A	#N/A	#N/A	#N/A
				NBU	#N/A	#N/A	#N/A	#N/A
				NBL	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		#N/A	
			SB	SBL	#N/A	#N/A	#N/A	
				SBT	#N/A	#N/A	#N/A	
				SBR	#N/A	#N/A	#N/A	
			SB Approach		#N/A		#N/A	
			Overall LOS		#N/A		#N/A	
23	Broad St EB/Arlington Blvd WB	Unsignalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		N/A			
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		N/A			
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		B		13.1	
23	Broad St EB/Arlington Blvd WB	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		#N/A		#N/A	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		#N/A	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		B		13.1	
25	Ring Road at Arligton Blvd EB	Signalized	EB	EBL	A	1472	0.0	0
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	E	1472	60.7	661
			EB Approach		E		60.7	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	C	353	33.9	667
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		C		33.7	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	B	198	18.0	337
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		B		18.0	
			Overall LOS		D		39.4	
26	Ring Road at Arligton Blvd WB	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		#N/A		#N/A	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	B	218	10.3	578
				NBT	A	40	3.2	85
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		A		9.4	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	B	198	11.4	337
				SBR	C	198	31.3	64
			SB Approach		B		14.5	
			Overall LOS		D		39.4	

"N/A" represents movements that are not allowed, or do not exist

2030 Scenario 3 AM

Intersection Information					2030 Scenario 3 AM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
27	Ring Road at E. Broad St	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	C	435	22.4	876
				EBR	C	435	20.3	6
			EB Approach		C		22.4	
			WB	WBL	D	674	42.5	107
				WBT	C	674	32.4	1095
				WBR	B	674	14.2	56
			WB Approach		C		32.4	
			NB	NBL	A	0	0.0	0
				NBT	A	0	0.0	0
				NBR	A	0	0.0	0
			NB Approach		#N/A			
			SB	SBL	D	140	51.3	5
				SBT	D	140	50.8	16
				SBR	D	140	48.1	83
			SB Approach		D		48.7	
			Overall LOS		D		39.4	
28	Ring Road at Arlington Blvd EB	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	A	82	1.9	261
				EBR	D	82	36.8	24
			EB Approach		A		4.8	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	A	216	0.0	0
				NBR	C	216	24.1	508
			NB Approach		C		24.1	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	B	289	13.6	265
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		B		13.6	
			Overall LOS		D		39.4	
29	Ring Road at Hillwood Ave	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	C	368	25.8	337
			EB Approach		C		25.8	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	C	145	21.4	84
				NBT	A	0	0.0	0
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		C		21.4	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	E	173	58.8	64
				SBR	C	173	24.6	66
			SB Approach		D		41.5	
			Overall LOS		D		39.4	
30	Ring Road at Arlington Blvd WB	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		#N/A		#N/A	
			WB	WBL	C	402	22.5	266
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		C		22.5	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		#N/A	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		D		39.4	

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2030 Scenario 3 PM

Intersection Information					2030 Scenario 3 PM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
1	S. Cherry Street/Arlington Boulevard (US 50)	Signalized	EB	EBL	F	152	231.0	34
				EBT	F	1679	95.3	2203
				EBR	F	1681	150.1	15
			EB Approach		F		97.8	
			WB	WBL	A	0	0.0	0
				WBT	C	1212	31.9	3020
				WBR	E	229	64.3	51
			WB Approach		C		32.5	
			NB	NBL	F	373	549.6	37
				NBT	A	373	0.0	0
				NBR	A	373	0.0	0
			NB Approach		F		549.6	
			SB	SBL	F	1159	231.0	80
				SBT	F	1159	188.7	13
				SBR	F	1159	200.6	130
			SB Approach		F		210.9	
			Overall LOS		E		67.9	
2	S. Cherry Street/Hillwood Avenue	Signalized	EB	EBL	A	0	0.0	0
				EBT	B	372	16.2	472
				EBR	A	58	9.2	62
			EB Approach		B		15.3	
			WB	WBL	B	53	15.4	33
				WBT	B	237	14.0	326
				WBR	B	240	10.1	12
			WB Approach		B		14.0	
			NB	NBL	C	150	28.2	56
				NBT	C	150	26.5	44
				NBR	C	194	20.9	33
			NB Approach		C		25.9	
			SB	SBL	C	208	20.3	75
				SBT	B	208	18.8	78
				SBR	B	242	15.5	93
			SB Approach		B		18.0	
			Overall LOS		B		16.5	
3	S. Cherry Street/E. Broad Street (VA 7)	Signalized	EB	EBL	C	252	28.6	26
				EBT	A	252	6.4	825
				EBR	A	252	6.4	97
			EB Approach		A		7.0	
			WB	WBL	C	423	23.4	50
				WBT	B	423	16.1	749
				WBR	B	444	15.1	25
			WB Approach		B		16.5	
			NB	NBL	E	125	60.4	20
				NBT	D	125	45.9	35
				NBR	D	125	46.3	4
			NB Approach		D		50.9	
			SB	SBL	E	446	70.7	7
				SBT	E	446	69.0	106
				SBR	E	446	68.3	104
			SB Approach		E		68.7	
			Overall LOS		B		18.6	
6	South Street & S. Roosevelt Street/Hillwood Avenue	Signalized	EB	EBL	D	508	40.5	112
				EBT	D	859	46.1	317
				EBR	D	888	44.9	116
			EB Approach		D		44.7	
			WB	WBL	B	90	15.4	18
				WBT	A	112	9.7	60
				WBR	A	112	0.0	0
			WB Approach		B		11.0	
			NB	NBL	F	721	129.5	72
				NBT	F	721	125.6	127
				NBR	F	733	121.1	86
			NB Approach		F		125.2	
			SB	SBL	E	395	55.2	21
				SBT	C	395	27.1	383
				SBR	B	397	18.1	173
			SB Approach		C		25.4	
			Overall LOS		D		50.7	
7	N. Roosevelt Street/E. Broad Street (VA 7)	Signalized	EB	EBL	#N/A	#N/A	#N/A	
				EBT	D	425	44.1	733
				EBR	E	456	56.2	36
			EB Approach		D		44.7	
			WB	WBL	F	649	96.6	258
				WBT	D	649	41.1	682
				WBR	D	649	36.0	
			WB Approach		E		55.3	
			NB	NBL	D	340	51.5	20
				NBT	D	340	38.1	54
				NBR	D	340	40.5	165
			NB Approach		D		40.9	
			SB	SBL	F	1402	249.1	16
				SBT	F	1402	244.5	287
				SBR	F	1402	240.7	46
			SB Approach		F		244.2	
			Overall LOS		E		78.3	
8	Sleepy Hollow Road/Aspen Lane	Unsignalized	EB	EBL	A	55	0.0	0
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	B	55	11.6	33
			EB Approach		B		11.6	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	B	175	10.9	48
				NBT	A	116	4.3	268
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		A		5.3	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	A	0	4.1	662
				SBR	A	0	4.5	121
			SB Approach		A		4.2	
			Overall LOS		B		11.6	

"N/A" represents movements that are not allowed, or do not exist

2030 Scenario 3 PM

Intersection Information					2030 Scenario 3 PM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
9	Sleepy Hollow Road/Castle Place	Signalized	EB	EBL	D	526	47.1	375
				EBT	F	591	97.6	739
				EBR	F	591	115.3	110
			EB Approach		N/A			
			WB	WBL	E	778	67.9	394
				WBT	E	776	73.1	622
				WBR	E	776	60.6	118
			WB Approach		E		70.0	
			NB	NBL	F	759	114.6	35
				NBT	F	759	109.1	98
				NBR	E	660	72.9	217
			NB Approach		F		87.2	
			SB	SBL	A	501	0.0	0
				SBT	E	501	69.8	270
				SBR	F	501	80.3	328
			SB Approach		E		75.6	
			Overall LOS		E		77.7	
10	Castle Road &Thorne Road/Leesburg Pike (VA 7)	Signalized	EB	EBL	D	196	47.5	136
				EBT	C	257	25.1	464
				EBR	D	257	42.1	11
			EB Approach		C		30.4	
			WB	WBL	F	1377	126.7	749
				WBT	F	1377	135.4	885
				WBR	F	1377	122.3	211
			WB Approach		F		130.4	
			NB	NBL	F	843	197.3	71
				NBT	F	843	195.7	211
				NBR	F	843	106.7	662
			NB Approach		F		133.4	
			SB	SBL	E	258	75.5	97
				SBT	D	258	50.6	383
				SBR	D	258	51.0	108
			SB Approach		D		54.8	
			Overall LOS		F		98.4	
11	Seven Corners Center/Leesburg Pike (VA 7)	Signalized	EB	EBL	E	261	60.1	78
				EBT	D	462	40.9	1117
				EBR	C	54	20.2	59
			EB Approach		D		42.2	
			WB	WBL	E	242	59.1	56
				WBT	D	577	40.3	1400
				WBR	A	45	5.6	53
			WB Approach		D		39.7	
			NB	NBL	F	1019	252.1	267
				NBT	F	1019	339.1	28
				NBR	F	1019	112.0	22
			NB Approach		F		250.0	
			SB	SBL	F	185	82.4	102
				SBT	F	185	81.8	55
				SBR	C	189	25.1	171
			SB Approach		D		52.4	
			Overall LOS		E		60.6	
12	Patrick Henry Drive/Leesburg Pike (VA 7)	Signalized	EB	EBL	E	157	55.1	71
				EBT	C	492	23.2	1142
				EBR	C	108	27.2	24
			EB Approach		C		25.1	
			WB	WBL	F	111	97.2	54
				WBT	F	1219	110.0	1202
				WBR	F	1223	97.7	127
			WB Approach		F		108.3	
			NB	NBL	F	438	91.5	147
				NBT	F	438	85.4	42
				NBR	F	400	189.7	63
			NB Approach		F		115.0	
			SB	SBL	E	618	77.9	233
				SBT	E	618	74.1	59
				SBR	C	302	27.4	192
			SB Approach		E		57.4	
			Overall LOS		E		69.0	
13	Arlington Boulevard service road/Arlington Boulevard (US 50)	Signalized	EB	EBL	F	1583	169.7	103
				EBT	E	1583	64.9	2013
				EBR	D	1583	51.0	43
			EB Approach		E		69.6	
			WB	WBL	A	900	0.0	0
				WBT	B	900	17.7	2605
				WBR	B	900	17.0	40
			WB Approach		B		17.7	
			NB	NBL	E	351	71.8	22
				NBT	F	351	99.6	67
				NBR	E	225	77.2	35
			NB Approach		F		88.4	
			SB	SBL	E	138	73.3	35
				SBT	E	138	66.8	10
				SBR	A	136	0.0	0
			SB Approach		E		71.8	
			Overall LOS		D		42.3	
14	Patrick Henry Drive/Arlington Boulevard (US 50)	Signalized	EB	EBL	F	113	86.0	40
				EBT	C	765	30.6	1971
				EBR	C	1367	28.6	84
			EB Approach		C		32.3	
			WB	WBL	F	1578	117.4	108
				WBT	E	1578	69.5	2443
				WBR	E	1592	67.8	14
			WB Approach		E		71.5	
			NB	NBL	A	0	0.0	0
				NBT	E	215	60.3	135
				NBR	E	182	58.8	53
			NB Approach		E		59.9	
			SB	SBL	F	1270	377.4	382
				SBT	F	1268	310.4	275
				SBR	F	1268	167.1	14
			SB Approach		F		345.6	
			Overall LOS		E		70.6	

"N/A" represents movements that are not allowed, or do not exist

2030 Scenario 3 PM

Intersection Information					2030 Scenario 3 PM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
15	John Marshall Drive/Patrick Henry Drive & Willston Drive	Signalized	EB	EBL	A	704	0.0	0
				EBT	F	704	102.0	288
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		F		102.0	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	C	161	21.5	69
				WBR	B	279	15.7	122
			WB Approach		B		17.7	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		N/A			
			SB	SBL	F	840	210.5	273
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	F	851	180.0	22
			SB Approach		F		208.2	
			Overall LOS		F		120.9	
16	John Marshall Drive & N. McKinley Road/Wilson Boulevard	Signalized	EB	EBL	C	152	32.9	98
				EBT	C	293	24.2	492
				EBR	E	305	64.7	18
			EB Approach		C		26.8	
			WB	WBL	F	1672	277.8	170
				WBT	F	1671	160.0	460
				WBR	F	1674	139.0	61
			WB Approach		F		187.2	
			NB	NBL	F	258	93.5	23
				NBT	C	258	33.0	55
				NBR	C	260	23.4	38
			NB Approach		D		41.8	
			SB	SBL	A	0	0.0	0
				SBT	F	321	112.3	111
				SBR	E	455	60.9	137
			SB Approach		F		83.9	
			Overall LOS		F		101.1	
17	Peyton Randolph Drive/Wilson Boulevard	Signalized	EB	EBL	A	698	6.7	2
				EBT	C	698	24.2	485
				EBR	C	706	33.9	418
			EB Approach		C		28.6	
			WB	WBL	D	81	38.2	38
				WBT	E	596	59.6	576
				WBR	D	633	52.6	6
			WB Approach		E		58.2	
			NB	NBL	F	502	84.5	118
				NBT	A	502	0.0	0
				NBR	D	511	51.9	83
			NB Approach		E		71.0	
			SB	SBL	D	98	45.0	39
				SBT	D	98	51.0	26
				SBR	C	106	25.4	25
			SB Approach		D		41.3	
			Overall LOS		D		45.3	
18	Roosevelt Boulevard/Wilson Boulevard	Signalized	EB	EBL	D	325	45.5	171
				EBT	C	292	23.9	400
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		C		30.4	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	F	702	90.4	526
				WBR	E	742	67.5	182
			WB Approach		F		84.5	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		N/A			
			SB	SBL	F	1495	215.8	502
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	F	1497	264.6	212
			SB Approach		F		230.3	
			Overall LOS		F		119.7	
19	Roosevelt Boulevard/N. Roosevelt Street	Signalized	EB	EBL	D	230	46.3	74
				EBT	A	230	0.0	0
				EBR	F	230	95.7	30
			EB Approach		E		60.6	
			WB	WBL	C	25	31.1	72
				WBT	A	10	5.3	4
				WBR	A	24	0.0	0
			WB Approach		C		29.7	
			NB	NBL	D	86	43.6	36
				NBT	A	128	9.9	354
				NBR	A	128	7.5	15
			NB Approach		B		12.8	
			SB	SBL	A	1166	0.0	0
				SBT	F	1166	91.7	695
				SBR	F	1167	80.8	279
			SB Approach		F		88.6	
			Overall LOS		E		62.7	
20	Arlington Blvd WB/Wilson Blvd	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		#N/A		#N/A	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		#N/A	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		E		62.7	

"N/A" represents movements that are not allowed, or do not exist

2030 Scenario 3 PM

Intersection Information					2030 Scenario 3 PM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
21	E. Broad St/Leesburg Pike at Wilson Blvd/Sleepy Hollow Rd (aka Seven Corners Interchange)	Signalized	EB	EBL	D	231	54.6	32
				EBT	B	231	18.9	458
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		C		28.9	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	F	670	90.3	1009
				WBR	E	670	57.1	86
			WB Approach		F		86.9	
			NB	NBL	F	385	130.2	16
				NBT	D	385	50.7	421
				NBR	D	385	43.3	158
			NB Approach		D		50.9	
			SB	SBL	F	1075	334.8	7
				SBT	F	1075	291.8	602
				SBR	F	1075	316.4	48
			SB Approach		F		294.1	
			Overall LOS		F		105.4	
22	Broad St WB/Arlington Blvd WB	Signalized	WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBT from 7 to 7	#N/A	#N/A	#N/A	#N/A
				NBU	#N/A	#N/A	#N/A	#N/A
				NBL	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		#N/A	
			SB	SBL	#N/A	#N/A	#N/A	
				SBT	#N/A	#N/A	#N/A	
				SBR	#N/A	#N/A	#N/A	
			SB Approach		#N/A		#N/A	
			Overall LOS		E		62.7	
23	Broad St EB/Arlington Blvd WB	Unsignalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		N/A			
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		N/A			
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		E		62.7	
23	Broad St EB/Arlington Blvd WB	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		#N/A		#N/A	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		#N/A	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		E		62.7	
25	Ring Road at Arligton Blvd EB	Signalized	EB	EBL	A	1695	0.0	0
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	F	1695	223.9	797
			EB Approach		F		223.9	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	F	582	108.6	987
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		E		75.5	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	C	211	30.2	430
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		C		30.2	
			Overall LOS		F		105.4	
26	Ring Road at Arligton Blvd WB	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		#N/A		#N/A	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	B	221	17.5	792
				NBT	C	209	34.1	184
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		C		20.6	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	C	237	26.0	431
				SBR	C	237	33.2	152
			SB Approach		C		27.9	
			Overall LOS		F		105.4	

"N/A" represents movements that are not allowed, or do not exist

2030 Scenario 3 PM

Intersection Information					2030 Scenario 3 PM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
27	Ring Road at E. Broad St	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	A	269	9.1	862
				EBR	C	269	34.3	50
			EB Approach		B		10.5	
			WB	WBL	F	889	93.6	51
				WBT	E	889	74.7	957
				WBR	D	889	51.7	46
			WB Approach		E		74.6	
			NB	NBL	A	0	0.0	0
				NBT	A	0	0.0	0
				NBR	A	0	0.0	0
			NB Approach		#N/A			
			SB	SBL	E	150	74.8	20
				SBT	E	150	78.4	70
				SBR	E	150	76.1	40
			SB Approach		E		77.1	
			Overall LOS		F		105.4	
28	Ring Road at Arlington Blvd EB	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	A	101	5.0	399
				EBR	C	101	21.2	46
			EB Approach		A		6.7	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	A	222	0.0	0
				NBR	C	222	21.9	410
			NB Approach		C		21.9	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	D	303	54.2	251
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		D		54.2	
			Overall LOS		F		105.4	
29	Ring Road at Hillwood Ave	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	F	801	149.3	425
			EB Approach		F		149.3	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	E	235	59.7	182
				NBT	A	0	0.0	0
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		E		59.7	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	F	273	138.2	157
				SBR	F	273	101.3	8
			SB Approach		F		136.5	
			Overall LOS		F		105.4	
30	Ring Road at Arlington Blvd WB	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		#N/A		#N/A	
			WB	WBL	F	1685	445.1	251
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		F		445.1	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		#N/A	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		F		105.4	

"N/A" represents movements that are not allowed, or do not exist

2030 Scenario 4 AM

Intersection Information					2030 Scenario 4 AM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
1	S. Cherry Street/Arlington Boulevard (US 50)	Signalized	EB	EBL	F	778	194.3	179
				EBT	C	539	20.8	2752
				EBR	C	541	24.9	39
			EB Approach		C		31.3	
			WB	WBL	A	0	0.0	0
				WBT	B	928	16.6	2074
				WBR	B	90	17.8	61
			WB Approach		B		16.7	
			NB	NBL	F	221	151.6	31
				NBT	F	221	117.9	36
				NBR	A	223	0.0	0
			NB Approach		F		133.5	
			SB	SBL	F	217	170.3	8
				SBT	A	217	0.0	0
				SBR	C	217	26.1	44
			SB Approach		D		48.3	
			Overall LOS		C		27.0	
2	S. Cherry Street/Hillwood Avenue	Signalized	EB	EBL	C	122	22.8	110
				EBT	B	85	13.6	78
				EBR	A	34	5.3	11
			EB Approach		B		18.2	
			WB	WBL	A	0	0.0	0
				WBT	B	201	17.1	230
				WBR	A	204	7.8	3
			WB Approach		B		16.9	
			NB	NBL	D	565	41.6	32
				NBT	C	565	34.3	377
				NBR	A	609	0.0	0
			NB Approach		C		34.9	
			SB	SBL	C	86	22.4	5
				SBT	B	86	11.1	36
				SBR	B	119	16.5	33
			SB Approach		B		14.2	
			Overall LOS		C		25.0	
3	S. Cherry Street/E. Broad Street (VA 7)	Signalized	EB	EBL	C	293	28.7	49
				EBT	B	293	18.4	501
				EBR	B	299	14.7	6
			EB Approach		B		19.3	
			WB	WBL	C	532	23.6	21
				WBT	C	532	24.7	1068
				WBR	A	546	0.0	0
			WB Approach		C		24.7	
			NB	NBL	E	790	63.1	17
				NBT	E	790	64.8	360
				NBR	E	790	67.6	169
			NB Approach		E		65.6	
			SB	SBL	E	299	66.3	86
				SBT	E	299	59.0	35
				SBR	E	299	59.3	26
			SB Approach		E		63.3	
			Overall LOS		D		35.4	
6	South Street & S. Roosevelt Street/Hillwood Avenue	Signalized	EB	EBL	C	98	23.8	136
				EBT	A	0	0.0	0
				EBR	A	0	0.0	0
			EB Approach		C		23.8	
			WB	WBL	B	27	12.5	2
				WBT	B	35	13.8	4
				WBR	B	54	12.7	2
			WB Approach		B		13.2	
			NB	NBL	F	651	81.7	94
				NBT	F	651	87.3	260
				NBR	A	663	0.0	0
			NB Approach		F		85.8	
			SB	SBL	C	336	27.2	41
				SBT	B	336	17.2	132
				SBR	B	292	13.3	172
			SB Approach		B		16.4	
			Overall LOS		D		46.6	
7	N. Roosevelt Street/E. Broad Street (VA 7)	Signalized	EB	EBL	#N/A	#N/A	#N/A	
				EBT	D	485	39.4	764
				EBR	C	515	34.1	18
			EB Approach		D		39.3	
			WB	WBL	D	649	40.8	285
				WBT	D	649	44.8	1034
				WBR	D	649	41.4	
			WB Approach		D		43.7	
			NB	NBL	D	392	47.6	20
				NBT	D	392	45.8	84
				NBR	D	392	49.6	294
			NB Approach		D		48.7	
			SB	SBL	A	187	0.0	0
				SBT	D	187	35.6	41
				SBR	D	187	37.2	62
			SB Approach		D		36.5	
			Overall LOS		D		42.9	

"N/A" represents volumes that are not allowed, or do not exist

2030 Scenario 4 AM

Intersection Information					2030 Scenario 4 AM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
8	Sleepy Hollow Road/Aspen Lane	Unsignalized	EB	EBL	A	29	0.0	0
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	A	29	5.7	3
			EB Approach		A		5.7	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	A	178	4.5	126
				NBT	A	120	3.1	417
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		A		3.4	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	A	0	1.7	374
				SBR	A	0	1.1	14
			SB Approach		A		1.7	
			Overall LOS		A		5.7	
9	Sleepy Hollow Road/Castle Place	Signalized	EB	EBL	A	0	0.0	0
				EBT	C	179	22.3	196
				EBR	C	179	22.0	48
			EB Approach		N/A			
			WB	WBL	A	85	8.6	132
				WBT	A	69	2.1	288
				WBR	A	69	3.0	55
			WB Approach		A		4.0	
			NB	NBL	E	257	61.1	38
				NBT	A	257	0.0	0
				NBR	E	586	58.8	325
			NB Approach		E		59.0	
			SB	SBL	A	203	0.0	0
				SBT	C	203	30.4	172
				SBR	A	203	0.0	0
			SB Approach		C		30.4	
			Overall LOS		C		27.2	
10	Castle Road &Thorne Road/Leesburg Pike (VA 7)	Signalized	EB	EBL	C	114	30.0	60
				EBT	C	282	31.3	650
				EBR	C	282	29.4	50
			EB Approach		C		31.1	
			WB	WBL	E	306	56.4	400
				WBT	D	900	43.7	1280
				WBR	C	900	26.3	104
			WB Approach		D		45.5	
			NB	NBL	D	269	49.6	49
				NBT	D	269	47.0	161
				NBR	D	269	36.3	311
			NB Approach		D		40.9	
			SB	SBL	E	162	79.4	76
				SBT	E	162	68.1	23
				SBR	A	162	0.0	0
			SB Approach		E		76.8	
			Overall LOS		D		42.3	
11	Seven Corners Center/Leesburg Pike (VA 7)	Signalized	EB	EBL	D	151	50.3	81
				EBT	D	545	45.3	1013
				EBR	A	74	0.0	0
			EB Approach		D		45.7	
			WB	WBL	D	203	37.4	99
				WBT	A	510	8.8	1616
				WBR	A	31	2.3	34
			WB Approach		B		10.3	
			NB	NBL	F	596	199.4	186
				NBT	A	596	0.0	0
				NBR	E	596	74.9	44
			NB Approach		F		175.6	
			SB	SBL	F	180	83.2	134
				SBT	A	180	0.0	0
				SBR	B	60	13.6	23
			SB Approach		E		73.0	
			Overall LOS		D		37.2	
12	Patrick Henry Drive/Leesburg Pike (VA 7)	Signalized	EB	EBL	F	540	121.3	170
				EBT	C	515	21.9	1025
				EBR	C	26	20.6	6
			EB Approach		D		35.9	
			WB	WBL	F	144	82.2	88
				WBT	F	1516	83.3	1550
				WBR	E	1518	77.4	260
			WB Approach		F		82.5	
			NB	NBL	E	447	70.3	130
				NBT	E	445	73.4	69
				NBR	E	170	69.3	93
			NB Approach		E		70.7	
			SB	SBL	F	290	80.7	240
				SBT	E	290	77.5	14
				SBR	B	133	15.2	72
			SB Approach		E		66.1	
			Overall LOS		E		65.1	

"N/A" represents volumes that are not allowed, or do not exist

2030 Scenario 4 AM

Intersection Information					2030 Scenario 4 AM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
13	Arlington Boulevard service road/Arlington Boulevard (US 50)	Signalized	EB	EBL	D	938	35.6	62
				EBT	A	938	7.5	2846
				EBR	B	938	15.0	14
			EB Approach		A		8.1	
			WB	WBL	A	433	0.0	0
				WBT	A	433	7.1	2055
				WBR	A	433	8.3	201
			WB Approach		A		7.2	
			NB	NBL	F	438	82.2	70
				NBT	F	438	187.9	34
				NBR	F	450	140.7	98
			NB Approach		F		128.4	
			SB	SBL	A	0	0.0	0
				SBT	A	0	0.0	0
				SBR	A	0	0.0	0
			SB Approach		#N/A			
			Overall LOS		B		12.3	
14	Patrick Henry Drive/Arlington Boulevard (US 50)	Signalized	EB	EBL	F	150	115.2	54
				EBT	D	1575	43.5	2548
				EBR	D	1583	42.9	32
			EB Approach		D		45.0	
			WB	WBL	F	568	91.2	88
				WBT	C	568	24.8	1854
				WBR	C	625	22.5	73
			WB Approach		C		27.6	
			NB	NBL	F	32	117.9	5
				NBT	F	658	91.1	279
				NBR	F	648	85.8	183
			NB Approach		F		89.3	
			SB	SBL	F	1220	467.5	230
				SBT	F	1219	354.7	160
				SBR	F	1219	180.0	3
			SB Approach		F		419.4	
			Overall LOS		E		66.5	
15	John Marshall Drive/Patrick Henry Drive & Willston Drive	Signalized	EB	EBL	E	858	58.3	139
				EBT	E	858	64.3	323
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		E		62.5	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	C	389	23.4	317
				WBR	B	941	18.2	279
			WB Approach		C		21.0	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		N/A			
			SB	SBL	D	224	46.1	123
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	D	235	38.2	61
			SB Approach		D		43.5	
			Overall LOS		D		39.7	
16	John Marshall Drive & N. McKinley Road/Wilson Boulevard	Signalized	EB	EBL	C	129	20.4	77
				EBT	C	411	21.4	738
				EBR	A	423	9.9	1
			EB Approach		C		21.3	
			WB	WBL	E	217	60.5	112
				WBT	C	211	24.9	336
				WBR	C	222	22.5	65
			WB Approach		C		32.4	
			NB	NBL	E	678	62.6	88
				NBT	D	678	54.1	209
				NBR	D	680	54.0	159
			NB Approach		E		55.7	
			SB	SBL	D	144	39.4	81
				SBT	C	74	24.3	45
				SBR	A	92	8.7	122
			SB Approach		C		21.5	
			Overall LOS		C		31.9	
17	Peyton Randolph Drive/Wilson Boulevard	Signalized	EB	EBL	A	625	0.0	0
				EBT	C	625	20.4	807
				EBR	B	633	17.0	380
			EB Approach		B		19.3	
			WB	WBL	B	53	18.2	27
				WBT	A	182	9.0	520
				WBR	A	219	0.0	0
			WB Approach		A		9.5	
			NB	NBL	E	325	63.7	164
				NBT	A	325	0.0	0
				NBR	A	0	0.0	0
			NB Approach		E		63.7	
			SB	SBL	E	34	55.2	8
				SBT	A	34	0.0	0
				SBR	C	41	29.9	1
			SB Approach		D		52.4	
			Overall LOS		C		20.5	

"N/A" represents volumes that are not allowed, or do not exist

2030 Scenario 4 AM

Intersection Information					2030 Scenario 4 AM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
18	Roosevelt Boulevard/Wilson Boulevard	Signalized	EB	EBL	C	523	22.7	544
				EBT	B	652	12.9	647
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		B		17.4	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	D	407	36.3	341
				WBR	C	447	23.3	347
			WB Approach		C		29.7	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		N/A			
			SB	SBL	D	512	49.6	547
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	D	517	51.1	226
			SB Approach		D		50.0	
			Overall LOS		C		30.1	
19	Roosevelt Boulevard/N. Roosevelt Street	Signalized	EB	EBL	C	281	26.0	251
				EBT	A	281	0.0	0
				EBR	C	281	32.5	15
			EB Approach		C		26.3	
			WB	WBL	A	6	1.2	12
				WBT	A	0	0.0	0
				WBR	A	6	0.0	0
			WB Approach		A		1.2	
			NB	NBL	D	77	40.1	28
				NBT	B	339	12.0	923
				NBR	B	339	11.8	20
			NB Approach		B		12.8	
			SB	SBL	A	232	0.0	0
				SBT	B	232	12.0	692
				SBR	A	233	9.7	68
			SB Approach		B		11.8	
			Overall LOS		B		14.2	
20	Arlington Blvd WB/Wilson Blvd	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	A	366	3.7	1066
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		A		3.7	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	A	187	6.4	582
			WB Approach		A		6.4	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	F	418	96.9	293
				NBR	F	304	84.5	24
			NB Approach		F		96.0	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		B		13.0	
21	Sleepy Hollow Rd/Wilson Blvd/Broad St/Arlington Blvd EB	Signalized	EB	EBLU to 7	C	496	33.9	38
				EBL to Wilson	C	496	32.7	508
				EBR to Route 7	C	159	32.3	65
				EBT to 50	C	438	34.8	293
			EB Approach		C		33.4	
			NB	NBR from Sleepy	B	105	12.6	55
				NBT	D	571	52.5	910
				NBR from 7 to Wilson	D	571	53.5	373
				NBR from 7 to 50	D	572	49.5	32
			NB Approach		D		51.1	
			SB	SBL to Wilson	C	238	24.4	5
				SBT to Route 7	A	238	5.6	599
				SBR to Sleepy	C	238	35.0	172
				SBL to 50	C	238	21.1	306
			SB Approach		B		16.1	
			Overall LOS		C		34.1	
22	Broad St WB/Arlington Blvd WB	Signalized	WB	WBL	B	251	13.9	202
				WBT	B	251	12.0	153
				WBR	A	150	7.5	522
			WB Approach		A		9.7	
			NB	NBT from 7 to 7	A	187	6.6	947
				NBU	#N/A	#N/A	#N/A	#N/A
				NBL	#N/A	#N/A	#N/A	#N/A
			NB Approach		A		6.6	
			SB	SBL	#N/A	#N/A	#N/A	
				SBT	#N/A	#N/A	#N/A	
				SBR	#N/A	#N/A	#N/A	
			SB Approach		#N/A		#N/A	
			Overall LOS		A		5.5	

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2030 Scenario 4 AM

Intersection Information					2030 Scenario 4 AM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
23	Broad St EB/Arlington Blvd WB	Unsignalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	A	106	1.8	1060
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		A		1.8	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		N/A			
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		N/A			
			SB	SBL	A	159	3.5	203
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		A		3.5	
			Overall LOS		A		2.1	
23	Broad St EB/Arlington Blvd WB	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	A	167	3.9	1058
				EBR	B	46	12.9	23
			EB Approach		A		4.1	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		N/A			
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		#N/A	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	B	122	17.3	152
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		B		17.3	
			Overall LOS		A		4.8	
25	Ring Rd/US 50 EB Off Ramp	Signalized	EB	EBL	A	1502	0.0	0
				EBT	C	1502	33.3	864
				EBR	C	1502	31.9	244
			EB Approach		C		33.0	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	E	253	60.5	864
				NBR	B	253	12.4	38
			NB Approach		D		54.9	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		B		13.5	
26	Ring Rd/US 50 WB On Ramp	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		#N/A		#N/A	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	C	86	21.2	175
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		C		21.2	
			NB	NBL	A	85	1.7	288
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		A		1.7	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		B		13.5	
27	Ring Road at E. Broad St	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	A	321	9.1	1058
			EB Approach		A		9.1	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	B	396	12.5	1408
				WBR	B	396	17.5	59
			WB Approach		B		12.7	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		#N/A	
			SB	SBL	D	146	52.0	21
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	E	146	73.2	83
			SB Approach		E		68.9	
			Overall LOS		B		13.5	

"N/A" represents volumes that are not allowed, or do not exist

2030 Scenario 4 AM

Intersection Information					2030 Scenario 4 AM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
28	Ring Road at Arlington Blvd EB	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		#N/A		#N/A	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		#N/A	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		B		13.5	
29	Ring Road at Hillwood Ave	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		#N/A		#N/A	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		#N/A	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		B		13.5	
30	Ring Road at Arlington Blvd WB	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		#N/A		#N/A	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		#N/A	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		B		13.5	

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2030 Scenario 4 PM

Intersection Information					2030 Scenario 4 PM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
1	S. Cherry Street/Arlington Boulevard (US 50)	Signalized	EB	EBL	F	132	109.6	36
				EBT	C	197	21.6	2713
				EBR	F	201	91.7	24
			EB Approach		C		23.3	
			WB	WBL	F	32	134.8	5
				WBT	C	1211	33.6	2939
				WBR	B	84	13.7	116
			WB Approach		C		33.0	
			NB	NBL	F	137	277.5	10
				NBT	A	137	0.0	0
				NBR	A	137	0.0	0
			NB Approach		F		277.5	
			SB	SBL	F	1057	97.8	54
				SBT	F	1057	104.5	23
				SBR	F	1057	200.2	169
			SB Approach		F		168.8	
			Overall LOS		C		34.6	
2	S. Cherry Street/Hillwood Avenue	Signalized	EB	EBL	B	20	14.0	8
				EBT	B	157	11.4	231
				EBR	A	42	6.1	33
			EB Approach		B		10.9	
			WB	WBL	A	16	6.3	4
				WBT	B	186	14.9	288
				WBR	B	188	10.8	12
			WB Approach		B		14.6	
			NB	NBL	C	168	29.4	70
				NBT	C	168	27.2	39
				NBR	B	212	18.4	54
			NB Approach		C		25.2	
			SB	SBL	B	283	17.6	29
				SBT	C	283	25.1	43
				SBR	B	316	14.3	210
			SB Approach		B		16.3	
			Overall LOS		B		15.8	
3	S. Cherry Street/E. Broad Street (VA 7)	Signalized	EB	EBL	C	293	32.3	20
				EBT	A	293	7.6	1080
				EBR	A	293	6.3	41
			EB Approach		A		8.0	
			WB	WBL	D	522	42.3	178
				WBT	C	522	24.6	834
				WBR	C	543	22.6	24
			WB Approach		C		27.6	
			NB	NBL	D	170	44.9	22
				NBT	D	170	46.3	50
				NBR	D	170	41.9	8
			NB Approach		D		45.4	
			SB	SBL	D	339	50.0	7
				SBT	E	339	55.0	82
				SBR	E	339	56.3	99
			SB Approach		E		55.5	
			Overall LOS		C		21.2	
6	South Street & S. Roosevelt Street/Hillwood Avenue	Signalized	EB	EBL	F	594	128.3	148
				EBT	D	329	39.4	64
				EBR	C	362	31.9	100
			EB Approach		E		79.2	
			WB	WBL	C	27	21.6	3
				WBT	C	36	25.9	3
				WBR	E	36	55.2	2
			WB Approach		C		31.6	
			NB	NBL	F	1108	251.7	67
				NBT	F	1108	266.9	275
				NBR	F	1119	288.2	12
			NB Approach		F		264.7	
			SB	SBL	B	320	19.4	28
				SBT	B	320	10.7	320
				SBR	B	256	11.6	160
			SB Approach		B		11.5	
			Overall LOS		F		105.2	
7	N. Roosevelt Street/E. Broad Street (VA 7)	Signalized	EB	EBL	#N/A	#N/A	#N/A	
				EBT	F	1086	93.0	1000
				EBR	F	1112	95.6	15
			EB Approach		F		93.1	
			WB	WBL	F	650	108.5	218
				WBT	E	650	60.7	902
				WBR	D	650	47.1	
			WB Approach		E		68.9	
			NB	NBL	E	395	65.1	15
				NBT	D	395	47.2	18
				NBR	E	395	56.9	398
			NB Approach		E		56.8	
			SB	SBL	D	392	48.6	6
				SBT	C	392	34.1	275
				SBR	C	392	33.2	33
			SB Approach		C		34.3	
			Overall LOS		E		71.7	

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2030 Scenario 4 PM

Intersection Information					2030 Scenario 4 PM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
8	Sleepy Hollow Road/Aspen Lane	Unsignalized	EB	EBL	A	75	0.0	0
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	B	75	12.9	53
			EB Approach		B		12.9	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	B	196	12.9	53
				NBT	A	137	4.4	257
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		A		5.8	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	A	0	3.4	749
				SBR	A	0	3.5	101
			SB Approach		A		3.4	
			Overall LOS		B		12.9	
9	Sleepy Hollow Road/Castle Place	Signalized	EB	EBL	A	0	0.0	0
				EBT	D	200	48.8	319
				EBR	E	200	55.5	33
			EB Approach		N/A			
			WB	WBL	C	448	27.1	345
				WBT	B	299	10.6	697
				WBR	A	299	7.2	53
			WB Approach		B		15.6	
			NB	NBL	E	164	59.1	24
				NBT	D	164	47.3	27
				NBR	C	418	30.4	239
			NB Approach		C		34.4	
			SB	SBL	A	413	0.0	0
				SBT	D	413	44.4	462
				SBR	A	413	0.0	0
			SB Approach		D		44.4	
			Overall LOS		C		29.6	
10	Castle Road &Thorne Road/Leesburg Pike (VA 7)	Signalized	EB	EBL	E	435	56.6	121
				EBT	D	496	52.8	882
				EBR	E	496	59.6	8
			EB Approach		D		53.4	
			WB	WBL	F	1301	96.2	901
				WBT	F	1301	99.2	936
				WBR	E	1301	66.7	143
			WB Approach		F		95.5	
			NB	NBL	F	576	263.9	83
				NBT	F	576	243.3	46
				NBR	E	576	57.4	411
			NB Approach		F		105.0	
			SB	SBL	E	312	63.4	82
				SBT	E	312	56.8	179
				SBR	F	312	93.3	91
			SB Approach		E		67.8	
			Overall LOS		F		82.2	
11	Seven Corners Center/Leesburg Pike (VA 7)	Signalized	EB	EBL	D	147	49.2	69
				EBT	D	682	54.9	1283
				EBR	D	134	37.1	33
			EB Approach		D		54.2	
			WB	WBL	E	530	79.5	118
				WBT	C	572	26.2	1465
				WBR	A	47	3.6	55
			WB Approach		C		29.3	
			NB	NBL	F	441	143.1	369
				NBT	A	441	0.0	0
				NBR	E	441	79.6	10
			NB Approach		F		141.5	
			SB	SBL	F	185	100.1	105
				SBT	F	185	101.5	58
				SBR	C	189	24.0	174
			SB Approach		E		61.1	
			Overall LOS		D		52.6	
12	Patrick Henry Drive/Leesburg Pike (VA 7)	Signalized	EB	EBL	F	177	84.5	66
				EBT	C	507	33.0	1314
				EBR	C	124	29.3	38
			EB Approach		D		35.3	
			WB	WBL	F	123	99.8	58
				WBT	F	1273	99.9	1249
				WBR	F	1278	84.9	140
			WB Approach		F		98.5	
			NB	NBL	F	456	131.8	147
				NBT	F	451	128.2	45
				NBR	F	459	114.2	92
			NB Approach		F		125.5	
			SB	SBL	F	1601	93.8	425
				SBT	F	1601	121.1	36
				SBR	E	661	62.5	263
			SB Approach		F		83.8	
			Overall LOS		E		74.4	

"N/A" represents volumes that are not allowed, or do not exist

2030 Scenario 4 PM

Intersection Information					2030 Scenario 4 PM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
13	Arlington Boulevard service road/Arlington Boulevard (US 50)	Signalized	EB	EBL	E	992	76.5	58
				EBT	C	992	20.8	2303
				EBR	B	992	16.7	93
			EB Approach		C		21.9	
			WB	WBL	A	733	0.0	0
				WBT	B	733	13.8	2578
				WBR	B	733	13.9	105
			WB Approach		B		13.8	
			NB	NBL	A	245	0.0	0
				NBT	E	245	79.2	92
				NBR	D	154	50.9	23
			NB Approach		E		73.5	
			SB	SBL	E	93	72.1	26
				SBT	E	93	75.3	8
				SBR	A	79	0.0	0
			SB Approach		E		72.8	
			Overall LOS		B		19.2	
14	Patrick Henry Drive/Arlington Boulevard (US 50)	Signalized	EB	EBL	F	157	143.3	58
				EBT	F	1675	150.0	2136
				EBR	F	1675	162.7	56
			EB Approach		F		150.1	
			WB	WBL	F	1574	211.9	162
				WBT	F	1574	83.6	2330
				WBR	F	1598	83.2	22
			WB Approach		F		91.9	
			NB	NBL	A	0	0.0	0
				NBT	E	195	55.8	153
				NBR	D	147	52.4	38
			NB Approach		E		55.1	
			SB	SBL	F	1096	193.3	368
				SBT	F	1095	111.2	469
				SBR	F	1095	110.6	17
			SB Approach		F		144.7	
			Overall LOS		F		115.7	
15	John Marshall Drive/Patrick Henry Drive & Williston Drive	Signalized	EB	EBL	A	215	0.0	0
				EBT	B	215	13.2	237
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		B		13.2	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	B	180	14.4	146
				WBR	B	241	15.2	131
			WB Approach		B		14.8	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		N/A			
			SB	SBL	B	404	18.2	412
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	B	416	18.0	48
			SB Approach		B		18.2	
			Overall LOS		B		16.0	
16	John Marshall Drive & N. McKinley Road/Wilson Boulevard	Signalized	EB	EBL	C	182	22.9	135
				EBT	C	277	20.4	499
				EBR	B	289	11.3	14
			EB Approach		C		20.7	
			WB	WBL	E	404	59.6	239
				WBT	C	397	24.5	571
				WBR	C	407	20.8	78
			WB Approach		C		33.6	
			NB	NBL	D	271	46.1	61
				NBT	D	271	36.5	62
				NBR	C	274	27.5	42
			NB Approach		D		37.7	
			SB	SBL	A	0	0.0	0
				SBT	C	146	32.9	103
				SBR	B	127	10.9	155
			SB Approach		B		19.7	
			Overall LOS		C		27.9	
17	Peyton Randolph Drive/Wilson Boulevard	Signalized	EB	EBL	A	607	9.1	4
				EBT	B	607	16.1	573
				EBR	C	615	20.2	505
			EB Approach		B		18.0	
			WB	WBL	C	75	20.0	46
				WBT	B	275	11.6	735
				WBR	B	312	11.8	9
			WB Approach		B		12.1	
			NB	NBL	D	156	53.8	76
				NBT	A	156	0.0	0
				NBR	B	51	15.1	11
			NB Approach		D		48.9	
			SB	SBL	D	96	48.5	64
				SBT	A	96	0.0	0
				SBR	A	104	8.3	26
			SB Approach		D		36.9	
			Overall LOS		B		17.9	

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2030 Scenario 4 PM

Intersection Information					2030 Scenario 4 PM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
18	Roosevelt Boulevard/Wilson Boulevard	Signalized	EB	EBL	C	255	29.9	206
				EBT	B	314	17.5	457
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		C		21.4	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	C	428	22.1	652
				WBR	B	468	17.1	173
			WB Approach		C		21.1	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		N/A			
			SB	SBL	D	627	42.8	622
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	D	633	51.8	363
			SB Approach		D		46.1	
			Overall LOS		C		31.1	
19	Roosevelt Boulevard/N. Roosevelt Street	Signalized	EB	EBL	C	148	26.0	89
				EBT	A	148	0.0	0
				EBR	C	148	26.5	28
			EB Approach		C		26.1	
			WB	WBL	A	20	1.2	72
				WBT	A	11	0.8	4
				WBR	A	22	0.0	0
			WB Approach		A		1.2	
			NB	NBL	C	61	25.3	20
				NBT	A	121	9.4	351
				NBR	A	121	6.7	21
			NB Approach		B		10.1	
			SB	SBL	A	358	0.0	0
				SBT	B	358	12.0	867
				SBR	B	359	11.2	266
			SB Approach		B		11.8	
			Overall LOS		B		11.9	
20	Arlington Blvd WB/Wilson Blvd	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	A	248	3.4	601
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		A		3.4	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	E	802	75.4	983
			WB Approach		E		75.4	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	F	1312	309.6	212
				NBR	A	1249	0.0	0
			NB Approach		F		309.6	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		E		58.5	
21	Sleepy Hollow Rd/Wilson Blvd/Broad St/Arlington Blvd EB	Signalized	EB	EBLU to 7	E	190	77.7	36
				EBL to Wilson	D	382	36.3	423
				EBR to Route 7	D	209	37.5	144
				EBT to 50	D	116	39.2	83
			EB Approach		D		39.1	
			NB	NBR from Sleepy	B	117	14.2	80
				NBT	F	699	129.2	1055
				NBR from 7 to Wilson	F	699	120.1	101
				NBR from 7 to 50	A	700	0.0	0
			NB Approach		F		121.0	
			SB	SBL to Wilson	D	261	37.0	5
				SBT to Route 7	C	261	23.7	793
				SBR to Sleepy	D	261	37.8	463
				SBL to 50	D	261	44.7	452
			SB Approach		C		33.2	
			Overall LOS		E		63.5	
22	Broad St WB/Arlington Blvd WB	Signalized	WB	WBL	F	379	102.7	446
				WBT	C	359	26.1	633
				WBR	B	426	11.2	113
			WB Approach		D		53.3	
			NB	NBT from 7 to 7	B	203	16.7	1089
				NBU	B	359	11.2	0
				NBL	#N/A	#N/A	#N/A	#N/A
			NB Approach		B		16.7	
			SB	SBL	#N/A	#N/A	#N/A	
				SBT	#N/A	#N/A	#N/A	
				SBR	#N/A	#N/A	#N/A	
			SB Approach		#N/A		#N/A	
			Overall LOS		D		35.8	

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2030 Scenario 4 PM

Intersection Information					2030 Scenario 4 PM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
23	Broad St EB/Arlington Blvd WB	Unsignalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	A	129	9.6	1346
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		A		9.6	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		N/A			
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		N/A			
			SB	SBL	D	149	40.0	446
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		D		40.0	
			Overall LOS		B		17.2	
23	Broad St EB/Arlington Blvd WB	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	B	506	11.4	1347
				EBR	C	447	30.0	145
			EB Approach		B		13.2	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		#N/A	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	B	259	16.2	633
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		B		16.2	
			Overall LOS		B		19.1	
25	Ring Rd/US 50 EB Off Ramp	Signalized	EB	EBL	C	1398	28.7	18
				EBT	D	1398	39.0	656
				EBR	D	1398	40.5	348
			EB Approach		D		39.3	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	E	427	58.7	720
				NBR	C	427	33.9	24
			NB Approach		E		57.9	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		C		22.9	
26	Ring Rd/US 50 WB On Ramp	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		#N/A		#N/A	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	B	299	17.7	778
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		B		17.7	
			NB	NBL	B	203	15.1	714
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		B		15.1	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		C		22.9	
27	Ring Road at E. Broad St	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	C	600	27.4	1401
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		C		27.4	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	B	527	12.8	1155
				WBR	C	527	21.6	49
			WB Approach		B		13.2	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		#N/A	
			SB	SBL	E	152	65.5	98
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	E	152	66.6	26
			SB Approach		E		65.7	
			Overall LOS		C		22.9	

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2030 Scenario 4 PM

Intersection Information					2030 Scenario 4 PM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
28	Ring Road at Arlington Blvd EB	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		#N/A		#N/A	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		#N/A	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		C		22.9	
29	Ring Road at Hillwood Ave	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		#N/A		#N/A	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		#N/A	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		C		22.9	
30	Ring Road at Arlington Blvd WB	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		#N/A		#N/A	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		#N/A	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		C		22.9	

"N/A" represents volumes that are not allowed, or do not exist

2030 Scenario 4B AM

Intersection Information					2030 Scenario 4B AM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
1	S. Cherry Street/Arlington Boulevard (US 50)	Signalized	EB	EBL	F	780	180.0	185
				EBT	C	724	21.7	2713
				EBR	C	728	24.9	38
			EB Approach		C		31.7	
			WB	WBL	A	0	0.0	0
				WBT	B	957	16.8	2082
				WBR	B	96	18.6	54
			WB Approach		B		16.9	
			NB	NBL	F	224	145.5	30
				NBT	F	224	116.6	35
				NBR	A	225	0.0	0
			NB Approach		F		129.9	
			SB	SBL	F	204	163.9	5
				SBT	A	204	0.0	0
				SBR	C	205	20.8	45
			SB Approach		D		35.1	
			Overall LOS		C		27.1	
2	S. Cherry Street/Hillwood Avenue	Signalized	EB	EBL	C	137	23.9	109
				EBT	B	90	13.5	76
				EBR	A	34	4.7	11
			EB Approach		B		18.8	
			WB	WBL	A	0	0.0	0
				WBT	B	191	16.9	232
				WBR	A	194	8.6	3
			WB Approach		B		16.8	
			NB	NBL	D	618	49.7	31
				NBT	D	618	40.6	379
				NBR	A	662	0.0	0
			NB Approach		D		41.3	
			SB	SBL	B	86	19.4	5
				SBT	B	86	12.6	37
				SBR	B	119	12.9	36
			SB Approach		B		13.2	
			Overall LOS		C		27.9	
3	S. Cherry Street/E. Broad Street (VA 7)	Signalized	EB	EBL	C	292	26.6	48
				EBT	B	292	19.1	501
				EBR	B	298	14.5	6
			EB Approach		B		19.7	
			WB	WBL	C	466	22.1	22
				WBT	C	466	24.2	1051
				WBR	A	481	0.0	0
			WB Approach		C		24.2	
			NB	NBL	E	782	65.0	17
				NBT	E	782	63.4	362
				NBR	E	782	65.4	165
			NB Approach		E		64.1	
			SB	SBL	E	307	67.0	87
				SBT	E	307	55.4	35
				SBR	D	307	51.6	26
			SB Approach		E		61.5	
			Overall LOS		C		34.8	
6	South Street & S. Roosevelt Street/Hillwood Avenue	Signalized	EB	EBL	C	96	21.1	135
				EBT	A	0	0.0	0
				EBR	A	0	0.0	0
			EB Approach		C		21.1	
			WB	WBL	B	27	12.6	2
				WBT	B	35	13.9	4
				WBR	B	54	15.4	2
			WB Approach		B		13.9	
			NB	NBL	D	504	39.7	95
				NBT	D	504	43.1	264
				NBR	A	515	0.0	0
			NB Approach		D		42.2	
			SB	SBL	C	265	21.9	43
				SBT	B	265	16.5	59
				SBR	B	217	11.9	174
			SB Approach		B		14.5	
			Overall LOS		C		28.4	
7	N. Roosevelt Street/E. Broad Street (VA 7)	Signalized	EB	EBL	#N/A	#N/A	#N/A	
				EBT	D	434	38.5	759
				EBR	C	465	34.6	19
			EB Approach		D		38.4	
			WB	WBL	C	615	26.3	214
				WBT	D	615	37.6	1014
				WBR	C	615	34.3	
			WB Approach		D		35.4	
			NB	NBL	D	393	40.6	20
				NBT	D	393	39.6	84
				NBR	D	393	45.8	296
			NB Approach		D		44.3	
			SB	SBL	D	168	36.5	11
				SBT	D	168	35.4	43
				SBR	D	168	37.9	61
			SB Approach		D		36.8	
			Overall LOS		D		37.7	

"N/A" represents volumes that are not allowed, or do not exist

2030 Scenario 4B AM

Intersection Information					2030 Scenario 4B AM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
8	Sleepy Hollow Road/Aspen Lane	Unsignalized	EB	EBL	A	29	0.0	0
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	A	29	5.9	2
			EB Approach		A		5.9	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	A	225	4.5	121
				NBT	A	167	3.2	424
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		A		3.5	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	A	0	1.8	368
				SBR	A	0	1.4	14
			SB Approach		A		1.8	
			Overall LOS		A		5.9	
9	Sleepy Hollow Road/Castle Place	Signalized	EB	EBL	A	0	0.0	0
				EBT	C	234	26.3	175
				EBR	C	234	23.3	48
			EB Approach		N/A			
			WB	WBL	B	116	12.7	121
				WBT	A	89	4.3	304
				WBR	A	89	3.5	56
			WB Approach		A		6.3	
			NB	NBL	E	502	72.7	67
				NBT	E	502	66.8	29
				NBR	E	651	68.5	267
			NB Approach		E		69.1	
			SB	SBL	A	222	0.0	0
				SBT	C	222	33.3	177
				SBR	A	222	0.0	0
			SB Approach		C		33.3	
			Overall LOS		C		31.9	
10	Castle Road &Thorne Road/Leesburg Pike (VA 7)	Signalized	EB	EBL	C	104	30.6	60
				EBT	D	292	42.5	681
				EBR	D	292	42.7	50
			EB Approach		D		41.6	
			WB	WBL	D	635	46.5	408
				WBT	C	646	27.2	1199
				WBR	B	646	17.2	104
			WB Approach		C		31.2	
			NB	NBL	E	608	68.2	14
				NBT	E	608	68.2	142
				NBR	D	608	45.9	284
			NB Approach		D		53.8	
			SB	SBL	E	136	69.0	78
				SBT	E	136	59.4	23
				SBR	A	136	0.0	0
			SB Approach		E		66.8	
			Overall LOS		D		38.4	
11	Seven Corners Center/Leesburg Pike (VA 7)	Signalized	EB	EBL	D	152	46.8	81
				EBT	D	420	39.0	1027
				EBR	A	7	0.0	0
			EB Approach		D		39.5	
			WB	WBL	C	150	32.9	102
				WBT	A	305	7.5	1565
				WBR	A	43	2.2	40
			WB Approach		A		8.9	
			NB	NBL	F	437	126.1	156
				NBT	A	437	0.0	0
				NBR	E	437	75.5	45
			NB Approach		F		114.8	
			SB	SBL	E	180	79.4	134
				SBT	A	180	0.0	0
				SBR	B	62	13.4	23
			SB Approach		E		69.7	
			Overall LOS		C		29.3	
12	Patrick Henry Drive/Leesburg Pike (VA 7)	Signalized	EB	EBL	F	400	85.9	177
				EBT	B	401	18.0	1039
				EBR	C	24	20.8	6
			EB Approach		C		27.8	
			WB	WBL	F	160	116.1	84
				WBT	F	1664	116.3	1514
				WBR	F	1663	110.8	276
			WB Approach		F		115.5	
			NB	NBL	E	442	72.6	130
				NBT	F	447	91.9	99
				NBR	E	434	72.3	93
			NB Approach		E		78.4	
			SB	SBL	F	327	82.6	251
				SBT	F	327	82.1	20
				SBR	B	155	14.9	65
			SB Approach		E		69.5	
			Overall LOS		E		79.7	

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2030 Scenario 4B AM

Intersection Information					2030 Scenario 4B AM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
13	Arlington Boulevard service road/Arlington Boulevard (US 50)	Signalized	EB	EBL	D	994	40.7	63
				EBT	A	994	8.6	2885
				EBR	B	994	15.7	19
			EB Approach		A		9.3	
			WB	WBL	A	436	0.0	0
				WBT	A	436	7.0	2057
				WBR	A	436	8.0	197
			WB Approach		A		7.1	
			NB	NBL	F	437	83.7	70
				NBT	F	437	190.9	34
				NBR	F	448	145.4	87
			NB Approach		F		130.9	
			SB	SBL	A	0	0.0	0
				SBT	A	0	0.0	0
				SBR	A	0	0.0	0
			SB Approach		#N/A			
			Overall LOS		B		12.7	
14	Patrick Henry Drive/Arlington Boulevard (US 50)	Signalized	EB	EBL	F	156	113.6	54
				EBT	D	1603	44.5	2547
				EBR	D	1610	43.0	32
			EB Approach		D		45.9	
			WB	WBL	F	542	93.8	80
				WBT	C	542	25.7	1869
				WBR	C	584	24.3	68
			WB Approach		C		28.4	
			NB	NBL	F	191	96.2	55
				NBT	F	663	93.7	270
				NBR	F	682	92.9	194
			NB Approach		F		93.6	
			SB	SBL	F	1059	291.2	262
				SBT	F	1058	235.5	183
				SBR	F	1058	216.9	3
			SB Approach		F		267.9	
			Overall LOS		E		59.7	
15	John Marshall Drive/Patrick Henry Drive & Williston Drive	Signalized	EB	EBL	C	513	30.1	143
				EBT	C	513	24.9	338
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		C		26.5	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	B	361	14.1	318
				WBR	B	598	16.8	271
			WB Approach		B		15.4	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		N/A			
			SB	SBL	C	213	29.6	124
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	C	224	31.6	60
			SB Approach		C		30.3	
			Overall LOS		C		21.8	
16	John Marshall Drive & N. McKinley Road/Wilson Boulevard	Signalized	EB	EBL	C	116	20.7	77
				EBT	C	392	22.0	735
				EBR	B	404	17.8	2
			EB Approach		C		21.8	
			WB	WBL	E	210	60.1	111
				WBT	C	204	24.9	324
				WBR	C	214	21.0	66
			WB Approach		C		32.2	
			NB	NBL	E	673	67.7	88
				NBT	E	673	59.9	202
				NBR	E	676	58.3	160
			NB Approach		E		60.9	
			SB	SBL	D	146	38.8	81
				SBT	C	72	23.4	45
				SBR	A	82	8.9	124
			SB Approach		C		21.2	
			Overall LOS		C		33.1	
17	Peyton Randolph Drive/Wilson Boulevard	Signalized	EB	EBL	A	617	0.0	0
				EBT	B	617	19.9	806
				EBR	B	625	15.8	385
			EB Approach		B		18.6	
			WB	WBL	B	51	15.8	26
				WBT	A	185	8.9	513
				WBR	A	222	0.0	0
			WB Approach		A		9.3	
			NB	NBL	E	292	60.9	165
				NBT	A	292	0.0	0
				NBR	A	0	0.0	0
			NB Approach		E		60.9	
			SB	SBL	D	34	54.3	8
				SBT	A	34	0.0	0
				SBR	D	41	36.8	0
			SB Approach		D		54.3	
			Overall LOS		B		19.8	

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2030 Scenario 4B AM

Intersection Information					2030 Scenario 4B AM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
18	Roosevelt Boulevard/Wilson Boulevard	Signalized	EB	EBL	C	628	25.2	539
				EBT	B	629	15.3	642
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		B		19.8	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	D	360	38.3	333
				WBR	C	400	22.1	348
			WB Approach		C		30.0	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		N/A			
			SB	SBL	D	531	49.3	546
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	D	536	50.5	212
			SB Approach		D		49.6	
			Overall LOS		C		31.1	
19	Roosevelt Boulevard/N. Roosevelt Street	Signalized	EB	EBL	C	278	26.5	252
				EBT	A	278	0.0	0
				EBR	C	278	29.8	15
			EB Approach		C		26.6	
			WB	WBL	A	6	1.2	12
				WBT	A	0	0.0	0
				WBR	A	4	0.0	0
			WB Approach		A		1.2	
			NB	NBL	D	68	38.9	30
				NBT	B	314	12.2	921
				NBR	B	314	10.4	18
			NB Approach		B		13.0	
			SB	SBL	A	239	0.0	0
				SBT	B	239	11.8	676
				SBR	A	240	9.6	78
			SB Approach		B		11.6	
			Overall LOS		B		14.3	
20	Arlington Blvd WB/Wilson Blvd	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	A	362	3.8	1051
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		A		3.8	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	A	193	6.3	559
			WB Approach		A		6.3	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	F	409	86.0	313
				NBR	E	295	65.4	25
			NB Approach		F		84.5	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		B		12.5	
21	Sleepy Hollow Rd/Wilson Blvd/Broad St/Arlington Blvd EB	Signalized	EB	EBLU to 7	C	512	33.4	39
				EBL to Wilson	C	512	32.3	535
				EBR to Route 7	C	147	32.2	65
				EBT to 50	D	521	35.5	284
			EB Approach		C		33.3	
			NB	NBR from Sleepy	B	93	11.3	85
				NBT	D	541	53.3	829
				NBR from 7 to Wilson	D	541	52.6	336
				NBR from 7 to 50	D	542	35.2	32
			NB Approach		D		49.9	
			SB	SBL to Wilson	C	240	21.1	5
				SBT to Route 7	A	240	5.6	604
				SBR to Sleepy	C	240	29.6	178
				SBL to 50	C	240	20.7	304
			SB Approach		B		14.8	
			Overall LOS		C		32.7	
22	Broad St WB/Arlington Blvd WB	Signalized	WB	WBL	B	241	12.3	197
				WBT	B	241	10.4	174
				WBR	A	132	6.9	502
			WB Approach		A		8.8	
			NB	NBT from 7 to 7	A	137	5.1	866
				NBU	#N/A	#N/A	#N/A	#N/A
				NBL	#N/A	#N/A	#N/A	#N/A
			NB Approach		A		0.3	
			SB	SBL	#N/A	#N/A	#N/A	
				SBT	#N/A	#N/A	#N/A	
				SBR	#N/A	#N/A	#N/A	
			SB Approach		#N/A		#N/A	
			Overall LOS		A		4.7	

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2030 Scenario 4B AM

Intersection Information					2030 Scenario 4B AM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
23	Broad St EB/Arlington Blvd WB	Unsignalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	A	100	1.8	1069
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		A		1.8	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		#N/A	
			SB	SBL	A	153	3.0	198
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		A		3.0	
			Overall LOS		A		2.0	
23	Broad St EB/Arlington Blvd WB	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	A	142	4.0	1068
				EBR	B	60	12.9	22
			EB Approach		A		4.2	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		#N/A	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	B	112	15.1	174
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		B		15.1	
			Overall LOS		A		4.8	
25	Ring Rd/US 50 EB Off Ramp	Signalized	EB	EBL	A	1557	0.0	0
				EBT	D	1557	39.1	853
				EBR	D	1557	38.4	224
			EB Approach		D		39.0	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	D	535	54.8	853
				NBR	B	535	18.0	67
			NB Approach		D		48.1	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		A		9.6	
26	Ring Rd/US 50 WB On Ramp	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		#N/A		#N/A	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	B	95	19.2	197
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		B		19.2	
			NB	NBL	A	19	1.1	303
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		A		1.1	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		A		9.6	
27	Ring Road at E. Broad St	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	A	236	8.4	1067
			EB Approach		A		8.4	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	A	265	7.8	1310
				WBR	B	265	11.9	58
			WB Approach		A		8.0	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		#N/A	
			SB	SBL	D	142	35.5	21
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	D	142	41.4	83
			SB Approach		D		40.2	
			Overall LOS		A		9.6	

"N/A" represents volumes that are not allowed, or do not exist

2030 Scenario 4B AM

Intersection Information					2030 Scenario 4B AM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
28	Ring Road at Arlington Blvd EB	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		#N/A		#N/A	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		#N/A	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		A		9.6	
29	Ring Road at Hillwood Ave	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		#N/A		#N/A	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		#N/A	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		A		9.6	
30	Ring Road at Arlington Blvd WB	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		#N/A		#N/A	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		#N/A	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		A		9.6	

"N/A" represents volumes that are not allowed, or do not exist

2030 Scenario 4B PM

Intersection Information					2030 Scenario 4B PM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
1	S. Cherry Street/Arlington Boulevard (US 50)	Signalized	EB	EBL	F	152	140.9	35
				EBT	C	650	28.5	2589
				EBR	F	652	105.4	4
			EB Approach		C		30.1	
			WB	WBL	F	174	122.6	51
				WBT	C	1193	27.2	2604
				WBR	B	91	18.8	98
			WB Approach		C		28.6	
			NB	NBL	F	135	96.9	31
				NBT	A	135	0.0	0
				NBR	A	137	0.0	0
			NB Approach		F		96.9	
			SB	SBL	F	951	146.9	18
				SBT	F	951	164.8	6
				SBR	F	952	98.2	272
			SB Approach		F		102.5	
			Overall LOS		C		33.6	
2	S. Cherry Street/Hillwood Avenue	Signalized	EB	EBL	C	115	23.9	103
				EBT	B	164	15.2	193
				EBR	A	42	7.2	20
			EB Approach		B		17.5	
			WB	WBL	A	0	0.0	0
				WBT	B	283	19.1	323
				WBR	A	278	7.4	18
			WB Approach		B		18.5	
			NB	NBL	C	144	29.1	64
				NBT	C	144	25.2	35
				NBR	B	187	18.9	45
			NB Approach		C		24.9	
			SB	SBL	B	326	16.4	57
				SBT	B	326	16.5	190
				SBR	B	359	13.5	78
			SB Approach		B		15.8	
			Overall LOS		B		18.2	
3	S. Cherry Street/E. Broad Street (VA 7)	Signalized	EB	EBL	C	400	29.7	3
				EBT	B	400	10.6	816
				EBR	B	406	10.6	83
			EB Approach		B		10.7	
			WB	WBL	C	287	30.2	22
				WBT	B	287	18.4	570
				WBR	C	302	20.2	40
			WB Approach		B		18.9	
			NB	NBL	E	394	66.8	45
				NBT	D	394	54.9	61
				NBR	D	394	48.7	97
			NB Approach		D		54.6	
			SB	SBL	D	648	50.8	41
				SBT	D	648	51.9	228
				SBR	D	648	49.4	166
			SB Approach		D		50.8	
			Overall LOS		C		25.2	
6	South Street & S. Roosevelt Street/Hillwood Avenue	Signalized	EB	EBL	F	1001	212.0	86
				EBT	F	1094	118.6	43
				EBR	F	1116	131.2	103
			EB Approach		F		158.6	
			WB	WBL	A	0	0.0	0
				WBT	A	0	0.0	0
				WBR	A	0	0.0	0
			WB Approach		#N/A			
			NB	NBL	F	858	207.4	48
				NBT	F	858	217.7	313
				NBR	F	870	211.2	13
			NB Approach		F		216.1	
			SB	SBL	B	379	14.6	128
				SBT	C	379	22.0	226
				SBR	B	368	10.3	204
			SB Approach		B		16.0	
			Overall LOS		F		106.9	
7	N. Roosevelt Street/E. Broad Street (VA 7)	Signalized	EB	EBL	#N/A	#N/A	#N/A	
				EBT	F	1031	103.3	784
				EBR	F	1052	97.7	5
			EB Approach		F		103.3	
			WB	WBL	F	663	121.3	402
				WBT	F	663	90.8	519
				WBR	F	663	86.4	
			WB Approach		F		103.3	
			NB	NBL	E	384	67.0	14
				NBT	A	384	0.0	0
				NBR	E	384	62.3	387
			NB Approach		E		62.4	
			SB	SBL	D	762	42.7	36
				SBT	D	762	43.8	154
				SBR	D	762	40.2	14
			SB Approach		D		43.3	
			Overall LOS		F		91.3	

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2030 Scenario 4B PM

Intersection Information					2030 Scenario 4B PM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
8	Sleepy Hollow Road/Aspen Lane	Unsignalized	EB	EBL	A	140	0.0	0
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	B	140	14.4	99
			EB Approach		B		14.4	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	A	191	9.9	69
				NBT	A	133	5.2	275
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		A		6.1	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	A	14	3.3	659
				SBR	A	14	6.5	110
			SB Approach		A		3.8	
			Overall LOS		B		14.4	
9	Sleepy Hollow Road/Castle Place	Signalized	EB	EBL	A	0	0.0	0
				EBT	D	338	35.7	346
				EBR	D	338	41.4	34
			EB Approach		N/A			
			WB	WBL	B	377	17.2	267
				WBT	A	245	8.1	377
				WBR	A	245	4.7	21
			WB Approach		B		11.7	
			NB	NBL	F	743	132.2	48
				NBT	F	743	165.8	15
				NBR	F	818	146.4	232
			NB Approach		F		145.1	
			SB	SBL	A	407	0.0	0
				SBT	D	407	44.0	450
				SBR	A	407	0.0	0
			SB Approach		D		44.0	
			Overall LOS		A		5.3	
10	Castle Road &Thorne Road/Leesburg Pike (VA 7)	Signalized	EB	EBL	F	324	120.6	32
				EBT	D	394	46.1	935
				EBR	D	394	51.9	12
			EB Approach		D		48.6	
			WB	WBL	F	1460	220.5	577
				WBT	F	1458	277.5	706
				WBR	F	1458	120.4	131
			WB Approach		F		239.7	
			NB	NBL	F	597	171.5	17
				NBT	F	597	114.7	20
				NBR	D	597	42.7	535
			NB Approach		D		49.0	
			SB	SBL	F	454	185.9	86
				SBT	F	454	175.4	75
				SBR	F	454	177.7	111
			SB Approach		F		179.6	
			Overall LOS		F		143.0	
11	Seven Corners Center/Leesburg Pike (VA 7)	Signalized	EB	EBL	D	115	48.8	53
				EBT	E	917	64.9	1504
				EBR	D	347	46.6	68
			EB Approach		E		63.6	
			WB	WBL	F	475	93.6	72
				WBT	E	579	70.2	1175
				WBR	B	61	11.4	49
			WB Approach		E		69.2	
			NB	NBL	F	919	311.1	203
				NBT	F	919	175.4	14
				NBR	F	919	210.2	43
			NB Approach		F		287.1	
			SB	SBL	F	191	112.4	82
				SBT	F	191	114.2	71
				SBR	D	195	36.0	155
			SB Approach		E		74.4	
			Overall LOS		F		83.3	
12	Patrick Henry Drive/Leesburg Pike (VA 7)	Signalized	EB	EBL	E	556	76.4	196
				EBT	D	558	39.1	1440
				EBR	D	20	36.3	4
			EB Approach		D		43.5	
			WB	WBL	F	174	161.7	80
				WBT	F	1675	172.0	1002
				WBR	F	1671	144.0	140
			WB Approach		F		168.1	
			NB	NBL	F	411	98.8	117
				NBT	E	410	67.8	53
				NBR	F	362	89.1	99
			NB Approach		F		89.1	
			SB	SBL	F	802	97.2	278
				SBT	F	802	98.2	49
				SBR	D	674	44.8	214
			SB Approach		E		76.6	
			Overall LOS		F		93.2	

"N/A" represents volumes that are not allowed, or do not exist

2030 Scenario 4B PM

Intersection Information					2030 Scenario 4B PM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
13	Arlington Boulevard service road/Arlington Boulevard (US 50)	Signalized	EB	EBL	C	417	22.8	26
				EBT	A	417	4.5	2206
				EBR	A	417	5.7	73
			EB Approach		A		4.8	
			WB	WBL	A	586	0.0	0
				WBT	A	586	7.3	2668
				WBR	A	586	7.4	47
			WB Approach		A		7.3	
			NB	NBL	A	193	0.0	0
				NBT	F	193	88.7	66
				NBR	D	197	42.2	56
			NB Approach		E		67.4	
			SB	SBL	F	136	97.6	34
				SBT	F	136	89.0	6
				SBR	A	121	0.0	0
			SB Approach		F		96.3	
			Overall LOS		A		8.3	
14	Patrick Henry Drive/Arlington Boulevard (US 50)	Signalized	EB	EBL	F	134	100.4	38
				EBT	D	1210	39.2	1960
				EBR	D	1219	35.9	141
			EB Approach		D		40.1	
			WB	WBL	F	1297	154.3	188
				WBT	D	1297	43.9	2329
				WBR	D	1336	41.5	44
			WB Approach		D		51.9	
			NB	NBL	A	0	0.0	0
				NBT	F	421	84.0	156
				NBR	E	443	76.9	173
			NB Approach		F		80.3	
			SB	SBL	F	1149	336.0	268
				SBT	F	1148	227.8	337
				SBR	A	1148	0.0	0
			SB Approach		F		256.9	
			Overall LOS		E		71.0	
15	John Marshall Drive/Patrick Henry Drive & Williston Drive	Signalized	EB	EBL	A	229	0.0	0
				EBT	B	229	14.4	245
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		B		14.4	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	B	197	13.6	167
				WBR	B	248	18.5	124
			WB Approach		B		15.7	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		N/A			
			SB	SBL	C	341	20.3	336
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	B	352	20.0	32
			SB Approach		C		20.3	
			Overall LOS		B		17.2	
16	John Marshall Drive & N. McKinley Road/Wilson Boulevard	Signalized	EB	EBL	C	179	20.5	139
				EBT	B	226	17.4	398
				EBR	B	238	10.0	36
			EB Approach		B		17.7	
			WB	WBL	E	426	78.5	192
				WBT	C	412	28.4	607
				WBR	C	423	26.6	91
			WB Approach		D		39.0	
			NB	NBL	D	294	42.6	71
				NBT	D	294	36.3	61
				NBR	C	297	26.5	53
			NB Approach		D		35.9	
			SB	SBL	C	34	29.7	10
				SBT	C	112	30.8	84
				SBR	B	123	10.0	152
			SB Approach		B		17.9	
			Overall LOS		C		29.6	
17	Peyton Randolph Drive/Wilson Boulevard	Signalized	EB	EBL	B	520	11.8	9
				EBT	B	520	16.9	527
				EBR	B	528	14.9	465
			EB Approach		B		15.9	
			WB	WBL	B	90	16.2	47
				WBT	B	383	15.6	777
				WBR	B	400	15.4	10
			WB Approach		B		15.6	
			NB	NBL	D	182	52.2	92
				NBT	A	182	0.0	0
				NBR	B	74	18.9	13
			NB Approach		D		48.1	
			SB	SBL	D	92	48.8	36
				SBT	D	92	53.0	7
				SBR	A	99	9.6	53
			SB Approach		C		27.4	
			Overall LOS		B		18.0	

"N/A" represents volumes that are not allowed, or do not exist

2030 Scenario 4B PM

Intersection Information					2030 Scenario 4B PM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
18	Roosevelt Boulevard/Wilson Boulevard	Signalized	EB	EBL	C	206	22.9	154
				EBT	B	243	11.7	463
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		B		14.5	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	C	497	29.9	703
				WBR	B	537	19.4	216
			WB Approach		C		27.4	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		N/A			
			SB	SBL	E	821	70.8	534
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	E	826	78.8	283
			SB Approach		E		73.6	
			Overall LOS		D		39.9	
19	Roosevelt Boulevard/N. Roosevelt Street	Signalized	EB	EBL	C	169	26.3	104
				EBT	A	169	0.0	0
				EBR	C	169	28.2	19
			EB Approach		C		26.6	
			WB	WBL	A	4	0.7	59
				WBT	A	34	0.7	17
				WBR	A	3	0.0	0
			WB Approach		A		0.7	
			NB	NBL	C	85	26.4	43
				NBT	A	117	9.4	310
				NBR	A	117	6.9	43
			NB Approach		B		11.0	
			SB	SBL	A	286	0.0	0
				SBT	B	286	11.3	726
				SBR	A	287	9.2	165
			SB Approach		B		10.9	
			Overall LOS		B		11.7	
20	Arlington Blvd WB/Wilson Blvd	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	A	261	4.6	578
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		A		4.6	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	E	790	71.9	920
			WB Approach		E		71.9	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	F	1384	388.8	207
				NBR	B	1345	13.9	9
			NB Approach		F		373.1	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		E		62.9	
21	Sleepy Hollow Rd/Wilson Blvd/Broad St/Arlington Blvd EB	Signalized	EB	EBLU to 7	E	369	60.4	48
				EBL to Wilson	C	369	34.4	439
				EBR to Route 7	D	130	35.4	136
				EBT to 50	C	84	34.5	97
			EB Approach		D		36.4	
			NB	NBR from Sleepy	B	76	10.7	36
				NBT	F	712	171.0	829
				NBR from 7 to Wilson	F	712	173.1	49
				NBR from 7 to 50	A	712	0.0	0
			NB Approach		F		164.8	
			SB	SBL to Wilson	C	243	26.8	5
				SBT to Route 7	B	243	17.9	759
				SBR to Sleepy	D	243	40.7	452
				SBL to 50	C	243	25.5	357
			SB Approach		C		26.2	
			Overall LOS		E		66.6	
22	Broad St WB/Arlington Blvd WB	Signalized	WB	WBL	E	350	59.1	448
				WBT	C	350	22.6	548
				WBR	B	413	14.9	127
			WB Approach		D		36.3	
			NB	NBT from 7 to 7	#N/A	#N/A	#N/A	#N/A
				NBU	#N/A	#N/A	#N/A	#N/A
				NBL	#N/A	#N/A	#N/A	#N/A
			NB Approach		C		27.0	
			SB	SBL	#N/A	#N/A	#N/A	
				SBT	#N/A	#N/A	#N/A	
				SBR	#N/A	#N/A	#N/A	
			SB Approach		#N/A		#N/A	
			Overall LOS		C		23.9	

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2030 Scenario 4B PM

Intersection Information					2030 Scenario 4B PM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
23	Broad St EB/Arlington Blvd WB	Unsignalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	A	102	2.5	1211
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		A		2.5	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		#N/A	
			SB	SBL	B	226	19.6	447
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		B		19.6	
			Overall LOS		A		7.1	
23	Broad St EB/Arlington Blvd WB	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	A	193	4.4	1212
				EBR	B	103	16.6	51
			EB Approach		A		4.9	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		#N/A	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	B	249	13.9	548
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		B		13.9	
			Overall LOS		A		6.5	
25	Ring Rd/US 50 EB Off Ramp	Signalized	EB	EBL	D	1687	54.9	29
				EBT	F	1687	107.3	676
				EBR	F	1687	115.2	377
			EB Approach		F		108.6	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	D	531	50.1	1053
				NBR	B	531	12.5	48
			NB Approach		D		45.9	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		D		41.6	
26	Ring Rd/US 50 WB On Ramp	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		#N/A		#N/A	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	B	242	19.5	598
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		B		19.5	
			NB	NBL	A	88	2.1	407
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		A		2.1	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		D		41.6	
27	Ring Road at E. Broad St	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	B	242	10.3	1206
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		B		10.3	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	E	535	72.1	947
				WBR	E	535	55.7	35
			WB Approach		E		71.6	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		#N/A	
			SB	SBL	F	138	121.9	54
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	F	138	183.6	36
			SB Approach		F		146.6	
			Overall LOS		D		41.6	

"N/A" represents volumes that are not allowed, or do not exist

2030 Scenario 4B PM

Intersection Information					2030 Scenario 4B PM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
28	Ring Road at Arlington Blvd EB	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		#N/A		#N/A	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		#N/A	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		D		41.6	
29	Ring Road at Hillwood Ave	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		#N/A		#N/A	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		#N/A	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		D		41.6	
30	Ring Road at Arlington Blvd WB	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		#N/A		#N/A	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		#N/A	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		D		41.6	

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2030 Scenario 5 AM

Intersection Information					2030 Scenario 5 AM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
1	S. Cherry Street/Arlington Boulevard (US 50)	Signalized	EB	EBL	F	197	174.1	66
				EBT	C	598	21.0	2751
				EBR	C	555	27.0	36
			EB Approach		C		24.7	
			WB	WBL	E	2	59.0	0
				WBT	B	926	14.2	2083
				WBR	B	100	14.6	86
			WB Approach		B		14.2	
			NB	NBL	F	206	146.7	54
				NBT	F	206	97.4	15
				NBR	A	208	0.0	0
			NB Approach		F		136.0	
			SB	SBL	A	123	0.0	0
				SBT	A	123	0.0	0
				SBR	A	123	5.2	58
			SB Approach		A		5.2	
			Overall LOS		C		21.7	
2	S. Cherry Street/Hillwood Avenue	Signalized	EB	EBL	B	109	18.4	102
				EBT	B	89	14.3	111
				EBR	A	33	6.2	11
			EB Approach		B		15.8	
			WB	WBL	A	0	0.0	0
				WBT	B	194	17.0	212
				WBR	B	196	12.0	10
			WB Approach		B		16.8	
			NB	NBL	C	303	23.8	45
				NBT	C	303	22.8	243
				NBR	A	347	0.0	0
			NB Approach		C		22.9	
			SB	SBL	D	93	37.8	16
				SBT	A	93	9.6	40
				SBR	B	126	11.1	18
			SB Approach		B		16.1	
			Overall LOS		B		18.6	
3	S. Cherry Street/E. Broad Street (VA 7)	Signalized	EB	EBL	B	282	17.3	57
				EBT	B	282	11.0	622
				EBR	A	287	0.0	0
			EB Approach		B		11.5	
			WB	WBL	B	353	19.9	10
				WBT	B	353	17.8	1053
				WBR	A	368	0.0	0
			WB Approach		B		17.8	
			NB	NBL	E	657	73.1	18
				NBT	E	657	67.4	242
				NBR	E	657	67.5	139
			NB Approach		E		67.7	
			SB	SBL	E	351	77.1	92
				SBT	E	351	69.4	40
				SBR	E	351	74.4	20
			SB Approach		E		74.7	
			Overall LOS		C		28.5	
6	South Street & S. Roosevelt Street/Hillwood Avenue	Signalized	EB	EBL	C	194	31.9	174
				EBT	A	0	0.0	0
				EBR	A	0	0.0	0
			EB Approach		C		31.9	
			WB	WBL	A	19	6.0	3
				WBT	A	10	4.3	2
				WBR	B	29	14.2	3
			WB Approach		A		8.7	
			NB	NBL	F	687	144.1	93
				NBT	F	687	147.3	216
				NBR	A	699	0.0	0
			NB Approach		F		146.4	
			SB	SBL	A	371	2.6	48
				SBT	A	359	2.1	96
				SBR	B	272	12.0	150
			SB Approach		A		7.2	
			Overall LOS		E		60.4	
7	N. Roosevelt Street/E. Broad Street (VA 7)	Signalized	EB	EBL	#N/A	#N/A	#N/A	
				EBT	D	494	38.0	850
				EBR	D	524	38.5	23
			EB Approach		D		38.0	
			WB	WBL	E	643	77.7	229
				WBT	D	643	47.9	1012
				WBR	B	643	19.3	
			WB Approach		D		52.5	
			NB	NBL	D	393	52.2	23
				NBT	D	393	46.7	44
				NBR	D	393	52.8	326
			NB Approach		D		52.1	
			SB	SBL	D	202	41.8	21
				SBT	D	202	38.7	44
				SBR	D	202	40.3	72
			SB Approach		D		40.0	
			Overall LOS		D		47.1	
8	Sleepy Hollow Road/Aspen Lane	Unsignalized	EB	EBL	A	25	0.0	0
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	A	25	7.1	3
			EB Approach		A		7.1	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	A	195	4.7	119
				NBT	A	136	3.1	432
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		A		3.4	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	A	0	1.7	391
				SBR	A	0	1.2	14
			SB Approach		A		1.7	
			Overall LOS		A		7.1	

"N/A" represents volumes that are not allowed, or do not exist

2030 Scenario 5 AM

Intersection Information					2030 Scenario 5 AM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
9	Sleepy Hollow Road/Castle Place	Signalized	EB	EBL	A	0	0.0	0
				EBT	C	168	26.5	234
				EBR	C	168	26.6	48
			EB Approach		N/A			
			WB	WBL	A	119	9.2	152
				WBT	A	93	1.8	367
				WBR	A	93	2.8	86
			WB Approach		A		3.8	
			NB	NBL	E	168	59.1	33
				NBT	A	168	0.0	0
				NBR	D	565	54.6	338
			NB Approach		D		55.0	
			SB	SBL	A	219	0.0	0
				SBT	C	219	29.4	170
				SBR	A	219	0.0	0
			SB Approach		C		29.4	
			Overall LOS		C		24.7	
10	Castle Road &Thorne Road/Leesburg Pike (VA 7)	Signalized	EB	EBL	C	115	30.6	79
				EBT	C	319	34.3	733
				EBR	C	319	34.5	48
			EB Approach		C		34.0	
			WB	WBL	E	300	59.2	469
				WBT	D	925	53.2	1241
				WBR	D	925	38.3	124
			WB Approach		D		53.7	
			NB	NBL	D	307	54.8	48
				NBT	D	307	49.4	167
				NBR	D	307	37.7	356
			NB Approach		D		42.8	
			SB	SBL	F	412	80.5	96
				SBT	E	412	67.4	89
				SBR	E	412	66.8	226
			SB Approach		E		70.1	
			Overall LOS		D		49.2	
11	Seven Corners Center/Leesburg Pike (VA 7)	Signalized	EB	EBL	E	330	70.4	111
				EBT	D	473	38.2	1100
				EBR	A	53	0.0	0
			EB Approach		D		42.5	
			WB	WBL	C	91	27.5	55
				WBT	A	434	8.9	1641
				WBR	A	25	1.3	21
			WB Approach		A		9.4	
			NB	NBL	F	303	134.9	127
				NBT	A	303	0.0	0
				NBR	E	303	73.4	41
			NB Approach		F		119.9	
			SB	SBL	F	183	82.0	124
				SBT	A	183	0.0	0
				SBR	B	51	13.3	33
			SB Approach		E		67.6	
			Overall LOS		C		30.5	
12	Patrick Henry Drive/Leesburg Pike (VA 7)	Signalized	EB	EBL	F	496	134.6	155
				EBT	C	497	22.8	1113
				EBR	B	16	12.5	8
			EB Approach		D		36.3	
			WB	WBL	E	217	77.4	83
				WBT	E	1434	79.9	1566
				WBR	E	1434	74.7	258
			WB Approach		E		79.1	
			NB	NBL	E	80	74.4	111
				NBT	E	447	77.3	68
				NBR	E	213	76.3	92
			NB Approach		E		75.8	
			SB	SBL	F	383	83.6	281
				SBT	F	383	82.0	16
				SBR	D	119	44.0	43
			SB Approach		E		78.5	
			Overall LOS		E		64.4	
13	Arlington Boulevard service road/Arlington Boulevard (US 50)	Signalized	EB	EBL	D	878	37.5	59
				EBT	A	878	7.4	2881
				EBR	A	878	7.3	17
			EB Approach		A		8.0	
			WB	WBL	A	409	0.0	0
				WBT	A	409	6.9	2078
				WBR	A	409	8.1	177
			WB Approach		A		7.0	
			NB	NBL	A	527	0.0	70
				NBT	A	526	1.1	36
				NBR	F	483	184.1	91
			NB Approach		A		4.9	
			SB	SBL	A	0	0.0	0
				SBT	A	0	0.0	0
				SBR	A	54	8.2	16
			SB Approach		A		8.2	
			Overall LOS		B		12.9	
14	Patrick Henry Drive/Arlington Boulevard (US 50)	Signalized	EB	EBL	F	182	127.4	56
				EBT	D	1615	49.8	2508
				EBR	D	1620	49.9	12
			EB Approach		D		51.5	
			WB	WBL	F	673	101.5	44
				WBT	C	673	29.3	1922
				WBR	C	730	27.0	97
			WB Approach		C		30.7	
			NB	NBL	F	86	101.5	23
				NBT	F	664	92.1	269
				NBR	F	648	106.8	209
			NB Approach		F		99.5	
			SB	SBL	F	1031	252.5	276
				SBT	F	1020	191.7	167
				SBR	F	1020	173.3	11
			SB Approach		F		228.2	
			Overall LOS		E		58.4	

"N/A" represents volumes that are not allowed, or do not exist

2030 Scenario 5 AM

Intersection Information					2030 Scenario 5 AM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
15	John Marshall Drive/Patrick Henry Drive & Willston Drive	Signalized	EB	EBL	C	445	26.6	142
				EBT	B	445	18.7	331
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		C		21.0	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	B	407	15.7	290
				WBR	B	575	17.2	265
			WB Approach		B		16.4	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		N/A			
			SB	SBL	C	197	26.6	117
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	C	209	30.9	43
			SB Approach		C		27.7	
			Overall LOS		B		19.8	
16	John Marshall Drive & N. McKinley Road/Wilson Boulevard	Signalized	EB	EBL	B	117	17.8	73
				EBT	B	360	18.9	686
				EBR	A	372	5.5	1
			EB Approach		B		18.7	
			WB	WBL	E	193	58.4	97
				WBT	C	206	25.2	350
				WBR	C	216	22.6	65
			WB Approach		C		31.2	
			NB	NBL	E	652	60.4	88
				NBT	E	652	56.9	197
				NBR	D	654	50.6	157
			NB Approach		E		55.3	
			SB	SBL	D	124	41.1	74
				SBT	C	68	24.9	40
				SBR	A	97	9.1	134
			SB Approach		C		21.2	
			Overall LOS		C		30.6	
17	Peyton Randolph Drive/Wilson Boulevard	Signalized	EB	EBL	A	658	0.0	0
				EBT	C	658	24.3	752
				EBR	B	666	16.7	377
			EB Approach		C		21.7	
			WB	WBL	B	68	19.0	42
				WBT	B	201	15.1	532
				WBR	A	238	0.0	0
			WB Approach		B		15.4	
			NB	NBL	F	822	84.9	279
				NBT	A	822	0.0	0
				NBR	A	0	0.0	0
			NB Approach		F		84.9	
			SB	SBL	D	27	52.2	7
				SBT	A	27	0.0	0
				SBR	A	35	8.0	1
			SB Approach		D		46.7	
			Overall LOS		C		28.8	
18	Roosevelt Boulevard/Wilson Boulevard	Signalized	EB	EBL	D	881	36.4	708
				EBT	B	732	15.3	607
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		C		26.7	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	E	677	74.4	469
				WBR	E	716	61.3	335
			WB Approach		E		69.0	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		N/A			
			SB	SBL	D	515	50.4	525
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	D	520	53.1	232
			SB Approach		D		51.2	
			Overall LOS		D		45.0	
19	Roosevelt Boulevard/N. Roosevelt Street	Signalized	EB	EBL	C	140	23.6	80
				EBT	A	140	0.0	0
				EBR	C	140	25.8	15
			EB Approach		C		23.9	
			WB	WBL	A	5	0.8	12
				WBT	A	0	0.0	0
				WBR	A	4	0.0	0
			WB Approach		A		0.8	
			NB	NBL	D	84	37.6	43
				NBT	B	375	10.9	1052
				NBR	B	375	10.2	19
			NB Approach		B		11.9	
			SB	SBL	A	262	0.0	0
				SBT	B	262	10.8	678
				SBR	A	263	8.5	88
			SB Approach		B		10.6	
			Overall LOS		B		11.9	
20	Arlington Blvd WB/Wilson Blvd	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	A	193	2.9	1190
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		A		2.9	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	A	0	3.6	719
			WB Approach		A		3.6	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	A	0	0.3	21
			NB Approach		A		0.3	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		A		3.1	

"N/A" represents volumes that are not allowed, or do not exist

2030 Scenario 5 AM

Intersection Information					2030 Scenario 5 AM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
21	Sleepy Hollow Rd/Wilson Blvd/Broad St/Arlington Blvd EB	Signalized	EB	EBLU to 7	A	290	0.0	0
				EBL to Wilson	C	290	27.2	554
				EBR to Route 7	C	159	33.2	63
				EBT to 50	C	0	28.6	53
			EB Approach		C		27.9	
			NB	NBR from Sleepy	B	105	11.3	87
				NBT	D	665	40.2	988
				NBR from 7 to Wilson	D	665	54.7	479
				NBR from 7 to 50	D	666	52.0	32
			NB Approach		D		43.3	
			SB	SBL to Wilson	C	234	24.9	5
				SBT to Route 7	A	234	4.6	670
				SBR to Sleepy	C	234	25.7	171
				SBL to 50	C	234	24.0	354
			SB Approach		B		14.7	
			Overall LOS		C		29.7	
22	Broad St WB/Arlington Blvd WB	Signalized	WB	WBL	B	319	15.8	162
				WBT	B	319	18.6	282
				WBR	B	181	15.8	275
			WB Approach		B		16.9	
			NB	NBT from 7 to 7	A	95	3.7	986
				NBU	#N/A	#N/A	#N/A	#N/A
				NBL	#N/A	#N/A	#N/A	#N/A
			NB Approach		A		0.3	
			SB	SBL	#N/A	#N/A	#N/A	
				SBT	#N/A	#N/A	#N/A	
				SBR	#N/A	#N/A	#N/A	
			SB Approach		#N/A		#N/A	
			Overall LOS		A		6.0	
23	Broad St EB/Arlington Blvd WB	Unsignalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	A	104	2.0	1195
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		A		2.0	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		N/A			
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		N/A			
			SB	SBL	A	168	3.7	162
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		A		3.7	
			Overall LOS		A		2.2	
23	Broad St EB/Arlington Blvd WB	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	A	126	2.7	1195
				EBR	B	26	13.0	23
			EB Approach		A		2.9	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		#N/A	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	B	215	15.5	282
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		B		15.5	
			Overall LOS		A		4.0	
25	Ring Road at Arlington Blvd EB	Signalized	EB	EBL	A	1515	0.0	0
				EBT	D	1515	46.2	637
				EBR	D	1515	43.7	283
			EB Approach		D		45.4	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	F	291	82.7	368
				NBR	D	291	51.8	33
			NB Approach		F		80.1	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		E		55.9	
26	Ring Road at Arlington Blvd WB	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		#N/A		#N/A	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	B	136	18.5	304
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		B		18.5	
			NB	NBL	A	207	8.0	368
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		A		8.0	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		B		12.7	

"N/A" represents volumes that are not allowed, or do not exist

2030 Scenario 5 AM

Intersection Information					2030 Scenario 5 AM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
27	Ring Road at E. Broad St	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	B	435	10.6	1197
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		B		10.6	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	A	364	9.9	1198
				WBR	C	364	20.2	58
			WB Approach		B		10.4	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		#N/A	
			SB	SBL	D	135	47.6	20
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	E	135	57.2	82
			SB Approach		E		55.3	
			Overall LOS		B		12.3	
28	Ring Road at Arlington Blvd EB	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	A	156	8.0	400
				EBR	C	156	23.1	32
			EB Approach		A		9.1	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	A	340	0.0	0
				NBR	C	340	33.4	305
			NB Approach		C		33.4	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	B	241	19.6	324
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		B		19.6	
			Overall LOS		B		19.3	
29	Ring Road at Hillwood Ave	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		#N/A		#N/A	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		#N/A	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		B		19.3	
30	Ring Road at Arlington Blvd WB	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		#N/A		#N/A	
			WB	WBL	E	615	56.0	326
				WBT	D	615	36.1	21
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		D		54.8	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		#N/A	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		D		54.9	

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2030 Scenario 5 PM

Intersection Information					2030 Scenario 5 PM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
1	S. Cherry Street/Arlington Boulevard (US 50)	Signalized	EB	EBL	F	104	111.7	30
				EBT	C	772	23.4	2730
				EBR	F	776	88.5	19
			EB Approach		C		24.8	
			WB	WBL	F	127	121.3	31
				WBT	C	1210	31.4	2900
				WBR	B	94	16.5	109
			WB Approach		C		31.7	
			NB	NBL	F	498	833.6	29
				NBT	A	498	0.0	0
				NBR	A	498	0.0	0
			NB Approach		F		833.6	
			SB	SBL	F	608	98.9	80
				SBT	F	608	102.5	20
				SBR	F	608	102.2	127
			SB Approach		F		101.1	
			Overall LOS		C		34.8	
2	S. Cherry Street/Hillwood Avenue	Signalized	EB	EBL	A	0	0.0	0
				EBT	B	162	10.9	198
				EBR	A	63	7.0	51
			EB Approach		B		10.1	
			WB	WBL	A	47	9.7	17
				WBT	B	220	14.9	315
				WBR	B	223	12.3	2
			WB Approach		B		14.7	
			NB	NBL	C	133	24.3	80
				NBT	C	133	25.6	35
				NBR	B	176	16.1	24
			NB Approach		C		23.2	
			SB	SBL	B	166	16.6	20
				SBT	C	166	25.1	25
				SBR	B	199	12.0	188
			SB Approach		B		13.8	
			Overall LOS		B		14.5	
3	S. Cherry Street/E. Broad Street (VA 7)	Signalized	EB	EBL	C	267	30.5	20
				EBT	A	267	7.3	1077
				EBR	A	267	5.2	33
			EB Approach		A		7.6	
			WB	WBL	D	475	35.2	152
				WBT	C	475	20.2	819
				WBR	B	496	18.1	24
			WB Approach		C		22.4	
			NB	NBL	E	139	64.8	15
				NBT	D	139	44.2	48
				NBR	A	139	0.0	0
			NB Approach		D		49.1	
			SB	SBL	D	285	47.9	7
				SBT	D	285	53.9	75
				SBR	D	285	53.7	90
			SB Approach		D		53.5	
			Overall LOS		B		18.3	
6	South Street & S. Roosevelt Street/Hillwood Avenue	Signalized	EB	EBL	F	446	138.7	92
				EBT	D	324	37.4	52
				EBR	C	357	27.8	89
			EB Approach		E		73.7	
			WB	WBL	C	19	23.5	3
				WBT	D	26	38.6	2
				WBR	E	26	59.0	3
			WB Approach		D		40.6	
			NB	NBL	F	798	173.4	109
				NBT	F	798	188.5	341
				NBR	A	809	0.0	0
			NB Approach		F		184.9	
			SB	SBL	C	311	28.6	89
				SBT	A	311	8.7	213
				SBR	B	286	11.3	164
			SB Approach		B		13.4	
			Overall LOS		F		92.4	
7	N. Roosevelt Street/E. Broad Street (VA 7)	Signalized	EB	EBL	#N/A	#N/A	#N/A	
				EBT	E	812	75.8	985
				EBR	E	840	77.0	21
			EB Approach		E		75.8	
			WB	WBL	F	616	95.4	226
				WBT	D	616	46.1	873
				WBR	C	616	34.0	
			WB Approach		E		55.3	
			NB	NBL	E	396	66.2	12
				NBT	D	396	43.7	19
				NBR	E	396	55.0	409
			NB Approach		D		54.8	
			SB	SBL	D	406	52.2	17
				SBT	D	406	39.9	221
				SBR	D	406	38.9	48
			SB Approach		D		40.5	
			Overall LOS		E		60.8	
8	Sleepy Hollow Road/Aspen Lane	Unsignalized	EB	EBL	A	106	0.0	0
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	B	106	17.8	61
			EB Approach		B		17.8	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	B	209	14.2	52
				NBT	A	155	4.8	261
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		A		6.4	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	A	0	3.1	847
				SBR	A	0	5.0	141
			SB Approach		A		3.4	
			Overall LOS		B		17.8	

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2030 Scenario 5 PM

Intersection Information					2030 Scenario 5 PM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
9	Sleepy Hollow Road/Castle Place	Signalized	EB	EBL	A	0	0.0	0
				EBT	D	209	50.7	346
				EBR	E	209	62.2	36
			EB Approach		N/A			
			WB	WBL	C	591	23.6	495
				WBT	B	536	13.5	712
				WBR	B	536	15.4	133
			WB Approach		B		17.5	
			NB	NBL	E	244	63.0	33
				NBT	D	244	47.3	26
				NBR	C	359	31.8	225
			NB Approach		D		36.8	
			SB	SBL	A	418	0.0	0
				SBT	D	418	39.5	446
				SBR	A	418	0.0	0
			SB Approach		D		39.5	
			Overall LOS		C		29.1	
10	Castle Road &Thorne Road/Leesburg Pike (VA 7)	Signalized	EB	EBL	E	536	77.8	123
				EBT	E	569	72.2	969
				EBR	F	569	89.2	11
			EB Approach		E		73.0	
			WB	WBL	E	1034	73.4	836
				WBT	E	1034	68.6	957
				WBR	E	1034	55.3	182
			WB Approach		E		68.4	
			NB	NBL	F	736	436.4	61
				NBT	F	736	390.5	57
				NBR	E	736	74.6	425
			NB Approach		F		148.4	
			SB	SBL	C	247	27.2	151
				SBT	C	247	23.7	496
				SBR	C	247	28.7	167
			SB Approach		C		25.4	
			Overall LOS		E		70.9	
11	Seven Corners Center/Leesburg Pike (VA 7)	Signalized	EB	EBL	F	437	109.7	89
				EBT	D	633	49.5	1374
				EBR	C	160	33.2	51
			EB Approach		E		55.8	
			WB	WBL	E	153	57.0	53
				WBT	B	538	14.1	1425
				WBR	A	56	3.4	75
			WB Approach		B		16.1	
			NB	NBL	F	395	112.1	252
				NBT	F	395	136.2	41
				NBR	E	395	65.8	6
			NB Approach		F		114.5	
			SB	SBL	F	192	87.6	105
				SBT	F	192	85.1	60
				SBR	C	192	20.4	174
			SB Approach		D		52.7	
			Overall LOS		D		43.5	
12	Patrick Henry Drive/Leesburg Pike (VA 7)	Signalized	EB	EBL	F	363	93.8	96
				EBT	D	559	40.1	1377
				EBR	D	103	37.1	23
			EB Approach		D		43.5	
			WB	WBL	E	126	61.4	59
				WBT	E	838	59.5	1292
				WBR	D	843	53.1	138
			WB Approach		E		59.0	
			NB	NBL	F	392	83.7	114
				NBT	F	403	80.4	43
				NBR	F	370	89.3	81
			NB Approach		F		85.0	
			SB	SBL	E	843	75.6	341
				SBT	F	843	81.4	61
				SBR	D	337	50.4	163
			SB Approach		E		68.9	
			Overall LOS		E		56.0	
13	Arlington Boulevard service road/Arlington Boulevard (US 50)	Signalized	EB	EBL	D	678	51.8	52
				EBT	B	678	11.8	2360
				EBR	B	678	11.4	94
			EB Approach		B		12.6	
			WB	WBL	A	1031	0.0	0
				WBT	C	1031	27.8	2566
				WBR	C	1031	26.1	94
			WB Approach		C		27.7	
			NB	NBL	E	228	69.5	11
				NBT	F	228	82.6	82
				NBR	D	146	50.1	18
			NB Approach		E		76.1	
			SB	SBL	E	112	74.8	31
				SBT	E	112	71.7	9
				SBR	A	93	0.0	0
			SB Approach		E		74.1	
			Overall LOS		C		21.9	
14	Patrick Henry Drive/Arlington Boulevard (US 50)	Signalized	EB	EBL	F	113	103.3	40
				EBT	C	1659	31.2	2157
				EBR	C	1659	32.4	98
			EB Approach		C		32.5	
			WB	WBL	F	1674	153.7	48
				WBT	F	1674	107.7	2410
				WBR	F	1682	108.2	77
			WB Approach		F		108.5	
			NB	NBL	A	0	0.0	0
				NBT	E	208	55.3	135
				NBR	E	195	59.8	74
			NB Approach		E		56.9	
			SB	SBL	F	1083	189.8	405
				SBT	F	1076	111.7	386
				SBR	F	1076	122.4	22
			SB Approach		F		150.9	
			Overall LOS		E		71.2	

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2030 Scenario 5 PM

Intersection Information					2030 Scenario 5 PM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
15	John Marshall Drive/Patrick Henry Drive & Williston Drive	Signalized	EB	EBL	A	194	0.0	0
				EBT	B	194	13.1	215
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		B		13.1	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	B	142	16.8	155
				WBR	B	203	13.7	121
			WB Approach		B		15.4	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		N/A			
			SB	SBL	B	390	17.2	408
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	B	402	17.7	46
			SB Approach		B		17.3	
			Overall LOS		B		15.8	
16	John Marshall Drive & N. McKinley Road/Wilson Boulevard	Signalized	EB	EBL	C	201	24.4	139
				EBT	B	243	19.8	488
				EBR	B	255	10.1	20
			EB Approach		C		20.5	
			WB	WBL	E	406	59.3	230
				WBT	C	395	25.2	592
				WBR	C	406	24.2	78
			WB Approach		C		33.8	
			NB	NBL	D	231	45.5	68
				NBT	D	231	39.1	56
				NBR	C	233	26.8	41
			NB Approach		D		38.7	
			SB	SBL	A	0	0.0	0
				SBT	C	150	31.8	103
				SBR	B	128	10.9	155
			SB Approach		B		19.3	
			Overall LOS		C		27.9	
17	Peyton Randolph Drive/Wilson Boulevard	Signalized	EB	EBL	A	601	7.0	4
				EBT	B	601	15.3	551
				EBR	B	609	19.9	485
			EB Approach		B		17.4	
			WB	WBL	C	81	21.2	46
				WBT	B	272	12.7	762
				WBR	B	309	10.3	13
			WB Approach		B		13.1	
			NB	NBL	E	181	55.1	80
				NBT	A	181	0.0	0
				NBR	C	89	20.1	17
			NB Approach		D		49.0	
			SB	SBL	D	104	47.8	79
				SBT	A	104	0.0	0
				SBR	A	112	8.4	11
			SB Approach		D		42.9	
			Overall LOS		B		18.3	
18	Roosevelt Boulevard/Wilson Boulevard	Signalized	EB	EBL	C	292	28.9	221
				EBT	B	234	17.5	433
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		C		21.3	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	B	430	19.8	667
				WBR	B	470	16.1	177
			WB Approach		B		19.0	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		N/A			
			SB	SBL	D	700	47.9	603
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	E	705	57.7	429
			SB Approach		D		52.0	
			Overall LOS		C		33.1	
19	Roosevelt Boulevard/N. Roosevelt Street	Signalized	EB	EBL	C	126	24.3	90
				EBT	A	126	0.0	0
				EBR	C	126	26.6	27
			EB Approach		C		24.9	
			WB	WBL	A	6	0.8	73
				WBT	A	0	0.8	4
				WBR	A	5	0.0	0
			WB Approach		A		0.8	
			NB	NBL	C	54	28.1	13
				NBT	A	122	9.3	372
				NBR	A	122	7.8	22
			NB Approach		A		9.8	
			SB	SBL	A	320	0.0	0
				SBT	B	320	11.1	914
				SBR	B	321	10.1	239
			SB Approach		B		10.9	
			Overall LOS		B		11.1	
20	Arlington Blvd WB/Wilson Blvd	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	A	8	0.9	588
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		A		0.9	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	A	55	8.3	1126
			WB Approach		A		8.3	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	A	0	0.0	0
			NB Approach		#N/A			
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		A		5.8	

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2030 Scenario 5 PM

Intersection Information					2030 Scenario 5 PM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
21	Sleepy Hollow Rd/Wilson Blvd/Broad St/Arlington Blvd EB	Signalized	EB	EBLU to 7	D	0	45.8	34
				EBL to Wilson	D	496	48.8	417
				EBR to Route 7	E	395	57.0	197
				EBT to 50	D	14	54.2	104
			EB Approach		D		51.6	
			NB	NBR from Sleepy	B	160	16.9	158
				NBT	D	531	35.1	1087
				NBR from 7 to Wilson	C	531	31.3	109
				NBR from 7 to 50	A	531	8.3	25
			NB Approach		C		32.2	
			SB	SBL to Wilson	C	257	28.2	5
				SBT to Route 7	B	257	17.7	795
				SBR to Sleepy	D	257	36.2	448
				SBL to 50	D	257	36.9	458
			SB Approach		C		27.8	
			Overall LOS		C		34.0	
22	Broad St WB/Arlington Blvd WB	Signalized	WB	WBL	C	425	31.8	378
				WBT	C	425	34.7	681
				WBR	B	360	17.2	66
			WB Approach		C		32.7	
			NB	NBT from 7 to 7	A	15	2.0	1121
				NBU	A	425	0.0	0
				NBL	#N/A	#N/A	#N/A	#N/A
			NB Approach		A		2.0	
			SB	SBL	#N/A	#N/A	#N/A	
				SBT	#N/A	#N/A	#N/A	
				SBR	#N/A	#N/A	#N/A	
			SB Approach		#N/A		#N/A	
			Overall LOS		B		17.4	
23	Broad St EB/Arlington Blvd WB	Unsignalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	A	127	5.8	1384
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		A		5.8	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		N/A			
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		N/A			
			SB	SBL	C	218	22.8	377
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		C		22.8	
			Overall LOS		A		9.4	
23	Broad St EB/Arlington Blvd WB	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	A	479	4.8	1384
				EBR	F	391	103.4	107
			EB Approach		B		11.9	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		#N/A	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	C	268	20.3	678
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		C		20.3	
			Overall LOS		B		12.3	
25	Ring Road at Arlington Blvd EB	Signalized	EB	EBL	D	1644	39.4	20
				EBT	E	1644	71.5	718
				EBR	E	1644	74.7	383
			EB Approach		E		72.0	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	E	422	55.3	710
				NBR	C	422	32.1	33
			NB Approach		D		54.2	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		B		10.5	
26	Ring Road at Arlington Blvd WB	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		#N/A		#N/A	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	D	323	35.5	782
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		D		35.5	
			NB	NBL	B	208	15.4	730
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		B		15.4	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		B		10.5	

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2030 Scenario 5 PM

Intersection Information					2030 Scenario 5 PM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
27	Ring Road at E. Broad St	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	B	416	18.0	1404
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		B		18.0	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	A	221	2.8	1136
				WBR	C	221	30.0	50
			WB Approach		A		3.9	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		#N/A	
			SB	SBL	E	156	60.2	102
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	E	156	59.8	23
			SB Approach		E		60.1	
			Overall LOS		B		10.5	
28	Ring Road at Arlington Blvd EB	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	B	203	10.2	545
				EBR	C	203	30.9	65
			EB Approach		B		12.4	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	A	210	0.0	0
				NBR	C	210	25.4	215
			NB Approach		C		25.4	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	B	295	19.1	422
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		B		19.1	
			Overall LOS		B		16.9	
29	Ring Road at Hillwood Ave	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		#N/A		#N/A	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		#N/A	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		B		16.9	
30	Ring Road at Arlington Blvd WB	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		#N/A		#N/A	
			WB	WBL	E	815	55.6	423
				WBT	A	815	0.0	0
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		E		55.6	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		#N/A	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		E		55.6	

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2030 Scenario 6 AM

Intersection Information					2030 Scenario 6 AM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	2030 Scenario 6 AM Volumes
1	S. Cherry Street/Arlington Boulevard (US 50)	Signalized	EB	EBL	F	130	230.2	33
				EBT	B	450	19.4	2783
				EBR	C	453	30.2	42
			EB Approach		C		22.0	
			WB	WBL	F	9	127.8	1
				WBT	B	843	11.5	2129
				WBR	B	144	11.0	152
			WB Approach		B		11.5	
			NB	NBL	F	167	154.6	33
				NBT	F	167	111.5	16
				NBR	A	169	0.0	0
			NB Approach		F		140.5	
			SB	SBL	A	113	0.0	0
				SBT	A	113	0.0	0
				SBR	A	113	8.5	89
			SB Approach		A		8.5	
			Overall LOS		B		18.5	
2	S. Cherry Street/Hillwood Avenue	Signalized	EB	EBL	C	151	21.0	135
				EBT	B	45	14.1	33
				EBR	A	29	5.7	11
			EB Approach		B		18.8	
			WB	WBL	A	0	0.0	0
				WBT	B	133	14.9	162
				WBR	B	136	14.6	8
			WB Approach		B		14.9	
			NB	NBL	C	254	21.4	75
				NBT	C	254	21.9	201
				NBR	A	298	0.0	0
			NB Approach		C		21.8	
			SB	SBL	C	75	20.4	10
				SBT	A	75	8.7	36
				SBR	B	108	14.4	22
			SB Approach		B		12.2	
			Overall LOS		B		18.3	
3	S. Cherry Street/E. Broad Street (VA 7)	Signalized	EB	EBL	B	216	17.4	41
				EBT	B	216	15.0	425
				EBR	A	222	7.4	10
			EB Approach		B		15.0	
			WB	WBL	C	442	23.2	12
				WBT	C	442	20.3	987
				WBR	A	457	0.0	0
			WB Approach		C		20.3	
			NB	NBL	E	649	65.9	8
				NBT	E	649	72.5	200
				NBR	E	649	74.2	193
			NB Approach		E		73.2	
			SB	SBL	E	245	58.0	86
				SBT	D	245	54.4	35
				SBR	D	245	53.7	20
			SB Approach		E		56.5	
			Overall LOS		C		32.2	
6	South Street & S. Roosevelt Street/Hillwood Avenue	Signalized	EB	EBL	E	163	57.9	87
				EBT	A	0	0.0	0
				EBR	A	0	0.0	0
			EB Approach		E		57.9	
			WB	WBL	A	0	0.0	0
				WBT	A	0	0.0	0
				WBR	A	0	0.0	0
			WB Approach		#N/A			
			NB	NBL	C	432	23.1	97
				NBT	C	432	25.2	306
				NBR	A	432	0.0	0
			NB Approach		C		24.7	
			SB	SBL	C	235	20.6	43
				SBT	C	235	20.8	107
				SBR	A	174	8.3	85
			SB Approach		B		16.2	
			Overall LOS		C		26.1	
7	N. Roosevelt Street/E. Broad Street (VA 7)	Signalized	EB	EBL	#N/A	#N/A	#N/A	
				EBT	D	394	43.1	716
				EBR	D	425	42.0	13
			EB Approach		D		43.1	
			WB	WBL	C	556	26.5	196
				WBT	C	556	23.9	941
				WBR	B	556	18.0	
			WB Approach		C		24.0	
			NB	NBL	D	381	40.3	26
				NBT	D	381	44.7	106
				NBR	D	381	39.4	260
			NB Approach		D		40.9	
			SB	SBL	D	213	46.5	34
				SBT	D	213	46.8	24
				SBR	D	213	44.5	60
			SB Approach		D		45.6	
			Overall LOS		C		33.4	
8	Sleepy Hollow Road/Aspen Lane	Unsignalized	EB	EBL	A	0	0.0	0
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	A	0	0.0	0
			EB Approach		#N/A			
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	A	230	5.0	117
				NBT	A	172	3.3	424
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		A		3.7	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	A	0	1.9	397
				SBR	A	0	1.2	14
			SB Approach		A		1.9	
			Overall LOS		A		3.7	
				EBL	A	0	0.0	0

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2030 Scenario 6 AM

Intersection Information					2030 Scenario 6 AM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	2030 Scenario 6 AM Volumes
9	Sleepy Hollow Road/Castle Place	Signalized	EB	EBT	B	182	15.7	301
				EBR	B	182	14.3	48
			EB Approach		N/A			
			WB	WBL	A	130	9.9	140
				WBT	A	84	2.4	331
				WBR	A	84	3.2	65
			WB Approach		A		4.4	
			NB	NBL	E	348	57.1	81
				NBT	A	348	0.0	0
				NBR	D	547	50.2	279
			NB Approach		D		51.8	
			SB	SBL	A	268	0.0	0
				SBT	C	268	34.4	187
				SBR	A	268	0.0	0
			SB Approach		C		34.4	
			Overall LOS		C		23.0	
10	Castle Road &Thorne Road/Leesburg Pike (VA 7)	Signalized	EB	EBL	C	133	31.9	66
				EBT	C	273	30.3	550
				EBR	C	273	32.5	48
			EB Approach		C		30.6	
			WB	WBL	E	388	64.1	459
				WBT	E	1115	66.4	1256
				WBR	D	1115	46.8	101
			WB Approach		E		64.7	
			NB	NBL	A	346	0.0	0
				NBT	D	346	43.3	184
				NBR	D	346	41.6	395
			NB Approach		D		42.1	
			SB	SBL	E	174	68.4	75
				SBT	E	174	68.0	27
				SBR	A	174	0.0	0
			SB Approach		E		68.3	
			Overall LOS		D		53.4	
11	Seven Corners Center/Leesburg Pike (VA 7)	Signalized	EB	EBL	D	167	51.3	85
				EBT	D	453	42.3	972
				EBR	C	19	21.6	25
			EB Approach		D		42.5	
			WB	WBL	C	104	31.2	78
				WBT	B	517	15.7	1646
				WBR	A	56	4.2	40
			WB Approach		B		16.1	
			NB	NBL	F	635	198.7	184
				NBT	A	635	0.0	0
				NBR	E	635	71.8	45
			NB Approach		F		173.8	
			SB	SBL	F	184	83.9	124
				SBT	A	184	0.0	0
				SBR	B	65	13.4	34
			SB Approach		E		68.7	
			Overall LOS		D		38.6	
12	Patrick Henry Drive/Leesburg Pike (VA 7)	Signalized	EB	EBL	F	443	90.2	168
				EBT	C	452	20.7	978
				EBR	B	23	17.1	8
			EB Approach		C		30.8	
			WB	WBL	F	143	136.6	80
				WBT	F	1671	141.8	1505
				WBR	F	1674	136.4	237
			WB Approach		F		140.9	
			NB	NBL	E	447	71.5	109
				NBT	E	446	73.5	69
				NBR	E	411	69.3	118
			NB Approach		E		71.1	
			SB	SBL	F	382	81.9	241
				SBT	F	382	83.3	16
				SBR	B	221	17.4	157
			SB Approach		E		57.5	
			Overall LOS		F		91.5	
13	Arlington Boulevard service road/Arlington Boulevard (US 50)	Signalized	EB	EBL	D	988	35.6	64
				EBT	A	988	7.8	2870
				EBR	B	988	12.1	16
			EB Approach		A		8.5	
			WB	WBL	A	422	0.0	0
				WBT	A	422	6.9	2072
				WBR	A	422	8.2	184
			WB Approach		A		7.0	
			NB	NBL	F	275	84.1	59
				NBT	F	275	141.5	48
				NBR	F	238	102.2	43
			NB Approach		F		107.7	
			SB	SBL	A	0	0.0	0
				SBT	A	0	0.0	0
				SBR	A	46	8.4	16
			SB Approach		A		8.4	
			Overall LOS		B		10.8	
14	Patrick Henry Drive/Arlington Boulevard (US 50)	Signalized	EB	EBL	F	111	115.4	26
				EBT	D	1650	51.6	2511
				EBR	D	1643	42.3	43
			EB Approach		D		52.1	
			WB	WBL	F	535	113.5	171
				WBT	C	535	25.5	1720
				WBR	C	592	22.4	122
			WB Approach		C		32.8	
			NB	NBL	F	47	112.6	10
				NBT	F	592	88.7	252
				NBR	F	587	85.6	233
			NB Approach		F		97.7	
			SB	SBL	F	1079	359.2	246
				SBT	F	987	257.8	135
				SBR	F	987	142.4	3
			SB Approach		F		321.9	
			Overall LOS		E		64.2	
			EB	EBL	C	486	31.5	143
				EBT	C	486	25.3	288

"N/A" represents volumes that are not allowed, or do not exist

2030 Scenario 6 AM

Intersection Information					2030 Scenario 6 AM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	2030 Scenario 6 AM Volumes
15	John Marshall Drive/Patrick Henry Drive & Willston Drive	Signalized		EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		C		27.4	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	B	327	18.0	363
				WBR	B	577	15.0	252
			WB Approach		B		16.7	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		N/A			
			SB	SBL	C	220	29.0	122
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	C	231	32.7	46
			SB Approach		C		30.0	
			Overall LOS		C		22.4	
16	John Marshall Drive & N. McKinley Road/Wilson Boulevard	Signalized	EB	EBL	B	123	18.6	73
				EBT	C	390	20.3	741
				EBR	A	402	9.9	1
			EB Approach		C		20.1	
			WB	WBL	E	209	60.4	97
				WBT	C	213	25.1	349
				WBR	C	223	24.4	65
			WB Approach		C		31.7	
			NB	NBL	E	619	59.5	89
				NBT	D	619	50.8	191
				NBR	D	621	49.1	157
			NB Approach		D		52.0	
			SB	SBL	D	126	39.6	78
				SBT	C	78	25.3	43
				SBR	A	94	9.0	127
			SB Approach		C		21.5	
			Overall LOS		C		30.2	
17	Peyton Randolph Drive/Wilson Boulevard	Signalized	EB	EBL	A	639	0.0	0
				EBT	C	639	20.7	802
				EBR	B	647	14.0	338
			EB Approach		B		18.7	
			WB	WBL	B	80	17.9	42
				WBT	B	183	10.2	525
				WBR	A	220	0.0	0
			WB Approach		B		10.8	
			NB	NBL	E	441	62.7	221
				NBT	A	441	0.0	0
				NBR	A	0	0.0	0
			NB Approach		E		62.7	
			SB	SBL	D	36	43.4	7
				SBT	A	36	0.0	0
				SBR	D	43	36.7	1
			SB Approach		D		42.5	
			Overall LOS		C		21.5	
18	Roosevelt Boulevard/Wilson Boulevard	Signalized	EB	EBL	C	768	28.6	634
				EBT	B	553	15.1	636
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		C		21.8	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	D	452	44.6	438
				WBR	C	492	32.9	302
			WB Approach		D		39.8	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		N/A			
			SB	SBL	D	488	47.9	496
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	D	493	48.7	260
			SB Approach		D		48.2	
			Overall LOS		C		33.8	
19	Roosevelt Boulevard/N. Roosevelt Street	Signalized	EB	EBL	C	224	24.5	186
				EBT	A	224	0.0	0
				EBR	C	224	29.2	27
			EB Approach		C		25.1	
			WB	WBL	A	9	0.9	12
				WBT	A	0	0.0	0
				WBR	A	3	0.0	0
			WB Approach		A		0.9	
			NB	NBL	C	52	32.8	16
				NBT	B	308	12.5	948
				NBR	B	308	10.3	20
			NB Approach		B		12.8	
			SB	SBL	A	201	0.0	0
				SBT	B	201	10.2	633
				SBR	A	202	8.4	110
			SB Approach		A		9.9	
			Overall LOS		B		12.9	
20	Arlington Blvd WB/Wilson Blvd	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		#N/A		#N/A	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		#N/A	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		B		12.9	
			EB	EBL to Wilson	E	493	62.3	187
				EBT to Route 7	C	493	27.4	528
				EBR to 50	C	493	32.8	2

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2030 Scenario 6 AM

Intersection Information					2030 Scenario 6 AM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	2030 Scenario 6 AM Volumes
21	Sleepy Hollow Rd/Wilson Blvd/Broad St/Arlington Blvd EB	Signalized		EBT to 50	E	493	61.5	292
				EB Approach	D		43.7	
			WB	WBL	A	818	0.0	0
				WBT	D	818	49.1	797
				WBR	F	818	119.7	386
				WB Approach	E		72.1	1803
			NB	NBL	D	442	54.4	46
				NBT	D	442	50.2	544
				NBR	#N/A	#N/A	#N/A	#N/A
				NB Approach	D		50.6	
			SB	SBL	D	479	37.4	5
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	E	479	62.1	324
				SB Approach	D		53.4	
				Overall LOS	E		56.7	
22	Broad St WB/Arlington Blvd WB	Signalized	WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
				WB Approach	#N/A		#N/A	
			NB	NBT from 7 to 7	#N/A	#N/A	#N/A	#N/A
				NBU	#N/A	#N/A	#N/A	#N/A
				NBL	#N/A	#N/A	#N/A	#N/A
				NB Approach	#N/A		#N/A	
			SB	SBL	#N/A	#N/A	#N/A	
				SBT	#N/A	#N/A	#N/A	
				SBR	#N/A	#N/A	#N/A	
				SB Approach	#N/A		#N/A	
				Overall LOS	C		31.5	
23	Broad St EB/Arlington Blvd WB	Unsignalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	#N/A	#N/A	#N/A	#N/A
				EB Approach	N/A			
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
				WB Approach	#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
				NB Approach	N/A			
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
				SB Approach	#N/A		#N/A	
				Overall LOS	C		31.5	
23	Broad St EB/Arlington Blvd WB	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	#N/A	#N/A	#N/A	#N/A
				EB Approach	#N/A		#N/A	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
				WB Approach	#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
				NB Approach	#N/A		#N/A	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
				SB Approach	#N/A		#N/A	
				Overall LOS	C		31.5	
25	Ring Road at Arlington Blvd EB	Signalized	EB	EBL	A	1300	0.0	0
				EBT	D	1300	43.1	500
				EBR	D	1300	44.6	346
				EB Approach	D		43.7	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
				WB Approach	#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	B	222	15.6	331
				NBR	B	222	16.7	83
				NB Approach	B		15.9	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
				SB Approach	#N/A		#N/A	
				Overall LOS	C		34.6	
26	Ring Road at Arlington Blvd WB	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	#N/A	#N/A	#N/A	#N/A
				EB Approach	#N/A		#N/A	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	A	82	6.5	176
				WBR	#N/A	#N/A	#N/A	#N/A
				WB Approach	A		6.5	
			NB	NBL	A	116	4.2	330
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
				NB Approach	A		4.2	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
				SB Approach	#N/A		#N/A	
				Overall LOS	A		5.0	
			EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	A	151	7.6	1010
				EBR	#N/A	#N/A	#N/A	#N/A
				EB Approach	A		7.6	

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2030 Scenario 6 AM

Intersection Information					2030 Scenario 6 AM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	2030 Scenario 6 AM Volumes
27	Ring Road at E. Broad St	Signalized	WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	B	563	15.7	1116
				WBR	B	563	14.1	60
			WB Approach		B		15.6	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		#N/A	
			SB	SBL	C	134	34.1	4
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	C	134	27.8	100
			SB Approach		C		28.1	
			Overall LOS		B		12.6	
28	Ring Road at Arlington Blvd EB	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		#N/A		#N/A	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		#N/A	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		B		12.6	
29	Ring Road at Hillwood Ave	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		#N/A		#N/A	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		#N/A	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		B		12.6	
30	Ring Road at Arlington Blvd WB	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		#N/A		#N/A	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		#N/A	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		B		12.6	

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2030 Scenario 6 PM

Intersection Information					2030 Scenario 6 PM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	2030 Scenario 6 PM Volumes
1	S. Cherry Street/Arlington Boulevard (US 50)	Signalized	EB	EBL	F	133	127.2	43
				EBT	D	704	44.0	2528
				EBR	F	707	116.4	23
			EB Approach		D		46.0	
			WB	WBL	F	242	134.4	81
				WBT	D	1215	52.1	2656
				WBR	D	159	40.1	155
			WB Approach		D		53.8	
			NB	NBL	F	212	111.8	55
				NBT	F	212	181.3	4
				NBR	A	213	0.0	0
			NB Approach		F		116.5	
			SB	SBL	F	721	130.0	39
				SBT	F	721	131.0	22
				SBR	F	721	106.3	219
			SB Approach		F		111.6	
			Overall LOS		D		52.2	
2	S. Cherry Street/Hillwood Avenue	Signalized	EB	EBL	B	40	17.2	20
				EBT	B	318	16.1	272
				EBR	A	51	6.9	24
			EB Approach		B		15.4	
			WB	WBL	A	54	9.4	30
				WBT	B	203	16.0	304
				WBR	A	205	0.0	0
			WB Approach		B		15.4	
			NB	NBL	C	199	29.3	83
				NBT	C	199	25.0	60
				NBR	C	243	21.6	38
			NB Approach		C		26.3	
			SB	SBL	D	244	37.2	35
				SBT	C	244	22.9	75
				SBR	B	277	17.7	119
			SB Approach		C		22.4	
			Overall LOS		B		18.8	
3	S. Cherry Street/E. Broad Street (VA 7)	Signalized	EB	EBL	C	465	34.4	17
				EBT	B	465	18.7	941
				EBR	C	470	20.5	47
			EB Approach		B		19.1	
			WB	WBL	C	488	24.2	85
				WBT	B	488	19.8	773
				WBR	C	503	20.8	21
			WB Approach		C		20.2	
			NB	NBL	E	222	70.0	10
				NBT	D	222	50.6	49
				NBR	D	222	44.0	41
			NB Approach		D		49.8	
			SB	SBL	E	384	72.3	7
				SBT	E	384	59.6	116
				SBR	E	384	61.3	118
			SB Approach		E		60.8	
			Overall LOS		C		25.9	
6	South Street & S. Roosevelt Street/Hillwood Avenue	Signalized	EB	EBL	F	1380	301.2	147
				EBT	F	1268	204.7	79
				EBR	F	1287	203.3	82
			EB Approach		F		250.4	
			WB	WBL	A	0	0.0	0
				WBT	A	0	0.0	0
				WBR	A	0	0.0	0
			WB Approach		#N/A			
			NB	NBL	F	856	325.9	85
				NBT	F	856	319.9	222
				NBR	A	867	0.0	0
			NB Approach		F		321.6	
			SB	SBL	C	379	27.4	73
				SBT	B	379	17.2	267
				SBR	B	340	15.6	209
			SB Approach		B		17.9	
			Overall LOS		F		158.5	
7	N. Roosevelt Street/E. Broad Street (VA 7)	Signalized	EB	EBL	#N/A	#N/A	#N/A	
				EBT	F	1455	184.5	808
				EBR	F	1470	201.4	21
			EB Approach		F		185.0	
			WB	WBL	E	647	75.2	276
				WBT	D	647	45.0	726
				WBR	D	647	47.8	
			WB Approach		D		53.1	
			NB	NBL	F	408	80.3	18
				NBT	E	408	58.4	17
				NBR	E	408	69.0	339
			NB Approach		E		69.0	
			SB	SBL	E	554	67.5	29
				SBT	E	554	64.4	251
				SBR	E	554	67.3	43
			SB Approach		E		65.0	
			Overall LOS		F		98.8	
8	Sleepy Hollow Road/Aspen Lane	Unsignalized	EB	EBL	A	60	0.0	0
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	B	60	10.1	32
			EB Approach		B		10.1	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	C	272	25.3	50
				NBT	C	220	23.5	252
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		C		23.8	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	A	0	2.4	623
				SBR	A	0	4.7	35
			SB Approach		A		2.6	
			Overall LOS		C		23.8	
				EBL	A	0	0.0	0

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2030 Scenario 6 PM

Intersection Information					2030 Scenario 6 PM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	2030 Scenario 6 PM Volumes
9	Sleepy Hollow Road/Castle Place	Signalized	EB	EBT	E	327	62.4	528
				EBR	E	327	72.7	37
			EB Approach		N/A			
			WB	WBL	D	406	48.3	290
				WBT	B	283	17.8	556
				WBR	B	283	11.9	82
			WB Approach		C		26.8	
			NB	NBL	F	320	82.6	67
				NBT	F	320	107.0	25
				NBR	E	331	60.3	192
			NB Approach		E		69.7	
			SB	SBL	A	398	0.0	0
				SBT	C	398	35.0	301
				SBR	A	398	0.0	0
			SB Approach		C		35.0	
			Overall LOS		D		43.1	
10	Castle Road &Thorne Road/Leesburg Pike (VA 7)	Signalized	EB	EBL	F	400	150.4	110
				EBT	E	506	56.2	646
				EBR	E	506	63.6	13
			EB Approach		E		69.8	
			WB	WBL	F	1318	86.1	783
				WBT	F	1335	157.0	910
				WBR	F	1335	134.8	131
			WB Approach		F		125.0	
			NB	NBL	F	499	288.8	77
				NBT	F	499	225.9	91
				NBR	E	499	68.1	545
			NB Approach		F		112.1	
			SB	SBL	F	326	228.0	94
				SBT	F	326	169.6	139
				SBR	F	326	123.7	77
			SB Approach		F		175.9	
			Overall LOS		F		103.2	
11	Seven Corners Center/Leesburg Pike (VA 7)	Signalized	EB	EBL	E	151	59.0	74
				EBT	D	595	45.4	1193
				EBR	C	74	21.9	40
			EB Approach		D		45.4	
			WB	WBL	E	464	68.4	93
				WBT	D	566	42.9	1398
				WBR	A	57	7.2	58
			WB Approach		D		43.1	
			NB	NBL	F	1098	302.0	289
				NBT	F	1098	94.4	15
				NBR	F	1098	98.7	22
			NB Approach		F		278.8	
			SB	SBL	F	186	98.3	96
				SBT	F	186	100.2	58
				SBR	C	189	28.6	174
			SB Approach		E		61.7	
			Overall LOS		E		67.4	
12	Patrick Henry Drive/Leesburg Pike (VA 7)	Signalized	EB	EBL	E	197	68.5	79
				EBT	C	512	27.7	1210
				EBR	C	241	31.9	35
			EB Approach		C		30.3	
			WB	WBL	F	119	124.2	54
				WBT	F	1529	126.6	1156
				WBR	F	1531	125.1	125
			WB Approach		F		126.4	
			NB	NBL	F	420	99.2	122
				NBT	F	430	91.0	38
				NBR	F	386	98.7	95
			NB Approach		F		97.8	
			SB	SBL	F	1590	93.7	431
				SBT	F	1590	104.1	37
				SBR	E	1288	71.6	298
			SB Approach		F		85.6	
			Overall LOS		F		80.4	
13	Arlington Boulevard service road/Arlington Boulevard (US 50)	Signalized	EB	EBL	D	712	43.0	60
				EBT	B	712	12.8	2187
				EBR	B	712	14.2	87
			EB Approach		B		13.6	
			WB	WBL	A	1512	0.0	0
				WBT	D	1512	54.2	2441
				WBR	D	1512	50.1	109
			WB Approach		D		54.1	
			NB	NBL	E	204	72.7	8
				NBT	E	204	77.2	83
				NBR	D	135	41.6	21
			NB Approach		E		70.2	
			SB	SBL	E	103	73.7	28
				SBT	E	103	64.1	8
				SBR	A	94	0.0	0
			SB Approach		E		71.6	
			Overall LOS		D		35.4	
14	Patrick Henry Drive/Arlington Boulevard (US 50)	Signalized	EB	EBL	F	107	126.0	28
				EBT	F	1646	117.7	2023
				EBR	F	1649	122.0	93
			EB Approach		F		118.0	
			WB	WBL	F	1683	366.6	200
				WBT	F	1683	93.2	2085
				WBR	F	1691	80.4	37
			WB Approach		F		116.6	
			NB	NBL	A	0	0.0	0
				NBT	E	178	55.1	135
				NBR	D	175	50.0	58
			NB Approach		D		53.6	
			SB	SBL	F	1121	253.5	326
				SBT	F	1121	162.7	444
				SBR	F	1121	145.5	18
			SB Approach		F		199.8	
			Overall LOS		F		120.1	
			EB	EBL	A	189	0.0	0
				EBT	B	189	13.8	196

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2030 Scenario 6 PM

Intersection Information					2030 Scenario 6 PM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	2030 Scenario 6 PM Volumes
15	John Marshall Drive/Patrick Henry Drive & Willston Drive	Signalized		EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		B		13.8	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	B	164	14.5	166
				WBR	B	217	14.8	124
			WB Approach		B		14.6	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		N/A			
			SB	SBL	B	387	18.5	419
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	C	398	20.6	20
			SB Approach		B		18.6	
			Overall LOS		B		16.4	
16	John Marshall Drive & N. McKinley Road/Wilson Boulevard	Signalized	EB	EBL	C	146	21.7	97
				EBT	B	254	19.2	496
				EBR	B	266	11.8	19
			EB Approach		B		19.4	
			WB	WBL	E	521	57.6	215
				WBT	C	538	33.3	579
				WBR	C	548	21.2	76
			WB Approach		D		38.2	
			NB	NBL	D	244	52.2	60
				NBT	D	244	36.8	61
				NBR	C	247	24.5	38
			NB Approach		D		39.6	
			SB	SBL	A	0	0.0	0
				SBT	C	150	34.0	103
				SBR	B	213	16.2	150
			SB Approach		C		23.5	
			Overall LOS		C		30.3	
17	Peyton Randolph Drive/Wilson Boulevard	Signalized	EB	EBL	B	590	12.1	4
				EBT	B	590	16.3	540
				EBR	C	598	20.5	442
			EB Approach		B		18.2	
			WB	WBL	C	133	25.3	78
				WBT	D	613	48.8	679
				WBR	D	650	53.1	9
			WB Approach		D		46.4	
			NB	NBL	E	207	66.7	96
				NBT	A	207	0.0	0
				NBR	C	117	22.0	16
			NB Approach		E		60.3	
			SB	SBL	D	92	46.6	61
				SBT	A	92	0.0	0
				SBR	B	99	17.1	30
			SB Approach		D		36.9	
			Overall LOS		C		32.5	
18	Roosevelt Boulevard/Wilson Boulevard	Signalized	EB	EBL	D	350	35.3	229
				EBT	B	345	19.4	417
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		C		25.0	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	F	682	90.2	644
				WBR	E	722	65.0	129
			WB Approach		F		86.0	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		N/A			
			SB	SBL	F	1319	113.3	564
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	F	1322	135.9	306
			SB Approach		F		121.2	
			Overall LOS		F		81.3	
19	Roosevelt Boulevard/N. Roosevelt Street	Signalized	EB	EBL	C	156	26.0	88
				EBT	A	156	0.0	0
				EBR	C	156	34.6	33
			EB Approach		C		28.3	
			WB	WBL	A	18	5.1	71
				WBT	B	6	12.3	4
				WBR	A	11	0.0	0
			WB Approach		A		5.5	
			NB	NBL	D	58	40.2	22
				NBT	A	126	10.0	350
				NBR	A	126	6.5	27
			NB Approach		B		11.4	
			SB	SBL	A	562	0.0	0
				SBT	C	562	22.7	805
				SBR	C	563	20.5	280
			SB Approach		C		22.1	
			Overall LOS		B		19.2	
20	Arlington Blvd WB/Wilson Blvd	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		#N/A		#N/A	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		#N/A	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		B		19.2	
			EB	EBL to Wilson	F	759	232.8	37
				EBT to Route 7	D	759	54.2	733
				EBR	A	759	0.0	0

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2030 Scenario 6 PM

Intersection Information					2030 Scenario 6 PM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	2030 Scenario 6 PM Volumes
21	Sleepy Hollow Rd/Wilson Blvd/Broad St/Arlington Blvd EB	Signalized		EBT to 50	F	759	242.7	412
			EB Approach		F		125.5	
			WB	WBL	F	812	140.0	63
				WBT	F	812	128.2	928
				WBR	F	812	92.6	75
			WB Approach		F		126.4	
			NB	NBL	F	444	103.4	18
				NBT	E	444	69.3	432
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		E		70.7	
			SB	SBL	F	1090	234.3	280
				SBT	F	1087	130.5	614
				SBR	F	1087	120.1	74
			SB Approach		F		159.7	
			Overall LOS		F		128.1	
22	Broad St WB/Arlington Blvd WB	Signalized	WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBT from 7 to 7	#N/A	#N/A	#N/A	#N/A
				NBU	#N/A	#N/A	#N/A	#N/A
				NBL	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		#N/A	
			SB	SBL	#N/A	#N/A	#N/A	
				SBT	#N/A	#N/A	#N/A	
				SBR	#N/A	#N/A	#N/A	
			SB Approach		#N/A		#N/A	
			Overall LOS		E		70.0	
23	Broad St EB/Arlington Blvd WB	Unsignalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		N/A			
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		N/A			
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		E		70.0	
23	Broad St EB/Arlington Blvd WB	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		#N/A		#N/A	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		#N/A	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		E		70.0	
25	Ring Road at Arlington Blvd EB	Signalized	EB	EBL	A	1682	0.0	0
				EBT	F	1682	136.0	392
				EBR	F	1682	129.0	565
			EB Approach		F		131.9	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	D	416	49.4	550
				NBR	D	416	51.2	73
			NB Approach		D		49.6	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		F		99.5	
26	Ring Road at Arlington Blvd WB	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		#N/A		#N/A	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	B	239	18.2	674
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		B		18.2	
			NB	NBL	A	183	9.2	550
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		A		9.2	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		B		12.3	
			EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	D	637	43.4	1165
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		D		43.4	

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2030 Scenario 6 PM

Intersection Information					2030 Scenario 6 PM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	2030 Scenario 6 PM Volumes
27	Ring Road at E. Broad St	Signalized	WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	C	717	32.2	972
				WBR	C	717	21.6	41
			WB Approach		C		31.8	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		#N/A	
			SB	SBL	E	129	56.8	32
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	D	129	52.5	87
			SB Approach		D		53.7	
			Overall LOS		D		38.1	
28	Ring Road at Arlington Blvd EB	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		#N/A		#N/A	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		#N/A	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		D		38.1	
29	Ring Road at Hillwood Ave	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		#N/A		#N/A	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		#N/A	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		D		38.1	
30	Ring Road at Arlington Blvd WB	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		#N/A		#N/A	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		#N/A	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		D		38.1	

"N/A" represents volumes that are not allowed, or do not exist

2045 Baseline AM

Intersection Information					2045 Baseline AM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
1	S. Cherry Street/Arlington Boulevard (US 50)	Signalized	EB	EBL	F	231	159.8	70
				EBT	C	571	21.2	2774
				EBR	D	575	37.4	53
			EB Approach		C		24.9	
			WB	WBL	A	0	0.0	0
				WBT	B	1169	16.3	2572
				WBR	B	80	17.4	58
			WB Approach		B		16.3	
			NB	NBL	F	177	111.7	51
				NBT	A	177	0.0	0
				NBR	A	179	0.0	0
			NB Approach		F		111.7	
			SB	SBL	F	247	171.2	9
				SBT	A	247	0.0	0
				SBR	D	246	37.0	85
			SB Approach		D		49.8	
			Overall LOS		C		22.4	
2	S. Cherry Street/Hillwood Avenue	Signalized	EB	EBL	C	133	23.5	124
				EBT	B	82	15.0	94
				EBR	A	34	6.0	13
			EB Approach		B		19.1	
			WB	WBL	B	20	11.8	4
				WBT	B	248	18.1	279
				WBR	A	251	0.0	0
			WB Approach		B		18.0	
			NB	NBL	C	268	21.7	52
				NBT	C	268	23.1	110
				NBR	B	311	15.7	14
			NB Approach		C		22.1	
			SB	SBL	B	75	16.2	17
				SBT	A	75	5.2	29
				SBR	B	107	12.1	32
			SB Approach		B		10.4	
			Overall LOS		B		18.5	
3	S. Cherry Street/E. Broad Street (VA 7)	Signalized	EB	EBL	B	185	17.9	30
				EBT	A	185	8.7	625
				EBR	A	191	5.5	9
			EB Approach		A		9.1	
			WB	WBL	D	822	44.7	2
				WBT	D	822	38.9	1057
				WBR	D	837	42.4	12
			WB Approach		D		38.9	
			NB	NBL	D	448	42.0	4
				NBT	D	448	48.6	105
				NBR	D	448	47.5	163
			NB Approach		D		47.9	
			SB	SBL	D	229	50.0	98
				SBT	D	229	46.0	29
				SBR	D	229	48.3	16
			SB Approach		D		49.0	
			Overall LOS		C		31.5	
6	South Street & S. Roosevelt Street/Hillwood Avenue	Signalized	EB	EBL	E	243	65.5	153
				EBT	A	0	0.0	0
				EBR	A	0	0.0	0
			EB Approach		E		65.5	
			WB	WBL	B	14	15.0	2
				WBT	B	23	18.9	2
				WBR	C	39	32.3	2
			WB Approach		C		22.0	
			NB	NBL	D	570	54.8	42
				NBT	E	570	63.2	295
				NBR	A	570	0.0	0
			NB Approach		E		62.2	
			SB	SBL	B	326	19.9	48
				SBT	C	326	20.2	178
				SBR	A	281	7.5	185
			SB Approach		B		14.5	
			Overall LOS		D		40.9	
7	N. Roosevelt Street/E. Broad Street (VA 7)	Signalized	EB	EBL	#N/A	#N/A	#N/A	
				EBT	E	754	70.6	920
				EBR	E	785	66.2	5
			EB Approach		E		70.5	
			WB	WBL	D	617	51.0	339
				WBT	D	617	36.7	958
				WBR	B	617	14.2	
			WB Approach		D		40.1	
			NB	NBL	A	393	0.0	0
				NBT	E	393	55.4	135
				NBR	D	393	42.3	315
			NB Approach		D		46.2	
			SB	SBL	D	321	47.4	37
				SBT	D	321	45.8	68
				SBR	D	321	42.5	141
			SB Approach		D		44.2	
			Overall LOS		D		51.0	
8	Sleepy Hollow Road/Aspen Lane	Unsignalized	EB	EBL	B	44	17.0	4
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	A	44	6.3	11
			EB Approach		A		9.1	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	A	200	4.7	135
				NBT	A	143	3.4	415
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		A		3.8	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	A	0	1.7	407
				SBR	A	0	0.0	0
			SB Approach		A		1.7	
			Overall LOS		A		9.1	

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2045 Baseline AM

Intersection Information					2045 Baseline AM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
9	Sleepy Hollow Road/Castle Place	Signalized	EB	EBL	A	0	0.0	0
				EBT	B	192	14.8	354
				EBR	B	192	13.8	48
			EB Approach		N/A			
			WB	WBL	A	161	8.4	145
				WBT	A	49	1.4	271
				WBR	A	49	1.8	39
			WB Approach		A		3.7	
			NB	NBL	E	421	58.7	74
				NBT	A	421	0.0	0
				NBR	D	653	53.9	282
			NB Approach		D		54.9	
			SB	SBL	A	258	0.0	0
				SBT	D	258	49.2	179
				SBR	A	258	0.0	0
			SB Approach		D		49.2	
			Overall LOS		C		25.9	
10	Castle Road &Thorne Road/Leesburg Pike (VA 7)	Signalized	EB	EBL	E	267	68.1	336
				EBT	A	43	3.9	744
				EBR	C	134	32.8	27
			EB Approach		C		24.1	
			WB	WBL	D	256	51.7	366
				WBT	E	1091	57.8	1076
				WBR	D	1091	46.9	103
			WB Approach		E		55.6	
			NB	NBL	D	402	40.4	10
				NBT	D	402	44.3	228
				NBR	D	402	43.3	394
			NB Approach		D		43.6	
			SB	SBL	E	285	55.6	142
				SBT	D	285	40.2	61
				SBR	C	285	23.8	111
			SB Approach		D		41.4	
			Overall LOS		D		42.6	
11	Seven Corners Center/Leesburg Pike (VA 7)	Signalized	EB	EBL	E	179	72.0	93
				EBT	E	1199	72.4	1189
				EBR	D	24	39.2	23
			EB Approach		E		71.8	
			WB	WBL	E	448	68.5	89
				WBT	C	578	21.6	1392
				WBR	A	28	2.6	13
			WB Approach		C		24.2	
			NB	NBL	F	764	295.6	148
				NBT	F	764	85.5	12
				NBR	E	764	74.0	100
			NB Approach		F		200.7	
			SB	SBL	F	189	217.2	97
				SBT	A	189	0.0	0
				SBR	E	173	64.3	29
			SB Approach		F		182.0	
			Overall LOS		E		64.1	
12	Patrick Henry Drive/Leesburg Pike (VA 7)	Signalized	EB	EBL	F	537	102.8	205
				EBT	C	502	22.2	1165
				EBR	B	35	15.1	20
			EB Approach		C		34.0	
			WB	WBL	F	109	132.8	48
				WBT	F	1672	133.0	1348
				WBR	F	1670	107.8	512
			WB Approach		F		126.2	
			NB	NBL	F	445	164.4	104
				NBT	F	446	177.0	52
				NBR	F	470	178.1	113
			NB Approach		F		172.6	
			SB	SBL	F	597	210.2	191
				SBT	F	597	226.9	26
				SBR	D	98	43.0	44
			SB Approach		F		183.7	
			Overall LOS		F		99.8	
13	Arlington Boulevard service road/Arlington Boulevard (US 50)	Signalized	EB	EBL	D	1295	42.3	55
				EBT	B	1295	19.3	2682
				EBR	D	1295	45.3	32
			EB Approach		C		20.0	
			WB	WBL	A	652	0.0	0
				WBT	B	652	11.4	2339
				WBR	B	652	11.9	176
			WB Approach		B		11.5	
			NB	NBL	E	888	75.7	85
				NBT	F	888	207.1	36
				NBR	A	107	0.0	0
			NB Approach		F		114.8	
			SB	SBL	F	123	83.5	43
				SBT	A	123	0.0	0
				SBR	A	373	8.9	200
			SB Approach		C		22.1	
			Overall LOS		C		23.5	
14	Patrick Henry Drive/Arlington Boulevard (US 50)	Signalized	EB	EBL	F	80	123.4	20
				EBT	E	1631	57.1	2494
				EBR	D	1631	53.3	4
			EB Approach		E		57.6	
			WB	WBL	F	920	111.4	54
				WBT	C	920	29.0	2238
				WBR	C	964	27.0	46
			WB Approach		C		30.9	
			NB	NBL	F	106	122.8	43
				NBT	F	1353	113.4	517
				NBR	F	1273	98.8	122
			NB Approach		F		111.4	
			SB	SBL	F	655	162.0	236
				SBT	F	537	113.7	111
				SBR	F	537	113.1	27
			SB Approach		F		140.7	
			Overall LOS		E		56.9	

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2045 Baseline AM

Intersection Information					2045 Baseline AM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
15	John Marshall Drive/Patrick Henry Drive & Willston Drive	Signalized	EB	EBL	A	211	0.0	0
				EBT	A	211	7.5	278
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		A		7.5	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	B	538	15.7	502
				WBR	B	592	17.0	317
			WB Approach		B		16.2	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		N/A			
			SB	SBL	C	163	24.0	111
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	C	175	33.3	36
			SB Approach		C		26.3	
			Overall LOS		B		15.5	
16	John Marshall Drive & N. McKinley Road/Wilson Boulevard	Signalized	EB	EBL	C	85	20.7	43
				EBT	C	474	22.9	783
				EBR	B	486	18.5	5
			EB Approach		C		22.8	
			WB	WBL	E	231	68.8	107
				WBT	C	231	30.4	344
				WBR	C	241	26.3	61
			WB Approach		D		37.9	
			NB	NBL	E	698	62.3	187
				NBT	E	698	58.8	185
				NBR	E	696	57.7	160
			NB Approach		E		59.7	
			SB	SBL	D	101	37.2	57
				SBT	C	48	21.4	20
				SBR	A	96	8.0	136
			SB Approach		B		17.1	
			Overall LOS		D		35.4	
17	Peyton Randolph Drive/Wilson Boulevard	Signalized	EB	EBL	C	712	24.3	13
				EBT	E	712	56.2	824
				EBR	D	720	48.1	303
			EB Approach		D		53.7	
			WB	WBL	C	94	32.8	54
				WBT	C	319	27.4	617
				WBR	A	356	0.0	0
			WB Approach		C		27.9	
			NB	NBL	E	1074	73.9	520
				NBT	A	1074	0.0	0
				NBR	A	0	0.0	0
			NB Approach		E		73.9	
			SB	SBL	D	40	47.1	12
				SBT	A	40	0.0	0
				SBR	A	47	0.0	0
			SB Approach		D		47.1	
			Overall LOS		D		50.8	
18	Roosevelt Boulevard/Wilson Boulevard	Signalized	EB	EBL	C	482	23.6	330
				EBT	C	592	21.5	748
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		C		22.2	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	D	688	38.2	495
				WBR	D	727	36.5	639
			WB Approach		D		37.3	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		N/A			
			SB	SBL	E	639	70.2	398
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	E	642	70.2	173
			SB Approach		E		70.2	
			Overall LOS		D		38.0	
19	Roosevelt Boulevard/N. Roosevelt Street	Signalized	EB	EBL	C	250	30.9	194
				EBT	A	250	0.0	0
				EBR	C	250	32.8	21
			EB Approach		C		31.0	
			WB	WBL	A	2	1.4	4
				WBT	A	0	0.0	0
				WBR	A	3	0.0	0
			WB Approach		A		1.4	
			NB	NBL	D	110	41.7	95
				NBT	B	315	10.8	1010
				NBR	A	315	0.0	0
			NB Approach		B		13.5	
			SB	SBL	A	230	0.0	0
				SBT	B	230	14.0	554
				SBR	B	231	11.9	147
			SB Approach		B		13.6	
			Overall LOS		B		15.4	
20	Arlington Blvd WB/Wilson Blvd	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		#N/A		#N/A	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		#N/A	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		B		15.4	

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2045 Baseline AM

Intersection Information					2045 Baseline AM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
21	Sleepy Hollow Rd/Wilson Blvd/Broad St/Arlington Blvd EB	Signalized	EB	EBL to Wilson	F	593	94.6	266
				EBT to Route 7	D	593	39.9	1033
				EBR to 50	A	593	0.0	0
				EBT to 50	D	593	52.8	2
			EB Approach		D		51.1	
			WB	WBL	C	782	28.7	50
				WBT	D	782	48.5	991
				WBR	D	782	46.3	133
			WB Approach		D		47.4	2046
			NB	NBL	F	456	91.2	17
				NBT	E	457	62.9	575
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		E		63.7	
			SB	SBL	D	368	45.3	5
				SBT	D	398	39.2	290
				SBR	D	398	54.8	256
			SB Approach		D		46.2	
			Overall LOS		D		51.0	
22	Broad St WB/Arlington Blvd WB	Signalized	EB	EBL	#N/A	#N/A	#N/A	
				EBT	#N/A	#N/A	#N/A	
				EBR	#N/A	#N/A	#N/A	
			EB Approach		#N/A		#N/A	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBT from 7 to 7	#N/A	#N/A	#N/A	#N/A
				NBU	#N/A	#N/A	#N/A	#N/A
				NBL	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		#N/A	
			SB	SBL	#N/A	#N/A	#N/A	
				SBT	#N/A	#N/A	#N/A	
				SBR	#N/A	#N/A	#N/A	
			SB Approach		#N/A		#N/A	
			Overall LOS		C		26.7	
23	Broad St EB/Arlington Blvd WB	Unsignalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		N/A			
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		N/A			
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		C		26.7	
23	Broad St EB/Arlington Blvd WB	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		#N/A		#N/A	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		#N/A	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		C		26.7	
25	Ring Road at Arlington Blvd EB	Signalized	EB	EBL	A	1158	0.0	0
				EBT	D	1158	36.4	516
				EBR	D	1158	39.0	401
			EB Approach		D		37.5	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	C	184	22.5	271
				NBR	C	184	32.8	75
			NB Approach		C		24.7	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		C		34.0	

"N/A" represents volumes that are not allowed, or do not exist

2045 Baseline AM

Intersection Information					2045 Baseline AM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
26	Ring Road at Arlington Blvd WB	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		#N/A		#N/A	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	A	115	8.5	340
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		A		8.5	
			NB	NBL	A	91	7.5	271
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		A		7.5	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		A		8.1	
27	Ring Road at E. Broad St	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	A	157	7.9	1271
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		A		7.9	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	C	603	26.7	1232
				WBR	A	603	3.3	30
			WB Approach		C		26.2	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		#N/A	
			SB	SBL	C	130	33.0	35
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	D	130	38.8	82
			SB Approach		D		37.1	
			Overall LOS		B		17.9	
28	Ring Road at Arlington Blvd EB	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	E	93	71.2	2
				EBR	D	93	39.9	36
			EB Approach		D		41.6	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	A	428	0.0	0
				NBR	C	428	22.0	650
			NB Approach		C		22.0	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	A	164	6.3	197
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		A		6.3	
			Overall LOS		B		19.3	
29	Ring Road at Hillwood Ave	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		#N/A		#N/A	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		#N/A	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		B		17.9	
30	Ring Road at Arlington Blvd WB	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		#N/A		#N/A	
			WB	WBL	A	5	6.0	200
				WBT	A	5	4.2	34
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		A		5.8	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		#N/A	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		A		5.8	

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2045 Baseline PM

Intersection Information					2045 Baseline PM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
1	S. Cherry Street/Arlington Boulevard (US 50)	Signalized	EB	EBL	F	128	118.3	39
				EBT	C	305	22.7	2840
				EBR	F	309	94.9	24
			EB Approach		C		24.5	
			WB	WBL	F	62	120.9	12
				WBT	C	1161	31.4	2623
				WBR	C	91	27.3	A
			WB Approach		C		31.7	
			NB	NBL	F	124	89.7	53
				NBT	A	124	0.0	0
				NBR	A	126	0.0	0
			NB Approach		F		89.7	
			SB	SBL	F	610	112.4	38
				SBT	F	610	119.1	16
				SBR	E	611	76.9	216
			SB Approach		F		84.4	
			Overall LOS		C		31.3	
2	S. Cherry Street/Hillwood Avenue	Signalized	EB	EBL	B	128	18.6	118
				EBT	B	312	16.8	240
				EBR	A	0	0.0	0
			EB Approach		B		17.4	
			WB	WBL	A	32	9.9	8
				WBT	B	245	17.4	212
				WBR	B	248	13.6	21
			WB Approach		B		16.8	
			NB	NBL	C	182	31.4	102
				NBT	C	182	30.0	35
				NBR	B	226	19.0	27
			NB Approach		C		29.1	
			SB	SBL	C	255	25.1	34
				SBT	C	255	22.3	76
				SBR	B	288	13.2	133
			SB Approach		B		17.7	
			Overall LOS		B		19.2	
3	S. Cherry Street/E. Broad Street (VA 7)	Signalized	EB	EBL	C	205	21.6	9
				EBT	A	205	5.0	924
				EBR	A	211	5.1	42
			EB Approach		A		5.2	
			WB	WBL	C	371	22.1	65
				WBT	B	371	19.6	565
				WBR	C	386	21.7	19
			WB Approach		B		19.9	
			NB	NBL	F	454	88.2	39
				NBT	F	454	80.7	52
				NBR	F	454	80.2	113
			NB Approach		F		81.8	
			SB	SBL	E	396	57.3	5
				SBT	E	396	58.5	119
				SBR	E	396	58.1	90
			SB Approach		E		58.3	
			Overall LOS		C		23.1	
6	South Street & S. Roosevelt Street/Hillwood Avenue	Signalized	EB	EBL	F	1121	284.6	95
				EBT	F	1090	180.4	99
				EBR	F	1109	158.9	78
			EB Approach		F		210.6	
			WB	WBL	A	0	0.0	0
				WBT	A	0	0.0	0
				WBR	A	0	0.0	0
			WB Approach		#N/A			
			NB	NBL	F	873	211.0	64
				NBT	F	873	234.8	326
				NBR	F	873	252.4	4
			NB Approach		F		231.1	
			SB	SBL	D	382	36.1	80
				SBT	C	382	28.3	182
				SBR	B	315	18.3	66
			SB Approach		C		28.2	
			Overall LOS		F		155.7	
7	N. Roosevelt Street/E. Broad Street (VA 7)	Signalized	EB	EBL	#N/A	#N/A	#N/A	
				EBT	F	1081	92.8	877
				EBR	F	1110	94.2	32
			EB Approach		F		92.9	
			WB	WBL	C	428	32.9	104
				WBT	B	428	15.1	593
				WBR	C	428	23.7	83
			WB Approach		B		18.4	
			NB	NBL	E	382	66.2	19
				NBT	D	382	47.9	20
				NBR	E	382	60.8	383
			NB Approach		E		60.4	
			SB	SBL	D	316	52.7	5
				SBT	D	316	39.6	192
				SBR	D	316	39.0	30
			SB Approach		D		39.8	
			Overall LOS		E		56.8	
8	Sleepy Hollow Road/Aspen Lane	Unsignalized	EB	EBL	A	68	0.0	0
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	B	68	13.3	42
			EB Approach		B		13.3	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	B	274	13.5	106
				NBT	A	215	7.2	258
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		A		9.0	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	A	20	3.6	633
				SBR	A	20	6.5	184
			SB Approach		A		4.2	
			Overall LOS		B		13.3	

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2045 Baseline PM

Intersection Information					2045 Baseline PM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
9	Sleepy Hollow Road/Castle Place	Signalized	EB	EBL	A	0	0.0	0
				EBT	D	372	49.6	552
				EBR	E	372	60.5	47
			EB Approach		N/A			
			WB	WBL	D	753	38.6	465
				WBT	A	211	8.4	456
				WBR	B	211	14.3	67
			WB Approach		C		23.0	
			NB	NBL	D	303	46.8	127
				NBT	D	303	42.9	38
				NBR	B	197	16.1	132
			NB Approach		C		32.6	
			SB	SBL	A	463	0.0	0
				SBT	C	463	33.9	249
				SBR	A	463	0.0	0
			SB Approach		C		33.9	
			Overall LOS		C		33.4	
10	Castle Road &Thorne Road/Leesburg Pike (VA 7)	Signalized	EB	EBL	F	791	141.3	358
				EBT	E	841	72.5	937
				EBR	D	841	46.1	17
			EB Approach		F		90.9	
			WB	WBL	F	1336	104.3	618
				WBT	F	1428	119.7	760
				WBR	F	1428	175.6	221
			WB Approach		F		121.5	
			NB	NBL	F	694	138.3	25
				NBT	F	694	91.7	206
				NBR	F	694	98.9	435
			NB Approach		F		98.1	
			SB	SBL	F	431	213.7	45
				SBT	F	431	111.9	345
				SBR	F	431	147.3	128
			SB Approach		F		129.5	
			Overall LOS		F		108.1	
11	Seven Corners Center/Leesburg Pike (VA 7)	Signalized	EB	EBL	F	122	83.6	59
				EBT	F	1423	103.2	1267
				EBR	F	828	85.4	102
			EB Approach		F		101.1	
			WB	WBL	F	250	81.0	41
				WBT	D	569	41.3	1179
				WBR	A	43	7.3	62
			WB Approach		D		41.0	
			NB	NBL	F	1001	266.0	246
				NBT	F	1001	122.0	62
				NBR	F	1001	83.9	23
			NB Approach		F		226.4	
			SB	SBL	F	193	197.0	67
				SBT	F	193	169.1	43
				SBR	D	198	39.4	193
			SB Approach		F		92.7	
			Overall LOS		F		88.9	
12	Patrick Henry Drive/Leesburg Pike (VA 7)	Signalized	EB	EBL	F	552	100.4	190
				EBT	D	550	36.0	1170
				EBR	C	19	26.7	8
			EB Approach		D		44.9	
			WB	WBL	F	147	157.4	63
				WBT	F	1577	166.2	1004
				WBR	F	1578	104.8	288
			WB Approach		F		152.8	
			NB	NBL	F	609	89.9	138
				NBT	F	750	297.6	74
				NBR	F	779	204.4	104
			NB Approach		F		176.2	
			SB	SBL	F	1249	142.1	341
				SBT	F	1249	150.4	31
				SBR	F	503	83.4	155
			SB Approach		F		125.3	
			Overall LOS		F		107.7	
13	Arlington Boulevard service road/Arlington Boulevard (US 50)	Signalized	EB	EBL	C	540	21.9	40
				EBT	A	540	8.4	2285
				EBR	A	540	5.8	66
			EB Approach		A		8.5	
			WB	WBL	A	1685	0.0	0
				WBT	F	1685	82.4	2475
				WBR	F	1685	82.0	68
			WB Approach		F		82.4	
			NB	NBL	E	505	65.3	37
				NBT	F	505	103.7	53
				NBR	F	525	88.3	144
			NB Approach		F		88.2	
			SB	SBL	E	207	73.9	47
				SBT	E	207	68.8	44
				SBR	A	189	0.0	0
			SB Approach		E		71.4	
			Overall LOS		D		48.8	
14	Patrick Henry Drive/Arlington Boulevard (US 50)	Signalized	EB	EBL	F	212	103.1	86
				EBT	F	1633	83.2	2038
				EBR	F	1630	82.9	162
			EB Approach		F		83.9	
			WB	WBL	F	1682	178.2	92
				WBT	F	1682	121.7	2264
				WBR	F	1685	125.4	74
			WB Approach		F		124.0	
			NB	NBL	A	0	0.0	0
				NBT	E	381	63.6	288
				NBR	D	372	53.3	79
			NB Approach		E		61.4	
			SB	SBL	F	1258	304.3	370
				SBT	F	1258	233.2	335
				SBR	F	1258	154.6	22
			SB Approach		F		267.0	
			Overall LOS		F		116.0	

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2045 Baseline PM

Intersection Information					2045 Baseline PM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
15	John Marshall Drive/Patrick Henry Drive & Williston Drive	Signalized	EB	EBL	A	569	0.0	0
				EBT	D	569	51.7	346
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		D		51.7	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	C	311	22.5	316
				WBR	B	364	10.1	167
			WB Approach		B		18.2	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		N/A			
			SB	SBL	F	751	94.9	334
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	F	762	85.1	20
			SB Approach		F		94.4	
			Overall LOS		D		50.6	
16	John Marshall Drive & N. McKinley Road/Wilson Boulevard	76	EB	EBL	C	149	26.5	95
				EBT	C	385	24.3	551
				EBR	C	396	22.7	52
			EB Approach		C		24.5	
			WB	WBL	F	735	85.1	169
				WBT	E	742	59.2	658
				WBR	D	752	43.0	69
			WB Approach		E		62.8	
			NB	NBL	E	420	74.5	79
				NBT	D	420	37.2	52
				NBR	C	422	30.9	72
			NB Approach		D		49.5	
			SB	SBL	C	55	32.6	21
				SBT	D	174	40.4	99
				SBR	C	155	33.2	132
			SB Approach		D		36.0	
			Overall LOS		D		45.1	
17	Peyton Randolph Drive/Wilson Boulevard	Signalized	EB	EBL	C	731	25.9	16
				EBT	D	731	50.8	657
				EBR	D	739	51.0	630
			EB Approach		D		50.6	
			WB	WBL	D	127	50.8	84
				WBT	F	816	96.5	757
				WBR	F	853	86.5	17
			WB Approach		F		91.8	
			NB	NBL	F	617	100.7	197
				NBT	A	617	0.0	0
				NBR	E	393	72.5	19
			NB Approach		F		98.2	
			SB	SBL	D	117	45.5	36
				SBT	D	117	46.2	27
				SBR	C	124	23.9	33
			SB Approach		D		38.3	
			Overall LOS		E		68.7	
18	Roosevelt Boulevard/Wilson Boulevard	Signalized	EB	EBL	D	559	50.1	347
				EBT	C	559	33.6	533
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		D		40.1	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	F	738	105.7	615
				WBR	F	777	83.5	345
			WB Approach		F		97.7	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		N/A			
			SB	SBL	F	1336	96.0	762
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	F	1341	110.7	390
			SB Approach		F		101.0	
			Overall LOS		F		81.8	
19	Roosevelt Boulevard/N. Roosevelt Street	Signalized	EB	EBL	C	226	27.2	157
				EBT	A	226	0.0	0
				EBR	C	226	31.0	38
			EB Approach		C		27.9	
			WB	WBL	A	8	2.2	47
				WBT	A	39	0.9	30
				WBR	A	3	0.0	0
			WB Approach		A		1.7	
			NB	NBL	C	64	28.5	31
				NBT	B	226	11.1	645
				NBR	A	226	9.3	28
			NB Approach		B		11.8	
			SB	SBL	A	422	0.0	0
				SBT	B	422	16.0	1053
				SBR	B	423	13.9	122
			SB Approach		B		15.8	
			Overall LOS		B		15.1	
20	Arlington Blvd WB/Wilson Blvd	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		#N/A		#N/A	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		#N/A	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		B		15.1	

"N/A" represents volumes that are not allowed, or do not exist

2045 Baseline PM

Intersection Information					2045 Baseline PM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
21	Sleepy Hollow Rd/Wilson Blvd/Broad St/Arlington Blvd EB	Signalized	EB	EBL to Wilson	E	753	63.6	66
				EBT to Route 7	F	753	86.1	1196
				EBR	F	753	101.1	69
				EBT to 50	A	753	0.0	0
			EB Approach		F		85.7	
			WB	WBL	F	757	129.1	181
				WBT	E	757	74.4	652
				WBR	E	757	74.4	164
			WB Approach		F		84.3	
			NB	NBL	F	592	94.4	44
				NBT	E	594	72.7	530
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		E		74.4	
			SB	SBL	F	858	103.2	299
				SBT	D	802	51.2	566
				SBR	D	802	46.9	48
			SB Approach		E		68.0	
			Overall LOS		E		79.4	
22	Broad St WB/Arlington Blvd WB	Signalized	EB	EBL	#N/A	#N/A	#N/A	
				EBT	#N/A	#N/A	#N/A	
				EBR	#N/A	#N/A	#N/A	
			EB Approach		#N/A		#N/A	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBT from 7 to 7	#N/A	#N/A	#N/A	#N/A
				NBU	#N/A	#N/A	#N/A	#N/A
				NBL	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		#N/A	
			SB	SBL	#N/A	#N/A	#N/A	
				SBT	#N/A	#N/A	#N/A	
				SBR	#N/A	#N/A	#N/A	
			SB Approach		#N/A		#N/A	
			Overall LOS		D		41.8	
23	Broad St EB/Arlington Blvd WB	Unsignalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		N/A			
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		N/A			
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		D		41.8	
23	Broad St EB/Arlington Blvd WB	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		#N/A		#N/A	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		#N/A	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		D		41.8	
25	Ring Road at Arlington Blvd EB	Signalized	EB	EBL	A	1595	0.0	0
				EBT	F	1595	100.5	469
				EBR	F	1595	83.0	602
			EB Approach		F		90.7	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	C	335	30.7	477
				NBR	D	335	38.5	112
			NB Approach		C		32.2	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		E		69.9	

"N/A" represents volumes that are not allowed, or do not exist

2045 Baseline PM

Intersection Information					2045 Baseline PM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
26	Ring Road at Arlington Blvd WB	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		#N/A		#N/A	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	B	283	14.9	821
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		B		14.9	
			NB	NBL	A	142	2.9	477
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		A		2.9	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		B		10.5	
27	Ring Road at E. Broad St	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	E	630	56.1	1250
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		E		56.1	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	B	418	12.9	707
				WBR	B	418	11.7	37
			WB Approach		B		12.8	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		#N/A	
			SB	SBL	E	132	62.4	72
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	D	132	38.5	74
			SB Approach		D		50.3	
			Overall LOS		D		40.5	
28	Ring Road at Arlington Blvd EB	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	C	105	32.4	61
				EBR	D	105	38.7	15
			EB Approach		C		33.7	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	A	430	0.0	0
				NBR	C	430	27.1	590
			NB Approach		C		27.1	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	C	197	28.7	402
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		C		28.7	
			Overall LOS		C		28.2	
29	Ring Road at Hillwood Ave	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		#N/A		#N/A	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		#N/A	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		D		40.5	
30	Ring Road at Arlington Blvd WB	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		#N/A		#N/A	
			WB	WBL	C	683	28.1	407
				WBT	C	683	21.7	70
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		C		27.2	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		#N/A	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		C		27.2	

"N/A" represents volumes that are not allowed, or do not exist

2045 Scenario 1 AM

Intersection Information					2045 Scenario 1 AM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
1	S. Cherry Street/Arlington Boulevard (US 50)	Signalized	EB	EBL	F	229	163.9	80
				EBT	B	297	19.9	2818
				EBR	C	298	27.1	44
			EB Approach		C		23.9	
			WB	WBL	A	0	0.0	0
				WBT	B	1120	14.9	2571
				WBR	B	60	13.0	45
			WB Approach		B		14.8	
			NB	NBL	F	152	118.6	46
				NBT	A	152	0.0	0
				NBR	D	154	37.7	3
			NB Approach		F		113.6	
			SB	SBL	A	122	0.0	0
				SBT	A	122	0.0	0
				SBR	B	122	14.0	113
			SB Approach		B		14.0	
			Overall LOS		C		20.5	
2	S. Cherry Street/Hillwood Avenue	Signalized	EB	EBL	C	128	23.8	133
				EBT	B	153	14.8	163
				EBR	A	35	6.3	11
			EB Approach		B		18.4	
			WB	WBL	B	30	14.4	5
				WBT	B	211	17.5	238
				WBR	A	214	0.0	0
			WB Approach		B		17.4	
			NB	NBL	C	239	21.2	42
				NBT	C	239	21.0	106
				NBR	B	283	14.0	25
			NB Approach		C		20.1	
			SB	SBL	C	88	20.1	35
				SBT	A	88	6.1	25
				SBR	B	121	12.3	32
			SB Approach		B		13.6	
			Overall LOS		B		18.0	
3	S. Cherry Street/E. Broad Street (VA 7)	Signalized	EB	EBL	B	211	16.2	39
				EBT	A	211	8.6	578
				EBR	A	217	7.5	10
			EB Approach		A		9.1	
			WB	WBL	E	879	61.5	3
				WBT	D	879	44.7	1057
				WBR	D	893	49.9	12
			WB Approach		D		44.8	
			NB	NBL	E	457	56.5	10
				NBT	D	457	54.8	97
				NBR	D	457	48.1	159
			NB Approach		D		50.8	
			SB	SBL	D	277	47.6	113
				SBT	D	277	46.5	25
				SBR	D	277	51.0	37
			SB Approach		D		48.2	
			Overall LOS		D		35.4	
6	South Street & S. Roosevelt Street/Hillwood Avenue	Signalized	EB	EBL	F	574	127.1	248
				EBT	A	0	0.0	0
				EBR	A	0	0.0	0
			EB Approach		F		127.1	
			WB	WBL	A	0	0.0	0
				WBT	A	0	0.0	0
				WBR	A	0	0.0	0
			WB Approach		#N/A			
			NB	NBL	D	458	48.7	42
				NBT	E	458	56.5	245
				NBR	A	458	0.0	0
			NB Approach		E		55.3	
			SB	SBL	C	275	26.4	51
				SBT	C	275	22.3	151
				SBR	A	246	10.0	148
			SB Approach		B		17.7	
			Overall LOS		E		60.7	
7	N. Roosevelt Street/E. Broad Street (VA 7)	Signalized	EB	EBL	#N/A	#N/A	#N/A	
				EBT	D	567	50.1	883
				EBR	D	598	50.6	5
			EB Approach		D		50.1	
			WB	WBL	D	563	35.3	251
				WBT	C	563	31.0	980
				WBR	B	563	13.0	
			WB Approach		C		31.7	
			NB	NBL	A	395	0.0	0
				NBT	E	395	56.0	119
				NBR	D	395	40.3	373
			NB Approach		D		44.1	
			SB	SBL	A	257	0.0	0
				SBT	D	257	35.3	93
				SBR	C	257	34.9	118
			SB Approach		D		35.1	
			Overall LOS		D		39.9	

"N/A" represents volumes that are not allowed, or do not exist

2045 Scenario 1 AM

Intersection Information					2045 Scenario 1 AM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
8	Sleepy Hollow Road/Aspen Lane	Unsignalized	EB	EBL	A	44	9.6	4
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	A	44	6.6	13
			EB Approach		A		7.3	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	A	173	4.1	136
				NBT	A	114	2.9	347
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		A		3.3	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	A	0	1.6	406
				SBR	A	0	0.0	0
			SB Approach		A		1.6	
			Overall LOS		A		7.3	
9	Sleepy Hollow Road/Castle Place	Signalized	EB	EBL	B	33	12.6	14
				EBT	B	187	15.8	353
				EBR	B	187	14.7	48
			EB Approach		N/A			
			WB	WBL	A	159	8.2	175
				WBT	A	75	1.5	293
				WBR	A	75	5.7	65
			WB Approach		A		4.2	
			NB	NBL	D	173	47.0	48
				NBT	A	173	0.0	0
				NBR	D	419	44.9	241
			NB Approach		D		45.3	
			SB	SBL	A	217	0.0	0
				SBT	E	217	55.2	147
				SBR	A	217	0.0	0
			SB Approach		E		55.2	
			Overall LOS		C		21.6	
10	Castle Road &Thorne Road/Leesburg Pike (VA 7)	Signalized	EB	EBL	E	213	67.1	259
				EBT	A	13	2.8	775
				EBR	C	123	30.8	41
			EB Approach		B		19.3	
			WB	WBL	D	275	51.3	396
				WBT	D	1074	52.0	962
				WBR	D	1074	50.0	225
			WB Approach		D		51.5	
			NB	NBL	C	436	31.8	12
				NBT	D	436	39.0	148
				NBR	D	436	42.9	435
			NB Approach		D		41.7	
			SB	SBL	F	405	135.3	111
				SBT	F	405	134.2	96
				SBR	E	405	74.5	158
			SB Approach		F		108.7	
			Overall LOS		D		46.1	
11	Seven Corners Center/Leesburg Pike (VA 7)	Signalized	EB	EBL	E	161	79.8	89
				EBT	E	1200	70.9	1235
				EBR	D	14	38.4	19
			EB Approach		E		71.0	
			WB	WBL	E	518	70.6	94
				WBT	C	574	20.8	1417
				WBR	A	30	5.9	17
			WB Approach		C		23.7	
			NB	NBL	F	1088	391.5	168
				NBT	F	1088	95.8	11
				NBR	E	1088	72.5	92
			NB Approach		F		271.2	
			SB	SBL	F	189	233.2	92
				SBT	A	189	0.0	0
				SBR	E	167	58.1	23
			SB Approach		F		198.2	
			Overall LOS		E		69.8	
12	Patrick Henry Drive/Leesburg Pike (VA 7)	Signalized	EB	EBL	F	537	91.0	217
				EBT	C	491	21.3	1201
				EBR	B	24	19.9	9
			EB Approach		C		31.9	
			WB	WBL	F	95	126.6	44
				WBT	F	1672	131.1	1373
				WBR	F	1673	104.1	505
			WB Approach		F		123.9	
			NB	NBL	F	442	170.9	84
				NBT	F	456	175.2	54
				NBR	F	475	179.0	116
			NB Approach		F		175.5	
			SB	SBL	F	555	195.7	204
				SBT	F	555	196.9	15
				SBR	C	105	32.6	73
			SB Approach		F		154.9	
			Overall LOS		F		95.9	

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2045 Scenario 1 AM

Intersection Information					2045 Scenario 1 AM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
13	Arlington Boulevard service road/Arlington Boulevard (US 50)	Signalized	EB	EBL	C	1177	33.9	56
				EBT	B	1177	13.5	2733
				EBR	B	1177	12.8	36
			EB Approach		B		13.9	
			WB	WBL	A	577	0.0	0
				WBT	A	577	8.6	2369
				WBR	A	577	8.9	128
			WB Approach		A		8.6	
			NB	NBL	F	403	81.7	85
				NBT	F	403	125.7	36
				NBR	B	191	10.6	135
			NB Approach		D		50.4	
			SB	SBL	F	99	84.5	21
				SBT	A	99	0.0	0
				SBR	A	68	0.0	0
			SB Approach		F		84.5	
			Overall LOS		B		14.8	
14	Patrick Henry Drive/Arlington Boulevard (US 50)	Signalized	EB	EBL	A	0	0.0	0
				EBT	D	1612	48.8	2657
				EBR	D	1617	44.2	4
			EB Approach		D		48.8	
			WB	WBL	F	819	108.6	61
				WBT	C	819	21.6	2292
				WBR	C	876	23.2	51
			WB Approach		C		23.8	
			NB	NBL	F	377	85.0	108
				NBT	E	788	78.2	432
				NBR	E	727	77.5	176
			NB Approach		E		79.1	
			SB	SBL	F	173	99.9	75
				SBT	F	236	87.3	105
				SBR	F	236	93.9	27
			SB Approach		F		88.3	
			Overall LOS		D		42.8	
15	John Marshall Drive/Patrick Henry Drive & Willston Drive	Signalized	EB	EBL	A	161	0.0	0
				EBT	A	161	6.2	138
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		A		6.2	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	A	457	9.5	320
				WBR	B	494	17.8	358
			WB Approach		B		13.9	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		N/A			
			SB	SBL	B	118	18.8	94
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	C	130	29.7	36
			SB Approach		C		21.8	
			Overall LOS		B		13.9	
16	John Marshall Drive & N. McKinley Road/Wilson Boulevard	Signalized	EB	EBL	C	89	21.2	45
				EBT	C	434	21.9	823
				EBR	A	445	0.0	0
			EB Approach		C		21.9	
			WB	WBL	F	253	97.4	95
				WBT	C	263	30.9	344
				WBR	C	274	26.7	60
			WB Approach		D		43.0	
			NB	NBL	E	741	64.1	220
				NBT	E	741	63.6	187
				NBR	E	743	58.9	160
			NB Approach		E		62.5	
			SB	SBL	C	97	34.2	57
				SBT	C	44	20.6	20
				SBR	A	92	7.8	136
			SB Approach		B		16.0	
			Overall LOS		D		37.1	
17	Peyton Randolph Drive/Wilson Boulevard	Signalized	EB	EBL	C	586	30.9	13
				EBT	D	586	35.5	855
				EBR	C	594	26.3	162
			EB Approach		C		34.0	
			WB	WBL	C	99	23.4	54
				WBT	B	298	17.0	650
				WBR	A	335	0.0	0
			WB Approach		B		17.5	
			NB	NBL	D	525	51.2	338
				NBT	A	525	0.0	0
				NBR	A	0	0.0	0
			NB Approach		D		51.2	
			SB	SBL	D	42	51.1	12
				SBT	A	42	0.0	0
				SBR	A	49	0.0	0
			SB Approach		D		51.1	
			Overall LOS		C		31.3	

"N/A" represents volumes that are not allowed, or do not exist

2045 Scenario 1 AM

Intersection Information					2045 Scenario 1 AM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
18	Roosevelt Boulevard/Wilson Boulevard	Signalized	EB	EBL	C	218	30.7	137
				EBT	C	432	20.5	778
				EBR	A	456	0.0	0
			EB Approach		C		22.0	
			WB	WBL	A	649	0.0	0
				WBT	D	649	46.8	427
				WBR	D	677	45.1	559
			WB Approach		D		45.8	
			NB	NBL	E	446	55.1	18
				NBT	D	446	50.5	302
				NBR	E	446	55.3	3
			NB Approach		N/A			
			SB	SBL	D	442	52.8	242
				SBT	C	442	33.4	214
				SBR	C	477	29.7	151
			SB Approach		D		40.2	
			Overall LOS		D		37.5	
19	Roosevelt Boulevard/N. Roosevelt Street	Signalized	EB	EBL	C	238	30.3	181
				EBT	A	238	0.0	0
				EBR	D	238	35.9	22
			EB Approach		C		30.9	
			WB	WBL	A	6	1.0	4
				WBT	A	0	0.0	0
				WBR	A	6	0.0	0
			WB Approach		A		1.0	
			NB	NBL	D	155	41.9	121
				NBT	A	265	9.8	1049
				NBR	A	265	0.0	0
			NB Approach		B		13.1	
			SB	SBL	A	241	0.0	0
				SBT	B	241	14.0	612
				SBR	B	243	11.8	91
			SB Approach		B		13.7	
			Overall LOS		B		15.1	
20	Arlington Blvd WB/Wilson Blvd	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		#N/A		#N/A	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		#N/A	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		B		15.1	
21	Sleepy Hollow Rd/Wilson Blvd/Broad St/Arlington Blvd EB	Signalized	EB	EBL to Wilson	F	589	103.8	266
				EBT to Route 7	D	589	41.1	928
				EBR to 50	A	589	0.0	0
				EBT to 50	D	589	45.0	88
			EB Approach		D		54.4	
			WB	WBL	C	481	21.9	135
				WBT	C	481	29.2	958
				WBR	C	481	26.0	16
			WB Approach		C		28.3	2022
			NB	NBL	F	498	89.6	13
				NBT	E	499	61.0	559
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		E		61.7	
			SB	SBL	D	321	44.3	5
				SBT	D	323	37.6	251
				SBR	D	323	46.9	225
			SB Approach		D		42.6	
			Overall LOS		D		45.4	
22	Broad St WB/Arlington Blvd WB	Signalized	WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBT from 7 to 7	#N/A	#N/A	#N/A	#N/A
				NBU	#N/A	#N/A	#N/A	#N/A
				NBL	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		#N/A	
			SB	SBL	#N/A	#N/A	#N/A	
				SBT	#N/A	#N/A	#N/A	
				SBR	#N/A	#N/A	#N/A	
			SB Approach		#N/A		#N/A	
			Overall LOS		C		23.1	

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2045 Scenario 1 AM

Intersection Information					2045 Scenario 1 AM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
23	Broad St EB/Arlington Blvd WB	Unsignalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		N/A			
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		N/A			
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		C		23.1	
23	Broad St EB/Arlington Blvd WB	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		#N/A		#N/A	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		#N/A	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		C		23.1	
25	Ring Road at Arlington Blvd EB	Signalized	EB	EBL	A	1456	0.0	0
				EBT	D	1456	37.6	525
				EBR	D	1456	40.9	415
			EB Approach		D		39.1	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	C	207	25.5	293
				NBR	C	207	30.5	49
			NB Approach		C		26.2	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		D		35.6	
26	Ring Road at Arlington Blvd WB	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		#N/A		#N/A	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	B	132	11.0	388
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		B		11.0	
			NB	NBL	A	105	8.0	293
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		A		8.0	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		A		9.7	
27	Ring Road at E. Broad St	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	A	158	8.4	1256
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		A		8.4	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	C	601	26.4	1166
				WBR	A	601	2.7	30
			WB Approach		C		25.8	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		#N/A	
			SB	SBL	C	129	26.2	33
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	C	129	28.9	83
			SB Approach		C		28.2	
			Overall LOS		B		17.4	

"N/A" represents volumes that are not allowed, or do not exist

2045 Scenario 1 AM

Intersection Information					2045 Scenario 1 AM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
28	Ring Road at Arlington Blvd EB	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	E	184	63.7	88
				EBR	D	184	44.6	36
			EB Approach		E		58.2	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	A	410	2.5	163
				NBR	C	410	20.8	455
			NB Approach		B		16.0	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	B	182	13.4	278
				SBR	A	232	5.7	177
			SB Approach		A		10.4	
			Overall LOS		B		18.3	
29	Ring Road at Hillwood Ave	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		#N/A		#N/A	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		#N/A	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		B		17.4	
30	Ring Road at Arlington Blvd WB	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		#N/A		#N/A	
			WB	WBL	A	691	0.0	0
				WBT	E	691	66.8	241
				WBR	E	691	60.5	156
			WB Approach		E		64.3	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	A	35	1.4	163
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		A		1.4	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	A	95	2.4	215
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		A		3.5	
			Overall LOS		C		34.3	

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2045 Scenario 1 PM

Intersection Information					2045 Scenario 1 PM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
1	S. Cherry Street/Arlington Boulevard (US 50)	Signalized	EB	EBL	F	61	106.5	12
				EBT	C	179	23.3	2817
				EBR	F	182	88.3	30
			EB Approach		C		24.3	
			WB	WBL	F	107	105.0	25
				WBT	C	1204	28.7	2735
				WBR	C	164	26.5	85
			WB Approach		C		29.3	
			NB	NBL	F	131	86.4	59
				NBT	A	131	0.0	0
				NBR	A	133	0.0	0
			NB Approach		F		86.4	
			SB	SBL	F	863	117.3	37
				SBT	F	863	127.4	11
				SBR	F	863	85.2	202
			SB Approach		F		91.8	
			Overall LOS		C		30.2	
2	S. Cherry Street/Hillwood Avenue	Signalized	EB	EBL	B	91	15.1	79
				EBT	B	175	13.4	281
				EBR	A	31	7.9	24
			EB Approach		B		13.4	
			WB	WBL	C	47	20.7	17
				WBT	B	152	17.3	138
				WBR	B	120	11.0	25
			WB Approach		B		16.8	
			NB	NBL	D	211	43.7	158
				NBT	D	211	36.7	35
				NBR	A	255	0.0	0
			NB Approach		D		42.4	
			SB	SBL	C	175	20.4	51
				SBT	C	175	22.3	136
				SBR	B	208	11.6	86
			SB Approach		B		18.6	
			Overall LOS		C		20.8	
3	S. Cherry Street/E. Broad Street (VA 7)	Signalized	EB	EBL	C	209	22.1	10
				EBT	A	209	5.9	943
				EBR	A	215	7.5	65
			EB Approach		A		6.2	
			WB	WBL	B	353	13.4	42
				WBT	B	353	18.9	595
				WBR	B	367	18.1	17
			WB Approach		B		18.5	
			NB	NBL	F	442	89.2	39
				NBT	E	442	60.0	46
				NBR	E	442	70.5	72
			NB Approach		E		72.1	
			SB	SBL	E	465	72.6	24
				SBT	E	465	67.7	148
				SBR	E	465	71.9	91
			SB Approach		E		69.6	
			Overall LOS		C		22.9	
6	South Street & S. Roosevelt Street/Hillwood Avenue	Signalized	EB	EBL	F	338	118.1	87
				EBT	D	296	48.0	91
				EBR	D	329	40.9	105
			EB Approach		E		66.9	
			WB	WBL	A	0	0.0	0
				WBT	A	0	0.0	0
				WBR	A	0	0.0	0
			WB Approach		#N/A			
			NB	NBL	A	769	0.0	0
				NBT	F	769	257.3	344
				NBR	A	781	0.0	0
			NB Approach		F		257.3	
			SB	SBL	C	349	26.1	16
				SBT	B	349	17.1	287
				SBR	B	247	10.9	39
			SB Approach		B		16.8	
			Overall LOS		F		116.8	
7	N. Roosevelt Street/E. Broad Street (VA 7)	Signalized	EB	EBL	#N/A	#N/A	#N/A	
				EBT	F	1674	85.2	791
				EBR	F	1662	95.2	42
			EB Approach		F		85.7	
			WB	WBL	D	493	35.1	114
				WBT	B	493	17.6	585
				WBR	C	493	26.2	66
			WB Approach		C		20.9	
			NB	NBL	E	389	65.1	31
				NBT	D	389	36.1	10
				NBR	E	389	61.8	391
			NB Approach		E		61.4	
			SB	SBL	E	253	72.4	2
				SBT	D	253	35.9	181
				SBR	C	253	28.5	33
			SB Approach		D		35.1	
			Overall LOS		D		54.1	

"N/A" represents volumes that are not allowed, or do not exist

2045 Scenario 1 PM

Intersection Information					2045 Scenario 1 PM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
8	Sleepy Hollow Road/Aspen Lane	Unsignalized	EB	EBL	A	64	0.0	0
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	B	64	13.0	30
			EB Approach		B		13.0	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	C	464	18.6	100
				NBT	B	406	14.4	247
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		C		15.6	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	A	0	4.2	703
				SBR	A	0	8.0	210
			SB Approach		A		5.1	
			Overall LOS		C		15.6	
9	Sleepy Hollow Road/Castle Place	Signalized	EB	EBL	A	0	0.0	0
				EBT	D	367	53.3	566
				EBR	E	367	62.4	57
			EB Approach		N/A			
			WB	WBL	D	556	36.9	423
				WBT	C	540	26.4	327
				WBR	D	540	49.3	79
			WB Approach		C		33.9	
			NB	NBL	E	256	56.0	29
				NBT	C	256	32.9	41
				NBR	B	221	16.6	187
			NB Approach		C		23.6	
			SB	SBL	A	488	0.0	0
				SBT	C	488	32.3	350
				SBR	A	488	0.0	0
			SB Approach		C		32.3	
			Overall LOS		D		38.5	
10	Castle Road &Thorne Road/Leesburg Pike (VA 7)	Signalized	EB	EBL	F	842	368.5	281
				EBT	E	841	55.9	775
				EBR	E	841	64.2	13
			EB Approach		F		138.2	
			WB	WBL	F	941	97.4	624
				WBT	F	1439	128.6	684
				WBR	F	1439	131.3	286
			WB Approach		F		116.9	
			NB	NBL	F	630	107.7	60
				NBT	F	630	96.4	239
				NBR	D	630	37.7	447
			NB Approach		E		62.1	
			SB	SBL	F	409	137.2	72
				SBT	F	409	98.7	195
				SBR	F	409	139.2	235
			SB Approach		F		123.2	
			Overall LOS		F		113.1	
11	Seven Corners Center/Leesburg Pike (VA 7)	Signalized	EB	EBL	E	124	56.5	42
				EBT	F	1419	86.7	1210
				EBR	E	23	63.3	79
			EB Approach		F		84.3	
			WB	WBL	E	136	66.9	49
				WBT	C	567	29.5	1156
				WBR	A	28	4.7	73
			WB Approach		C		29.5	
			NB	NBL	F	1110	247.6	252
				NBT	F	1110	80.5	57
				NBR	E	1110	68.7	40
			NB Approach		F		199.8	
			SB	SBL	F	220	175.4	75
				SBT	F	220	165.5	21
				SBR	E	219	55.3	205
			SB Approach		F		92.9	
			Overall LOS		E		76.0	
12	Patrick Henry Drive/Leesburg Pike (VA 7)	Signalized	EB	EBL	F	548	83.0	161
				EBT	D	543	39.2	1159
				EBR	D	22	45.3	9
			EB Approach		D		44.5	
			WB	WBL	E	136	74.7	73
				WBT	E	1655	79.1	1031
				WBR	C	1655	34.1	285
			WB Approach		E		69.6	
			NB	NBL	F	413	87.2	67
				NBT	F	450	126.0	150
				NBR	F	479	136.3	104
			NB Approach		F		121.2	
			SB	SBL	F	1682	135.3	374
				SBT	F	1682	176.1	34
				SBR	E	256	72.5	201
			SB Approach		F		116.9	
			Overall LOS		E		72.9	

"N/A" represents volumes that are not allowed, or do not exist

2045 Scenario 1 PM

Intersection Information					2045 Scenario 1 PM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
13	Arlington Boulevard service road/Arlington Boulevard (US 50)	Signalized	EB	EBL	D	942	39.3	42
				EBT	A	942	8.9	2277
				EBR	A	942	9.8	71
			EB Approach		A		9.4	
			WB	WBL	A	1498	0.0	0
				WBT	C	1498	32.5	2670
				WBR	D	1498	40.5	47
			WB Approach		C		32.6	
			NB	NBL	E	235	69.4	32
				NBT	F	235	80.1	49
				NBR	A	241	9.3	118
			NB Approach		E		75.9	
			SB	SBL	E	191	74.3	57
				SBT	E	191	74.9	44
				SBR	A	191	0.0	0
			SB Approach		D		39.4	
			Overall LOS		C		23.5	
14	Patrick Henry Drive/Arlington Boulevard (US 50)	Signalized	EB	EBL	F	226	124.1	82
				EBT	F	1675	124.9	2116
				EBR	F	1684	131.7	165
			EB Approach		F		125.3	
			WB	WBL	F	1662	169.9	146
				WBT	F	1662	101.2	2406
				WBR	F	1695	93.8	54
			WB Approach		F		104.9	
			NB	NBL	E	248	76.4	130
				NBT	E	407	65.4	216
				NBR	D	409	52.6	126
			NB Approach		E		68.0	
			SB	SBL	F	1044	188.6	277
				SBT	F	1043	146.0	313
				SBR	F	1043	164.9	3
			SB Approach		F		166.0	
			Overall LOS		F		109.3	
15	John Marshall Drive/Patrick Henry Drive & Willston Drive	Signalized	EB	EBL	A	111	0.0	0
				EBT	A	111	9.5	103
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		A		9.5	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	B	250	14.9	186
				WBR	B	317	12.9	205
			WB Approach		B		13.9	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		N/A			
			SB	SBL	B	466	17.1	407
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	B	478	13.8	52
			SB Approach		B		16.7	
			Overall LOS		B		14.8	
16	John Marshall Drive & N. McKinley Road/Wilson Boulevard	Signalized	EB	EBL	C	159	23.3	107
				EBT	C	328	22.5	543
				EBR	B	340	14.8	48
			EB Approach		C		22.1	
			WB	WBL	E	431	59.6	228
				WBT	C	360	32.2	620
				WBR	C	371	30.6	65
			WB Approach		D		38.9	
			NB	NBL	D	518	51.4	124
				NBT	D	518	39.3	51
				NBR	D	521	35.6	84
			NB Approach		D		43.9	
			SB	SBL	D	73	38.4	21
				SBT	C	164	30.2	100
				SBR	B	199	10.7	141
			SB Approach		C		20.4	
			Overall LOS		C		31.7	
17	Peyton Randolph Drive/Wilson Boulevard	Signalized	EB	EBL	B	517	15.7	16
				EBT	B	517	18.5	645
				EBR	B	525	15.5	371
			EB Approach		B		17.4	
			WB	WBL	C	94	26.8	58
				WBT	D	634	50.5	801
				WBR	D	671	46.5	26
			WB Approach		D		48.9	
			NB	NBL	E	195	72.7	68
				NBT	A	195	0.0	0
				NBR	C	117	24.0	22
			NB Approach		E		60.8	
			SB	SBL	D	113	50.1	37
				SBT	D	113	42.3	25
				SBR	C	121	29.9	34
			SB Approach		D		40.9	
			Overall LOS		C		33.6	

"N/A" represents volumes that are not allowed, or do not exist

2045 Scenario 1 PM

Intersection Information					2045 Scenario 1 PM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
18	Roosevelt Boulevard/Wilson Boulevard	Signalized	EB	EBL	D	264	46.2	147
				EBT	C	450	32.0	496
				EBR	A	222	0.0	0
			EB Approach		D		35.2	
			WB	WBL	A	727	0.0	0
				WBT	F	727	105.1	632
				WBR	F	767	87.7	266
			WB Approach		F		99.9	
			NB	NBL	E	714	76.2	13
				NBT	E	714	78.5	296
				NBR	E	714	67.9	53
			NB Approach		N/A			
			SB	SBL	E	941	67.6	492
				SBT	D	941	42.2	312
				SBR	D	947	41.1	353
			SB Approach		D		52.7	
			Overall LOS		E		65.7	
19	Roosevelt Boulevard/N. Roosevelt Street	Signalized	EB	EBL	C	158	24.3	130
				EBT	A	158	0.0	0
				EBR	C	158	25.9	26
			EB Approach		C		24.6	
			WB	WBL	A	0	0.8	44
				WBT	A	56	0.7	32
				WBR	A	0	0.0	0
			WB Approach		A		0.8	
			NB	NBL	D	77	36.6	25
				NBT	B	174	10.5	646
				NBR	B	174	10.2	33
			NB Approach		B		11.4	
			SB	SBL	A	490	0.0	0
				SBT	B	490	13.1	1000
				SBR	B	492	12.7	88
			SB Approach		B		13.1	
			Overall LOS		B		12.9	
20	Arlington Blvd WB/Wilson Blvd	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		#N/A		#N/A	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		#N/A	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		B		12.9	
21	Sleepy Hollow Rd/Wilson Blvd/Broad St/Arlington Blvd EB	Signalized	EB	EBL to Wilson	E	743	68.0	83
				EBT to Route 7	F	743	86.5	1093
				EBR	F	743	97.7	55
				EBT to 50	A	743	0.0	0
			EB Approach		F		85.7	
			WB	WBL	E	614	72.2	259
				WBT	D	614	47.1	848
				WBR	D	614	45.6	24
			WB Approach		D		52.8	
			NB	NBL	F	584	169.4	37
				NBT	F	585	122.0	438
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		F		125.7	
			SB	SBL	E	577	79.7	251
				SBT	D	566	50.6	548
				SBR	D	566	48.3	45
			SB Approach		E		59.1	
			Overall LOS		E		74.7	
22	Broad St WB/Arlington Blvd WB	Signalized	WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBT from 7 to 7	#N/A	#N/A	#N/A	#N/A
				NBU	#N/A	#N/A	#N/A	#N/A
				NBL	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		#N/A	
			SB	SBL	#N/A	#N/A	#N/A	
				SBT	#N/A	#N/A	#N/A	
				SBR	#N/A	#N/A	#N/A	
			SB Approach		#N/A		#N/A	
			Overall LOS		D		39.5	

"N/A" represents volumes that are not allowed, or do not exist

2045 Scenario 1 PM

Intersection Information					2045 Scenario 1 PM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
23	Broad St EB/Arlington Blvd WB	Unsignalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		N/A			
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		N/A			
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		D		39.5	
23	Broad St EB/Arlington Blvd WB	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		#N/A		#N/A	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		#N/A	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		D		39.5	
25	Ring Road at Arlington Blvd EB	Signalized	EB	EBL	A	1662	0.0	0
				EBT	F	1662	80.1	447
				EBR	E	1662	72.8	621
			EB Approach		E		75.9	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	C	280	27.3	327
				NBR	C	280	25.2	31
			NB Approach		C		27.1	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		E		63.6	
26	Ring Road at Arlington Blvd WB	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		#N/A		#N/A	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	B	268	13.1	881
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		B		13.1	
			NB	NBL	A	197	2.4	327
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		A		2.4	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		B		10.2	
27	Ring Road at E. Broad St	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	E	638	67.0	1167
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		E		67.0	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	B	477	13.5	698
				WBR	B	477	11.5	39
			WB Approach		B		13.4	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		#N/A	
			SB	SBL	E	128	63.7	73
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	D	128	38.0	69
			SB Approach		D		51.2	
			Overall LOS		D		46.6	

"N/A" represents volumes that are not allowed, or do not exist

2045 Scenario 1 PM

Intersection Information					2045 Scenario 1 PM			
No.	Intersection	Traffic Control	Approach	Movement	LOS	Max Queue (feet)	Delay (sec)	Volumes
28	Ring Road at Arlington Blvd EB	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	D	129	41.3	83
				EBR	A	129	0.0	0
			EB Approach		D		41.3	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	C	441	20.2	173
				NBR	C	441	20.7	511
			NB Approach		C		20.5	
			SB	SBL	A	186	8.9	278
				SBT	A	88	2.4	333
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		A		5.4	
			Overall LOS		B		15.0	
29	Ring Road at Hillwood Ave	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		#N/A		#N/A	
			WB	WBL	#N/A	#N/A	#N/A	#N/A
				WBT	#N/A	#N/A	#N/A	#N/A
				WBR	#N/A	#N/A	#N/A	#N/A
			WB Approach		#N/A		#N/A	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	#N/A	#N/A	#N/A	#N/A
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		#N/A		#N/A	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	#N/A	#N/A	#N/A	#N/A
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		#N/A		#N/A	
			Overall LOS		D		46.6	
30	Ring Road at Arlington Blvd WB	Signalized	EB	EBL	#N/A	#N/A	#N/A	#N/A
				EBT	#N/A	#N/A	#N/A	#N/A
				EBR	#N/A	#N/A	#N/A	#N/A
			EB Approach		#N/A		#N/A	
			WB	WBL	D	933	51.1	37
				WBT	D	933	53.7	319
				WBR	D	933	47.3	199
			WB Approach		D		51.3	
			NB	NBL	#N/A	#N/A	#N/A	#N/A
				NBT	B	133	12.1	174
				NBR	#N/A	#N/A	#N/A	#N/A
			NB Approach		B		12.1	
			SB	SBL	#N/A	#N/A	#N/A	#N/A
				SBT	B	307	17.9	295
				SBR	#N/A	#N/A	#N/A	#N/A
			SB Approach		B		17.9	
			Overall LOS		D		35.0	

"N/A" represents volumes that are not allowed, or do not exist

Appendix F
Public Engagement

Public Engagement

PUBLIC ENGAGEMENT OVERVIEW

From February 2021 to November 2022, the project team conducted public outreach in English, Spanish, and Vietnamese to solicit public input on the findings of the Seven Corners Phasing Study. Public outreach focused on presenting analysis results to the public and asking about concerns regarding the phasing of the Seven Corners improvements.

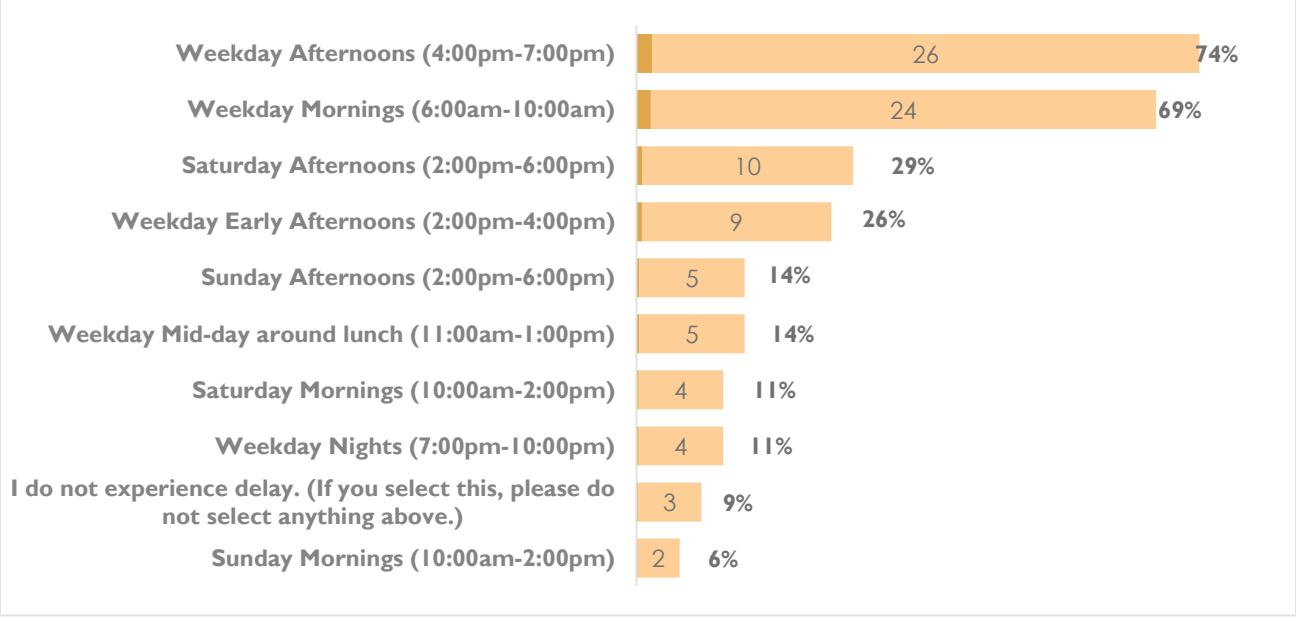
Public outreach was held in three phases. The first phase took place in February 2021, when separate virtual meetings were held in English (February 3, 2021) and Spanish (February 4, 2021). Due to limited attendance of the virtual Spanish language meeting, it was determined that future efforts to engage the Spanish speaking community should occur in person. The second phase included in-person pop-up meetings (November 13, 2021) with English, Spanish, and Vietnamese speaking staff as well as two English language virtual meetings (November 16, 2021, and November 17, 2021). The third phase included three virtual meetings held in English (November 9, 2022, November 10, 2022, and November 16, 2022).

The first two phases of public outreach each included a survey. The results of each survey are summarized below.

PUBLIC MEETING 1: FEBRUARY 3, 2021

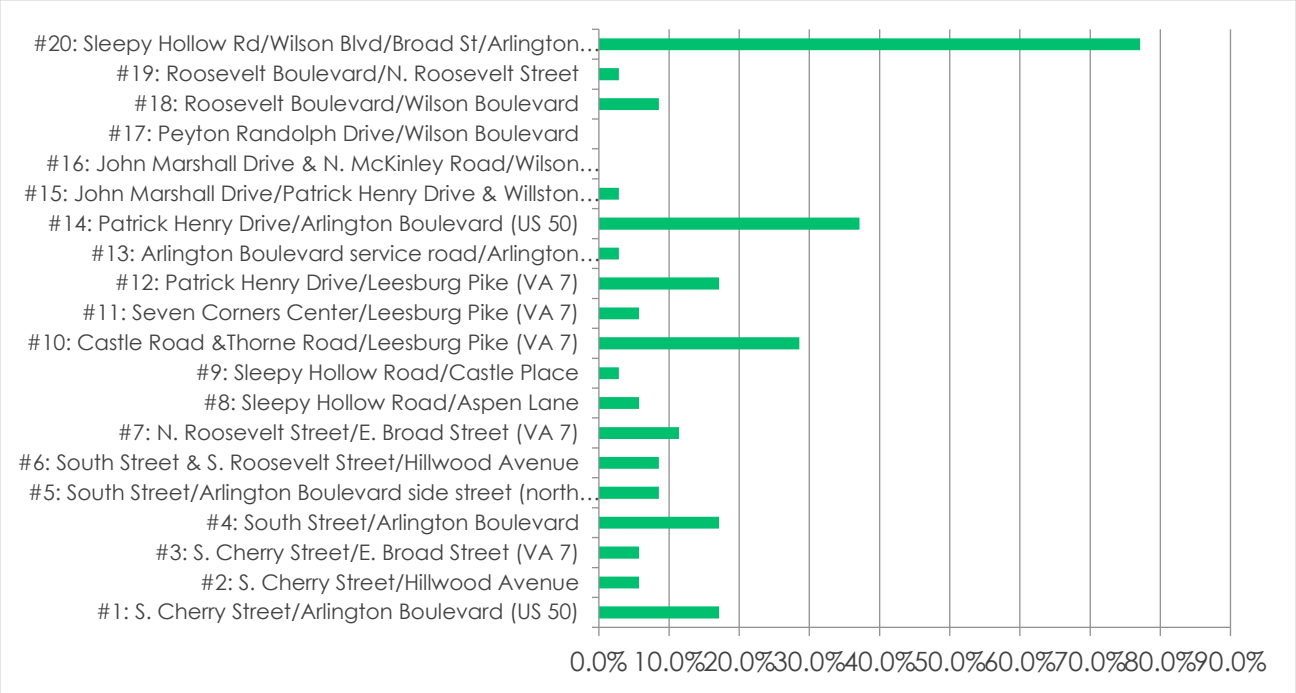
Question 1: When do you experience delays in traffic? (Select all that apply.)

Figure F-1: Time Periods of Travel Delay



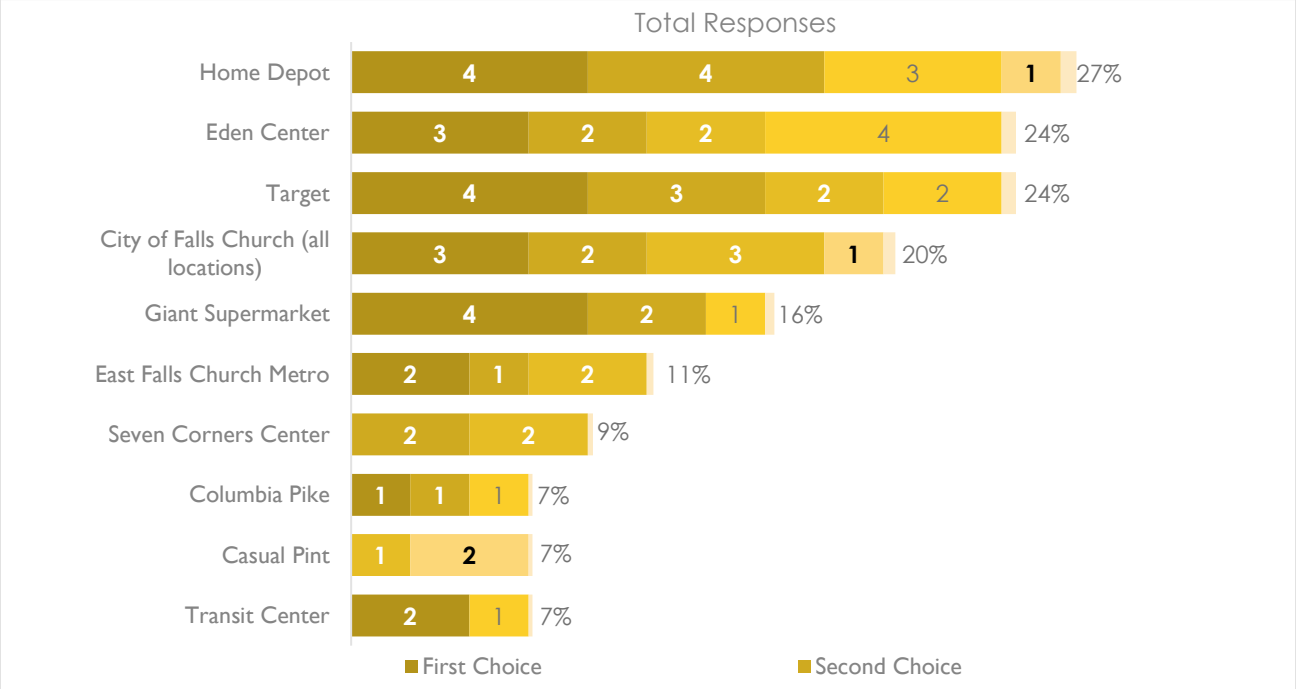
Question 2: Please select up to three (3) intersections where you experience high traffic delays.

Figure F-2: Intersections with High Traffic Delays



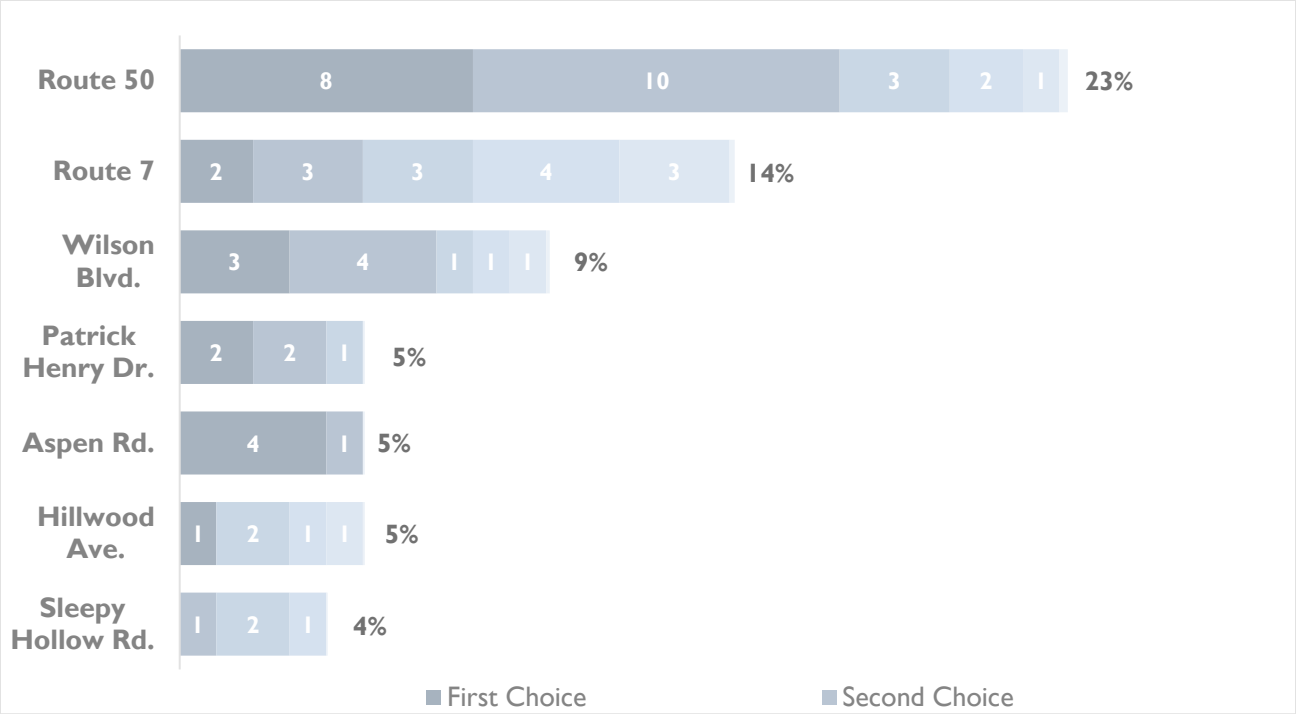
Question 4: What are the top 5 locations you want to walk or bike to?

Figure F-3: Top 5 Walking & Biking Destinations



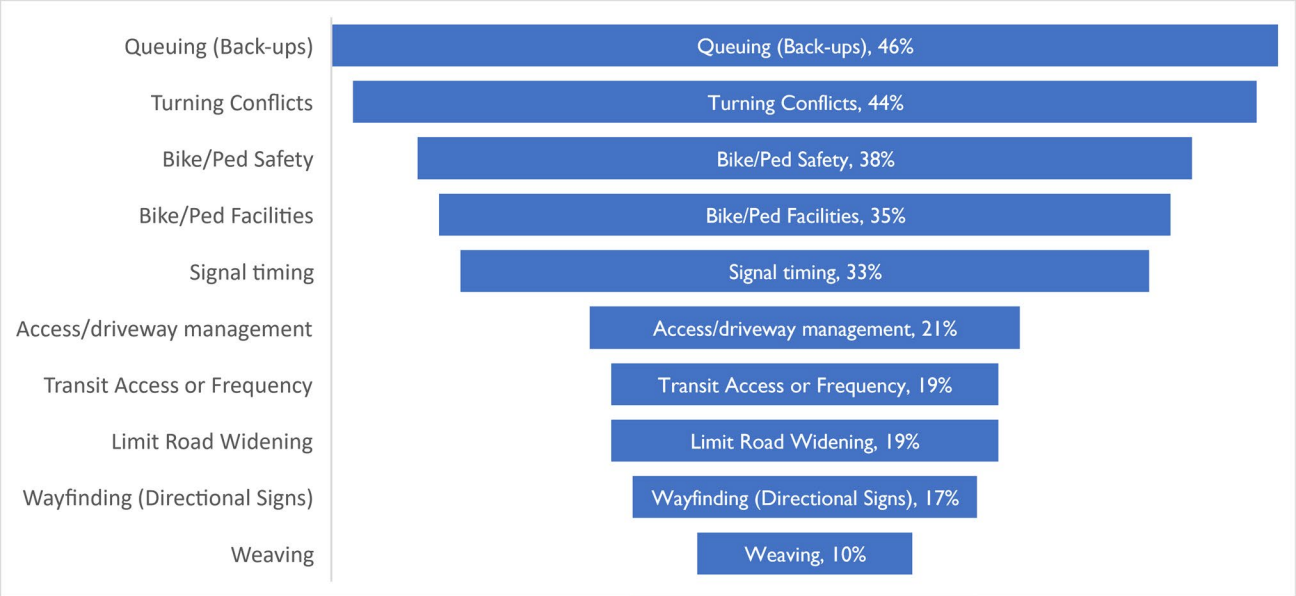
Question 5: Which roads do you take to get to the destinations you listed?

Figure F-4: Routes Taken to Preferred Destinations



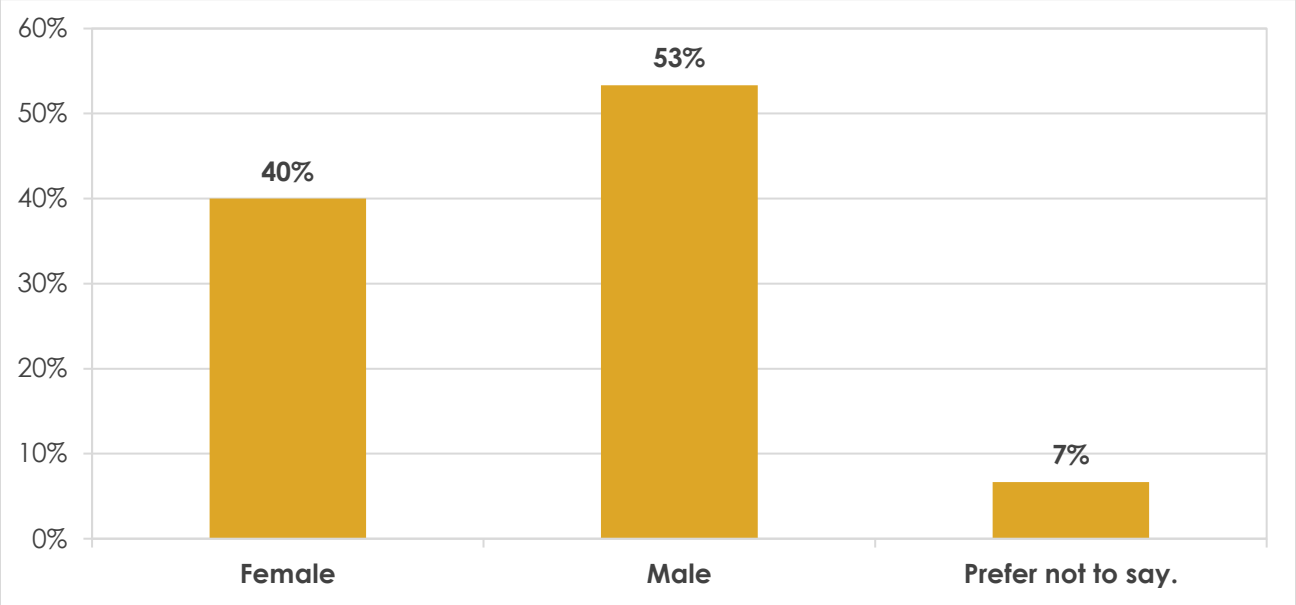
Question 6: Do you have any other comments or suggestions?

Figure F-5: Top Categories of Concern



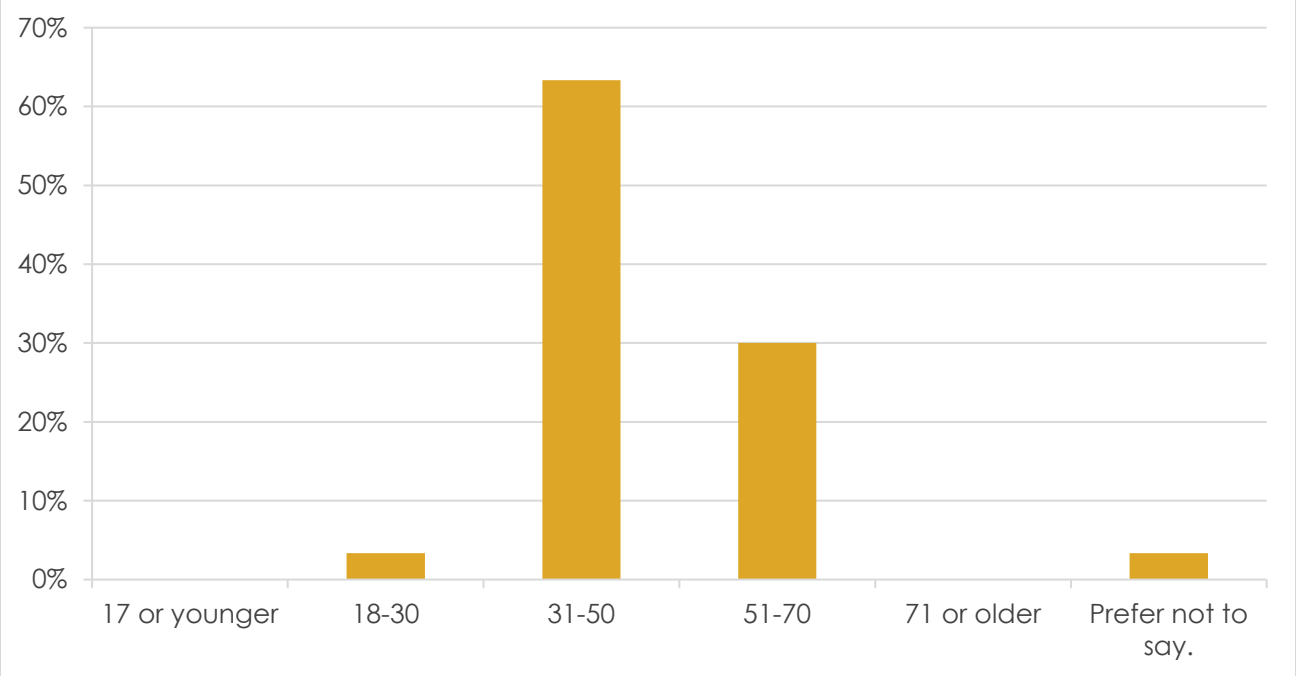
Question 7: What is your gender?

Figure F-6: Gender



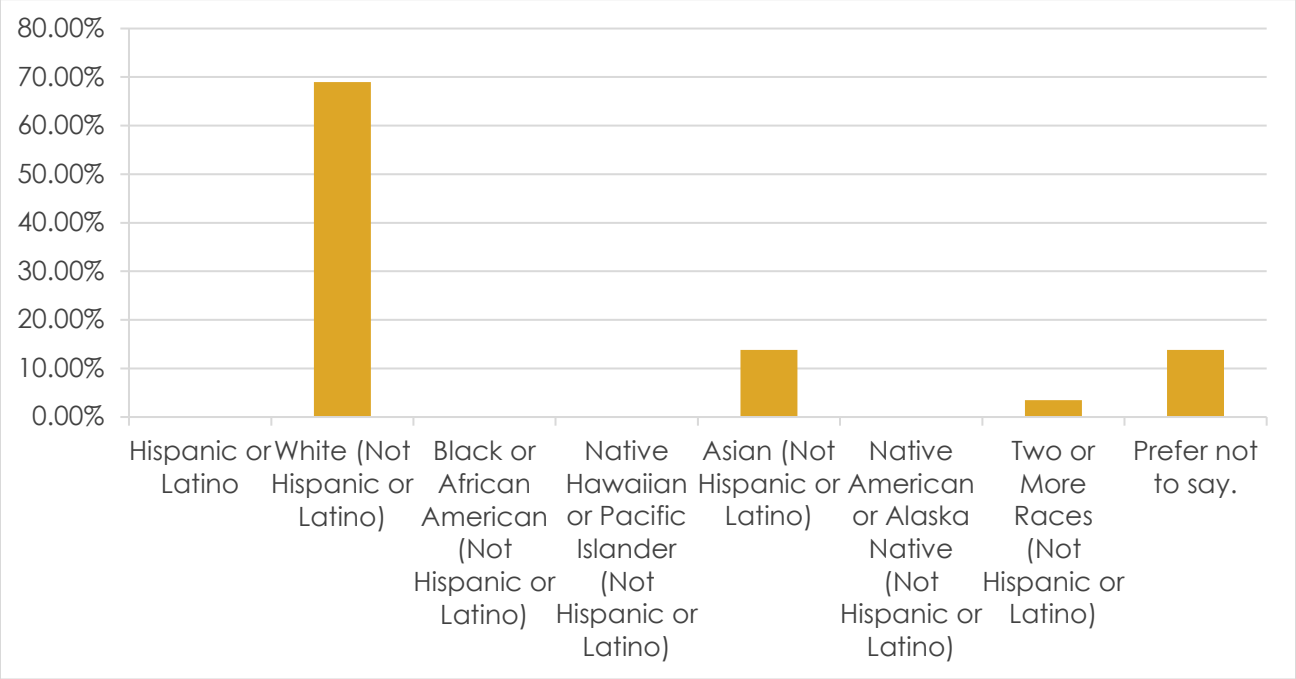
Question 8: What is your age?

Figure F-7: Age



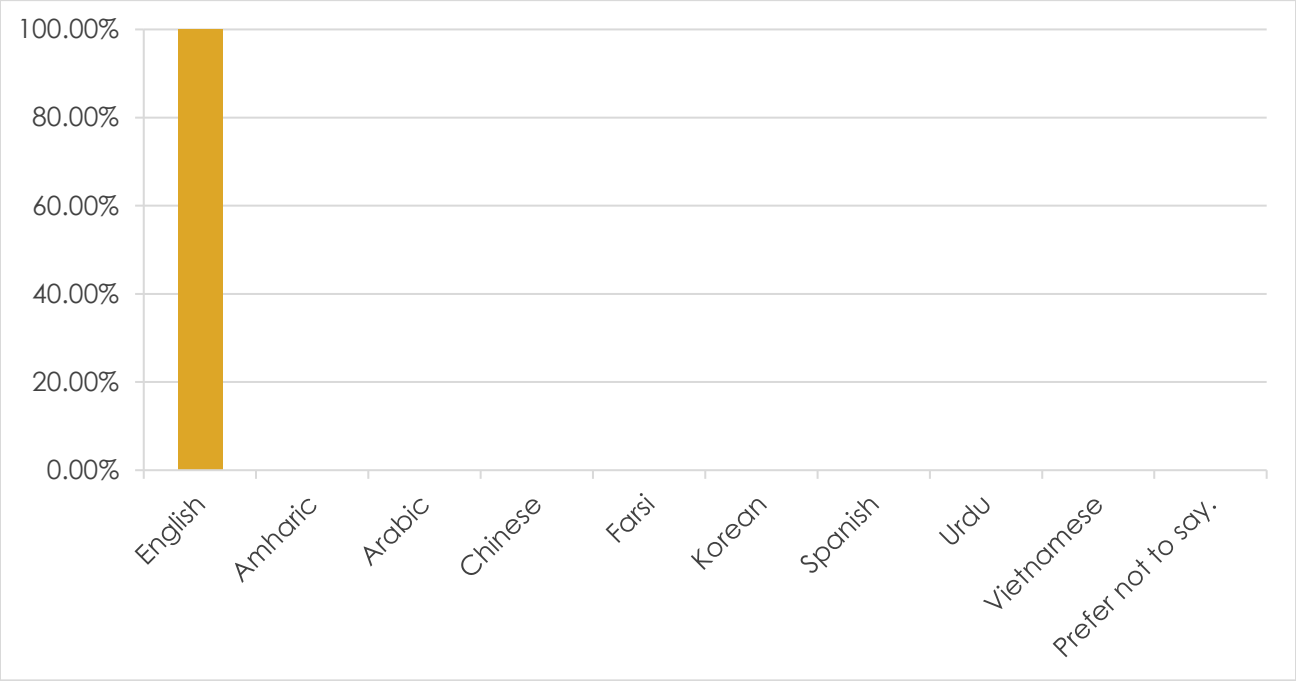
Question 9: What is your ethnicity?

Figure F-8: Race & Ethnicity



Question 10: What is your primary language spoken at home (optional)?

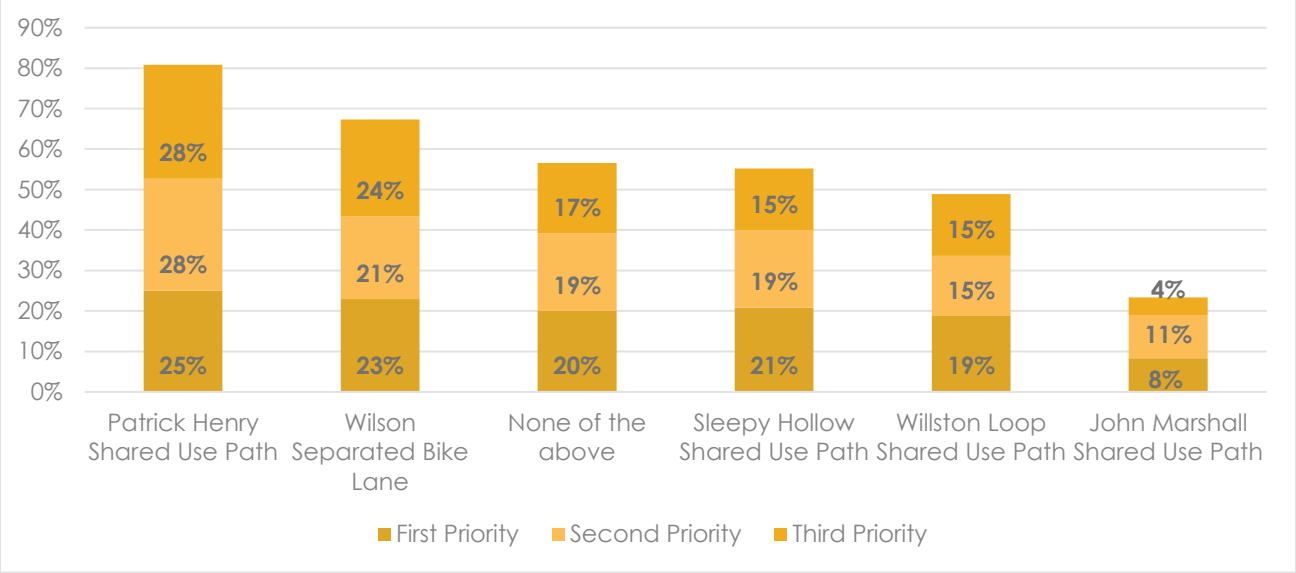
Figure F-9: Primary Language Spoken at Home



PUBLIC MEETING 2: NOVEMBER 13, 2021

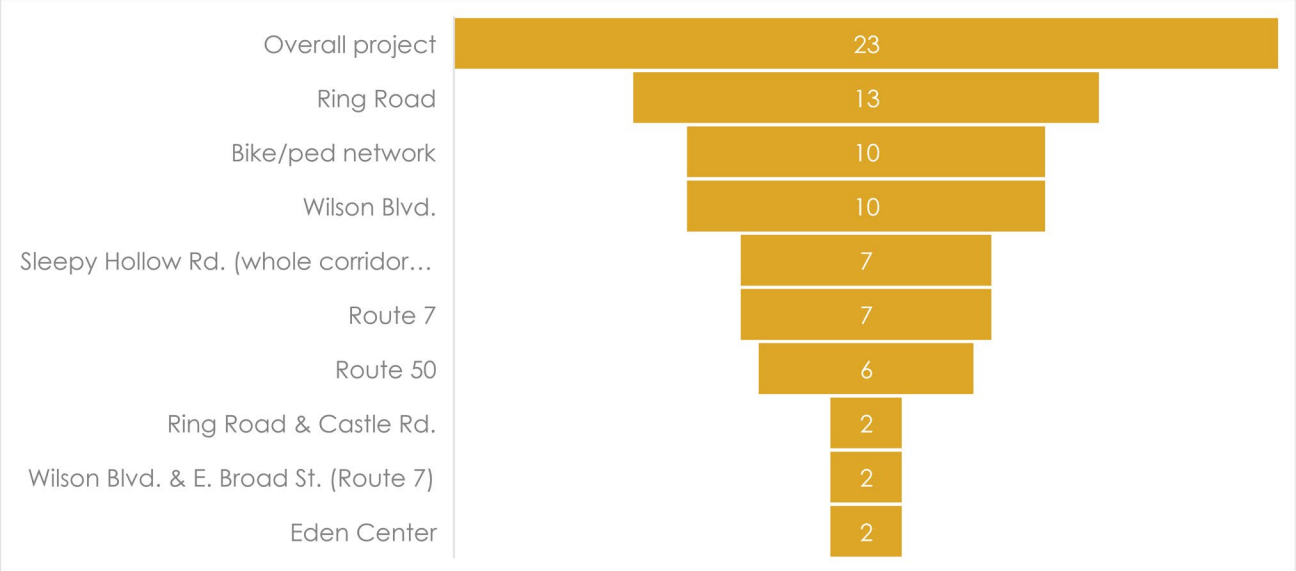
Questions 1-3: Select your first/second/third most critical bicycle and pedestrian facility to build.

Figure F-10: Most Critical Bicycle and Pedestrian Facility to Build



Question 4: Please use this space to provide any additional comments for the study team.

Figure F-11: Top Areas of Concern



Public Comments from Public Meeting 2

The following table summarizes the frequency with which participants commented on a specific facility or issue in the open-ended response section of Public Meeting 2.

Table F-1: Comment Summary Table

Comment Code (Minor Category)	Type (Major Category)	Definition - The commenter states that this service or facility…	Regarding	Frequency Count
No build	No build	...is not needed and should not be built.	Ring Road, overall project, bicycle facilities, road diets, roundabouts	18
Crosswalks between business and shopping centers requested	Safety	...should provide safe crosswalks between shopping and business centers	Wilson Blvd., Eden Center	16
Project affirmed	Affirmation of project recommendations	...should be constructed as the study proposes.	Ring Road, Ring Road & Castle Rd., Scenario 2, bike/ped network, public transit	12
Design improvements needed	Infrastructure design	...needs improvements to the design and/or the design specifics (such as lane widths, explanation of terms, and video voice-overs) are unclear.	Ring Road, Wilson Road roundabout, bike/ped network	10
Traffic calming and enforcement around crosswalks needed	Safety	...should include traffic calming and enforcement measures around crosswalks. Drivers do not stop at existing crosswalks.	Bike/ped network, Wilson Blvd. & John Marshall Dr., Route 7, East Falls Church Metro	7
More crosswalks or raised circular or linear pedestrian bridges needed	Safety	...should add additional crosswalks or raised circular or linear pedestrian bridges to the study area.	Overall project, Patrick Henry & Route 50	7
General walkability improvements are needed	Bike/ped network	...should include more improvements for walkability overall.	Overall project, Route 7	7
Project implementation delays and/or cost overruns	Project timeline communication	...has not been built, only planned, between the last 10-40 years and/or will result in cost overruns.	Overall project	5
Public outreach process lacking	Public outreach process	...needs more thorough stakeholder outreach, with an explanation of how public comments informed project recommendations	Ring Road, overall project, stakeholders in Sleepy Hollow, Ravenwood, and Lake Barcroft, outreach and coordination with the City of Falls Church	5
Project implementation timeline unclear	Project timeline communication	...does not clearly communicate the timeline from construction to implementation.	Overall project	5
Turning movements safety and congestion improvements needed	Safety	...should improve the safety of turning movements and allow right turns to prevent queuing at AM peak.	Wilson Blvd. onto E. Broad St., Wilson & Route 50, Ring Road, Sleepy Hollow NB; Patrick Henry & Arlington Blvd.	5
Level of Service (LOS) improvements inadequate	Traffic delays	...will not improve traffic congestion in terms of level of service (LOS) to an acceptable level.	Route 7 & Castle Road, Sleepy Hollow Rd. & & Castle Pl., South side of Rte. 50, Nicholson Street & Sleepy Hollow	5
Safe routes for children needed	Safety	...should include safe routes and crossings for children around schools, daycare centers, recreational facilities etc.	Bike/ped network, Wilson Blvd., Upper Baileys Elementary School	4

Comment Code (Minor Category)	Type (Major Category)	Definition - The commenter states that this service or facility…	Regarding	Frequency Count
Cut-through traffic observed	Cut-through traffic	...should mitigate cut-through traffic for drivers bypassing Seven Corners.	Peyton Randolph Dr., Sleepy Hollow Rd. & & Castle Pl., Ring Road & Castle Rd.	4
More bicycle lanes are needed	Safety	...should include more bicycle lanes.	Overall project, Willston Loop	4
Concern over eminent domain needed for construction.	No build	...does not provide enough benefits to justify the houses and/or businesses that will be lost to eminent domain. Concern over eminent domain needed for bike/ped construction.	Overall project, Bike/ped network	4
Concern regarding unpredictable bicycle-vehicular conflicts, illegal bicyclist behavior, and/or low bicycle use in area	No build	...does not need bicycle facilities, nor mitigate bicycle conflicts, illegal bicyclist behavior and/or account for bicycle mode share.	Overall project	4
Regional bike/ped. connectivity needed	Regional connectivity	...should be designed to clearly connect and communicate the regional network of shared-use paths, cycle tracks and bike lanes	Bike/ped network, Sleepy Hollow Road	4
Sidewalk deficiencies identified	Safety	...should mitigate deficiencies in the sidewalk quality.	Overall project	4
Speeding traffic concern	Safety	...should mitigate speeding traffic	Eden Center	3
Redundant messaging	Public outreach process	...includes messaging that has already been communicated over the last 10-40 years.	Overall project	3
Alignment change requested roundabouts at intersections	Realignment	...should implement roundabouts at intersections to improve traffic flow.	Overall project, Wilson Blvd.	3
Alternative access roads and/or on/off ramps needed in case of accidents, congestion or emergencies	Regional connectivity	...should include alternative access roads and/or on/off ramps which drivers can in case of emergencies, congestion or accidents.	Overall project	3
More sidewalks are needed	Safety	...should include more sidewalks.	Overall project, Patrick Henry & Wilson Blvd.	3
Queuing between signals anticipated	Traffic delays	...will cause significant traffic delays due to the number of signals proposed.	Ring Road, South Crossing & Arlington Blvd.	2
Concern regarding the proposed lane additions to the Ring Road as AADT has not increased since 2018 and/or to not induce demand.	No build	...should not expand the Ring Road to five lanes as there has not been an increase in AADT to warrant this capacity expansion since 2018 and/or to not induce demand.	Bike/ped network, Route 7	2
Alignment change connecting Sleepy Hollow Road and Wilson Blvd.	Realignment	...should be realigned to connect Sleepy Hollow Road and Wilson Boulevard together.	Sleepy Hollow Road, Wilson Boulevard	2
Environmental impacts of proposed alternatives needed	Environmental Impact	...should document and communicate environmental impacts, namely noise and pollution, of each alternative.	Environmental Impact, South side of Route 50	2

Comment Code (Minor Category)	Type (Major Category)	Definition - The commenter states that this service or facility…	Regarding	Frequency Count
Gaps in proposed bike/ped. network identified	Regional connectivity	...should fill the gaps in the proposed bike/ped network, in particular around Route 7.	Bike/ped network, Route 7, Wilson Blvd.	2
Improved wayfinding signs needed	Urban Design	...should include clear, consistent and consolidated wayfinding signs for all road users.	Overall project	2
Alignment change over Rte. 50 requested	Realignment	...should be realigned as an overpass above Route 50.	Ring Road, Patrick Henry & Route 50	2
Concern about tolls on Ring Road	Traffic delays	...should address if tolls will be added to the Ring Road.	Ring Road	2
Alignment change under Rte. 50 requested	Realignment	...should be realigned under Route 50 east of the interchange.	Ring Road	1
Spanish translation requested	Public Meeting #2	...should offer Spanish translation services for the public meetings.	Overall project	1
Alignment change to widen Route 50, keep Route 7 at-grade, create a convex ramp at Wilson Blvd. and Route 7, and create a roundabout	Realignment	...should be realigned to widen Route 50, keep Route 7 at-grade, create a convex ramp at Wilson Blvd. and Route 7, and create a roundabout.	Route 50, Route 7, roundabout	1
Alignment change at Sleepy Hollow & Castle Place requested	Realignment	...should be realigned to intersect Sleepy Hollow & Route 7 (or an adjacent intersection) instead of at Sleepy Hollow & Castle Place to mitigate congestion, noise and pollution.	Ring Road, Sleepy Hollow & Castle Place	1
Public transit impacts on congestion, noise and pollution	Traffic delays, Environmental Impact	...should quantify and mitigate the impact of public transit on congestion, noise and pollution.	Public Transit	1
More bus stops are needed	Regional connectivity	...should include more bus stops.	Route 50	1
Potholes are common	Safety	...should mitigate potholes that are common in the area.	Overall project	1
Pedestrian-priority or pedestrian-only street networks should be created using the side streets, with cars allowed on the major arterials only.	Safety	...should create a network of pedestrian-priority or pedestrian-only streets with cars allowed on the major arterials only to improve walkability.	Bike/ped network	1
Greenbelt trail through cul-de-sacs requested	Safety	...should create a greenbelt trail through cul-de-sacs for bicyclists and pedestrians, especially around schools.	Bike/ped network, Shadeland cul-de-sac	1
Pedestrian-scale lighting needed	Safety	...should include pedestrian-scale lighting as it currently does not feel safe to walk at night.	Overall project	1
Project prioritization requested	Traffic delays	...should prioritize improvements to Wilson Blvd. & E. Broad St. (Route 7) and the eastern Ring Road to mitigate traffic congestion.	Wilson Blvd. & E. Broad St. (Route 7), Ring Road	1
Plan review documentation needed	Plan Review	...should document and communicate plan review of relevant alternatives previously studied in the county.	Ring Road	1

Comment Code (Minor Category)	Type (Major Category)	Definition - The commenter states that this service or facility…	Regarding	Frequency Count
Land use should support carnivals and festivals	Urban Design	...should support land uses that can accommodate carnivals and festivals	Overall project	1
More green spaces are needed	Urban Design	...should include more green spaces.	Overall project	1
Lane widths need to be wide enough to accommodate vehicular traffic.	Infrastructure design	...should include lane widths wide enough to accommodate vehicular traffic.	Overall project	1
General public transit and bicycle improvements are needed	Bike/ped network	...should include more improvements to the bicycle and transit network.	Overall project, public transit	1
Concern over future land use density will induce more vehicular traffic from housing and commercial uses	Traffic delays, Environmental Impact	...will cause significant traffic delays due to policies promoting land use residential and commercial density.	Overall project	1

PUBLIC MEETING 3: NOVEMBER 9, 2022

The third phase of public involvement included three virtual meetings held in English (November 9, 2022, November 10, 2022, and November 16, 2022). Participants were able to provide open-ended responses to three questions following the meeting presentation. The first question asked for any comments on the proposed phasing of the project. The second question asked whether any additional facilities should be incorporated besides those that were already included in the conceptual design. The third question asked for any other comments regarding the project. All public responses to these questions are listed below.

Question 1: Do you have any comments regarding the proposed phasing of the project?

- I would tunnel us 50 under the area
- Start with Phase 3 first, the central interchange, since this is the area causing the delays. The other areas are adding extra forecasted capacity, but aren't addressing the root of the problem. Starting with Phase 3 first will give immediate attention to the intersection so that it does not have multiple roads meeting in one place. Afterwards, traffic could flow through the intersection more smoothly and cause fewer delays. In addition, this would also allow the DOT to assess traffic flow before constructing the ring road around Seven Corners.
- Phase 2 must be done at the same time as Phase 1m, or there will be a massive backup.
- Phasing makes sense
- I believe this is the correct order for phasing. It is somewhat disappointing that this is a 20+ year project, I wish it could happen sooner! How will property alongside Castle Rd/Pl be acquired for this expansion?
- Why call it the "Ring Road" when it's not ring-shaped? I propose "Crescent Road" or "The Crossway." Better branding.
- It is long overdue. It is such a dangerous mess there.
- This is just more of the same "Let's build more capacity for drivers while throwing a bone to the multi modal people". Frankly, this looks terrible. It will be loud, dirty, and miserable for people who aren't using cars to get around. This money would be better spent in other ways. People are leaving the county because traffic is terrible, and adding more capacity will only encourage more driving. We've been doing this for decades and it just creates more traffic.

Question 2: Are there facilities (e.g. crosswalks or sidewalks) that should be added or modified for a particular segment(s) of the study?

- 50 if tunneled could be a surface linear Park provided a tunnel is built
- It's not clear to me whether or not Route 7 will contain bicycling and pedestrian facilities. If not, there should be a comfortable passageway (shared use path, cycle track) that runs adjacent along Route 7. Having the planned bicycling facilities along the ring road portion of the plans is nice to see, however, if they are the only bike facilities then it's lacking in connectivity and it send cycling traffic out of the way to traverse Route 7. Ideally, bicycling traffic should be able to easily travel from Bailey's Crossroads to Tysons Corner.
- There is mention of “high-quality” bike and pedestrian facilities yet this plan involves adding more roads to an auto-centric labyrinth. Anybody who actually relies on biking/walking as a mode of transportation knows how dangerous and unpleasant it is to commute through these types of landscapes. Bike lanes and sidewalks need to be protected with actual barriers (concrete strips, street trees, etc) and not painted lines that drivers can easily drive over.
- Yes. I am a resident of Bailey’s Crossroads and it would be great to ride my bicycle to Seven Corners but there is no safe/viable way for me to do so along Leesburg Pike. I would love to see the separated bike lanes & sidewalks extend down Rt7 to the intersection at Columbia Pike. Rt7 has the width to accommodate this and it is a heavily traveled pedestrian route.
- I understand the stated rationale for having the cycle track on the inside only; however, the mockups show very poor treatment of the bikeways at the intersections appearing to dump them into the same space as pedestrians would be waiting to cross. I am concerned that this design will increase conflicts

with pedestrians and reduce visibility of bikes at the intersection in addition to adding unpredictability by having bike traffic from both directions crossing against turning traffic. I would also prioritize human movement over theoretical traffic volume. This is an area with many shops and businesses and should be meant for people and not traffic flow as the primary concern. While the infrastructure is currently not good for pedestrians, continuous sidewalks and limited traffic lanes with separated bike lanes should be the goal. Cars can easily drive a slightly longer distance, but pedestrians should not be expected to walk longer to get to the commerce in the area.

- Pedestrian walkways over Wilson Blvd.
- No additional capacity for cars should be added in this project.

Question 3: Do you have any additional comments regarding the project?

- If other cities can tunnel the main traffic it can be done
- Seven Corners is very difficult to navigate. I have navigated the area as a bus rider and a driver, but I would not attempt to navigate it as a cyclist or pedestrian given its complexity and lack of safety. In fact, Seven Corners is listed as one of the top 60 fatality hotspots in the country (https://www.jtlu.org/index.php/jtlu/article/view/1825). As a result, I appreciate that there is an effort to address the roadway in this area. Unfortunately, the attention being given to Seven Corners is primarily to alleviate traffic congestion by focusing on the level of service for vehicles instead of taking the opportunity to evaluate how the entire area can be redesigned for safety and livability for people outside of vehicles. Route 7 will be widened, Route 50 will be widened and a ring road will be added. None of these additions serves people using public transportation or active transportation well; they are meant to move vehicles. (Even the BRT mentioned in the comp plan along Route 7 is not certain; but, will likely be a vehicle lane that will be impossible to turn into a bus route after the fact.) This project serves as an opportunity to fix a problem intersection and to make an area more liveable. Instead, it's being used to justify building a ring road and additional road widenings at great financial expense. My suggestions are: 1) Fix the central intersection first. 2) No additional lanes for personal vehicles along Route 7. 3) If BRT lanes are planned along Route 7, then they should be BRT only from the day the lanes are opened. It will be publicly unpopular to turn vehicle lanes into BRT if they are used for cars initially. 4) No additional lanes for Route 50. 5) No ring road.
- FCDOT says that traffic flow at Castle Road and Route 7 will be a "failure" (the rating would degrade from a "D" to an "F," from the intersection to Patrick Henry Dr.). This issue was raised during the Feb. 2021, the Nov. 2021, and the Nov. 2022 meetings, and FCDOT has made no changes to their original vehicle traffic proposal. Residents in the multiple communities off Sleepy Hollow Road, and there must be hundreds of families here, who commute to Arlington or D.C. will have to deal with the to-be-degraded "failure" intersection on their way to work and then back home. It seems that FCDOT's proposal improves transient traffic by asking residents to bear the burden. It cannot be in the County's interest to "design to/for failure," as years of follow-on meetings, adjustments, and renovations will have to be made at additional expense and inconvenience.
- Overall just disappointed that this area already suffers from traffic issues and the solution is to build more roads. Overbuilding car infrastructure rarely creates long-term solutions. It just induced demand for residents to use cars and only cars to commute. I hope the future of Fairfax county involves a more wholistic, non auto-centric approach to transportation design.
- I am a resident near Bailey's that works in Tyson's corner. I currently drive to my office but if there was a fast/reliable bus along Rt7, I would absolutely use that to commute to work.
- Fewer car lanes should be goal. They are expensive and dangerous. Yes to bus lanes, yes to pedestrian improvements and bike infrastructure. Pedestrians and bikes should be the priority and cars accommodated as best as they can after safe human routes are created. You will not get a modal shift without prioritizing the other modes more.
- What will happen to the businesses that operate with the improvement area? As an affected business owner, I would welcome the chance to vacate my lease to see the area improve. My business is negatively affected by the dangers. I hear from people everyday that they don't like to drive over near my business.

- If the county does nothing to get people out of their cars, begins to allow people to live closer to where they shop and work, improves transit, and makes bicycling and walking more pleasant and keeps throwing money at and asking the DOT to solve problems that it created, this project will only create more traffic. Let's take a look in five years and see.
- The Ring Road appears to, in fact, be of a size and scale that will not be pedestrian or community-friendly nor contribute to "placemaking". Instead, it seems huge and wide paved areas will make the area more vehicle-centric, contributing to pollution and stormwater runoff and making the area much less appealing for residential, retail and commercial activity to be nearby.
    - The plan seems to be based on an approximately 10-year old foundation. Have new transportation models been considered, and how have revised transportation needs - such as influenced by the move to telework, etc. - affected the design?
    - What will the stormwater runoff impact be on neighboring communities? It seems this and other community and environmental impacts should be addressed before going forward with any plan to design and build the Ring Road.
    - With the City of Falls Church choosing not to participate, the Ring Road will not be a full "ring". What impact will that have on the redesign's effectiveness and efficiency? As I understood it from an online meeting, the City does not want to interfere with the 24 Hour Fitness parking lot.
    - However, Fairfax County finds it acceptable to destroy many existing properties. This is a huge disparity that also should be explained.
    - It is not clear that outreach has reached the community in any meaningful way. I participated in two public (online) meetings, and participation in those two might have totaled 50 people. What goals does the County have on the level of awareness and participation by area residents and business?
    - It seems that intermediate measures could and should be taken before proceeding with the Ring Road. These include markings to deter "blocking the box", prohibiting panhandling, as panhandlers slow traffic by being in the road or distracting drivers while on the median, and extending the "green" signal on the ramp from east-bound Route 50, which exits to Wilson Blvd. and the 7C intersection.
    - Thank you for seeking to improve the intersection while advancing the well-being of the neighboring community.
- I think the ring road will be underused by drivers, even though it's an improvement. People like to walk and travel the shortest distance between two points. It's both due to instinct and conscious preference. For personal example, as a new member of Planet Fitness (PF) on Wilson Blvd., I looked at my driving options from the Lee Hwy and West St. intersection where I live. I analyzed routes I could take. I decided on Hillwood east, left on South St., right on E. Broad St. on through the interchange and left on Wilson, then a right into the (PF) shopping center. Thus I avoid the stress and near impossibility of success if I take 50 E up the entrance ramp to Broad St./Route 7 and try to move several lanes over to take a left on Wilson.
    - On a side note, if I were a resident of the pricey neighborhood of Hillwood, I'd prefer if the street were cutoff from Seven Corners to prevent through traffic. They'd still have several ways to access their homes from Broad St. or 50. As for myself, I'd have to drive a different route to my gym, but I would totally understand. You may want to survey those residents.
- Having just read some of the recent Seven Corners Phasing Study information, am I correct in understanding that signiticant changes have been made to the design from what was communicated in the previous Community Information presentations? In particular in those earlier meetings Phase Three included a direct connection between Sleepy Hollow Road and Wilson Boulevard. I spoke with FCDOT staff after one of the Community Meetings and was specifically told that there would be a direct connection between Sleepy Hollow Road and Wilson Boulevard. That connection is now apparently removed. How can this significant change be made in the design without public participation and comment?
    - Regarding the section titled "Why is Wilson Boulevard not connected to Sleepy Hollow in future phases." The explanation given certainly does not address the impact of this change on traffic

on Sleepy Hollow Road. How many "multiple turns" will Sleepy Hollow traffic now be required to make to "traverse the area?"

- 1) Are there written comments opposing the access to Hillwood and Broad Streets from the City of Falls Church? 2) If I understand correctly, the total right-of-way width proposed is 86 feet? Does the access from 50 access roads require a new bridge over Rte 50/Arlington Blvd.? The existing bridge width is my guess only 30' wide. 4) How do trees get planted on bridges? 5) How will the redevelopment of Pistones/Grand Mart (with 450 du in 8 story blogs) impact the Phase 1 plans? Will the redevelopment contribute to the implementation of the Ring Road? The site was listed in the SSPA 2022-23. 6) Can the November 30 Comments deadline be extended for a couple of weeks given the difficulty of accessing previous "public mtgs"?
- Can you please help with a response to a comment we received on the Seven Corners Facebook post. I assume he wants to know how this proposed plan will impact access to the Eden Center.
- Thank you for the opportunity to provide feedback on the Seven Corners traffic improvements being studied for phase-in. Our community has been eagerly anticipating the planned improvements since our participation in the Seven Corners comprehensive planning workgroup. We are the Sleepy Hollow Manor community, a community of over 250 homes on the south east corner of Seven Corners generally encompassing Hazelton, Shadeland, Valley, Carolyn, Faber, Creswell, Lomar, and Eppard. The primary routes of access for our neighborhood are via either Sleepy Hollow Rd, which has turn restrictions that limit access (but also limit cut through traffic), and Castle Rd and the Rt 7/Castle Rd intersection. Current Conditions of Castle Rd Intersection Below are some problem areas of the current intersection that we feel were not adequately addressed in your analysis. INTERSECTION DELAYS: During the morning, turning LEFT/westbound onto Rt 7 can take multiple light cycles due to traffic backups on Rt 7 and backups at the light that already exist due to traffic coming from Sleepy Hollow Rd. The light does not appear synchronized with the seven corners intersection light, which leads to multiple light cycles where no turns can be made at all. While your analysis shows the delay at this intersection can be around 55-60 seconds, our experience from traversing this intersection daily is that this intersection often leads to delays in excess of 5-10 minutes. INTERSECTION SAFETY: At all times of the day the intersection is dangerous because (1) it does not afford dedicated turn time (no turn signal) from Castle Rd and Thorne Rd, (2) there is no dedicated turn lane on the Thorne Rd Side, (3) the mixed straight/turn traffic in combination with the slope of the road. Cars turning left from the Thorne Rd side often stop in the middle of the intersection to wait for oncoming traffic to clear, with drivers behind them swerving around them to the right in order to go straight onto Castle Rd - and subsequently directly into the path of drivers turning left from Castle Rd onto Westbound Rt 7. Said swerving cars do not become visible until last minute which has led to accidents and numerous near misses. Phasing Concerns While we recognize that none of the phasing options presented are final, we noted that one phasing option would have a devastating impact to the Castle Rd intersection. On the slide titled “Next Steps”, there is a option on the left that is just “Western Side Ring Rd” that only includes the ring road between Hillwood and Rt 7. This plan would appear to create a flow that directs Rt 50 traffic heading towards Wilson onto the ring road, and then forces them to turn LEFT at Rt 7 to make a right onto Wilson. This flow would result in combining both major morning traffic flows into a major chokepoint that already has identified delay and safety concerns. Conclusion and Requests While we are very much in favor of the overall improvements identified in the Seven Corners Comprehensive Plan, we are against any phased implementation plan that would further deteriorate the Castle Rd intersection beyond its already poor state, and in general ensure that phased implementation at least improve or be neutral in traffic flow impact. Specifically, we request that at no time the improvements leave any part of the Seven Corners interchange in a worse place than it already is while waiting for further phases to be funded. Furthermore, we encourage the county to work with VDOT to identify potential Castle Pl/Thorne Rd intersection and signaling improvements that may be able to be realized prior to major improvements being constructed. Many in our neighborhood see signal improvements - including the addition of a dedicated turn onto Rt 7 from Castle/Thorne, as one such method that could be achieved prior to commencement of construction.

Appendix G
Layouts

Layouts

Figure G-1: 2030 Scenario 1 Conceptual Design (Ring Road from Broad Street to Route 7)

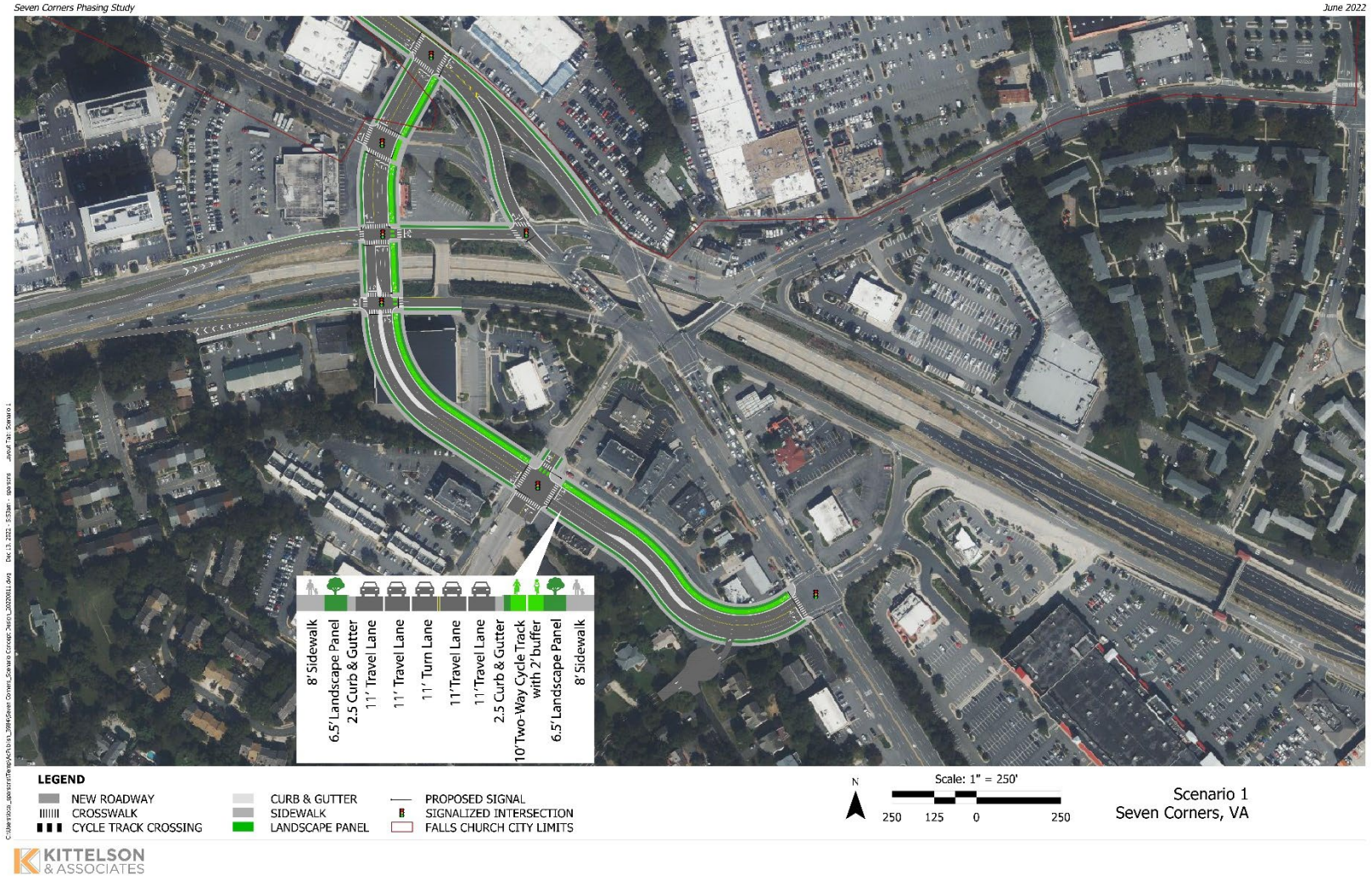


Figure G-2: 2030 Scenario 2 Conceptual Design (Ring Road from Broad Street to Route 50 on the East)

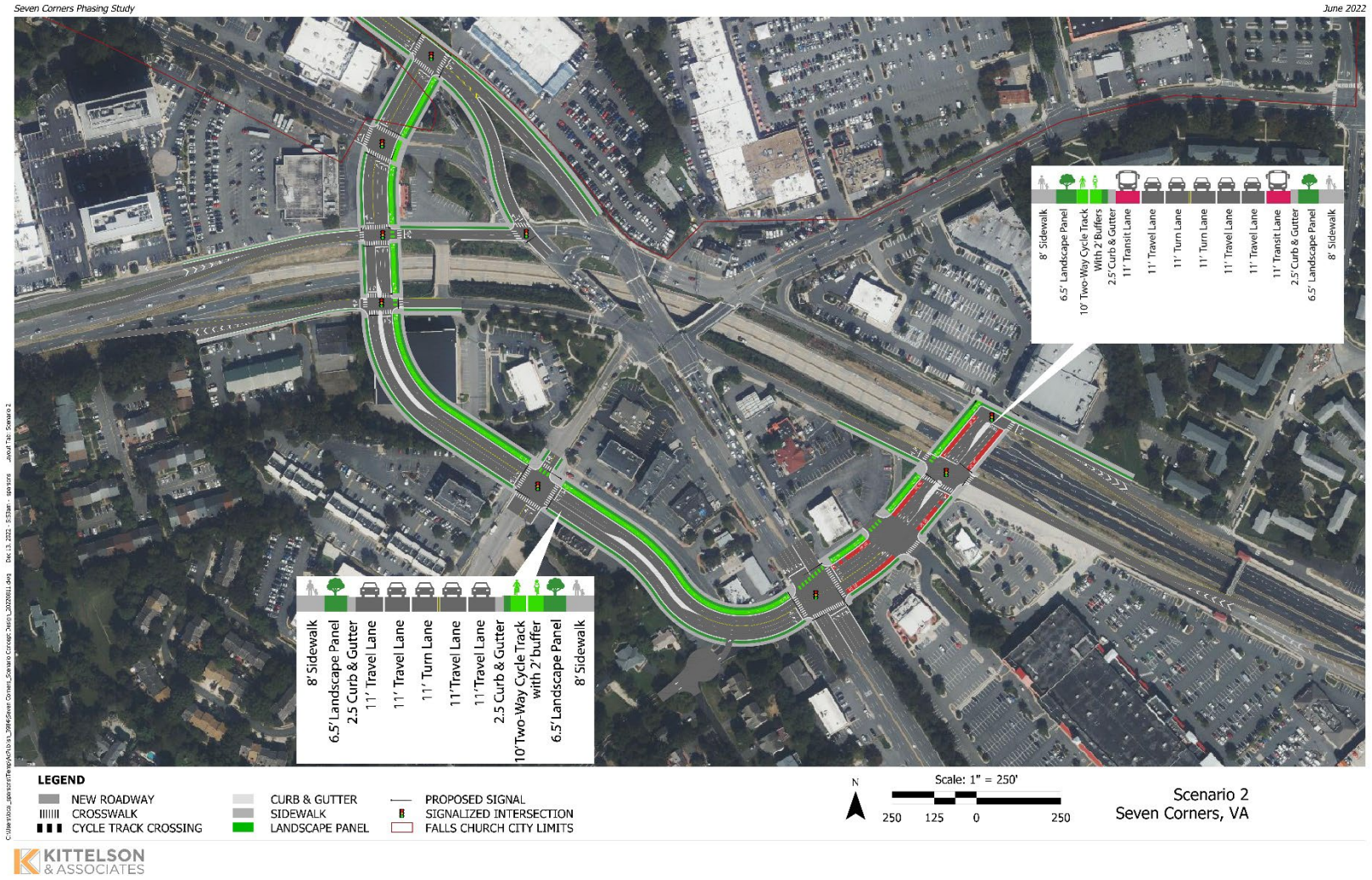


Figure G-3: 2030 Scenario 3 Conceptual Design (Ring Road from Broad Street to Route 50 on the East and Reconfigured Central Interchange aligning Wilson Boulevard with Sleepy Hollow Road)

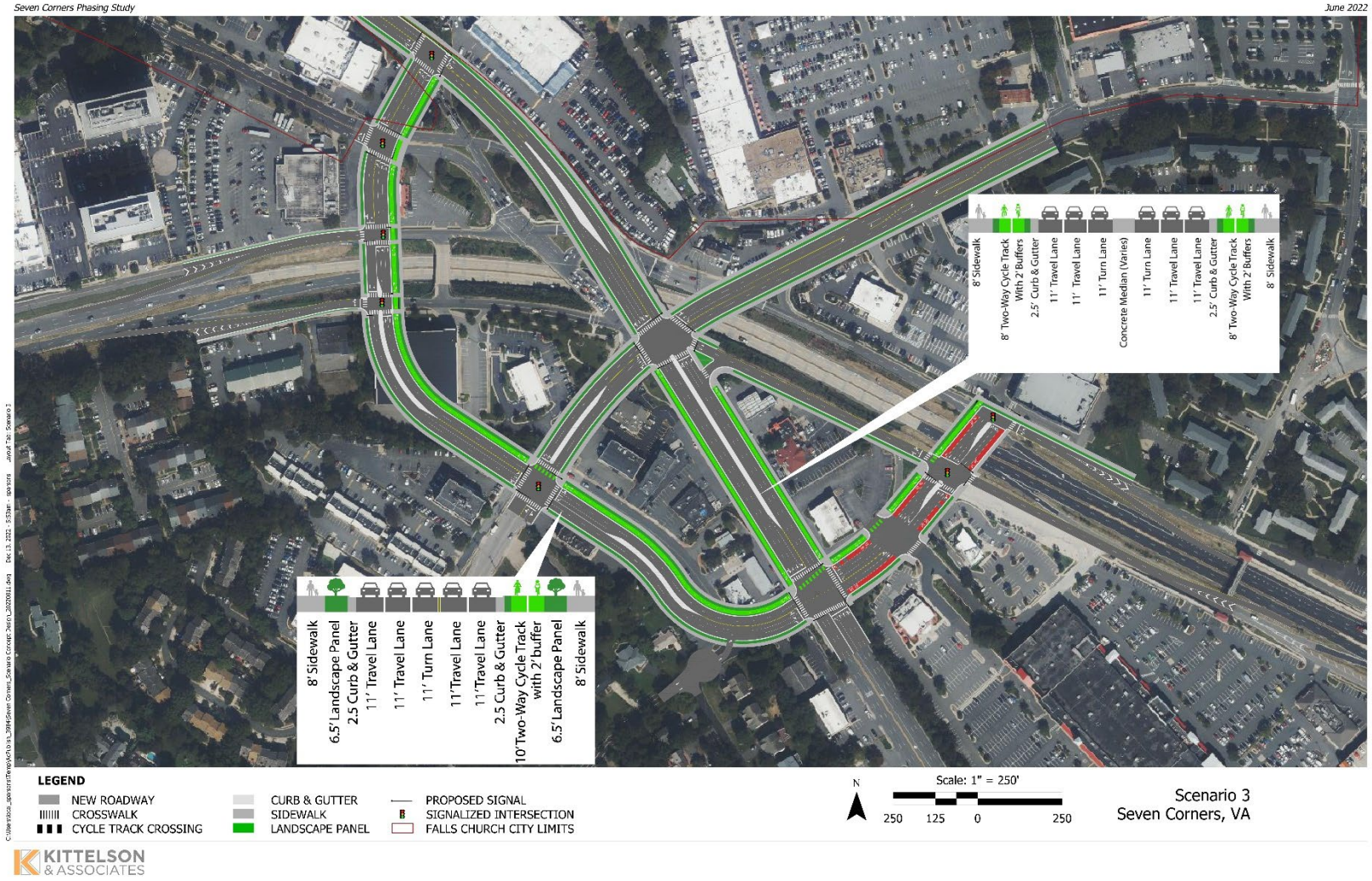


Figure G-4: 2030 Scenario 4 Conceptual Design (Ring Road from Route 50 on the West to Route 7)

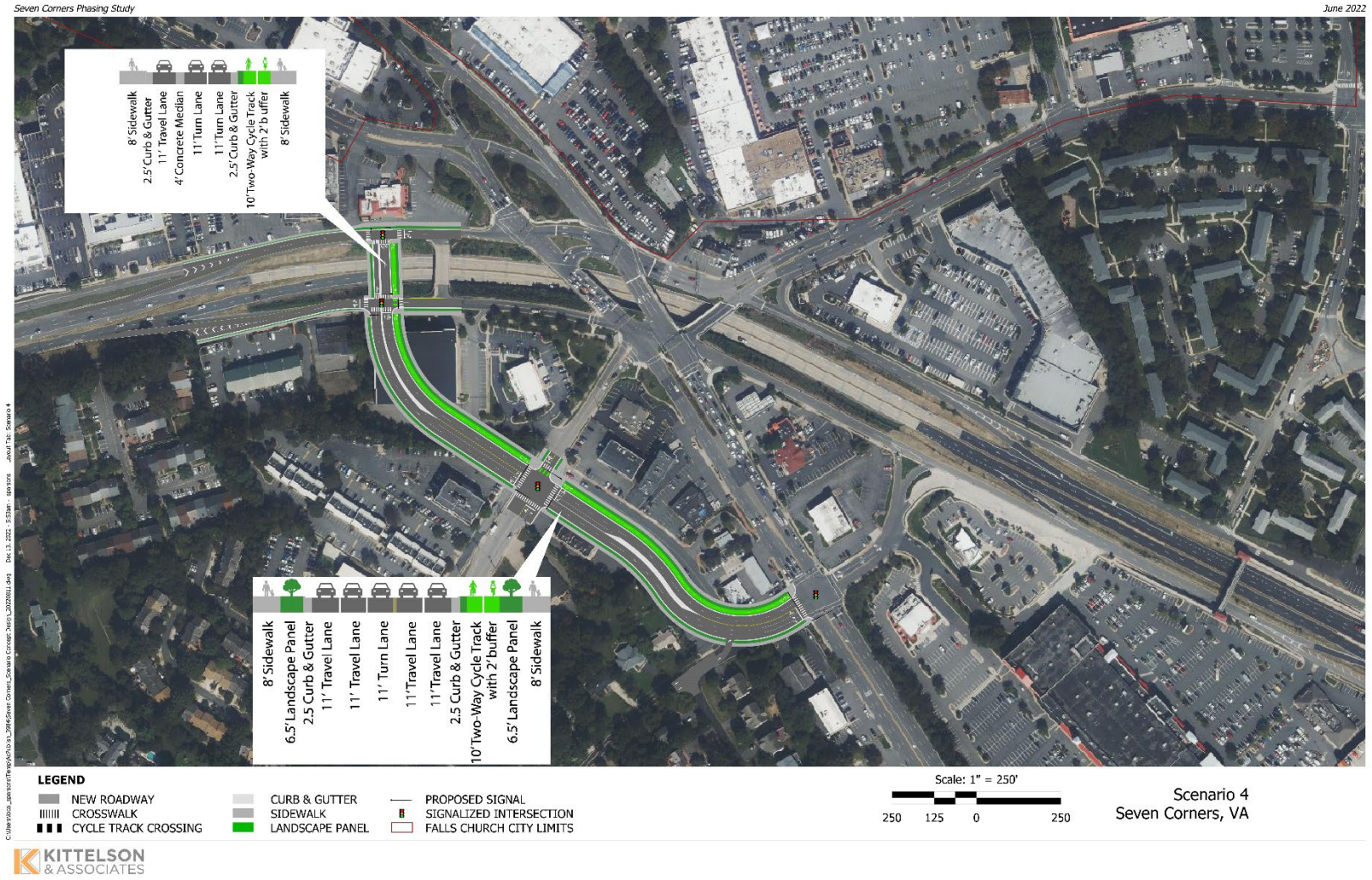


Figure G-5: 2030 Scenario 4B Conceptual Design (Two-lane divided Ring Road from Route 50 on the West to Route 7)

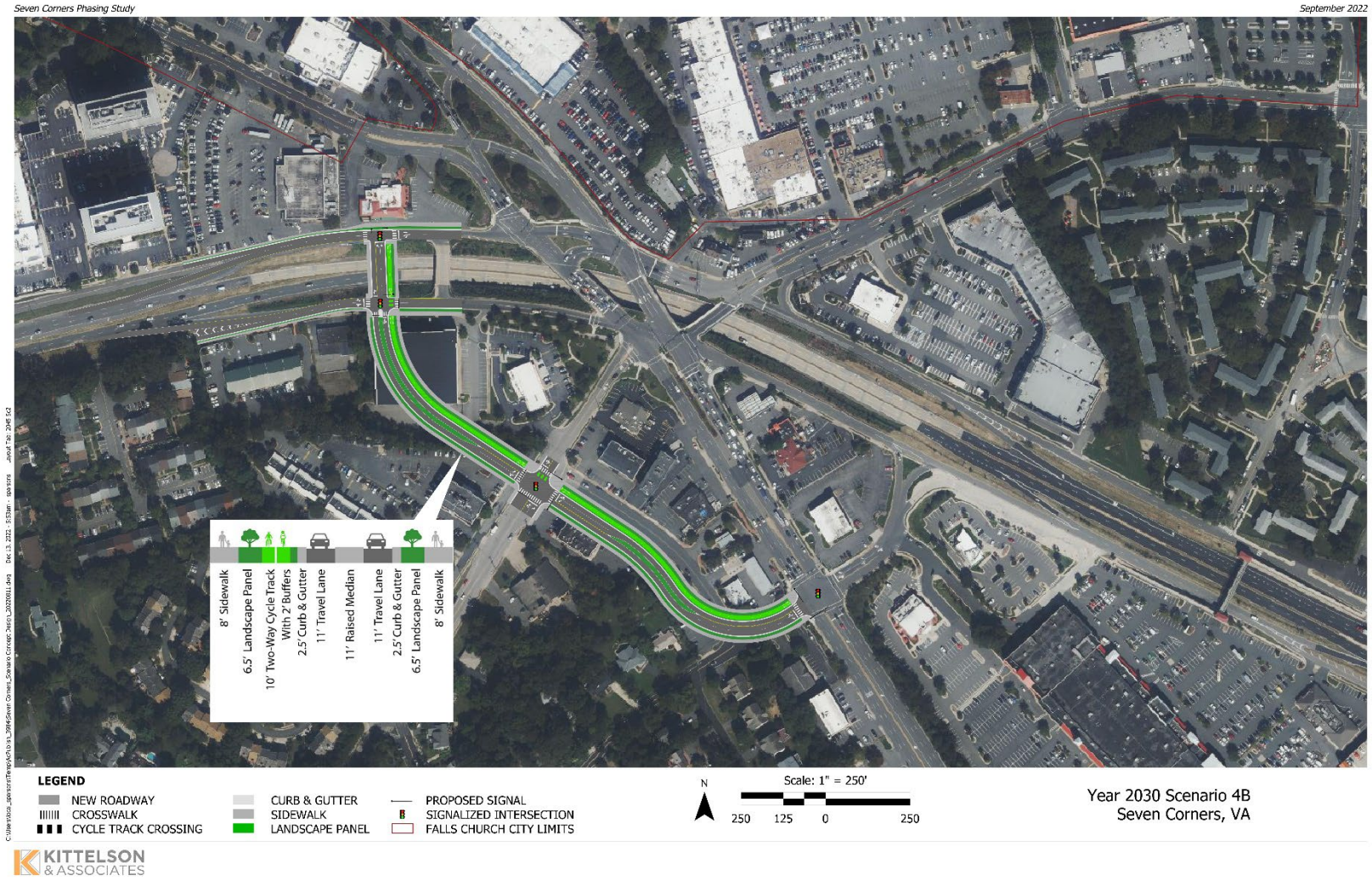


Figure G-6: 2030 Scenario 5 Conceptual Design (Ring Road from Route 50 on the West to Route 50 on the East)

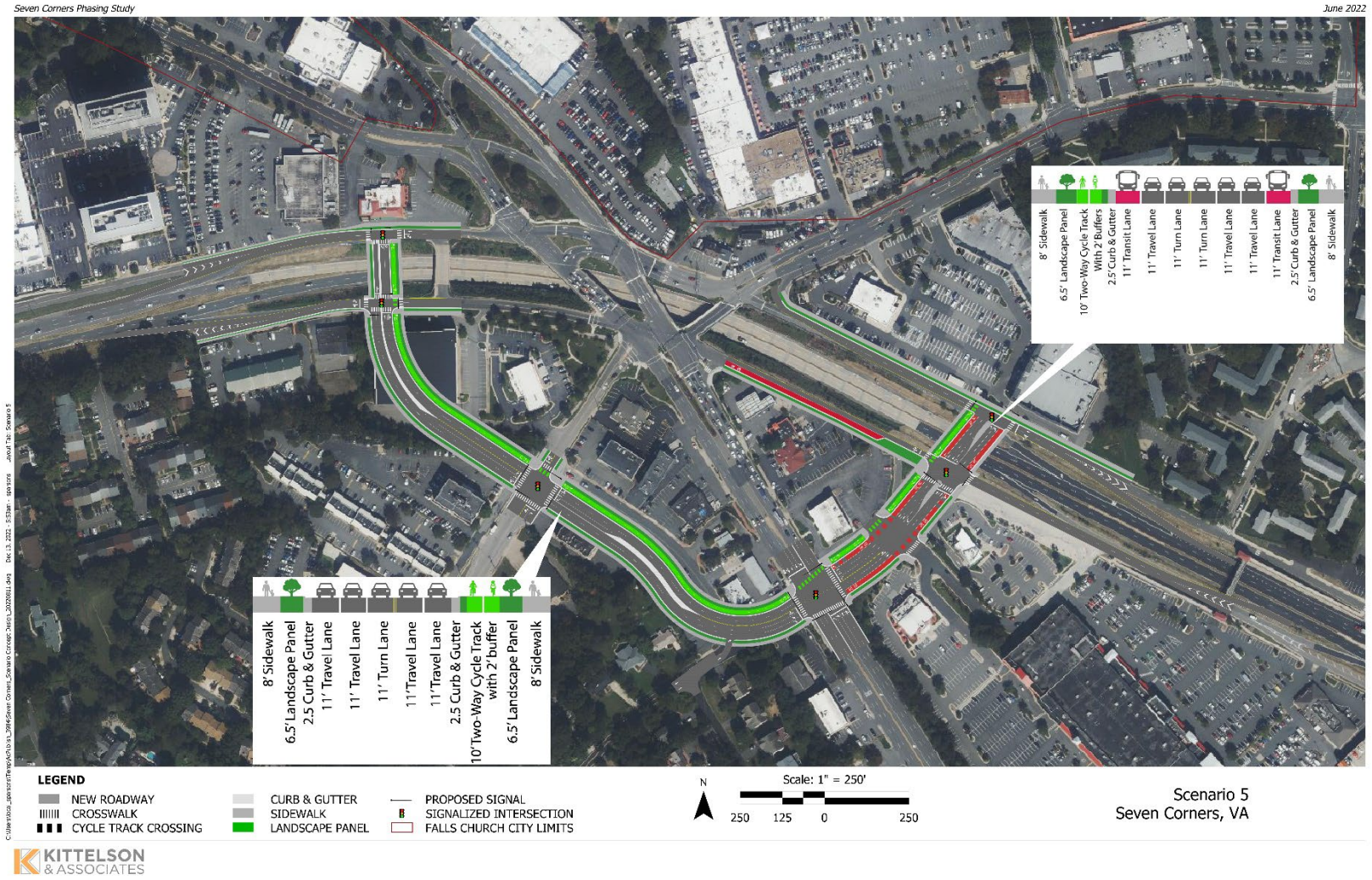


Figure G-7: 2030 Scenario 6 Conceptual Design (Ring Road from Route 50 on the West to Route 7 and Reconfigured Central Interchange aligning Wilson Boulevard with Route 50 Service Roads)

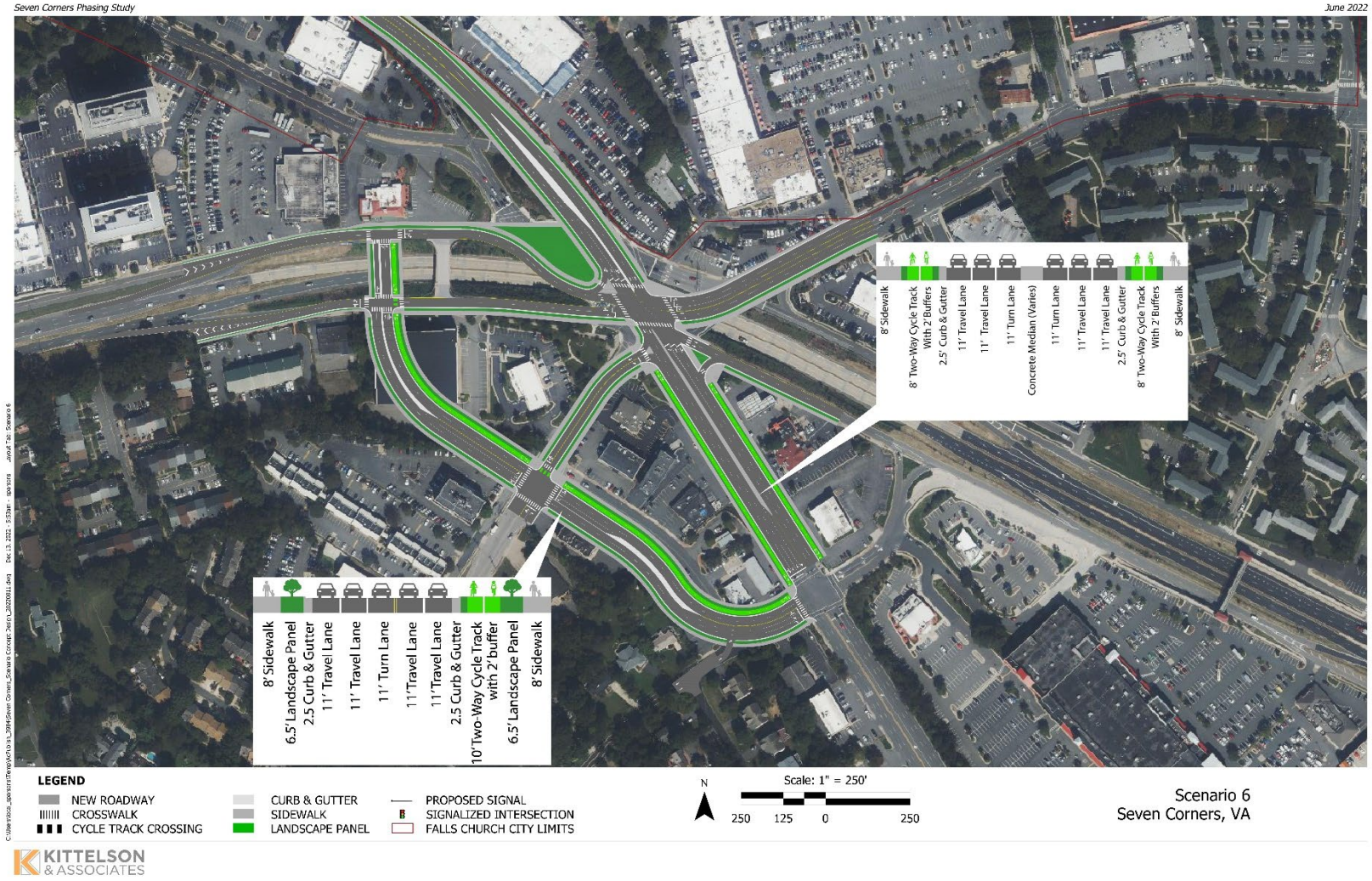


Figure G-8: 2045 Baseline Conceptual Design (Ring Road from Route 50 on the West to Route 50 on the East and Reconfigured Central Interchange aligning Wilson Boulevard with Route 50 Service Roads)

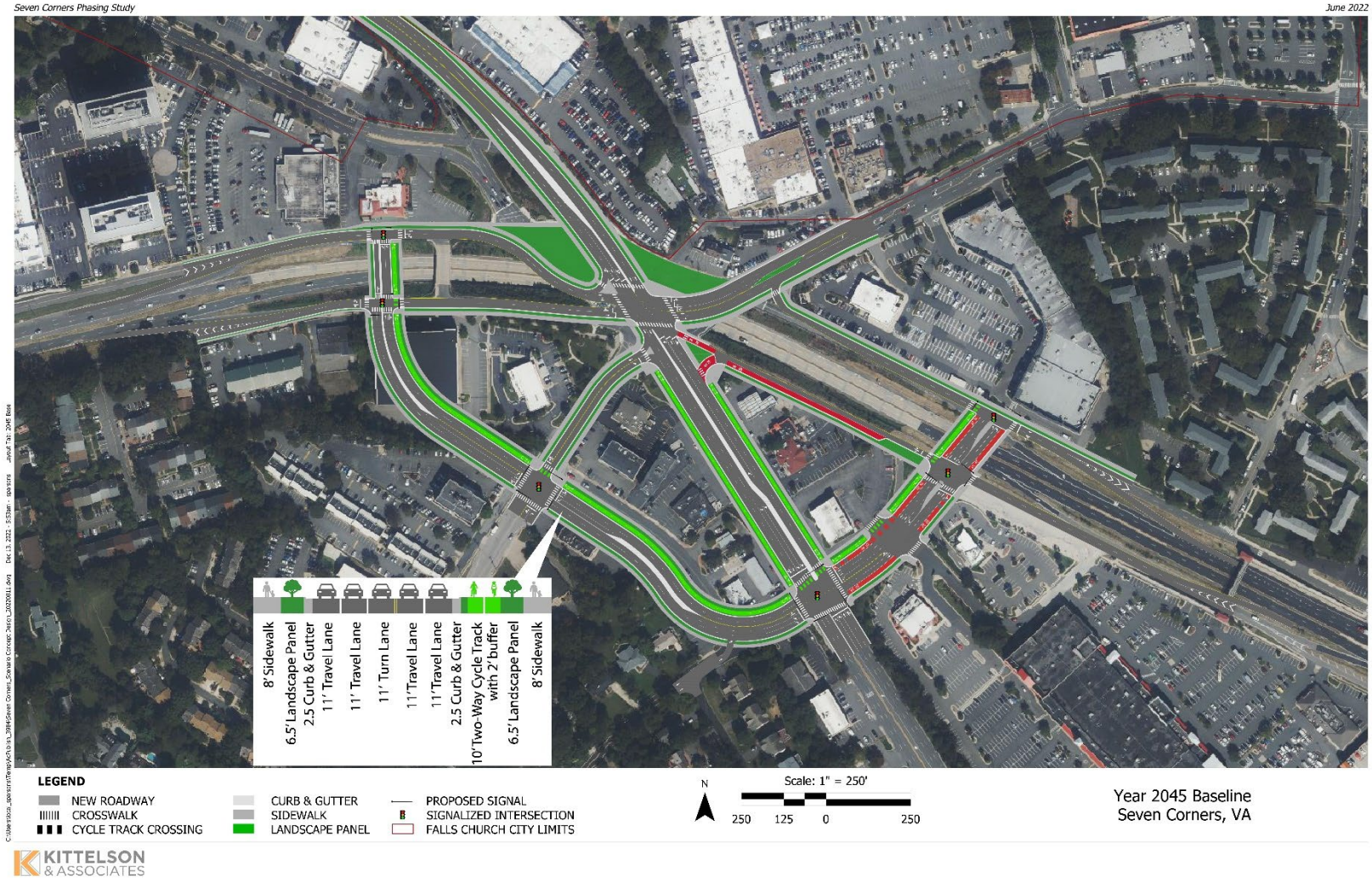
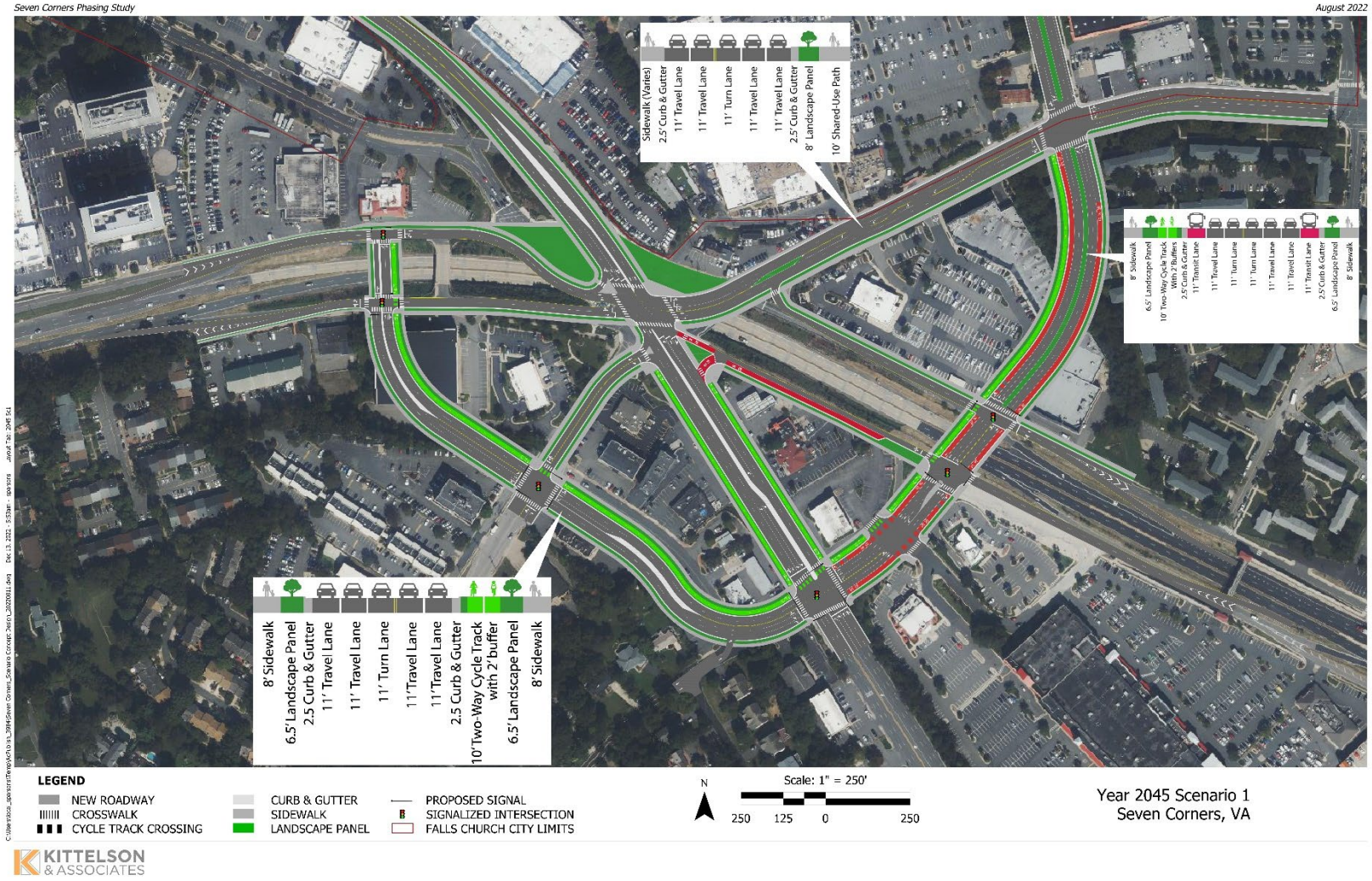


Figure G-9: 2045 Scenario 1 (Ring Road from Route 50 on the West to Wilson Boulevard and Reconfigured Central Interchange aligning Wilson Boulevard with Route 50 Service Roads)



Appendix H
Visualizations

Visualizations

Figure H-1: Existing Study Area (Looking North from South)

Figure H-2: Phase 1—New Ring Road between Route 50 (Arlington Boulevard) and Route 7 (Leesburg Pike) (looking North from South)

Figure H-3: Phase 2—Extension of Ring Road from Route 7 (Leesburg Pike) to Route 50 (Arlington Boulevard) (Looking North from South)

Figure H-4: Phase 3—Reconfiguration of the Central Interchange (Looking North from South)

Figure H-5: Phase 4—Extension of Ring Road from Route 50 (Arlington Boulevard) to Wilson Boulevard (Looking North from South)

Figure H-6: Detailed View—Reconfiguration of the Central Interchange (Looking North from South)

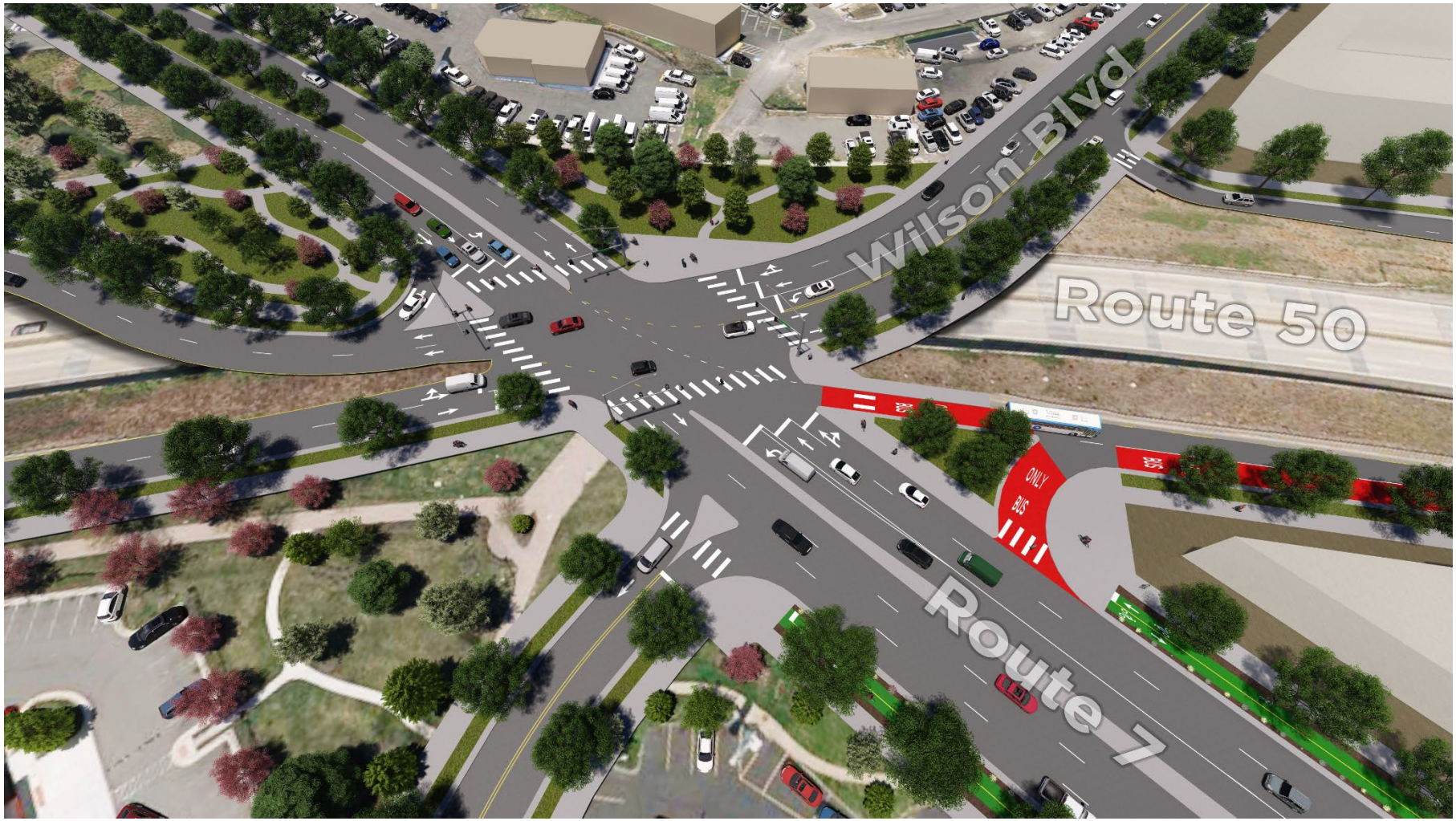


Figure H-7: Reconfiguration of the Central Interchange (Looking Southeast from Northwest)

Figure H-8: Detailed View—Reconfiguration of Route 7 (Leesburg Pike) and Wilson Boulevard Intersection (Looking Southeast from Northwest)

Figure H-9: Detailed View—Route 7 (Leesburg Pike) and Ring Road intersection (Looking Northwest from Southeast)

Figure H-10: Detailed View—Route 7 (Leesburg Pike) and Ring Road intersection (Looking Northeast from Southwest)

Figure H-11: Detailed View—Ring Road Bridge over Route 50 (Arlington Boulevard) (Looking Northeast from Southwest)