GREENSTEIN DELORME & LUCHS, P.C.

801 17th STREET, N.W., SUITE 1000
Washington, D.C. 20006
tel (202) 452-1400 fax (202) 452-1410
www.gdllaw.com

John Patrick Brown, Jr., Esq.
jpb@gdllaw.com

Lyle M. Blanchard, Esq.
lmb@gdllaw.com

October 10, 2025

BY IZIS

Mr. Anthony J. Hood, Chairman
D.C. Zoning Commission
One Judiciary Square
441 4th Street, N.W., Second Floor
Washington, D.C. 20001

Re: Applicant's Comprehensive Transportation Review
Application of The Wesley Theological Seminary of the United Methodist Church for Further Processing of a Campus Plan (Z.C. Case No. 23-08A)
4500 Massachusetts Avenue, N.W.
Square 1600, Lots 6 (818 and 819), 7, 8 and 9.

Dear Chairman Hood and Members of the Commission:

The Wesley Theological Seminary ("Wesley") respectfully submits this enclosed Comprehensive Transportation Review ("CTR"). A copy of the CTR was simultaneously transmitted to DDOT.

Wesley looks forward to presenting this application to the Zoning Commission at the November 24, 2025 public hearing date.

Thank you for continued assistance in this matter.

Very truly yours,

GREENSTEIN DELORME & LUCHS, P.C.

John Patrick Brown, Jr.

Lyle M. Blanchard

Enclosure

4922-4659-0065.v1

CERTIFICATE OF SERVICE

I hereby certify that on October 10, 2025, the foregoing Applicant's Comprehensive Transportation Review was delivered via electronic mail to the following:

Ms. Jennifer Steingasser
Mr. Joel Lawson
Ms. Maxine Brown-Roberts
D.C. Office of Planning
1100 4th Street, SW
Suite E650
Washington, D.C. 20024
jennifer.steingasser@dc.gov
joel.lawson@dc.gov
maxine.brownroberts@dc.gov

Mr. Erkin Ozberk
D.C. Department of Transportation
55 M Street, SE, Suite 400
Washington, D.C. 20003
erkin.ozberk1@dc.gov

ANC 3D
3D@anc.dc.gov

Commissioner Tricia Duncan, Vice Chair, ANC 3D02
3D02@anc.dc.gov

Commissioner Chuck Elkins, ANC 3D01
3D01@anc.dc.gov

ANC 3E
3E@anc.dc.gov

Commissioner Jonathan Bender, Chair, ANC 3E
jonbender@gmail.com

Commissioner, Tom Quinn, Treasurer, ANC 3E 04
tomquinn71@gmail.com

Commissioner Ali Gianinno, ANC 3E06
3E06@anc.dc.gov

Commissioner Amy Hall, ANC 3E02
3E02@anc.dc.gov

Vacant, ANC 3E07
3E07@anc.dc.gov

Commissioner Lizzie Graff, ANC 3E08
3E08@anc.dc.gov

William Clarkson
Spring Valley Neighborhood Association
wclarksonv@gmail.com

Dennis Paul
Neighbors for a Livable Community
dennis.paul@verizon.net
nlc.washdc@gmail.com

William F. Krebs
Spring Valley-Wesley Heights Citizens Association
w_krebs@msn.com

Thomas M. Smith
Neighbors for a Livable Community/Spring Valley – Wesley Heights Citizens Association
tmfsmith@rcn.com

John Patrick Brown, Jr.

Comprehensive Transportation Review

Wesley Theological Seminary Further Processing

Washington, DC

October 10, 2025

GOROVE SLADE
Transportation Planners and Engineers

Prepared by:

GOROVE SLADE
Transportation Planners and Engineers

1140 Connecticut Ave NW
Suite 1010
Washington, DC 20036
T 202.296.8625

225 Reinekers Lane
Suite 750
Alexandria, VA 22314
T 703.721.3044

4144 Legato Road
Suite 650
Fairfax, VA 22033
T 703.787.9595

4951 Lake Brook Drive
Suite 250
Glen Allen, VA 23060
T 804.362.0578

4550 Montgomery Avenue
Suite 400
Bethesda, MD 20814
T 301.708.3061

www.goroveslade.com

CONTENTS

LIST OF FIGURES

LIST OF TABLES

Executive Summary

This report is a Comprehensive Transportation Review (CTR) reviewing the transportation aspects of the Wesley Theological Seminary of The United Methodist Church Further Processing Application for the construction of the new university housing project (Zoning Commission Case 23-08A).

The purpose of this CTR is to evaluate whether the project will generate a detrimental impact to the transportation network surrounding the site. This evaluation is based on a technical comparison of the Existing Conditions, Background Conditions, and Total Future Conditions. This report concludes that **the project will not have a detrimental impact** to the surrounding transportation network.

Proposed Project

The development site location is within the WTS campus, which is generally bounded by University Avenue NW to the west, Massachusetts Avenue NW to the north, and the American University (AU) campus to the east and south. The portion of the site to be redeveloped includes the Old President's House, a surface parking lot and two (2) student housing and administration buildings.

The proposed project includes replacement of the Old President's House and removing the surface parking lot and existing buildings to construct a new student housing building containing approximately 215 dwelling units and 264 below-grade parking spaces.

The proposed student housing building will be for WTS and AU students and may also house immediate families, faculty and staff and building employees. The housing will not otherwise serve the general public.

Multimodal Overview

Trip Generation

The development is expected to generate new trips within the surrounding transportation network across all transportation modes during the morning and afternoon peak hours. However, with the implementation of a Transportation Demand Management (TDM) plan included in the Campus Plan approved in 2025, the resulting new trips generated by the project will not have a detrimental impact on the transportation network. The multimodal trip generation for the proposed project is as follows:

- AM Peak Hour: 8 vehicles/hour, 24 transit riders/hour, two (2) bicycle trips/hour, and 12 walking trips/hour.
- PM Peak Hour: 24 vehicles/hour, 70 transit riders/hour, seven (7) bicycle trips/hour, and 35 walking trips/hour.

Transit

The site is located approximately one (1) mile of the Tenleytown-AU Metro station on the Red Line and is served by local bus routes.

The site is expected to generate a manageable amount of transit trips, and the existing service can accommodate these new trips.

Pedestrian

The site is surrounded by a generally adequate pedestrian network. Despite some incidences of missing sidewalks, curb ramps, and crosswalks on minor streets near the project site, there are generally adequate pedestrian facilities along primary walking routes between the site and major local destinations.

The site is expected to generate a manageable amount of pedestrian trips, and the existing pedestrian facilities can accommodate these new trips.

Bicycle

The site is proximate to several on-street bicycle facilities, including the bike lanes on New Mexico Avenue NW and Van Ness Street NW, and the on-street signed bike routes on 42nd Street NW, River Road, and Van Ness Street. Using these facilities, bicyclists have access to several off-street bike facilities, such as the Rock Creek Trail and the Klingle Valley Trail.

Several planned and proposed bicycle projects will improve bicycle access to the site, including protected bike lanes on Massachusetts Avenue NW east of Ward Circle, Nebraska Avenue NW south of Ward Circle, Loughboro Road NW, Glenbrook Road NW, 49th Street NW, Albermarle Street NW, Glenbrook Road NW, and Rockwood Parkway NW.

The project will include long-term bicycle parking inside the building and short-term bicycle parking along the perimeter of the site that meets zoning requirements.

The site is expected to generate a manageable amount of bicycle trips, and the existing bicycle facilities can accommodate these new trips.

Vehicular

The site is accessible via Massachusetts Avenue NW, a principal arterial which connects the site to expressways within the District

such as the Southeast Freeway (I-695), the Southwest Freeway (I-395), and the Anacostia Freeway (DC-295). These expressways connect with the Capital Beltway (I-495) and other regional Interstates.

To identify the project's impact on the transportation network, future conditions were analyzed with and without the project. Intersection analyses were performed to calculate the average delays and queues for vehicles at each of the study intersections. These average delays and queues were compared to the acceptable levels of delay and queue impacts set by DDOT standards to determine if the project will negatively impact the study area.

The analysis concluded that none of the study intersections would meet DDOT's delay-related threshold for mitigation under the Existing, Background, and Total Future scenarios.

Parking

As part of the CTR, detailed counts of parking supply and demand were conducted within a two-block radius of the site. The purpose of the study was to determine the parking supply of the streets within walking distance of the site and identify trends or patterns associated with parking demand generated by the campus and proposed Project. The results of the analysis of on-street parking facilities within the vicinity of the site indicate there is ample available on-street parking. The study concluded that on-street parking occupancy rate does not exceed 29% in the study area across all study periods. Traditionally, an 85% occupancy rate is considered an ideal level of parking utilization and is at this rate that a block face is considered "full".

In addition to the on-street parking data collection, on-site data collection was conducted. The on-site parking occupancy rate peaked at 33% across all study periods, indicating that there is sufficient on-site parking to accommodate WTS needs under typical operating conditions under existing conditions and when the site redevelops.

Safety Recommendations

A qualitative review of the crash data available through the DDOT-maintained and publicly-available "Crashes in DC" database was performed to identify study intersections, if any, in which conditions for vehicles, pedestrians, and bicyclists may be improved.

Based on a review of facilities in the area and relevant crash data, one (1) intersection was identified for further evaluation. Recommendations for this intersection, presented for DDOT's consideration and not for the Applicant to complete as part of the proposed project, are summarized below:

Massachusetts Avenue and Wesley Circle NW

Installation of the proposed shared use path along Massachusetts Avenue NW would improve conditions for bicyclists and pedestrians. Further, a safety audit should be performed as part of DDOT's Traffic Safety Assessment program.

Transportation Demand Management (TDM) Plan

Per the DDOT CTR guidelines, the goal of implementing TDM measures is to reduce the number of single occupancy vehicles and vehicle ownership within the District. TDM measures were previously proposed under the Welsey Campus Plan approved 2025 and will be summarized in the Project Design section of this report.

Summary

This report concludes that the Wesley Campus Redevelopment will not have a detrimental impact on the surrounding transportation network.

The project has several positive design elements that minimize potential transportation impacts, including but not limited to the following:

- The TDM approved as part of 2022-2032 Wesley Campus Plan, aimed at reducing the demand of single-occupancy, private vehicles during peak period travel times or on shifting single-occupancy vehicular demand to off-peak periods;
- The PMP approved as part of 2022-2032 Wesley Campus Plan, which will continuously track progress towards its TDM goals;
- The potential signalization of the site driveway along Massachusetts Avenue NW, which could improve operations at the driveway if needed;
- The construction of pedestrian improvements agreed to as part of the 2022-2032 Wesley Campus Plan;
- The site's proximity to transit service and bicycle infrastructure;
- The site's location within a generally adequate pedestrian network along major walking routes;
- The site's loading facility design, which maintains loading activity within private property and provides loading circulation that ensures head-in/head-out truck

movements are performed from the public roadway network;

- The inclusion of secure long-term bicycle parking spaces that meet zoning requirements; and
- The inclusion of short-term bicycle parking spaces within the site that meet zoning requirements.

Introduction

This report is a Comprehensive Transportation Review (CTR) reviewing the transportation aspects of the Wesley Theological Seminary of The United Methodist Church Further Processing Application for the construction of new university housing (Zoning Commission Case 23-08A). The site, shown in Figure 1 and Figure 2, is located at Square 1600 and Lot 0819 within the Wesley Theological Seminary (WTS) campus in the Spring Valley neighborhood of Washington, DC. The site is currently zoned RA-1.

The project site is currently improved with a surface parking lot and two (2) student housing and administration buildings. The proposed project includes removing the surface parking lot and existing buildings, replacing them with a new building containing student housing and below grade parking.

The proposed student housing building will be for Wesley Theological Seminary (WTS) and American University (AU) students and may also house immediate families, faculty and staff and building employees. The housing building will not otherwise serve the general public.

Purpose of Study

The purpose of this report is to:

- Review the transportation elements of the proposed project and demonstrate that it conforms to DDOT's general policies of promoting non-automobile modes of travel;
- Provide information to DDOT and other agencies on how the proposed project will impact the local transportation network, accomplishing this by identifying the potential trips generated by the proposed project on all major modes of travel and where these trips will be distributed on the network;
- Determine whether the proposed project will lead to adverse impacts on the local transportation network; and
- Summarize the design elements and Transportation Demand Management (TDM) measures previously proposed in the Welsey Campus Plan approved in 2025.

Project Summary

The site location is within the WTS campus, which is generally bounded by University Avenue NW to the west, Massachusetts Avenue NW to the north, and the AU campus to the east and south. The portion of the site to be redeveloped is currently occupied by a surface parking lot and two (2) student housing and administration buildings.

The proposed project includes removing the surface parking lot and existing buildings, replacing them with a new student housing building containing approximately 215 dwelling units and 295 below-grade parking spaces.

Pedestrian access to the project is proposed to be located at several entrances on the northern edge of the development along the WTS driveway.

Bicycle access will be provided from the WTS driveways on Massachusetts Avenue and University Avenue. The site is located approximately 0.3 miles northwest of the bike lanes on New Mexico Avenue NW and 0.5 miles southwest of the on-street signed routes on 42nd and Van Ness Streets NW. The project will meet zoning requirements by providing at least 62 long-term bicycle parking spaces inside the building and at least 12 short-term bicycle parking spaces on exterior racks. The nearest Capital Bikeshare station is located 0.2 miles east of the site at Ward Circle.

Vehicular access to the proposed garage will be provided via the internal site circulation with public road access on the northern edge of the site at Massachusetts Avenue.

Loading and deliveries will occur within an internal loading area accessed from the internal site circulation drive via with public road access on the northern edge of the site at Massachusetts Avenue. The proposed loading facilities will accommodate the project's loading needs, maintain loading activity within private property, and provide loading circulation that ensures head-in/head-out truck movements are performed to and from the public roadway network.

No new curb cuts within public space are proposed as part of the project. All vehicular access will remain from existing access locations at the two-way WTS driveway entrance/exit at Massachusetts Avenue NW and the one-way WTS driveway exit at University Avenue NW. The WTS driveway exit at University Avenue NW is one-way outbound for all vehicles except WTS food service trucks, for which two-way traffic is permitted. The WTS driveway exit at University Avenue NW will continue to be closed during the AM and PM peak periods, except for delivery vehicles that would still be permitted to use the driveway.

Study Contents

This report contains nine (9) chapters as follows:

- Study Area Overview
  This chapter reviews the transportation characteristics of the area surrounding the proposed project.
- Project Design
  This chapter reviews the transportation components of the proposed project, including site access and circulation, loading and trash operations, parking, and bicycle and pedestrian facilities.
- Travel Demand Assumptions
  This chapter outlines the travel demand and projected trip generation of the proposed project.
- Traffic Operations
  This chapter provides a summary of the existing roadway facilities and an analysis of the existing and future roadway capacity in the study area. This section highlights the vehicular impacts of the project and presents mitigation measures for minimizing impacts as needed.
- Transit Facilities
  This chapter summarizes the existing and future transit service adjacent to the site and reviews how the project's transit demand will be accommodated.
- Pedestrian Facilities
  This chapter summarizes existing pedestrian access to the site, reviews walking routes to and from the proposed project, and reviews how the project's pedestrian demand will be accommodated.
- Bicycle Facilities
  This chapter summarizes existing and future bicycle access to the site and reviews how the project's bicycle demand will be accommodated.
- Safety Analysis
  This chapter summarizes the potential safety impacts of the project. This includes a qualitative review of existing and proposed safety features surrounding the site.
- Summary and Conclusions
  This chapter presents overall findings and conclusions.

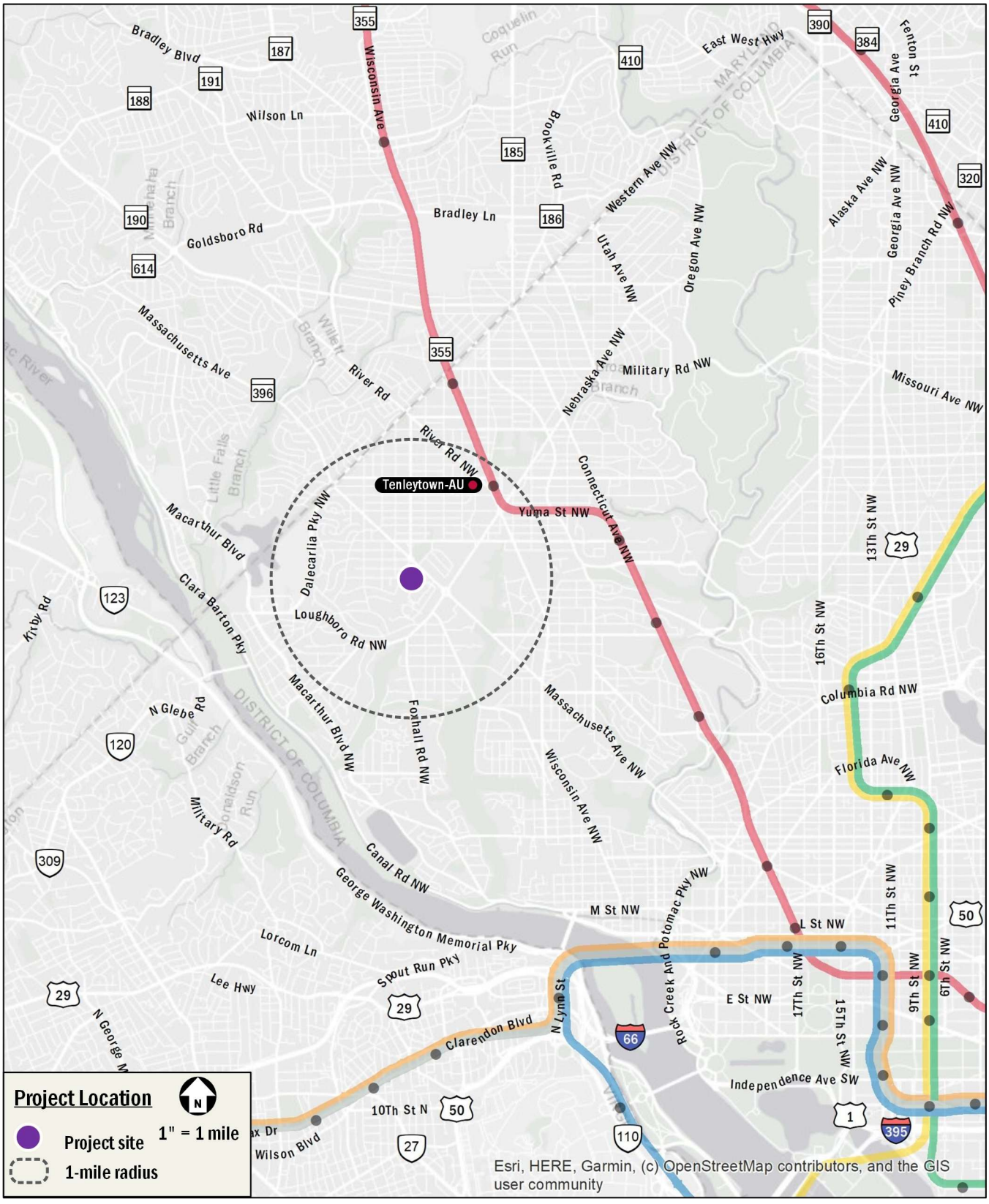


Figure 1: Project Location

Figure 2: Site Aerial

Study Area Overview

This chapter reviews the major transportation characteristics of the study area and future local and regional projects.

This chapter concludes:

- The site is surrounded by an extensive regional and local transportation system connecting it to the rest of the District and surrounding areas;
- The site is served by bus and rail transit providing service to local and regional destinations;
- The site is accessible to several shared mobility options, including car-sharing, Capital Bikeshare, and personal mobility devices;
- There are several on-street bicycle facilities near the site, with several nearby bicycle improvements planned or proposed;
- The existing pedestrian infrastructure surrounding the site provides a mostly adequate walking environment, particularly along anticipated major walking routes; and
- There are several nearby District-wide and local planning initiatives whose goals are supported by the proposed project.

Major Transportation Features

Overview of Regional Access

As shown in Figure 1, the site has ample access to regional vehicular and transit options that connect the site to destinations within the District, Maryland, and Virginia.

The site is accessible via Massachusetts Avenue NW, a principal arterial which connects the site to expressways within the District such as the Southeast Freeway (I-695), the Southwest Freeway (I-395), and the Anacostia Freeway (DC-295). These expressways connect with the Capital Beltway (I-495) and other regional Interstates.

The site is located approximately one (1) mile from the Tenleytown-AU Metro station on the Red Line, which travels between the Glenmont and Shady Grove stations by way of downtown Washington, DC.

Overall, the site has ample access to regional roadways and transit options, allowing convenient travel between the site and regional destinations.

Overview of Local Access

There are a variety of major local transportation facilities near the site that serve vehicular, transit, walking, and cycling trips, as shown on Figure 3.

For vehicular trips, the site is accessible via Massachusetts Avenue NW, a principal arterial which connects the site to expressways within the District such as the Southeast Freeway (I-695), the Southwest Freeway (I-395), and the Anacostia Freeway (DC-295). These expressways connect with the Capital Beltway (I-495) and other regional Interstates.

For transit trips, Metrobus and AU Shuttle services provide service in the vicinity of the site, including connections to several neighborhoods within the District and the Tenleytown-AU Metro station. As shown in Figure 3, there are several bus routes serving the site, with multiple bus stops serving these routes located within a half-mile of the site. These bus routes connect the site to many areas of Washington, DC, including several Metro stations where transfers can be made to reach areas in the District, Virginia, and Maryland. A detailed review of all bus routes and transit stops within a half-mile walk of the site is provided in a later chapter of this report.

For bicycle trips, the site is located approximately 0.5 miles northwest of the bike lanes on New Mexico Avenue NW and 0.5 miles southwest of the on-street signed routes on 42nd and 43rd Streets NW. Using these facilities, bicyclists have access to several other regional bicycle facilities. To accommodate bicyclists, the project will provide on-site bicycle facilities as discussed in detail in the Project Design chapter. A detailed review of existing and proposed bicycle facilities and connectivity is provided in the Bicycle Facilities chapter of this report.

Anticipated pedestrian routes such as those to transit stops, schools, and community amenities, provide adequate pedestrian facilities; however, there are a few sidewalks nearby that do not meet DDOT width standards, as well as several missing curb ramps and crosswalks at minor intersections. The site area is free of major barriers to pedestrian connectivity. A detailed review of existing and future pedestrian access and infrastructure is provided in the Pedestrian Facilities chapter of this report.

Carsharing

Two (2) carsharing companies provide service in the District: Zipcar and Free2Move. Both services are private companies that

provide registered users access to a variety of automobiles. Of these, Zipcar has designated spaces for their vehicles. The nearest Zipcar location to the site is located near the intersection of Connecticut Avenue and Ordway Street NW, approximately 1.7 miles east of the site.

Carsharing is also provided by Free2Move, which provides point-to-point carsharing. Free2Move currently has a fleet located within areas of the District and Arlington County. Free2Move vehicles may park in any non-restricted metered curbside parking space or Residential Parking Permit (RPP) location in any zone throughout the defined "Home Area". Members do not have to pay the meters or pay stations. Free2Move does not have permanent designated spaces for their vehicles; however, availability is tracked through their website and mobile phone application, which provides an additional option for car-sharing patrons.

Bikeshare and Shared Mobility

The Capital Bikeshare program provides an additional bicycle option for residents, staff, and visitors of the proposed project. The program has placed over 500 bikeshare stations across the Washington, DC metropolitan area with over 4,500 bicycles in the fleet.

In addition to Capital Bikeshare, four (4) electric-assist scooter (e-scooter) and electric-assist bicycle (e-bike) companies provide Personal Mobility Device (PMD) service in the District: Lime, Lyft, Spin, and Veo. These PMDs are provided by private companies that give registered users access to a variety of e-scooter and e-bike options. These devices are used through each company-specific mobile phone application. Many PMDs do not have designated stations where pick-up/drop-off activities occur like with Capital Bikeshare; instead, many PMDs are parked in public space, most commonly in the "furniture zone" (the portion of sidewalk between where people walk and the curb, often where other street signs, street furniture, trees, parking meters, etc. are found).

Future Projects

There are several District initiatives located in the vicinity of the site. These planned and proposed projects are summarized below.

Planning Documents

The following is a review of District-wide or neighborhood-level planning documents which relate to the proposed project.

MoveDC

MoveDC is the District's long-range transportation plan, which provides a framework of goals and policies that will guide transportation decisions in the District over a 25-year period. The *MoveDC* plan is oriented around the goals of safety, mobility, management and operations, enjoyable spaces, equity, project delivery, and sustainability.

Included in *MoveDC* are Mobility Priority Network maps for bicycles, surface transit, and freight. These maps do not identify specific projects or improvements, but are intended to guide future decisions about which projects will be selected and developed. In direct relation to the proposed Project, the Mobility Priority Network maps identify the following:

- Bicycle improvements along Massachusetts Avenue NW east of Ward Circle, Nebraska Avenue NW south of Ward Circle, Loughboro Road NW, Glenbrook Road NW, 49th Street NW, Albermarle Street NW, Glenbrook Road NW, and Rockwood Parkway NW.

Vision Zero Action Plan

DDOT's *Vision Zero Action Plan* is the implementation strategy of DC's Vision Zero Initiative, which commits to reaching zero fatalities and serious injuries to travelers of DC's transportation system by the year 2024. The *Action Plan* is based on DC interagency workgroups, public input, local transportation data and crash statistics, and national and international best practices. Workgroups identified the guiding themes for the *Vision Zero Action Plan* and the goals of the DC government. The *Action Plan* focuses on the following themes:

- Create Safe Streets
- Protect Vulnerable Users
- Prevent Dangerous Driving
- Be Transparent and Responsive

Strategies within each theme assign lead and supporting agencies responsible for the planning and implementation of each program. The plan also calls for partners external to District government to ensure accountability and aid in implementation.

The Vision Zero 2022 update shifts the focus to a safe system, which is comprised of the following:

- Safe streets
- Safe people
- Safe speeds

- Safe vehicles
- Post-crash care

While the *Vision Zero Action Plan* does not propose any location-specific actions that relate to the proposed project, the proposed project supports DC's overall Vision Zero goals by not creating any new curb cuts from public space, by providing new short- and long-term bicycle parking facilities, and by ensuring sidewalks along the site's perimeter meet DDOT standards and provide a safe, attractive pedestrian experience.

Sustainable DC 2.0 Plan

Sustainable DC is the District of Columbia's major planning effort to make DC the most sustainable city in the nation. It proposes a variety of sustainability goals, targets, and actions related to the built environment, transportation, and other topics.

The 2019 iteration of the plan, the *Sustainable DC 2.0 Plan*, includes the following proposed action which is supported by the proposed project.

- Expand safe, connected infrastructure for pedestrians and cyclists.
- Reduce greenhouse gas emissions and air pollution from the transportation sector.

The Wesley Campus Redevelopment will support these actions by not creating any new curb cuts from public space, by providing new short- and long-term bicycle parking facilities, and by ensuring sidewalks along the site's perimeter meet DDOT standards and provide a safe, attractive pedestrian experience.

Capital Bikeshare Development Plan

DDOT's *Capital Bikeshare Development Plan* was originally released in 2016 to guide the continued growth of Capital Bikeshare in the District of Columbia. The most recent update of the *Development Plan* was released in 2020 and includes the following:

- A planned station at Turtle Park, 0.2 miles from the site;
- A proposed station at Quebec Street and 48th Street NW, 0.4 miles from the site; and
- A proposed station at 47th Street and Warren Street NW, 0.5 miles from the site.

Rock Creek Far West Livability Study

This DDOT study was completed in 2019 and evaluated the transportation network within the study area, bounded by Massachusetts Avenue, Whitehaven Street, Whitehaven Parkway, Archbold Parkway, Foundry Branch Valley Park, the Potomac River, and the DC/Maryland border, and identified opportunities for a safer and more accessible multimodal network.

The study's recommendations adjacent to the site include:

- Bicycle facility installations along 49th Street, Glenbrook Road, Rockwood Parkway, Loughboro Road, Nebraska Avenue, and New Mexico Avenue
- A curb extension at the intersection of Nebraska Avenue and 45th Street
- Corridor studies along Massachusetts Avenue and New Mexico Avenue and an intersection study at the intersection of Massachusetts Avenue and University Avenue
- Pedestrian Crossing Improvements at the intersection of Massachusetts Avenue and 45th Street
- A shared use path along Massachusetts Avenue
- Sidewalk installations along University Avenue and Sedgwick Street

Wesley Campus Plan (2025)

This is the currently adopted Campus Plan for Wesley Theological Seminary. It was approved in 2025 and its approval is valid through 2032.

The 2022-2032 Campus Plan consists of a new administrative building replacing the Old President's House, as well as a new student housing building, which is the subject of this CTR.

American University Campus Plan (2021)

This is American University's recently adopted 10-year Campus Plan, encompassing the main AU campus, the Tenley Campus, and several smaller AU facilities. The Campus Plan outlines anticipated site development, vehicle parking, and Transportation Demand Management (TDM) strategies for the campus. It proposes some development on campus, an increase in the student cap from 13,600 to 14,380 students, an increase in the employee population cap from 2,900 to 3,350, and an increase of the on-site vehicle parking inventory from 2,701 to 3,000 spaces.

Figure 3: Major Local Transportation Facilities

Project Design

This section reviews the transportation components of the Wesley Campus new student housing redevelopment ("the Project"). It includes descriptions of the site's vehicular access, pick-up/drop-off operations, parking, and pedestrian and bicycle accommodations.

The development site located within the WTS campus, which is generally bounded by University Avenue NW to the west, Massachusetts Avenue NW to the north, and the American University (AU) campus to the east and south. The portion of the site to be redeveloped is currently occupied by a surface parking lot and two (2) student housing and administration buildings. The proposed project includes removing the surface parking lot and existing buildings, replacing them with a new student housing building containing approximately 215 dwelling units and 295 below-grade parking spaces.

A detailed site plan is shown on Figure 4.

Site Access and Circulation

Pedestrian Access

Pedestrian access is proposed to be provided via entrances accessed from the internal driveway within WTS.

Pedestrian access to the site is shown on Figure 4.

Bicycle Access

Bicycle access is proposed to be provided via the garage ramp from the WTS driveway that will lead to a bike storage room in Level 1 of the garage. The project will meet zoning requirements by providing at least 62 long-term bicycle parking spaces inside the building and at least 12 short-term bicycle parking spaces on exterior racks within the site.

The locations of these facilities are shown on Figure 4.

Vehicular Access

Vehicular access to the proposed garage entrance will be provided via a connection to the internal driveway within the WTS campus with public road access at University Avenue and/or Massachusetts Avenue. No new curb cuts from public space are proposed as part of this project.

Regarding vehicular access locations from public streets, inbound and outbound traffic will be provided from the two-way WTS driveway entrance/exit at Massachusetts Avenue NW. The WTS driveway exit at University Avenue NW will be closed for all in and outgoing vehicular traffic, except limited service, delivery and emergency vehicles.

Figure 4 shows the location of the vehicular access points for the parking garage, pick-up/drop-off area, and loading facilities.

Pick-up/Drop-off Operations

An internal curbside pick-up/drop-off area is proposed along the WTS campus driveway adjacent to the proposed new building. The pick-up/drop-off area is shown on Figure 4.

Loading and Trash

Loading

The proposed loading facilities will accommodate all loading activity and delivery demand for the proposed project without any detrimental impact to the surrounding transportation network. DDOT standards stipulate that truck movements be accommodated without back-in movements through public space. The Project has been designed to accommodate all loading activity and associated backing maneuvers within the site. Truck turning diagrams using AutoTURN are provided in the Technical Attachments.

Loading and deliveries will occur in an internal loading area accessed from the existing WTS campus driveway. The proposed loading facilities will accommodate the project's loading needs, maintain loading activity within private property, and provide loading circulation that ensures head-in/head-out truck movements are performed from the public roadway network.

The loading area will include one (1) 30' x 12' loading berth and one (1) 20' x 10' service/delivery space, satisfying ZR16 regulations.

Truck routing to and from the site will be focused on Massachusetts Avenue NW, a designated primary truck route.

Loading access and circulation is shown on Figure 4.

Trash

Trash for the project will be accommodated using trash receptacles within the loading areas. No trash will be stored in public space.

Parking

The WTS campus is currently served by 174 surface parking spaces. The Project will displace 143 of the existing surface

parking spaces and will include 264 parking spaces within a garage. As a result, the total parking on site will be increased to 295 parking spaces (31 surface + 264 garage). The net increase in parking as a result of the project is 121 additional spaces, resulting in 108 parking spaces for WTS and 187 spaces for non-WTS residents. Based on information provided by the Applicant and the parking study conducted as part of this CTR, it is expected that 108 parking spaces is sufficient for WTS general use.

The existing residential buildings being removed provide 90 beds for WTS use. The new 216-dwelling unit building will provide up to 659 beds. At least 90 of those beds will be for WTS use to replace the 90 beds being removed. Therefore, the new residential building will provide approximately 569 beds for non-WTS residents. With 187 parking spaces and 569 net new beds, the effective parking ratio for those net new beds is 0.33 spaces per net-new bed. If the parking ratio were instead calculated on a per-unit basis for the 216 new dwelling units, the ratio would be 0.87 spaces per unit, which exceeds DDOT's recommended residential parking rates for a site in this location.

Given the intended usage and the strategies outlined in the Campus Plan's approved Transportation Demand Management Plan to encourage alternative transportation modes, the proposed parking supply is expected to sufficiently accommodate the anticipated increase in campus parking demand. It should also be noted that because the proposed residential building is for WTS and AU students, faculty, and staff only, its parking supply will function primarily as long-term vehicle storage and is not expected to generate significant peak hour vehicle trips, as is typical of more traditional residential parking facilities.

The parking garage's location and access points within the site are shown on Figure 4.

Parking Study

As part of the CTR, detailed counts of parking supply and demand were conducted within a two-block radius of the site. The purpose of the study was to determine the parking supply of the streets within walking distance of the site and identify trends or patterns associated with parking demand generated by the campus and proposed Project. On-street parking along 45th Street NW and 46th Street NW north of Massachusetts Avenue NW was also surveyed to monitor parking behavior adjacent to Turtle Park and its sports field, as requested by DDOT.

The area surveyed during this study, shown in Figure 6, represents the largely residential area within a reasonable walking distance of the site and with a notable supply of on-street parking. Each block face in the study area was surveyed to determine the approximate number of parking spaces available along the block face, taking into consideration curbside designations.

In line with DDOT standards, the study was conducted between 7 AM and 10 PM on Tuesday, September 23, with hourly sweeps recording the on-street parking occupancy within the study area. The time and date of data collection was selected to represent a typical weekday to demonstrate the demand of the site throughout the day as well as to capture the peak morning (7 AM – 9 AM) and afternoon (6 PM – 10 PM) periods as residential parking demand is highest during a weekday in the evening or early morning when residents are not at work.

The total on-street parking supply within the study area was at maximum 603 spaces and at minimum 564, taking into consideration the variation in parking supply throughout the day due to peak-direction parking restrictions on Massachusetts Avenue NW. The maximum amount of on-street parking is available during the off-peak hours, and the minimum number of on-street parking occurs during the afternoon peak hour period.

Traditionally, an 85% occupancy rate is considered an ideal level of parking utilization and is at this rate that a block face is considered "full". As shown in Figure 8, the on-street parking occupancy rate does not exceed 29% in the study area across all study periods. The lowest parking availability period occurs between 7 AM to 8 AM, where 71% (or 406 of 569) of valid on-street parking spaces remain unoccupied. Parking demand was also observed near its highest of the day between 6 PM and 7 PM, where 28% (or 160 of 564) of on-street parking spaces are occupied. This is consistent with typical parking demand in residential neighborhoods during the morning and evening periods. Across all study periods, the average number of occupied on-street parking spaces is 149. As previously mentioned, the parking occupancy is well below 85%.

The streets directly adjacent to the site, University Avenue NW, Rodman Street NW, Sedgwick Street NW west of 47th Street NW, also remained fairly unoccupied during the data collection period, with a maximum occupancy of 17% (or 26 of 156) as shown in Figure 9.

An inventory of all blocks that participate in the Residential Parking Permit (RPP) Program was taken, as shown in Figure 7. Of the total 564 to 603 spaces of on-street parking available in

the study area, 410 to 425 spaces were designated RPP blocks, which is approximately 70% of all available parking spaces in the study area. As shown in Figure 10, no more than 28% of all RPP-designated spaces were occupied across all study periods, with a maximum of 27% (or 109 of 410) RPP-designated parking spaces occupied between 5 PM and 6 PM.

The Wesley campus has 213 off-street parking spaces. When data was collected, school enrollment was about 80 percent of the cap, and on-site parking demand peaked between 12 PM and 1 PM with 71 of 213 spaces occupied, or 33 percent utilization. Scaling the observed demand to a full enrollment condition yields an estimated peak of 71 ÷ 0.80 = 88.75, which rounds to 89 spaces. The proposed WTS allocation of 108 spaces therefore exceeds the full-enrollment scaled peak by 19 spaces, which is about a 21 percent buffer.

The results of the analysis of on-street parking facilities within the vicinity of the site indicate there is ample on-street parking. In addition, the analysis shows there is sufficient on-site parking to accommodate WTS needs under typical operating conditions under existing conditions and when the site redevelops. Full tables and figures are included in the Technical Attachments.

Curbside Management

Curbside designations within a two-block radius of the site are displayed in . As shown, there is significant, available on-street parking directly adjacent to the site along University Avenue NW, 47th Street NW, 48th Street NW, Tilden Street NW, Sedgwick Street NW, Rodman Street, and Massachusetts Avenue NW. The curbside designation of the streets located in the residential neighborhood to the west of the campus are mainly signed for 2-Hour and 3-Hour Restricted Parking with Zone 3 Resident Parking Permit (RPP) Exceptions. Portions of 48th Street NW, Tilden Street NW, 47th Street NW, and Rodman Street NW provide unrestricted parking within the study area. Massachusetts Avenue NW is signed to restrict parking during the morning (7 AM – 9:30 AM) and afternoon (4 PM – 6:30 PM) peak hours in the peak directions. There is also substantial curbside space restricting parking in MetroBus Zones.

Bicycle Facilities

The Wesley Campus Redevelopment will meet 2016 Zoning Regulations requirements for long-term and short-term bicycle parking. Per the Zoning Regulations, the project is required to provide the following bicycle facilities:

- Long-Term Bicycle Parking Spaces (62 required)
  - One (1) space per 3 dwelling units
- Short-Term Bicycle Parking Spaces (11 required)
  - One (1) space per 20 dwelling units

The project will meet or exceed zoning requirements by providing at least 62 long-term bicycle parking spaces inside the garage and at least 12 short-term bicycle parking spaces on exterior racks within the site. The long-term bicycle spaces will adhere to Subtitle C § 805.9 of DC's zoning requirements, as well as DDOT's Bike Parking Guide, which stipulate that long-term spaces be located indoors in a parking garage or bike storage room, and that at least 50 percent of required long-term spaces be placed horizontally on the floor or ground, without bicycles being suspended.

Bicycle parking location and access are shown in Figure 11.

Pedestrian Facilities

The Wesley Campus Redevelopment will ensure pedestrian facilities along the site's WTS driveway frontage meet DDOT and ADA standards. The Applicant is also coordinating with American University (AU) on options to maintain the existing pedestrian connection between the two campuses, located on the east side of the project site.

Transportation Demand Management

Transportation Demand Management (TDM) is the application of policies and strategies used to reduce travel demand or to redistribute demand to other times or spaces. TDM elements typically focus on reducing the demand of single-occupancy, private vehicles during peak period travel times or on shifting single-occupancy vehicular demand to off-peak periods.

The TDM plan approved as part of 2022-2032 Wesley Campus Plan is summarized below:

- Unbundle the cost of vehicle parking from the lease for each residential unit and charge a minimum rate based on the average market rate within a quarter mile. Only monthly or by semester rates will be charged. Free parking, validation, or discounted rates will not be offered.
- Of the 264 parking spaces within the Project's garage, at least five (5) will have electrical vehicle charging stations per DDOT's recommendation of one (1) charging station for every 50 parking spaces.
- Will work with American University to allow WTS students, faculty, and employees to use the AU shuttle to the Metrorail Station.

- Will fund and install an electronic screen displaying transit, shuttle, and bikeshare information in the lobby of the new building.
- Identify a Transportation Coordinator for the WTS campus. The Transportation Coordinator will act as a point of contact with DDOT, goDCgo, and Zoning Enforcement.
- Will provide Transportation Coordinator's contact information to goDCgo, conduct an annual commuter survey of employees on-site, and report TDM activities and data collection efforts to goDCgo once per year.
- Transportation Coordinator will develop, distribute, and market various transportation alternatives and options to the residents, including promoting transportation events (i.e., Bike to Work Day, National Walking Day, Car Free Day) on property website and in any internal building newsletters or communications.
- Transportation Coordinator will receive TDM training from goDCgo to learn about the transportation conditions for this project and available options for implementing the TDM Plan and PMP.
- Provide residents who wish to carpool with detailed carpooling information and will be referred to other carpool matching services sponsored by the Metropolitan Washington Council of Governments (MWCOG) or other comparable service if MWCOG does not offer this in the future.
- Will meet ZR16 long-term bicycle parking requirements by providing at least 62 long-term spaces free of charge to residents. At least 50% of long-term spaces (at least 31 spaces) will be located horizontally on the floor of the bike room. At least 10% of long-term spaces (at least 6 spaces) will be served by electrical outlets for e-bikes/scooters. At least 5% of long-term spaces (at least 3 spaces) will be designed to accommodate larger cargo/tandem bikes (10 feet by 3 feet size). Each bike storage room will include a repair station.
- Will meet ZR16 short-term bicycle parking requirements by providing 12 short-term spaces via exterior bike racks on-campus.
- Provide welcome packets to all new residents that should, at a minimum, include the Metrorail pocket guide, brochures of local bus lines (Circulator and Metrobus), carpool and vanpool information, CaBi coupon or rack card, Guaranteed Ride Home (GRH) brochure, and the most recent DC Bike Map. Brochures can be ordered from DDOT's goDCgo program by emailing info@godcgo.com.
- Transportation Coordinator will subscribe to goDCgo's residential newsletter.
- Post all TDM commitments on the WTS website and resident message board, publicize availability, and allow the public to see what commitments have been promised.
- Offer a free SmarTrip card to every new resident and a complimentary Capital Bikeshare coupon good for one ride.
- Fund and install a 19-dock Capital Bikeshare (CaBi) station with 12 bikes and fund one-year of maintenance and operations costs on the campus, or at a location to be selected by DDOT.
- Additional scooter parking will be available outside the Wesley Library within a designated scooter corral.
- A ride share turn around area is proposed for convenient pick-up/drop-off operations.
- Prior to issuance of any certificate of occupancy for any new building, WTS will fund and construct the following pedestrian improvements:
    - A sidewalk along the east side of University Avenue NW between Massachusetts Avenue and Rodman Street, subject to DDOT approval, with a leadwalk into campus along at least one side of the site driveway;
    - Install signage, crosswalk and ADA curb ramps on the south leg of University Avenue at the Rodman Street intersection, subject to DDOT approval; and
    - Install signage, crosswalk and ADA curb ramps on the east leg of the campus driveway at the University Avenue and Sedgwick Street intersection or construct the crossing as a continuous sidewalk, subject to DDOT approval.
    - Subject to obtaining future approval from American University to use the existing gate,

install wayfinding signage on the Wesley Seminary campus directing students to the gated connection to the American University campus.

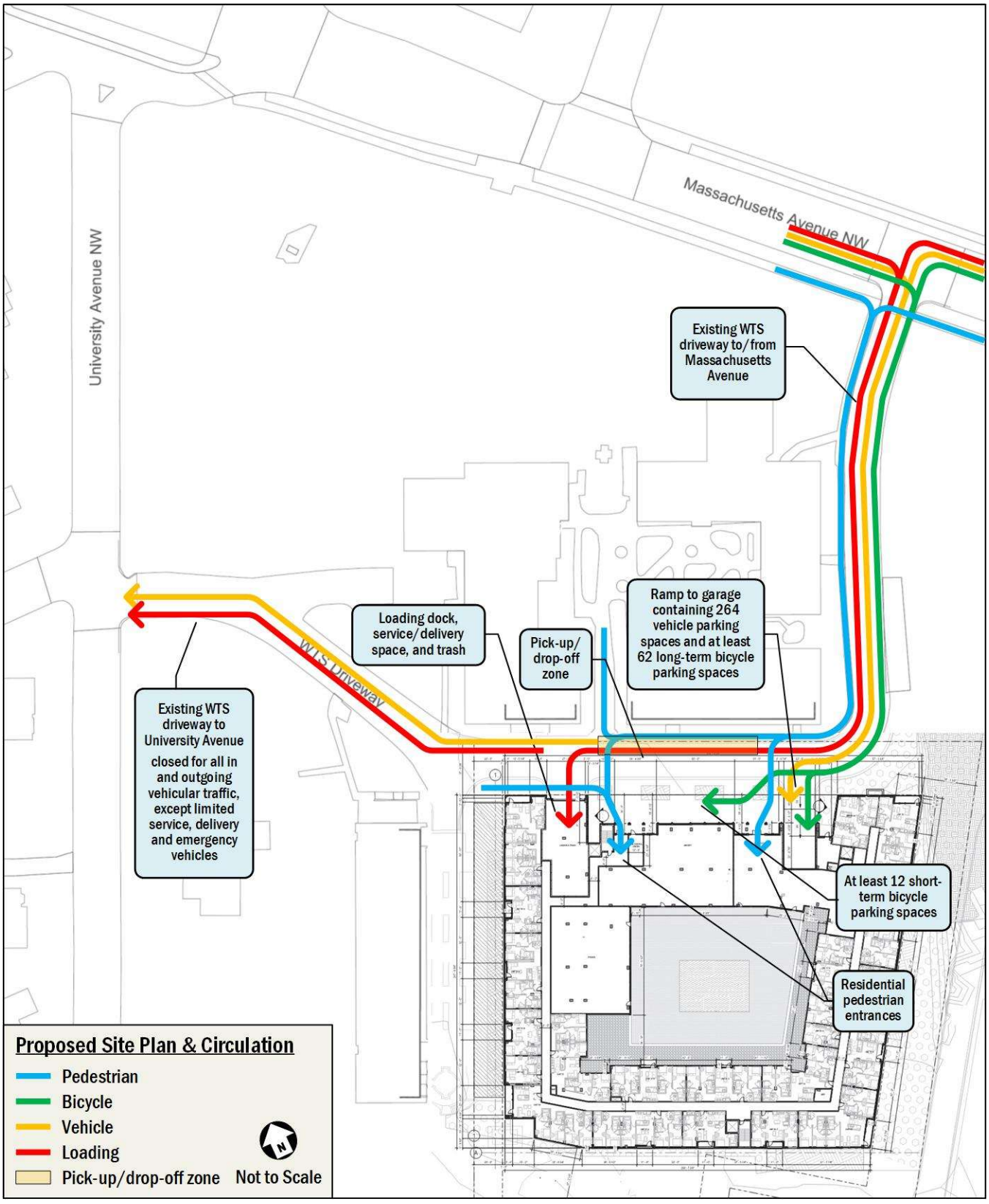


Figure 4: Site Access and Circulation Plan

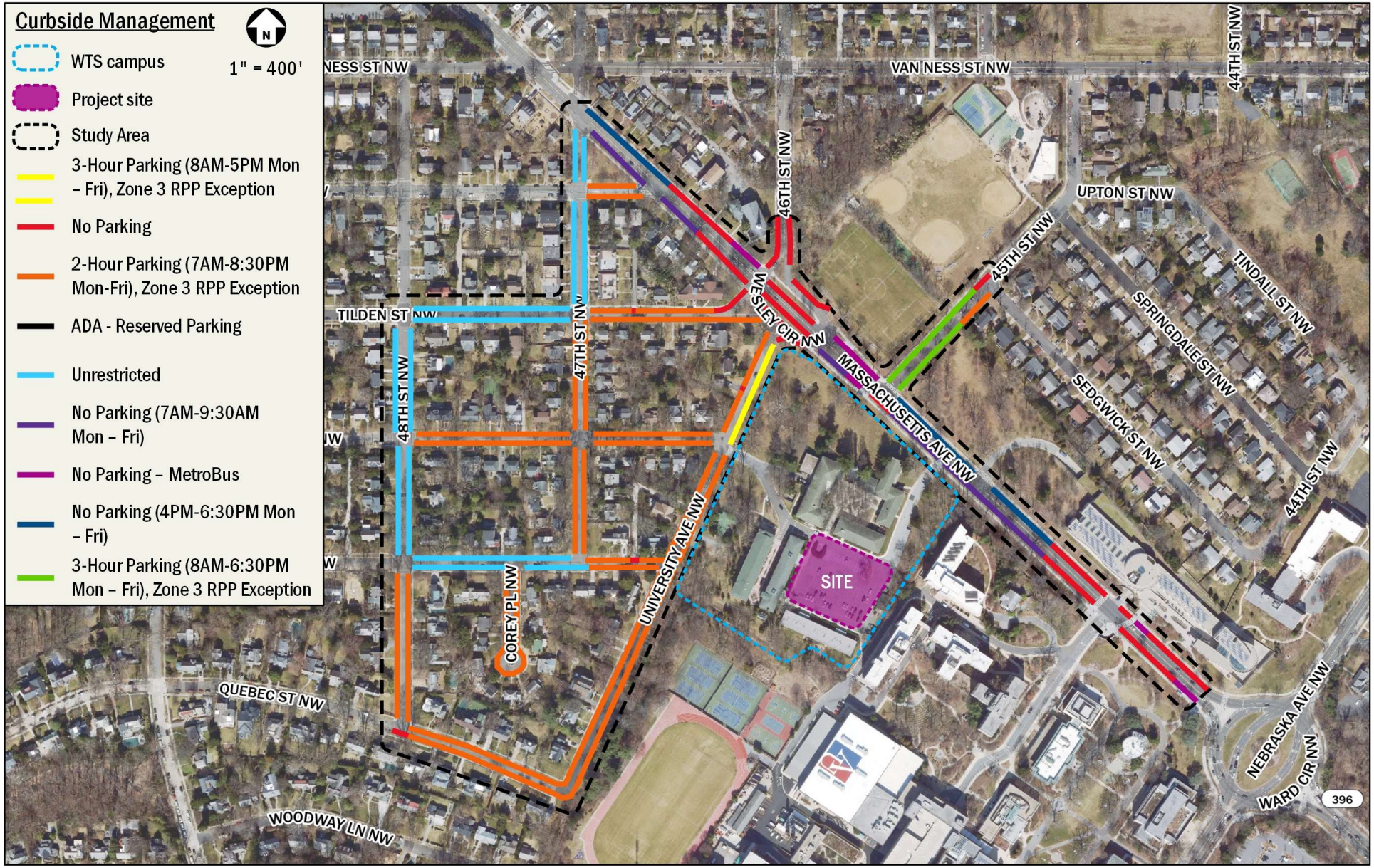


Figure 5: Curbside Managment

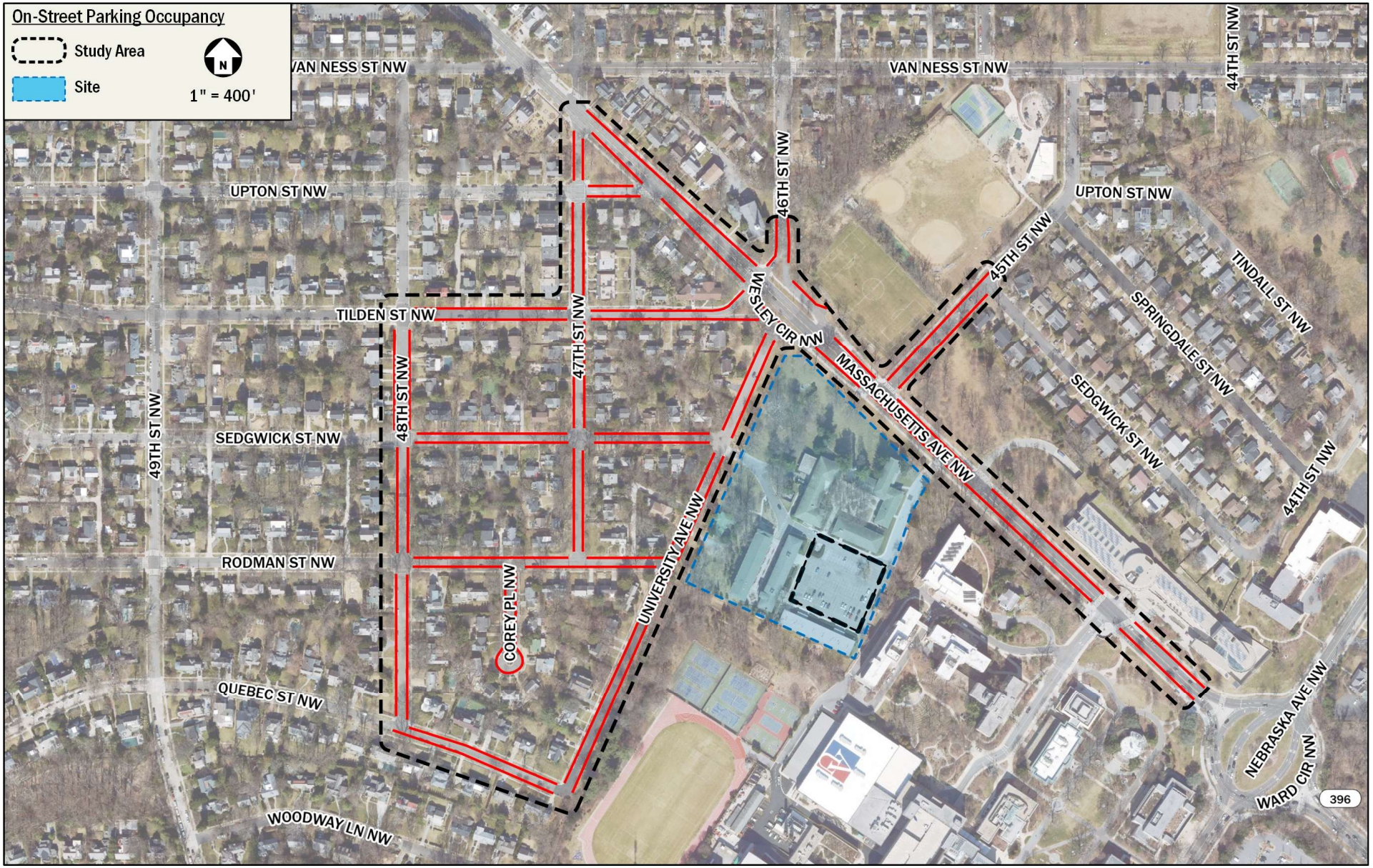


Figure 6: On-Street Parking Occupancy Study Area

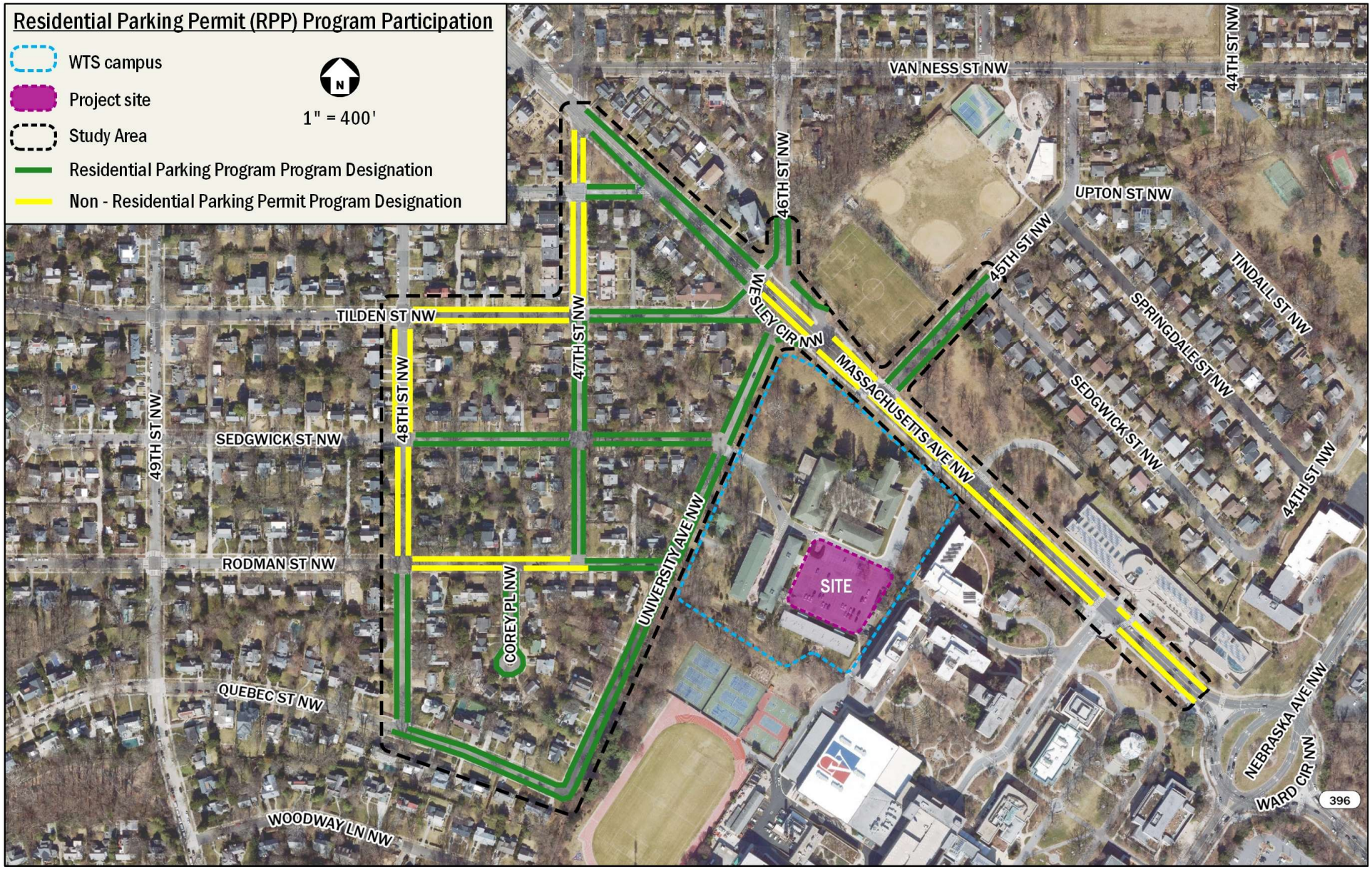


Figure 7: Residential Parking Permit (RPP) Program Participation

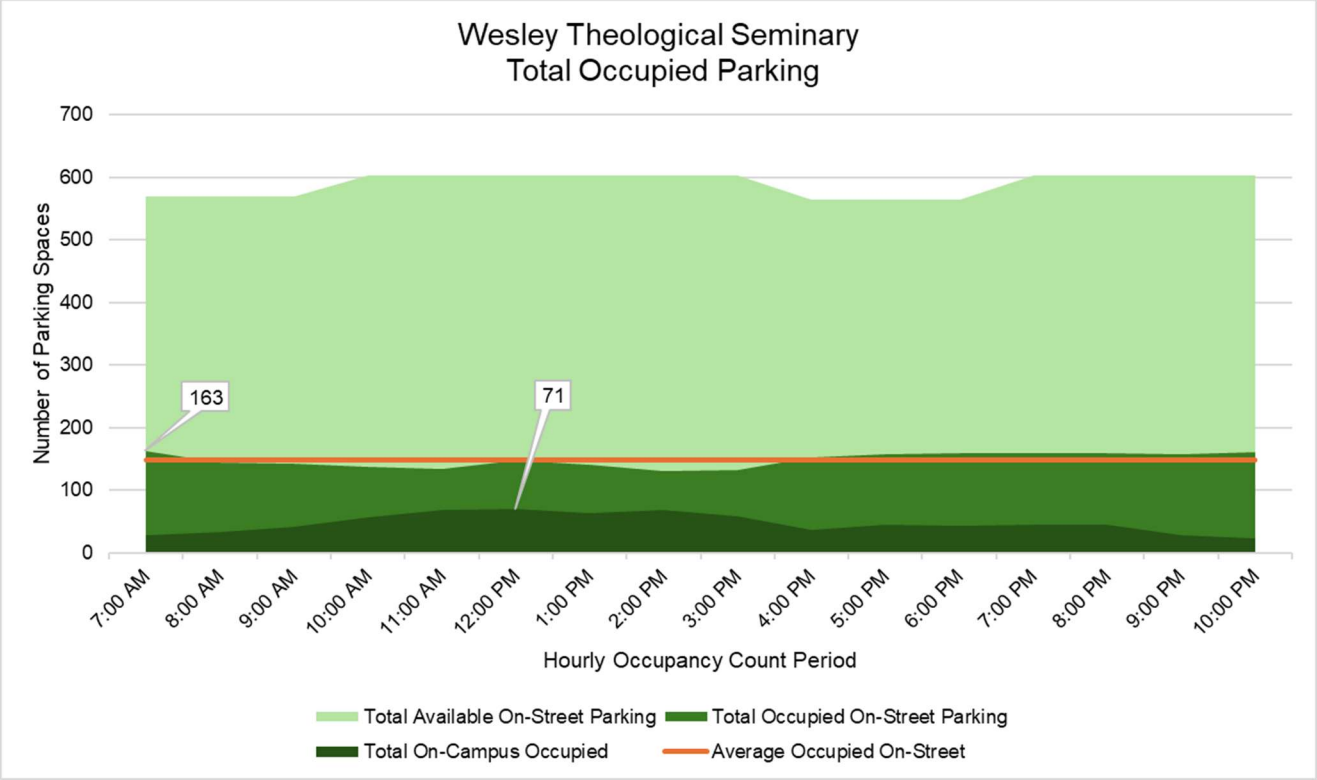


Figure 8: Total Occupied Parking

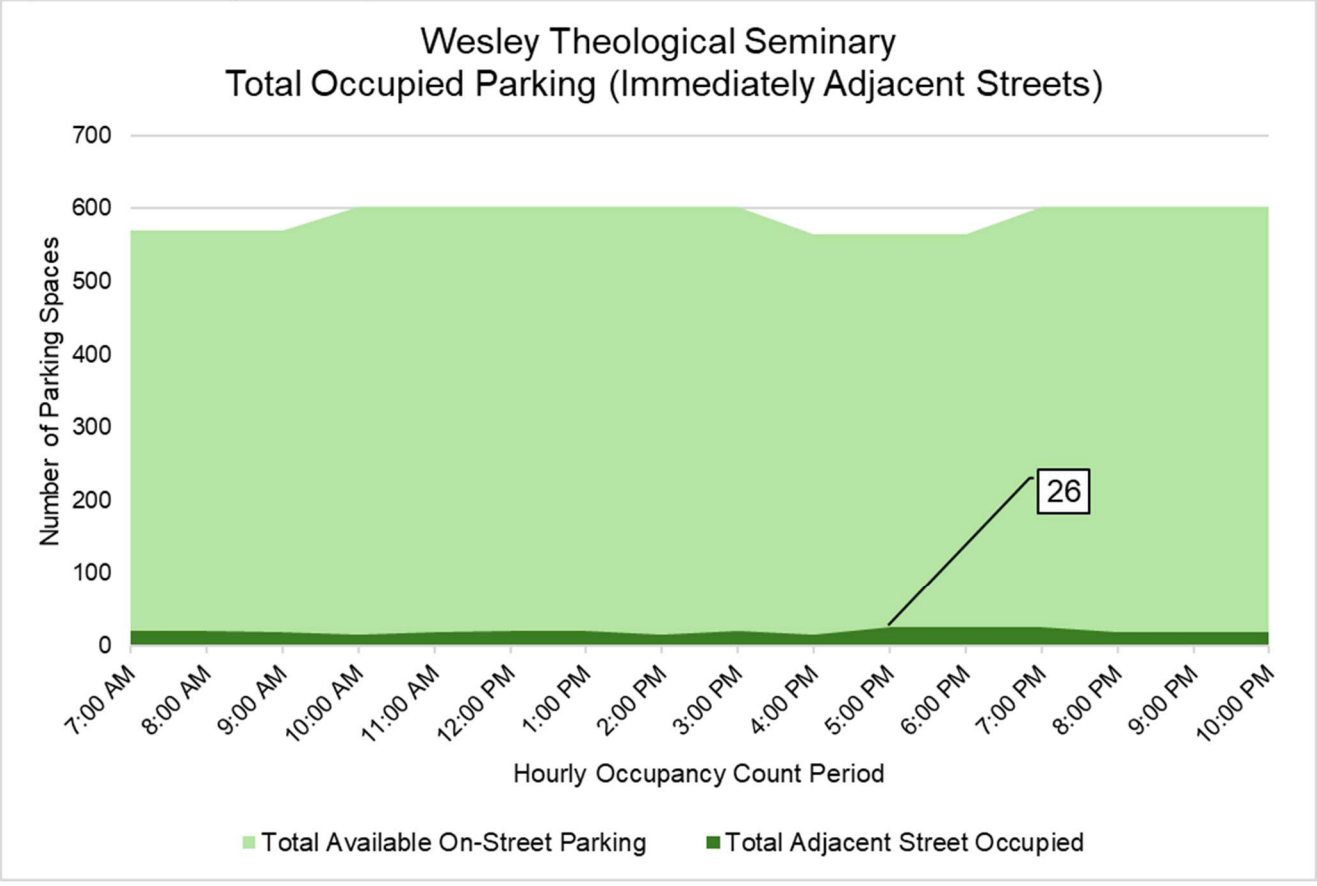


Figure 9: Total Occupied Parking (Immediately Adjacent Streets)

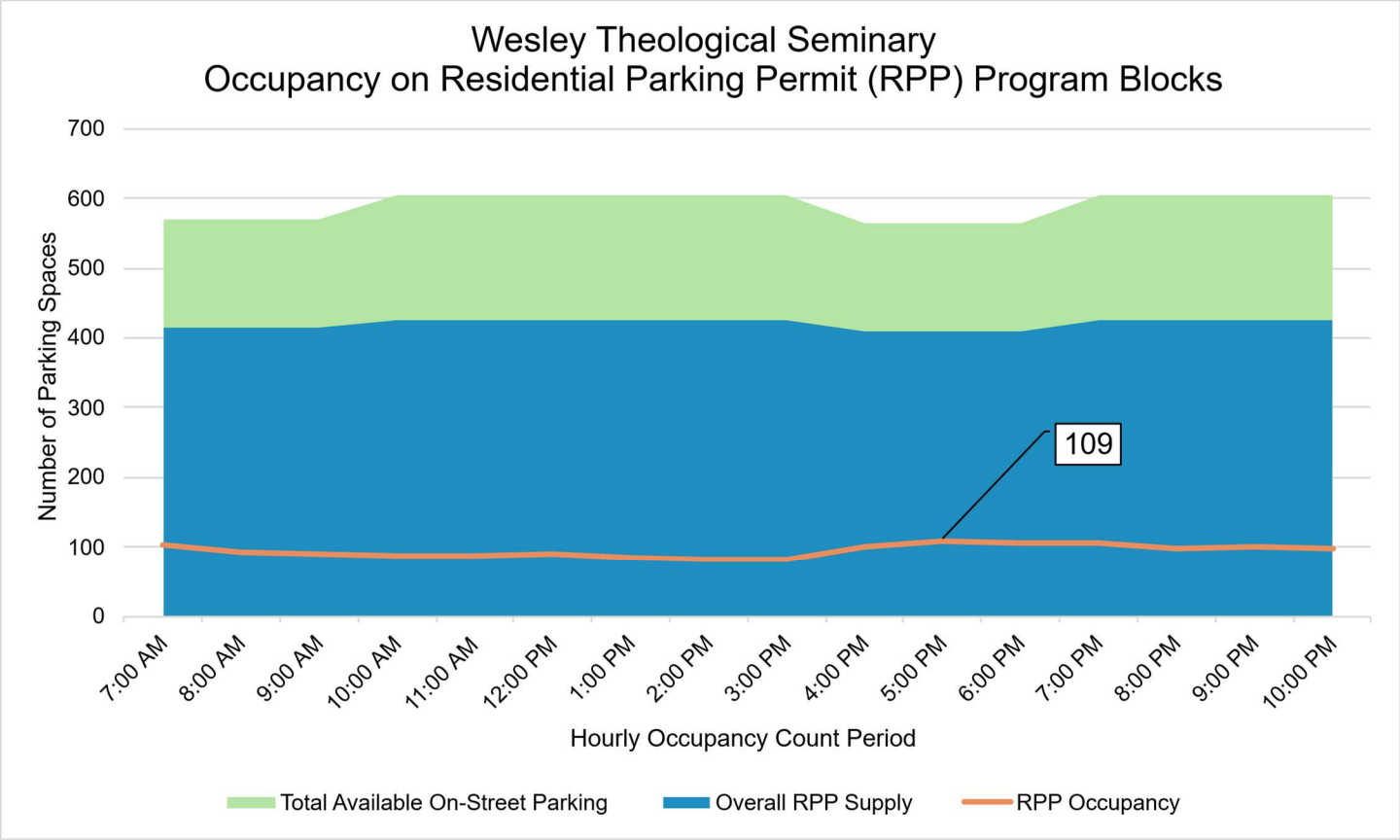


Figure 10: Occupancy on Residential Parking Program (RPP) Blocks

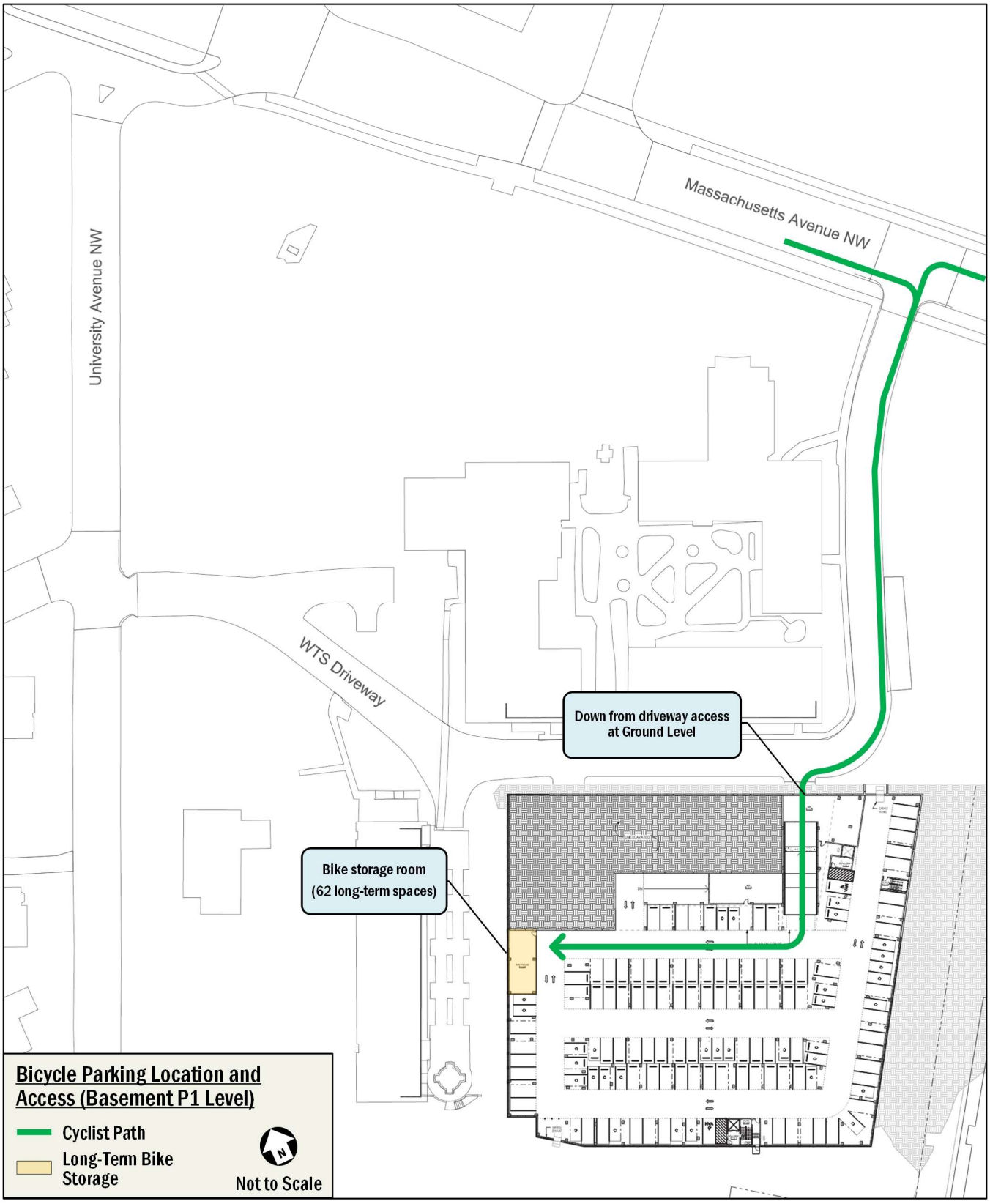


Figure 11: Bicycle Parking Location and Access

Travel Demand Assumptions

This section outlines the transportation demand for the Wesley Campus new student housing redevelopment ("the Project"). It summarizes the projected trip generation of the proposed project by mode, which forms the basis for the sections that follow. These assumptions were vetted and approved by DDOT as a part of the scoping process for the study.

Traditionally, weekday peak hour trip generation is calculated based on the methodology outlined in the Institute of Transportation Engineers' (ITE) *Trip Generation*, 12th Edition. This methodology was supplemented to account for the urban nature of the project (ITE *Trip Generation* provides data for non-urban, low transit use sites) and to generate trips for multiple modes, as vetted and approved by DDOT.

Proposed Site Trip Generation

The residential portion of the project's proposed trip generation was calculated using ITE 12th Edition rates for the ITE land use 226 (Off-Campus Student Apartment, Mid-Rise, Adjacent to Campus). This differs from the previously approved CMP CTR, which used the ITE 11th Edition curve for the ITE land use 225 (Off-Campus Student Apartment, Low-Rise, Adjacent to Campus), because the ITE 12th Edition has since been published as of August 2025, and the ITE land use 226 (Off-Campus Student Apartment, Mid-Rise, Adjacent to Campus) is a more appropriate description of the proposed building, which has seven (7) floors of housing. Trips were split into different modes using assumptions derived from census data for people that currently live or work near the site, WMATA ridership survey data, and the proposed parking supply. A summary of the mode split assumptions approved in the 2022-2032 Wesley Campus Plan is provided in Table 1.

Table 1: Mode Split Assumptions

Land Use	Mode			
	Drive	Transit	Bike	Walk
Residential	20%	50%	5%	25%

A summary of the multimodal trip generation for the project is provided in Table 2 for the AM and PM peak hours. The project is expected to generate 8 vehicular trips (3 in, 5 out) during the AM peak hour, and 24 vehicular trips (11 in, 13 out) during the PM peak hour. A summary of the existing vehicular campus trips (based on driveway counts collected in September 2025), proposed redevelopment vehicular site trips, and total proposed vehicular campus trips is shown in Table 3. Detailed calculations are included in the Technical Attachments.

Table 2: Multimodal Trip Generation

Mode	Mode Split	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Auto (veh/hr)	20%	3	5	8	11	13	24
Transit (ppl/hr)	50%	11	13	24	33	37	70
Bike (ppl/hr)	5%	1	1	2	3	4	7
Walk (ppl/hr)	25%	5	7	12	17	18	35

Table 3: Existing and Proposed Vehicular Campus Trip

Scenario	AM Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total
Current Campus Trips (From 2025 Counts)	15 veh/hr	3 veh/hr	18 veh/hr	21 veh/hr	7 veh/hr	28 veh/hr
Proposed Development Site Trips	3 veh/hr	5 veh/hr	8 veh/hr	11 veh/hr	13 veh/hr	24 veh/hr
Total Proposed Campus Trips	18 veh/hr	8 veh/hr	26 veh/hr	32 veh/hr	20 veh/hr	52 veh/hr

Traffic Operations

This chapter provides a summary of an analysis of the existing and future roadway capacity surrounding the site. Included is an analysis of potential vehicular impacts of the Wesley Campus Redevelopment.

The purpose of the capacity analysis is to:

- Determine the existing capacity of the study area roadways;
- Determine the overall impact of the project on the study area roadways; and
- Discuss any potential improvements to accommodate the additional vehicular trips.

This analysis was performed by determining the traffic volumes and roadway capacity for Existing Conditions, Background (no-build) Conditions, and Total Future (build) Conditions. The scope of the capacity analysis was developed based on DDOT guidelines and agreed upon by DDOT staff.

The capacity analysis focuses on the weekday AM and PM commuter peak hours.

This chapter concludes:

- Under Existing Conditions, no study intersections operate at an unacceptable level of service based on the HCM capacity analyses, and two (2) study intersections experience queues that exceed available storage.
- Under Background Conditions, no study intersections operate at an unacceptable level of service based on the HCM capacity analyses, and two (2) study intersections experience queues that exceed available storage.
- Under Total Future Conditions, no study intersections operate at an unacceptable level of service based on the HCM capacity analyses, and two (2) study intersections experience queues that exceed available storage.
- No study intersections met the threshold for requiring mitigation measures as a result of the proposed development.
- Overall, this report concludes that the proposed project will not have a detrimental impact to the surrounding vehicular network.

Study Area, Scope, & Methodology

This section outlines the vehicular trips generated in the study area along the vehicular access routes and defines the analysis assumptions.

The scope of the analysis contained within this report was discussed with and agreed upon by DDOT. The general methodology of the analysis follows national and DDOT guidelines on the preparation of transportation impact evaluations of site development. The approved scope is included in the Technical Attachments.

Capacity Analysis Scenarios

The vehicular capacity analyses were performed to determine whether the project will lead to adverse impacts on traffic operations. A review of potential impacts to other modes is outlined later in this report. This is accomplished by comparing two (2) future scenarios:

- Without the project (referred to as the Background Conditions); and
- With the project approved and constructed (referred to as the Total Future Conditions).

Specifically, the roadway capacity analysis examines the following scenarios:

- Existing Conditions (2025 Existing Conditions);
- Future Conditions without the Project (2029 Background Conditions); and
- Future Conditions with the Project (2029 Total Future Conditions).

Study Area

The study area of the analysis is a set of intersections where detailed capacity analyses were performed for the scenarios listed above. The set of intersections decided upon during the study scoping process with DDOT are those intersections most likely to have potential impacts or require changes to traffic operations to accommodate the project. Although it is possible that impacts will occur outside of the study area, those impacts

are neither significant enough to be considered a material adverse impact nor worthy of mitigation measures.

Based on the projected future trip generation and the location of the site access points, the following intersections were selected:

1. Massachusetts Avenue & 46th Street/Tilden Street/Wesley Circle NW
2. University Avenue & Wesley Circle NW
3. Massachusetts Avenue & Wesley Circle NW
4. University Avenue & Sedgwick Street/WTS Driveway NW
5. Massachusetts Avenue & 45th Street NW
6. Massachusetts Avenue & WTS Driveway NW
7. Massachusetts Avenue & Glover Gate/Katzen Driveway NW

Figure 12 shows a map of the study area intersections.

Geometry and Operations Assumptions

The following section reviews the roadway geometry and operations assumptions made and the methodologies used in the roadway capacity analyses.

2025 Existing Geometry and Operations Assumptions

Gorove Slade made observations and confirmed the existing lane configurations and traffic controls at the intersections within the study area. Signal timings and offsets were obtained from DDOT.

The lane configurations and traffic controls for the Existing Conditions are shown on Figure 13.

2029 Background Geometry and Operations Assumptions

The configurations and traffic controls for the 2029 Background Conditions were based on those for the 2025 Existing Conditions with the addition of background improvements.

Following national and DDOT methodologies, a background improvement must meet the following criteria to be incorporated into the analysis:

- Be funded; and
- Have a construction completion date prior or close to the project.

Based on these criteria, there were no background improvements assumed in the analysis.

The lane configurations and traffic controls for the Background Conditions, which are the same as those of the Existing Conditions, are shown on Figure 13.

2029 Total Future Conditions Geometry and Operations Assumptions

The configurations and traffic controls for the 2029 Total Future Conditions were based on those for the 2029 Background Conditions with the addition of the proposed project.

The lane configurations and traffic controls for the Total Future Conditions, which are the same as those of the Existing and Background Conditions, are shown on Figure 13.

Traffic Volume Assumptions

The following section reviews the traffic volume assumptions and methodologies used in the roadway capacity analyses.

2025 Existing Traffic Volumes

Turning movement counts (TMCs) were collected during the peak periods for all intersections on Thursday, September 11, 2025 and included in the Technical Attachments. Although the WTS Driveway along University Existing is closed during peak hours, vehicles were counted entering and exiting the driveway and are included in Existing Conditions.

The 2025 Existing peak hour traffic volumes are shown in Figure 14.

In order to understand daily trip patterns to and from WTS over a typical day, entering and exiting volumes at both site driveways were recorded at hourly intervals using the data that was collected on Thursday, September 11th, 2025, as shown in Table 4. Based on this data, it was determined that WTS's Thursday peak hour is from 4-5 PM, which is just before the PM commuter peak of the surrounding roadways. That being said, in accordance with typical DDOT practices and the approved DDOT scope, only the commuter peak hours were studied as part of this CTR to capture the time periods when the traffic on surrounding roadways is at its highest.

2029 Background Traffic Volumes (without the Project)

The traffic projections for the 2029 Background Conditions consist of the 2025 Existing volumes with the following additions:

- The addition of traffic generated by developments expected to be completed prior to the project (known as background developments); and

- The addition of inherent growth on the roadway (representing regional traffic growth).

Volumes Generated by Background Developments

Following national and DDOT methodologies, a background development must meet the following criteria to be incorporated into the analysis:

- Be located in the study area, defined as having an origin or destination point within the cluster of study area intersections;
- Have entitlements; and
- Have a construction completion date prior or close to the future analysis year of 2029.

Based on these criteria, and as discussed with and agreed upon by DDOT, the Ladybird development consisting of 214 residential units, a 13,000 square foot grocer, and five townhouses located 0.6 miles from the site will be included in the future analyses. The Ladybird site trips were derived from the transportation study submitted to the Board in 2019 and applied to Massachusetts Avenue NW.

Background development volumes applied to the study area are shown in Figure 15.

Volumes Generated by Regional Traffic Growth

While background developments represent local traffic changes, regional traffic growth is typically accounted for using growth rates. The growth rates used in this analysis are based on MWCOG's currently adopted regional transportation model, comparing the difference between the year 2025 and 2029 model scenarios. The growth rates observed in this model served as a basis for analysis assumptions, and a conservative 0.10 percent annual growth rate was applied to roadways where negative growth was observed. The applied growth rates are shown in Table 5. The traffic volumes generated by the inherent growth along the network between 2025 and 2029 are shown on Figure 16.

The existing peak hour volumes presented in Figure 14 were combined with the background development volumes shown in Figure 15 and the background growth peak hour volumes shown in Figure 16 to establish the 2029 Background traffic volumes. The traffic volumes for the 2029 Background Conditions are shown in Figure 17.

2029 Total Future Traffic Volumes

The 2029 Total Future with Proposed Access traffic volumes consist of the following:

- Existing volumes, shown on Figure 14
- Background development volumes, shown on Figure 15
- Inherent growth on study area roadways, shown on Figure 16
- Site-generated volumes during the AM and PM peak periods, shown on Figure 21, based on trip distributions shown in Figure 18, Figure 19, and Figure 20
- Rerouted volumes due to the proposed enforcement of the University Avenue site egress closure during the AM and PM peak periods, shown on Figure 22 and Figure 23

Site-Generated Volumes

Trip distribution for the site-generated trips was derived from the approved 2022-2032 Wesley Campus Plan, which was determined based on:

- Census Transportation Planning Products (CTPP) Traffic Analysis Zone (TAZ) data;
- Existing and future travel patterns in the study area; and
- Inbound and outbound site travel patterns as determined by vehicular access with existing access conditions (with the University Avenue driveway restricted during the AM and PM peak periods – delivery vehicle access maintained).
    - All exiting site traffic rerouted to the right turn egress movement onto Massachusetts Avenue.

Based on this review and the site access locations, the site-generated trips were distributed through the study area intersections. Trip distribution assumptions and specific routings were analyzed for inbound and outbound trips. Inbound and outbound distribution assumptions for the project are provided in Figure 18 and Figure 19, respectively. Detailed distributions at each study intersection are shown in Figure 20.

Site-generated peak hour volumes are shown in Figure 21.

The traffic volumes for the 2029 Total Future Conditions are shown on Figure 24.

Table 4: Daily Driveway Volumes

		6:00 AM - 7:00 AM	7:00 AM - 8:00 AM	8:00 AM - 9:00 AM	9:00 AM - 10:00 AM	10:00 AM - 11:00 AM	11:00 AM - 12:00 PM	12:00 PM - 1:00 PM	1:00 PM - 2:00 PM	2:00 PM - 3:00 PM	3:00 PM - 4:00 PM	4:00 PM - 5:00 PM	5:00 PM - 6:00 PM	6:00 PM - 7:00 PM
Driveway 1: Massachusetts Avenue	Inbound Trips	3	6	15	7	8	5	13	6	6	11	11	14	9
	Outbound Trips	2	0	2	1	5	3	4	6	4	8	16	7	3
Driveway 2: University Avenue	Inbound Trips	0	0	1	0	0	1	0	0	0	0	0	0	1
	Outbound Trips	0	3	0	2	3	5	5	4	1	10	6	5	0
Driveway Totals	Inbound Trips	3	6	16	7	8	6	13	6	6	11	11	14	10
	Outbound Trips	2	3	2	3	8	8	9	10	5	18	22	12	3
	Total Trips	**5**	**9**	**18**	**10**	**16**	**14**	**22**	**16**	**11**	**29**	**33**	**26**	**13**

For reference, the class schedule on Thursdays includes a class from 9-12, 1:30-3:30, 1:30-4:30, 6:30-8:30, 6:30-9:30 with a Community Engagement Hour from 4:30-5:30

Table 5: Applied Annual and Total Growth Rates

Roadway	Dir.	Proposed Annual Growth Rate Between 2025 and 2029				Proposed Total Growth Between 2025 and 2029	
		AM Peak Hour		PM Peak Hour		AM Peak Hour	PM Peak Hour
		Calculated Growth Rate	Rounded Growth Rate [1]	Calculated Growth Rate	Rounded Growth Rate [1]	Rounded Growth Rate [1]	Rounded Growth Rate [1]
Massachusetts Ave NW	EB	2.24%	0.50%	-10.10%	0.10%	2.02%	0.40%
	WB	-5.60%	0.10%	6.82%	0.50%	0.40%	2.02%
Sedgewick St NW [2]	EB	N/A	0.10%	N/A	0.10%	0.40%	0.40%
	WB	N/A	0.10%	N/A	0.10%	0.40%	0.40%
Tilden St NW [2]	EB	N/A	0.10%	N/A	0.10%	0.40%	0.40%
	WB	N/A	0.10%	N/A	0.10%	0.40%	0.40%
46th St NW	NB	2.35%	2.00%	-2.11%	0.10%	8.24%	0.40%
	SB	1.26%	0.50%	1.43%	1.43%	2.02%	5.83%
University Ave	NB	-6.44%	0.10%	0.96%	0.96%	0.40%	3.88%
	SB	-13.07%	0.96%	4.61%	0.50%	3.88%	2.02%
45th St NW	NB	6.67%	2.00%	3.92%	0.50%	8.24%	2.02%
	SB	-32.08%	0.10%	3.51%	2.00%	0.40%	8.24%
Campus Dr NW [2]	NB	N/A	0.10%	N/A	0.10%	0.40%	0.40%
	SB	N/A	0.10%	N/A	0.10%	0.40%	0.40%

[1] DDOT CTR Guidelines recommends maximum annual growth rates of 0.50% in the peak direction of traffic and 2.0% in the non-peak direction, as well as a minimum growth rate of 0.10% in situations where available data shows there has been zero or negative growth in recent years

[2] The MWCOG model does not have data along Sedgewick St NW, Tilden St NW, and Campus Dr NW, so annual growth rates of 0.10% were applied for every year between 2025 and 2029, totaling 0.40% for each direction.

Vehicular Analysis Results

Intersection Capacity Analysis

Intersection capacity analyses were performed for the three (3) scenarios outlined previously at the intersections contained within the study area during the AM and PM peak hours. *Synchro* version 11 was used to analyze the study intersections based on the Highway Capacity Manual (HCM) 2000 methodology.

The results of the capacity analyses are expressed in level of service (LOS) and delay (seconds per vehicle) for each approach. A LOS grade is a letter grade based on the average delay (in seconds) experienced by motorists traveling through an intersection. LOS results range from "A" being the best to "F" being the worst. LOS D is typically used as the acceptable LOS threshold in the District; although LOS E or F is sometimes accepted in urbanized areas if vehicular improvements would be a detriment to safety or non-auto modes of transportation.

The LOS capacity analyses were based on: (1) the intersection peak hour traffic volumes; (2) the lane use and traffic controls; and (3) the HCM methodologies (using *Synchro* software). The average delay of each approach and LOS is shown for all intersections in addition to the overall average delay and intersection LOS grade. Detailed LOS descriptions and the analysis worksheets are contained in the Technical Attachments.

Table 6 shows the results of the capacity analyses, including LOS and average delay per vehicle (in seconds) for the 2025 Existing, 2029 Background, 2029 Total Future scenarios. Table 7 shows a comparison of the volume to capacity (v/c) ratios, while Table 8 shows a comparison of queuing results.

Intersection Capacity Under Existing Conditions

As shown in Table 6, none of the study intersections operate at unacceptable conditions or have one or more approaches operating at unacceptable levels during Existing Conditions.

Intersection Capacity Under Background Conditions

As shown in Table 6, none of the study intersections operate at unacceptable conditions or have one or more approaches operating at unacceptable levels during Background Conditions.

Intersection Capacity Under Future Conditions

As shown in Table 6, none of the study intersections operate at unacceptable conditions or have one or more approaches operating at unacceptable levels during Total Conditions.

Queuing Analysis

In addition to the capacity analyses presented above, a queuing analysis was performed at each of the study intersections. The queuing analysis was performed using *Synchro* software. The 50th percentile and 95th percentile maximum queue lengths are shown for each lane group at the study area's signalized intersections. The 50th percentile maximum queue is the maximum back of queue on a typical cycle. The 95th percentile queue is the maximum back of queue with 95th percentile traffic volumes. For unsignalized intersections, the 95th percentile queue is reported for each lane group (including free-flowing left turns and stop-controlled movements) based on the HCM calculations.

Table 8 shows the queuing results for the study intersections, including 50th and 95th percentile queues for the 2025 Existing, 2029 Background, and 2029 Total Future scenarios.

Queuing Under Existing Conditions

As shown in Table 8, two (2) of the study intersections has one or more lane group that exceeds the given storage length during Existing Conditions:

- Massachusetts Ave & 45th St NW
  - Southeastbound left/thru (PM)
- Massachusetts Ave & Glover Gate/Katzen Dwy NW
  - Northeastbound left/thru (PM)
  - Southwestbound left/thru/right (PM)

Queuing Under Background Conditions

As shown in Table 8, two (2) of the study intersections has one or more lane group that exceeds the given storage length during Background Conditions:

- Massachusetts Ave & 45th St NW
  - Southeastbound left/thru (PM)
- Massachusetts Ave & Glover Gate/Katzen Dwy NW
  - Northeastbound left/thru (PM)
  - Southwestbound left/thru/right (PM)

Queuing Under Future Conditions

As shown in Table 8, two (2) of the study intersections have one or more lane group that exceeds the given storage length during Total Future Conditions:

- Massachusetts Ave & 45th St NW
  - Southeastbound left/thru (PM)
- Massachusetts Ave & Glover Gate/Katzen Dwy NW
  - Northeastbound left/thru (PM)
  - Southwestbound left/thru/right (PM)

Mitigation Measures

Based on DDOT standards, the project is considered to have an impact at an intersection within the study area if any of the following conditions are met:

- The capacity analyses show a LOS E or F at an intersection or along an approach in Future conditions with the project where one does not exist in Background Conditions;
- There is an increase in delay at any approach or overall intersection operating under LOS E or F of greater than five (5) percent when compared to Background Conditions;
- A 95th percentile queue exceeds storage along an approach in Future Conditions with the project where it does not in Background Conditions; or
- There is an increase in the 95th percentile queue by more than 150 feet along an approach in that exceeds storage in Background Conditions.

Based on these criteria, mitigation of the development impacts are not necessary.

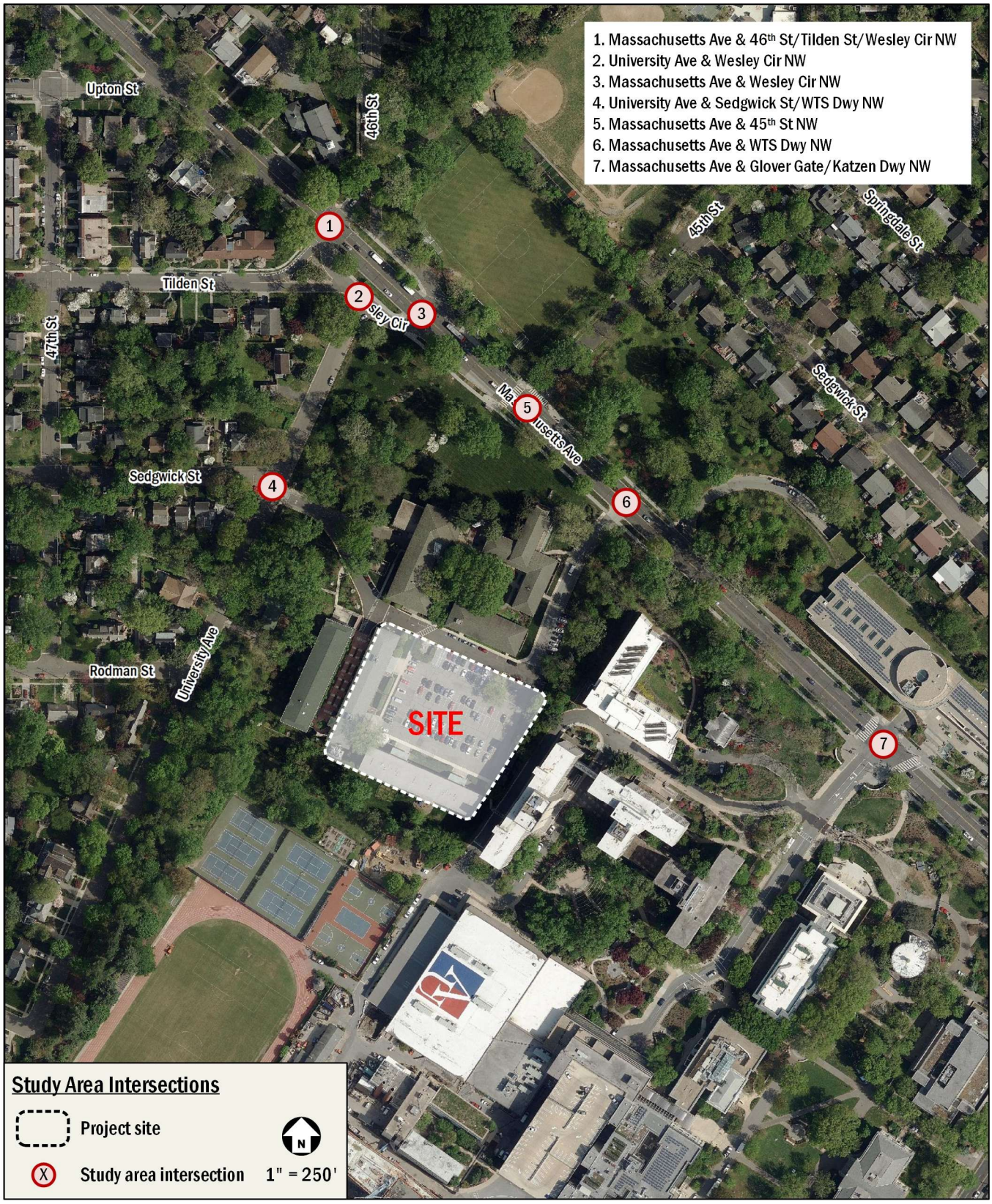


Figure 12: Study Area Intersections

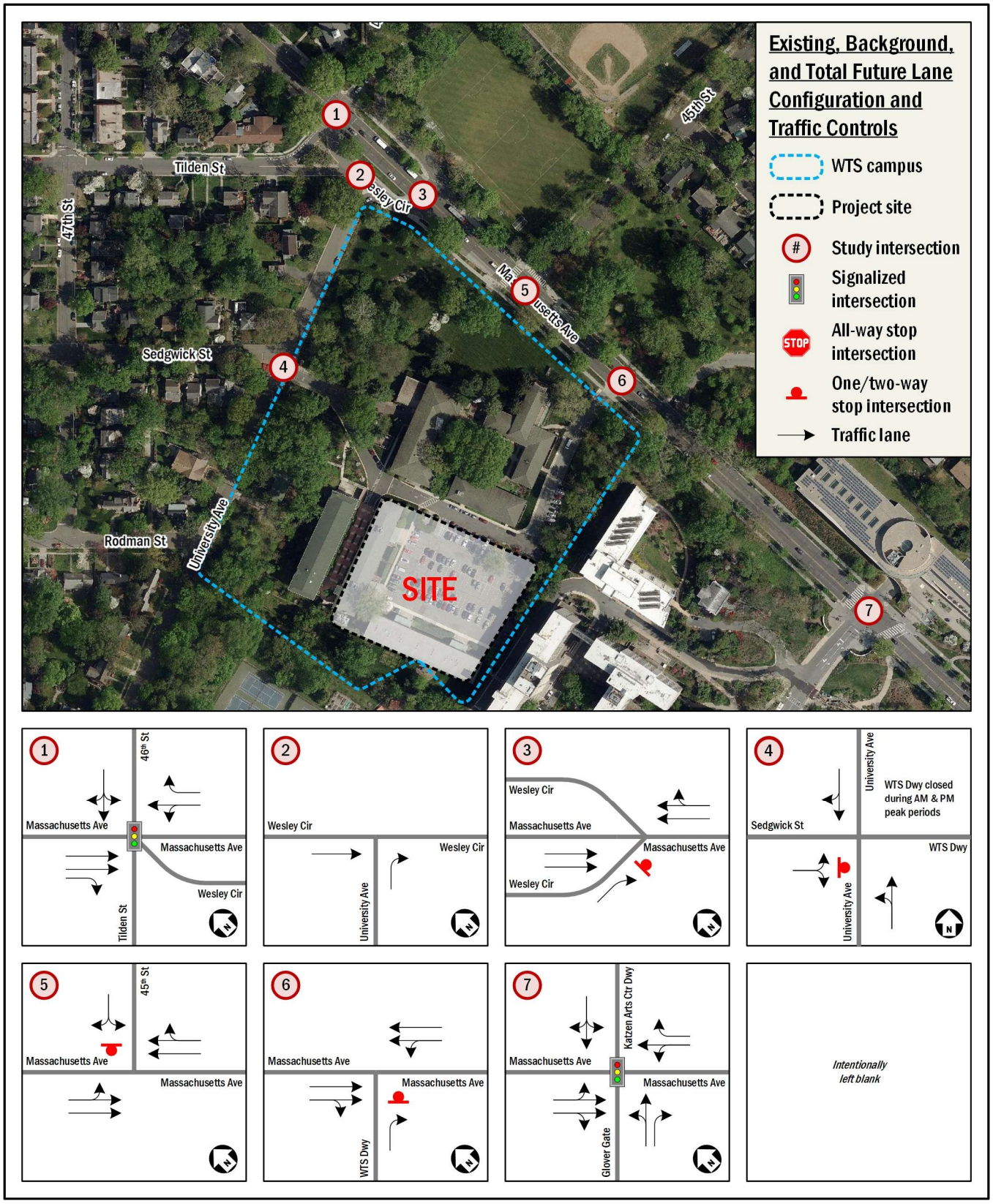


Figure 13: Existing, Background, and Total Future Lane Configurations and Traffic Controls

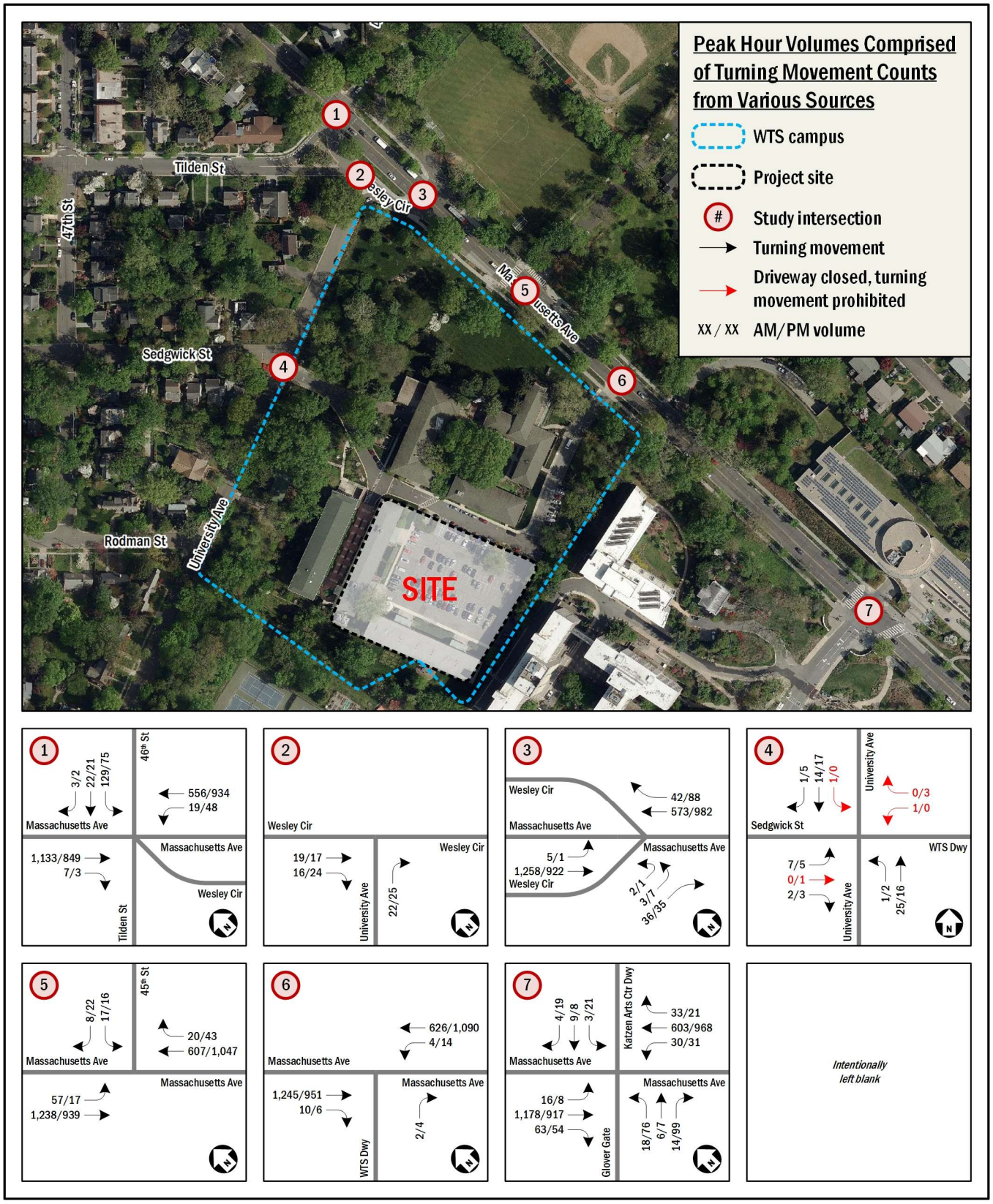


Figure 14: 2025 Existing Peak Hour Volumes

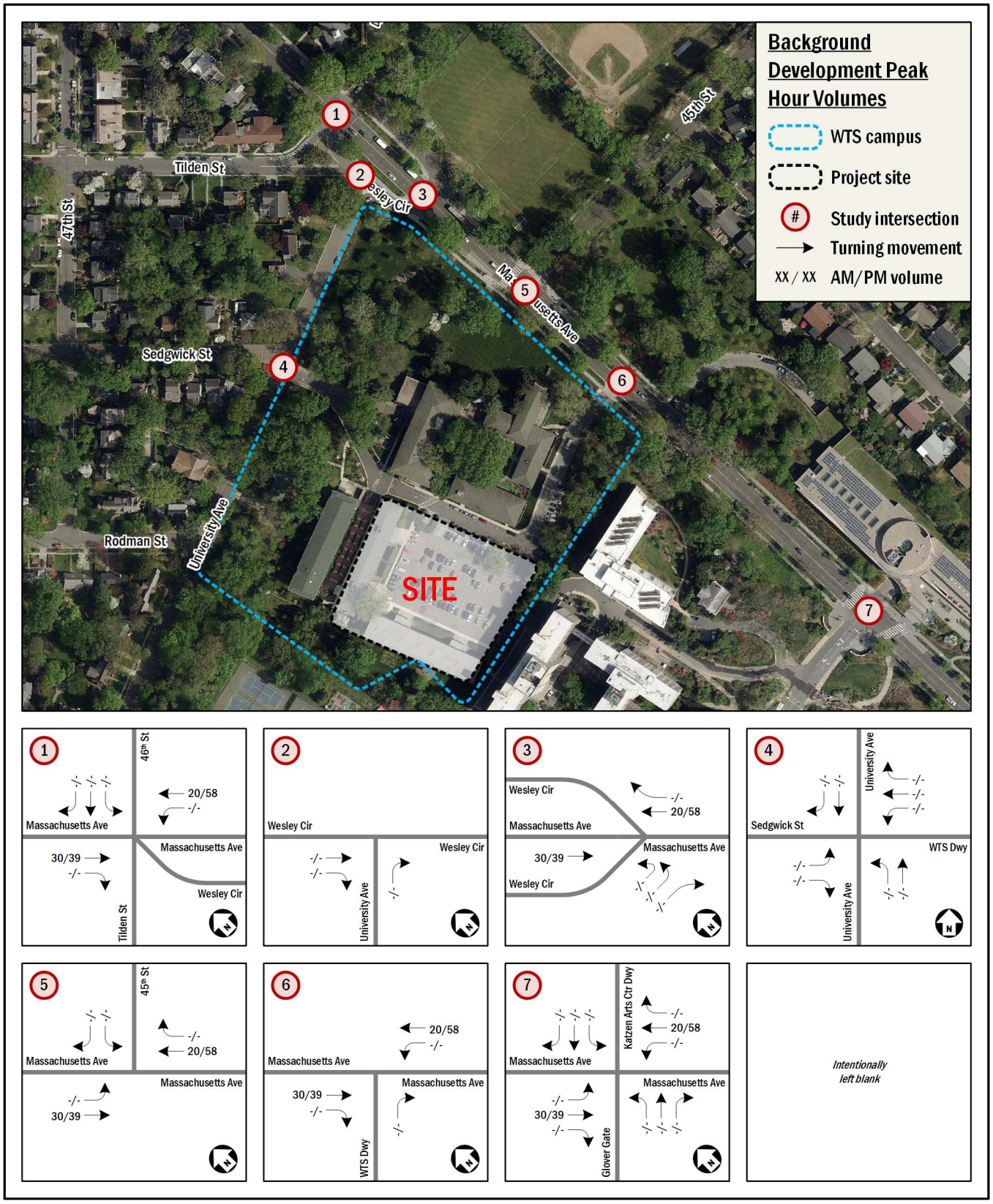


Figure 15: Background Development Peak Hour Volumes

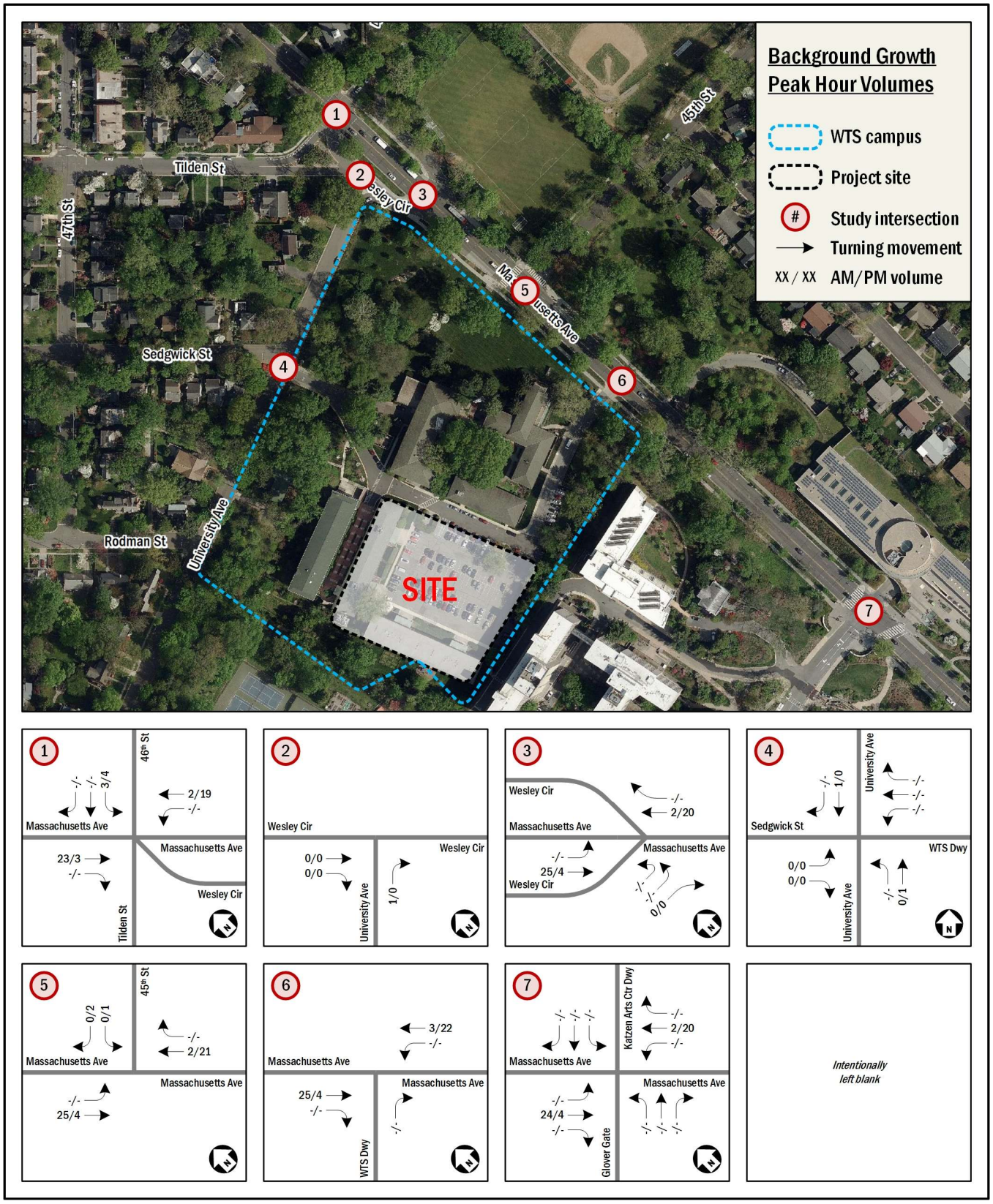


Figure 16: Background Growth Peak Hour Volumes

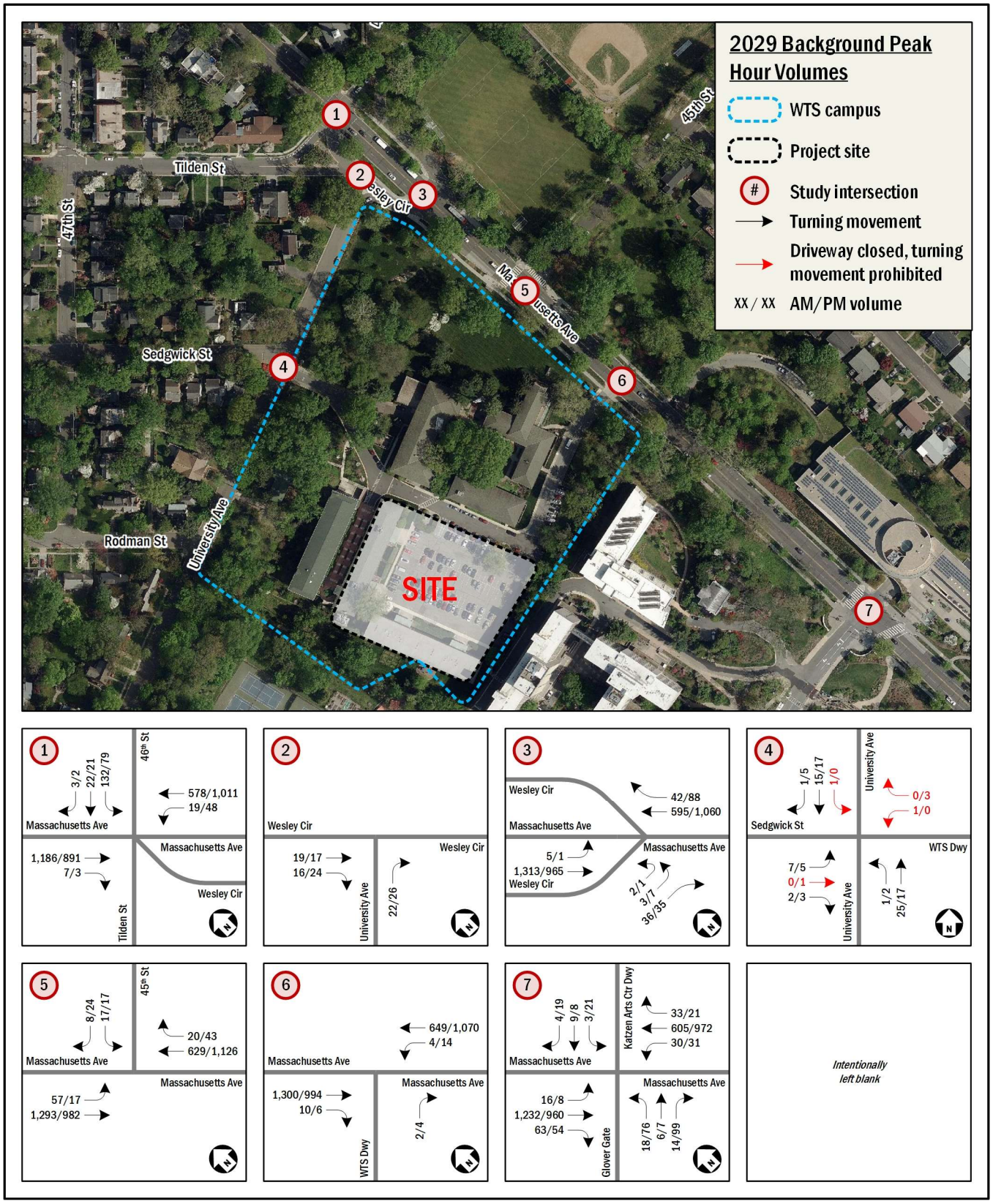


Figure 17: 2029 Background Peak Hour Volumes

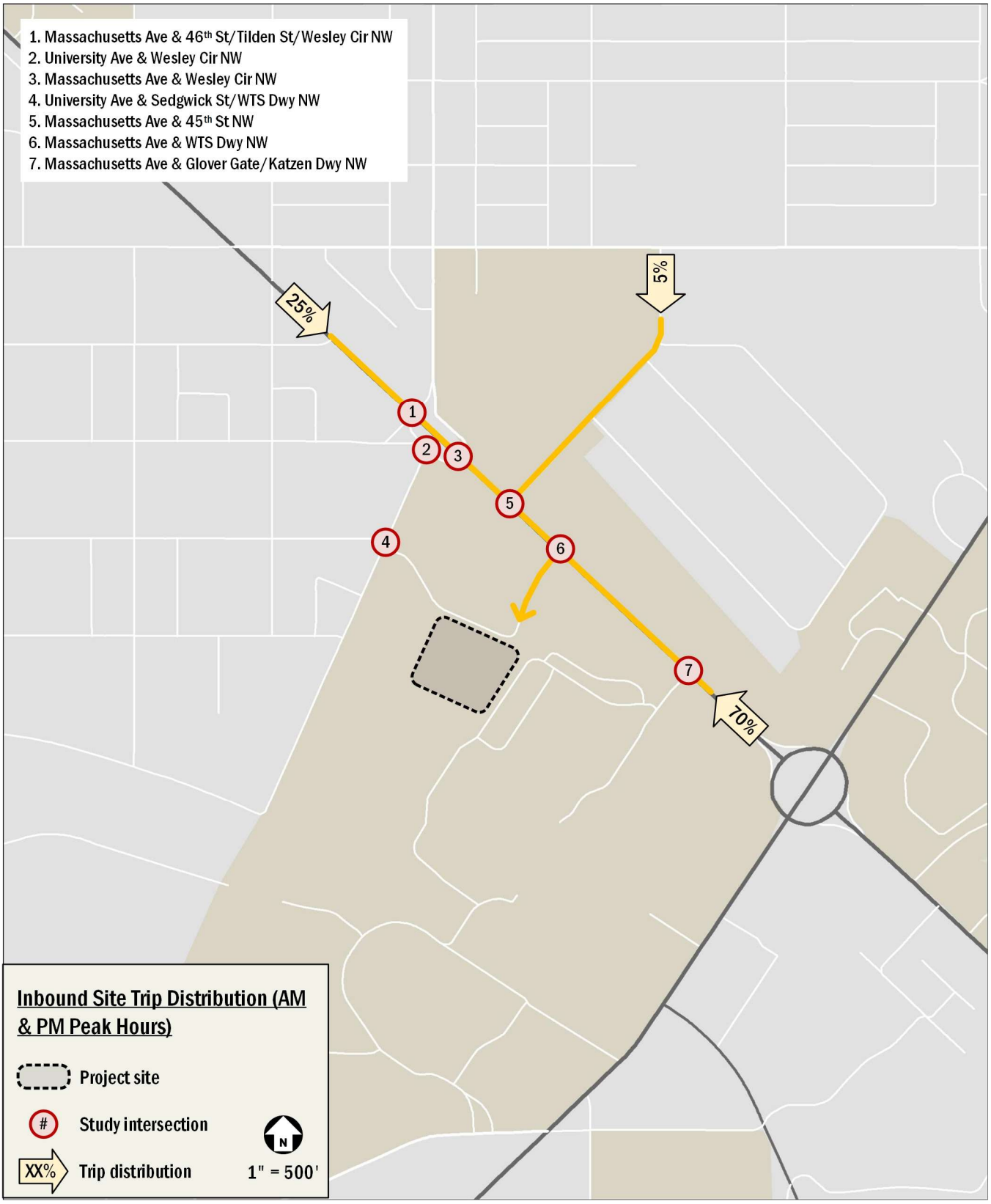


Figure 18: Inbound Site Trip Distribution

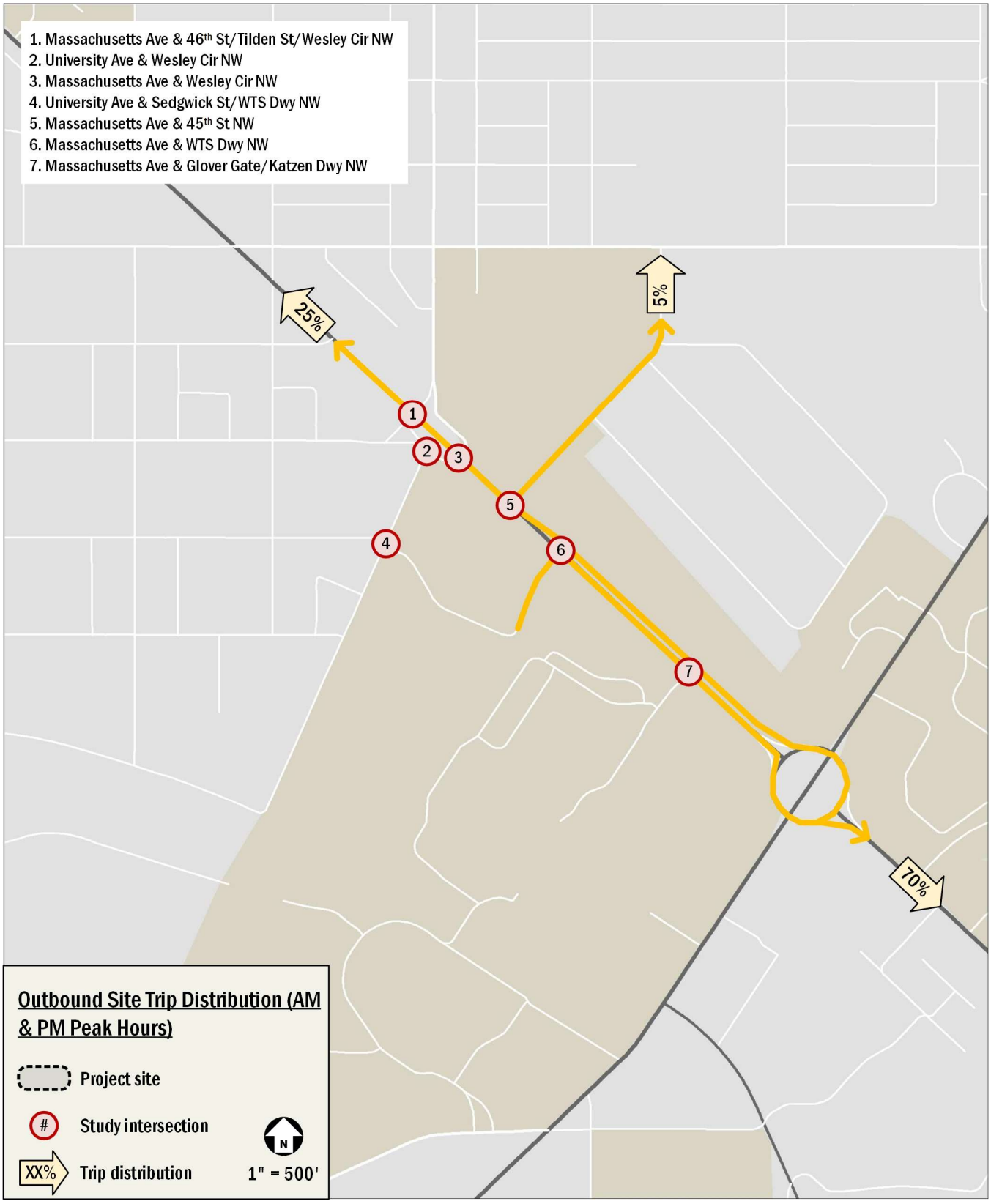


Figure 19: Outbound Site Trip Distribution

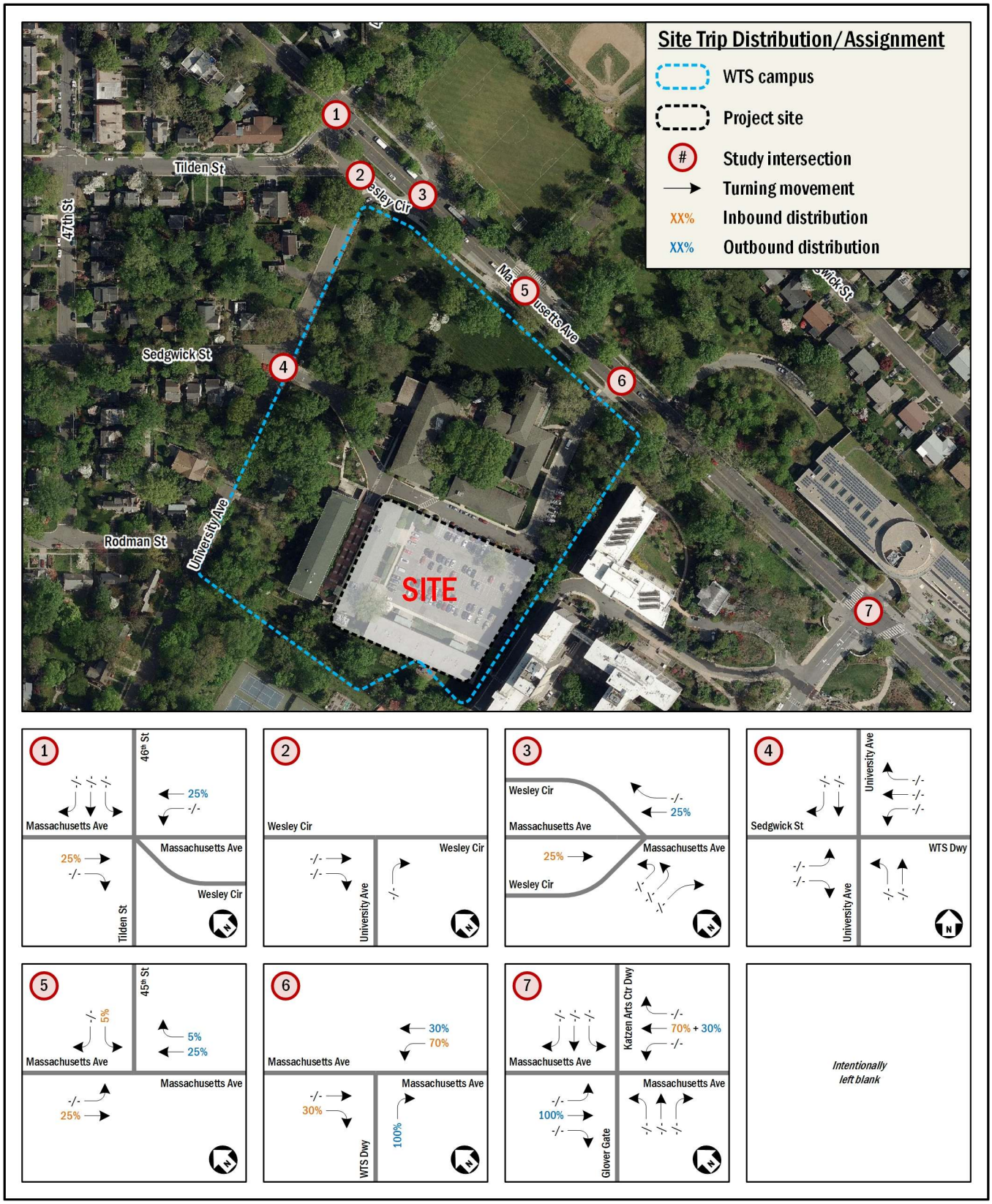


Figure 20: Site Trip Distribution at Study Intersections

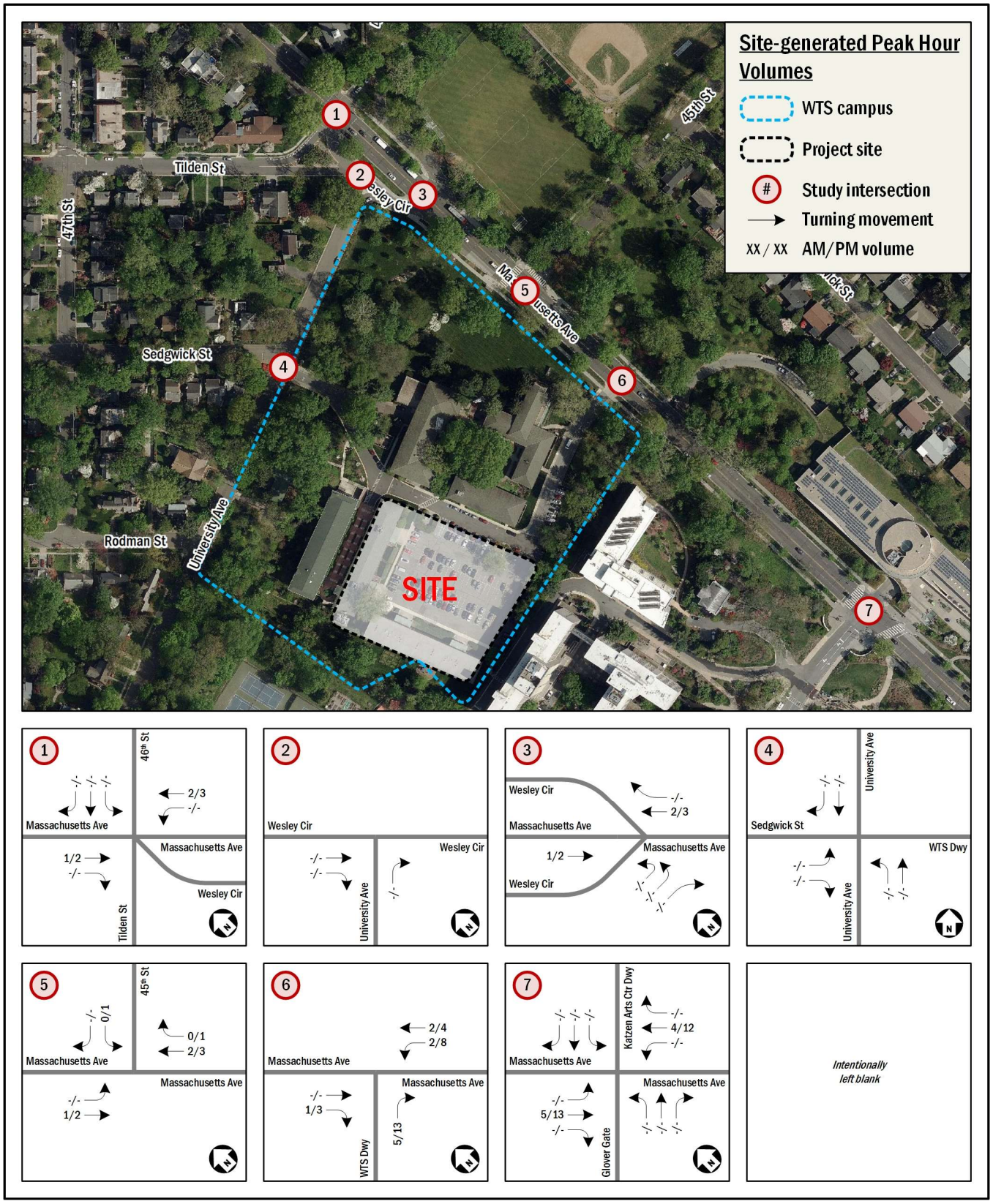


Figure 21: Site-generated Peak Hour Volumes

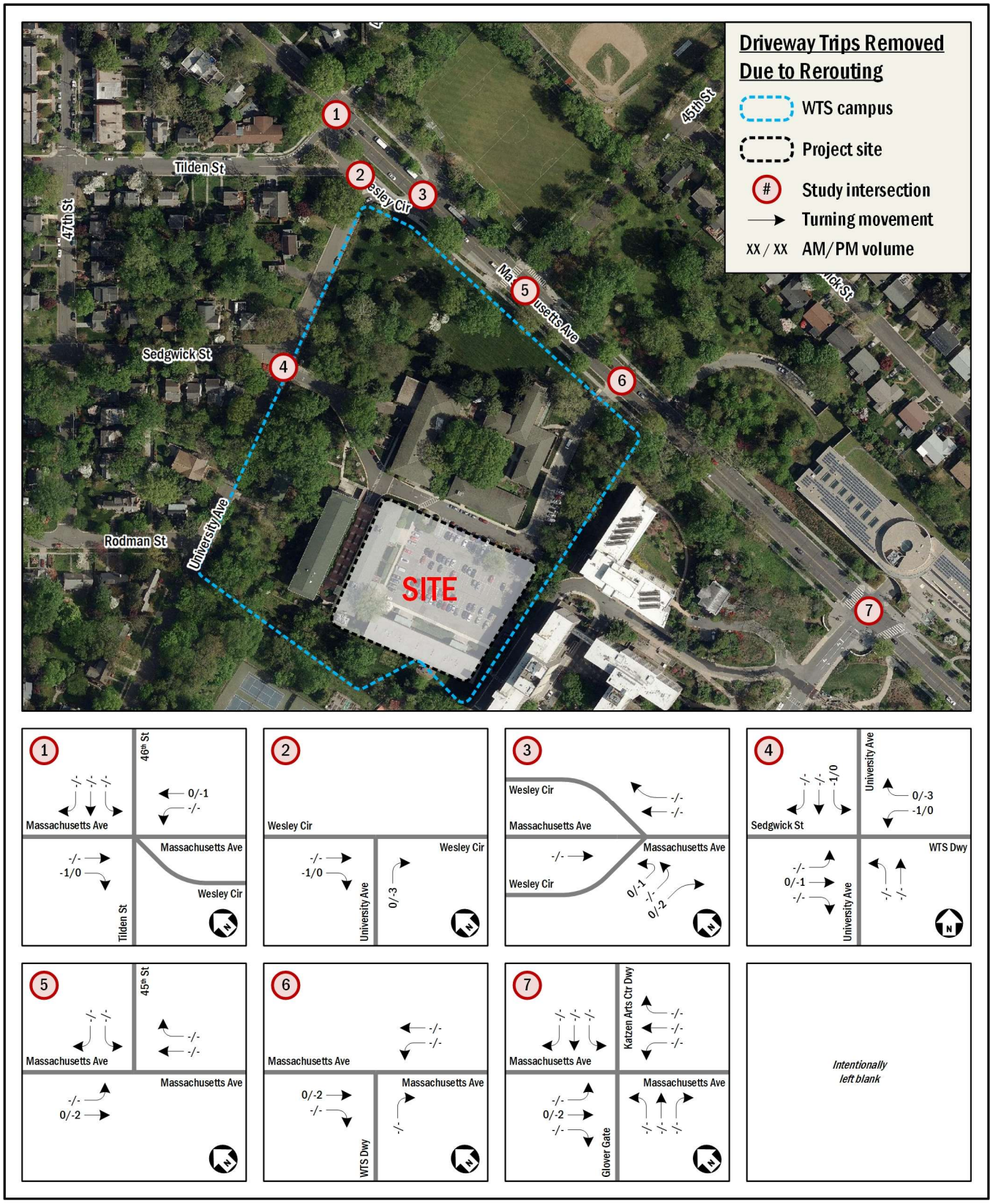


Figure 22: Driveway Volumes Removed for Rerouting

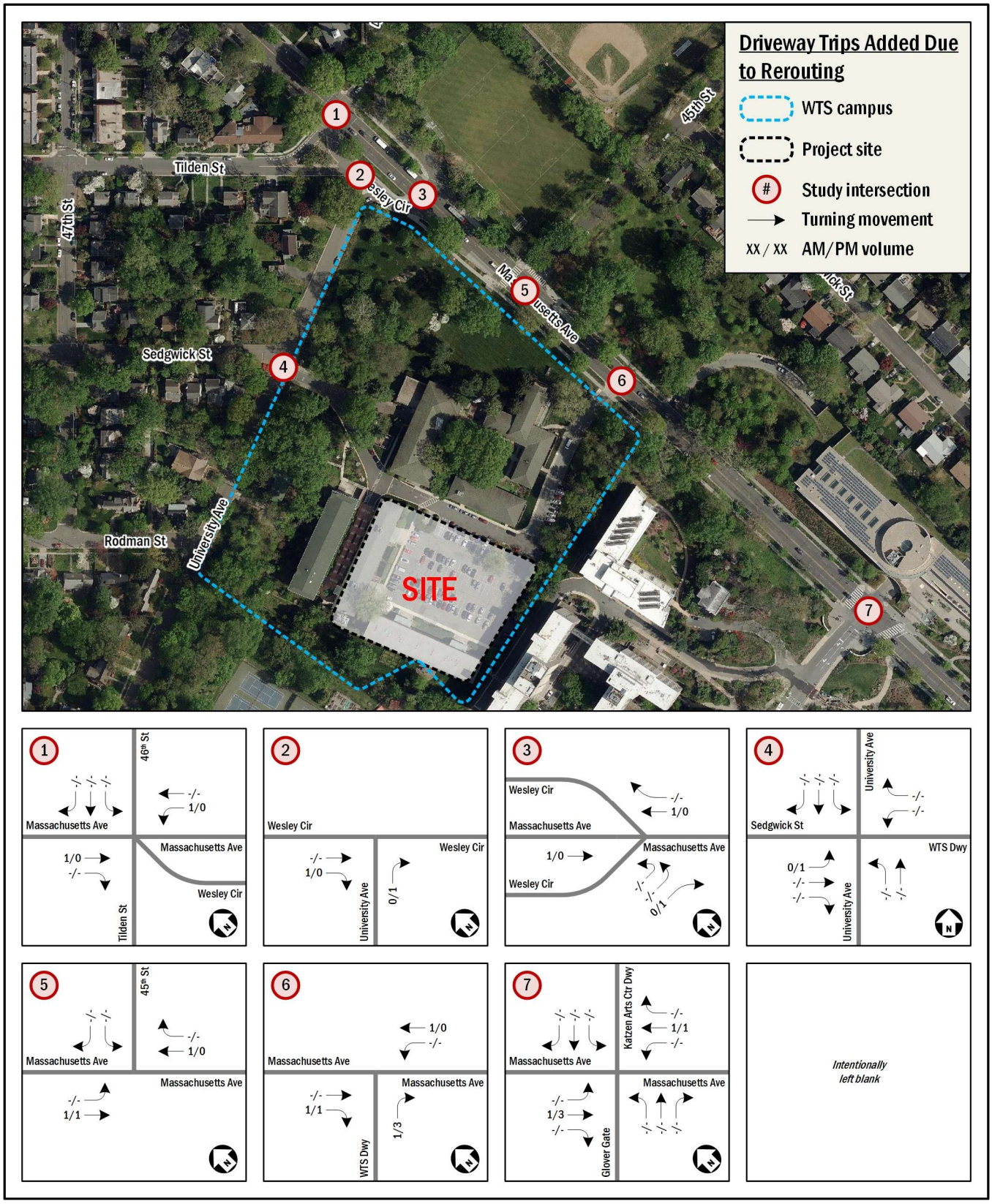


Figure 23: Driveway Volumes Added for Rerouting

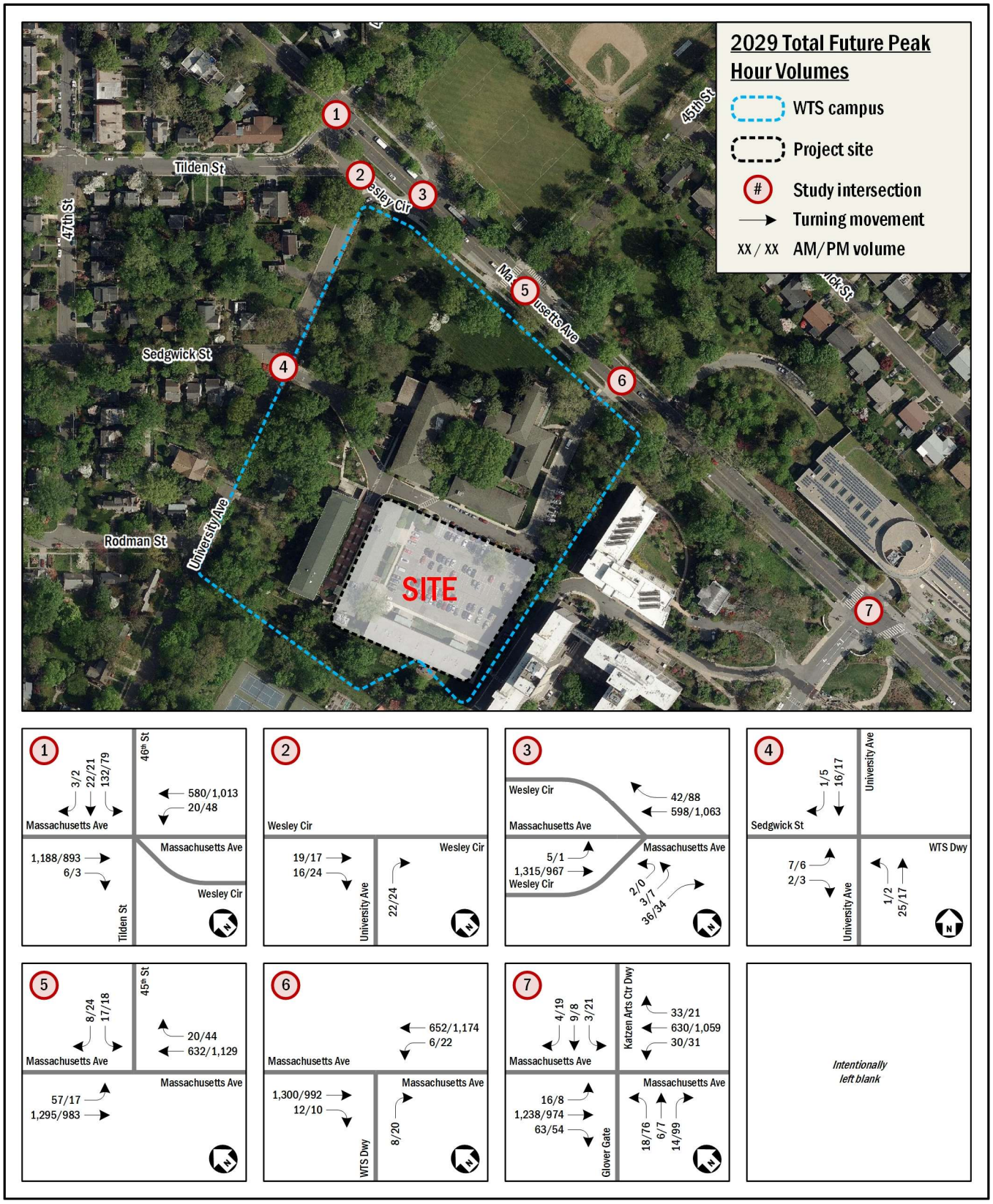


Figure 24: 2029 Total Future Peak Hour Volumes

Table 6: LOS Comparison

	Intersection and Approach	Existing (2025)				Background (2029)				Total Future (2029)			
		AM Peak		*PM Peak*		*AM Peak*		*PM Peak*		*AM Peak*		*PM Peak*	
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
1.	**Massachusetts Ave & 46th St/Tilden St/Wesley Cir NW**												
	Overall	**11.8**	**B**	**7.3**	**A**	**12.1**	**B**	**7.5**	**A**	**12.1**	**B**	**7.5**	**A**
	Southeastbound	10.1	B	6.5	A	10.6	B	6.7	A	10.6	B	6.7	A
	Northwestbound	4.3	A	3.2	A	4.4	A	3.6	A	4.4	A	3.6	A
	Southwestbound	52.4	D	53.9	D	52.9	D	54.7	D	52.9	D	54.7	D
2.	**University Ave & Wesley Cir NW**												
	Northbound	8.6	A	8.6	A	8.6	A	8.7	A	8.6	A	8.6	A
3.	**Massachusetts Ave & Wesley Cir NW**												
	Northbound (Eastbound)	15.3	C	18.0	C	15.9	C	19.3	C	16.0	C	19.3	C
	Southeastbound	0.1	A	0.0		0.1	A	0.0		0.1	A	0.0	
4.	**University Ave & Sedgwick St/WTS Dwy NW**												
	Eastbound	8.8	A	8.8	A	8.8	A	8.8	A	8.8	A	8.7	A
	Westbound	8.9	A	8.4	A	8.9	A	8.4	A	0.0	A	0.0	A
	Northbound	0.2	A	0.7	A	0.2	A	0.7	A	0.2	A	0.7	A
	Southbound	0.4	A	0.0		0.4	A	0.0		0.4	A	0.0	
5.	**Massachusetts Ave & 45th St NW**												
	Overall	**5.1**	**A**	**9.2**	**A**	**5.3**	**A**	**10.5**	**B**	**5.3**	**A**	**10.6**	**B**
	Southeastbound	5.2	A	16.1	B	5.4	A	19.3	B	5.4	A	19.5	B
	Northwestbound	4.9	A	3.2	A	5.0	A	3.2	A	5.0	A	3.2	A
	Southwestbound	3.8	A	3.8	A	3.8	A	3.8	A	3.8	A	3.9	A
6.	**Massachusetts Ave & WTS Dwy NW**												
	Northbound	10.4	B	18.2	C	10.4	B	20.1	C	10.4	B	21.3	C
	Northwestbound	0.2	A	0.4	A	0.2	A	0.4	A	0.3	A	0.7	A
7.	**Massachusetts Ave & Glover Gate/Katzen Dwy NW**												
	Overall	**7.4**	**A**	**14.1**	**B**	**7.6**	**A**	**14.4**	**B**	**7.7**	**A**	**14.5**	**B**
	Southeastbound	4.6	A	9.9	A	4.8	A	10.2	B	4.9	A	10.3	B
	Northwestbound	9.5	A	10.5	B	10.0	A	11.4	B	10.1	B	11.6	B
	Northeastbound	47.3	D	48.6	D	47.3	D	48.6	D	47.3	D	48.6	D
	Southwestbound	46.3	D	44.8	D	46.3	D	44.8	D	46.3	D	44.8	D

Table 7: v/c Comparison

	Intersection and Movement	Existing (2025)		Background (2029)		Total Future (2029)	
		AM Peak	*PM Peak*	*AM Peak*	*PM Peak*	*AM Peak*	*PM Peak*
		v/c	v/c	v/c	v/c	v/c	v/c
1.	**Massachusetts Ave & 46th St/Tilden St/Wesley Cir NW**						
	Southeastbound Thru	0.57	0.43	0.60	0.45	0.60	0.45
	Southeastbound Right	0.01	0.00	0.01	0.00	0.01	0.00
	Northwestbound Thru	0.32	0.58	0.34	0.62	0.34	0.62
	Southwestbound Thru	0.59	0.50	0.60	0.52	0.60	0.52
2.	**University Ave & Wesley Cir NW**						
	Eastbound TR	0.02	0.03	0.02	0.03	0.02	0.03
	Northbound Right	0.03	0.03	0.03	0.03	0.03	0.03
3.	**Massachusetts Ave & Wesley Cir NW**						
	Northbound (Eastbound) LTR	0.10	0.15	0.11	0.16	0.11	0.15
	Southeastbound LT	0.01	0.00	0.01	0.00	0.01	0.00
	Southeastbound Thru	0.50	0.39	0.52	0.41	0.52	0.41
	Northwestbound Thru	0.23	0.42	0.24	0.45	0.24	0.45
	Northwestbound TR	0.14	0.27	0.14	0.28	0.14	0.28
4.	**University Ave & Sedgwick St/WTS Dwy NW**						
	Eastbound LR	0.01	0.01	0.01	0.01	0.01	0.01
	Westbound LTR	0.00	0.00	0.00	0.00	0.00	0.00
	Northbound LT	0.00	0.00	0.00	0.00	0.00	0.00
	Southbound TR	0.00	0.00	0.00	0.00	0.00	0.00
5.	**Massachusetts Ave & 45th St NW**						
	Southeastbound LT	0.61	0.85	0.64	0.89	0.64	0.89
	Northwestbound TR	0.48	0.47	0.50	0.50	0.50	0.50
	Southwestbound LR	0.02	0.03	0.02	0.03	0.02	0.03
6.	**Massachusetts Ave & WTS Dwy NW**						
	Northbound Right	0.00	0.01	0.00	0.02	0.01	0.09
	Southeastbound Thru	0.49	0.62	0.51	0.65	0.51	0.65
	Southeastbound TR	0.25	--	0.26	--	0.26	--
	Northwestbound LT	0.01	0.04	0.01	0.04	0.01	0.06
	Northwestbound Thru	--	0.47	--	0.50	--	0.51
7.	**Massachusetts Ave & Glover Gate/Katzen Dwy NW**						
	Southeastbound LTR	0.64	0.57	0.67	0.60	0.67	0.61
	Northwestbound LTR	--	0.61	--	0.66	--	0.67
	Northwestbound LT	0.62	--	0.64	--	0.65	--
	Northwestbound Right	0.03	--	0.03	--	0.03	--
	Northeastbound LT	0.16	0.51	0.16	0.51	0.16	0.51
	Northeastbound Right	0.01	0.13	0.01	0.13	0.01	0.13
	Southwestbound LTR	0.07	0.20	0.07	0.20	0.07	0.20

Table 8: 50th & 95th Percentile Queuing Comparison (in feet)

	Intersection and Lane Group	Storage Length (ft)	Existing (2025)				Background (2029)				Total Future (2029)			
			AM Peak		*PM Peak*		*AM Peak*		*PM Peak*		*AM Peak*		*PM Peak*	
			50th	95th	50th	95th	50th	95th	50th	95th	50th	95th	50th	95th
1.	**Massachusetts Ave & 46th St/Tilden St/Wesley Cir NW**													
	Southeastbound Thru	310	208	262	122	155	225	283	131	166	226	283	131	166
	Southeastbound Right	310	1	6	1	3	1	6	1	3	1	5	1	3
	Northwestbound Thru	170	22	27	2	1	23	28	2	1	23	28	2	1
	Southwestbound Thru	540	109	183	75	135	111	187	78	140	111	187	78	140
2.	**University Ave & Wesley Cir NW**													
	Northbound Right	330	--	2	--	2	--	2	--	0	--	2	--	2
3.	**Massachusetts Ave & Wesley Cir NW**													
	Northbound (Eastbound) LTR	50	--	9	--	13	--	9	--	0	--	9	--	13
	Southeastbound LT	170	--	0	--	0	--	0	--	0	--	0	--	0
	Southeastbound Thru	170	--	0	--	0	--	0	--	0	--	0	--	0
4.	**University Ave & Sedgwick St/WTS Dwy NW**													
	Eastbound LR	340	--	1	--	1	--	1	--	1	--	1	--	1
	Westbound LTR	100	--	0	--	0	--	0	--	1	--	0	--	0
	Northbound LT	320	--	0	--	0	--	0	--	0	--	0	--	0
	Southbound TR	320	--	0	--	0	--	0	--	0	--	0	--	0
5.	**Massachusetts Ave & 45th St NW**													
	Southeastbound LT	200	111	125	125	145	114	128	131	151	114	128	131	151
	Northwestbound TR	200	142	174	92	105	146	178	95	109	146	179	95	108
	Southwestbound LR	380	4	14	4	17	4	14	5	18	4	14	5	18
6.	**Massachusetts Ave & WTS Dwy NW**													
	Northbound Right	290	--	0	--	0	--	0	--	1	--	0	--	0
	Southeastbound TR	200	--	0	--	3	--	0	--	0	--	0	--	5
	Northwestbound LT	80	--	1	--	0	--	1	--	3	--	1	--	0
	Northwestbound Thru	80	--	0	--	1	--	0	--	0	--	1	--	7
7.	**Massachusetts Ave & Glover Gate/Katzen Dwy NW**													
	Southeastbound LTR	420	43	48	161	190	45	51	175	198	45	51	178	201
	Northwestbound LTR		--	--	213	266	--	--	244	305	--	--	250	311
	Northwestbound LT	480	203	305	--	--	217	328	--	--	220	334	--	--
	Northwestbound Right	480	0	2	--	--	0	2	--	--	0	2	--	--
	Northeastbound LT	100	17	45	66	122	17	45	66	122	17	45	66	122
	Northeastbound Right	100	0	0	0	54	0	0	0	54	0	0	0	54
	Southwestbound LTR	40	8	30	22	61	8	30	22	61	8	30	22	61

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

Transit Facilities

This chapter discusses the existing and proposed transit facilities near the site and evaluates the overall transit impacts of the site.

This chapter concludes that:

- The project site is well-served by existing transit;
- The project site is approximately 1 mile from the Tenleytown-AU Metro station;
- The project site is served by three (3) Metrobus routes and two (2) AU shuttle routes; and
- The project is expected to generate a manageable amount of transit trips that existing transit service is capable of handling.

Existing Transit Service

The study area is served by Metrorail and the Metrobus and American University (AU) shuttle systems. Combined, these transit services provide local and regional transit connections and link the site with residential, employment, commercial, and cultural destinations throughout the region. Figure 25 identifies the transit routes, stations, and stops in the study area.

The site is located 1 mile from the Tenleytown-AU Metro station on the Red Line, which travels between the Glenmont and Shady Grove stations by way of downtown Washington, DC.

The site is also served by two (2) AU shuttle routes, which WTS students can ride for free, and three (3) Metrobus routes. These bus routes connect the site to many areas of the region, as well as several Metro stations. Table 9 shows a summary of the bus route information for the routes that serve the site, including service hours, headway, and distance to the nearest bus stop.

Table 10 shows WMATA's recommended amenities for each type of bus stop. Table 11 shows a detailed inventory of the amenities appearing at each bus stop within the transit study area.

Proposed Transit Service

There are no known planned or proposed transit improvements in the project study area.

Site-Generated Transit Impacts

The proposed development is projected to generate 24 transit trips (11 inbound, 13 outbound) during the AM peak hour and 70 transit trips (33 inbound, 37 outbound) during the PM peak hour.

It is expected that existing transit service can accommodate these new site-generated trips.

Table 9: Local Bus Route Information

Route Number	Route Name	Service Hours at Stop Closest to Site			Headway (minutes)	Walking Distance to Nearest Stop
		Weekdays	Saturdays	Sundays		
D96	Massachusetts Avenue - Bethesda Line	5:30am-12:00am	7:00am-12:00am	7:00am-11:00pm	20-30	0.2 mi (2 min)
D90	Massachusetts Avenue - Tenleytown Line	5:30am-12:00am	7:00am-9:30pm	-	20-30	0.4 mi (3 min)
C81	Military Road Line	5:00am-12:00am	5:30am-12:00am	5:30am-12:00am	20-30	0.4 mi (3 min)
-	AU Shuttle Blue Route	6:00am-12:15am	7:00am-12:15am	8:00am-12:15am	15 - 30	0.2 mi (4 min)
-	AU Shuttle Red Express Route	7:00am-11:05pm	-	-	12 - 15	0.2 mi (5 min)

Table 10: WMATA Recommended Bus Stop Amenities

Amenity	Basic Stop		Enhanced Stop	Transit Center Stop
	< 50 daily boardings	≥ 50 daily boardings		
Bus stop flag	●	●	●	●
Route map and schedule	●	●	●	●
5’ x 8’ landing pad	●	●	●	●
40’/60’ x 8’ landing pad			●	●
4’ sidewalk	●	●	●	●
Bench		●	●	●
Shelter		●	●	●
Lighting (on shelter or within 30’ if overhead)	Recommended for stops with early morning and evening service		●	●
Dynamic information signage	Contingent on presence of shelter			
Trash and recycling receptacles	Recommended where surrounding uses may generate trash			

Source: 2019 WMATA *Bus Stop Amenity Reference Guide*

Table 11: Bus Stop Inventory

Location	Stop ID	Routes Served	Amenities								
			Bus stop flag	Route map & sched-ule	Land-ing pad	Side-walk	Bench	Shel-ter	Dy-namic info sign	Light-ing	Trash Recp.
Massachusetts Ave & Fordham Rd (EB)	1002411	D96	●	●	●	●	●	●	●	●	●
Massachusetts Ave & 48th St (WB)/ *Spring Valley*	1002407/ *111*	D96/ *Red Express*	●		●	●					●
Massachusetts Ave & Van Ness St (EB)	1002388	D96	●		●	●				●	●
Massachusetts Ave & Van Ness St (WB)	1002387	D96	●		●	●				●	
Massachusetts Ave & 46th St (WB)	1002341	D96	●		●	●				●	
Massachusetts Ave & Tilden St (EB)	1002339	D96	●		●	●				●	
Massachusetts Ave & 45th St (WB)	1002310	D96	●		●	●				●	
Massachusetts Ave & 45th St (EB)	1002323	D96	●		●	●	●	●		●	●
Massachusetts Ave & Ward Cir (WB) / *Katzen Arts Center*	1002283 / *114*	D96 / *Red Express*	●		●	●				●	●
Massachusetts Ave & Ward Cir (EB) / *Massachusetts Ave NW*	1002275 / *115*	D96 / *Red Express*	●		●	●	●	●	●	●	
Nebraska Ave & Ward Cir (SB) / *Kerwin Hall*	1003092 / *109*	D90, C81 / *Blue*	●		●	●					
Nebraska Ave & N Drwy Amer Univ (NB)	1002227	D90, C81	●	●	●	●	●	●	●	●	
Nebraska Ave NW & New Mexico Ave NW (SB)	1002204	C81	●		●	●					
Nebraska Ave NW & New Mexico Ave NW	1002197	C81	●		●	●					
New Mexico Ave & Nebraska Ave (NB)	1002205	D90	●		●	●				●	●
New Mexico Ave & Nebraska Ave (SB)	1002201	D90	●		●	●				●	
Massachusetts Ave & Westover Pl (EB)	1002229	D96	●	●	●	●				●	●
Massachusetts Ave & Ward Cir (WB)	1002258	D96	●	●	●	●					●
Nebraska Ave & Ward Cir (SB) / *Nebraska Hall - Inbound*	1003710 / *108*	D90, C81 / *Blue*	●		●	●					
Nebraska Ave & Ward Cir (NB) / *Nebraska Hall - Outbound*	1002284 / *102*	D90, C81 / *Blue*	●	●	●	●	●	●	●	●	●
Nebraska Ave & #3700 (SB)	1002292	D90, C81	●		●	●					
Nebraska Ave & Naval Sec Ctr (NB)	1002304	D90, C81	●		●	●	●	●		●	●
Kogod School of Business	*101*	*Blue*			●	●		●		●	
Letts/Anderson	*100*	*Blue*			●	●		●		●	●

AU Shuttle routes, stop locations, and stop ID's noted in italics.

Figure 25: Existing Transit Facilities

Pedestrian Facilities

This chapter summarizes existing pedestrian access to the site and reviews the impacts of the site on the pedestrian network.

The following conclusions are reached within this chapter:

- Despite some incidences of missing sidewalks, curb ramps, and crosswalks on minor streets near the project site, there are generally adequate pedestrian facilities along primary walking routes between the site and major local destinations;
- The area surrounding the site is free of major barriers to pedestrian connectivity;
- The project is expected to generate pedestrian trips to and from nearby destinations, and the pedestrian facilities surrounding the project can accommodate these new trips; and
- While sidewalks are provided along the Massachusetts Avenue driveway, no sidewalks are provided along the University Avenue site driveway or along University Avenue between the driveway and Wesley Circle.

Pedestrian Study Area

Pedestrian facilities within a quarter-mile of the site were evaluated. There are several streets within the study area that do not have sidewalks, particularly in the residential areas immediately west and northeast of the site. There are also some sidewalks nearby that do not meet minimum width requirements, in addition to having missing or non-compliant crosswalks and curb ramps. Despite these shortcomings, there are generally adequate pedestrian facilities along Massachusetts Avenue NW, which is a primary walking route to major local destinations.

Figure 26 shows suggested pedestrian pathways to nearby destinations, including walking time and distances.

Existing Pedestrian Infrastructure

A detailed inventory of the existing pedestrian facilities within the study area is shown on Figure 27. Sidewalks, crosswalks, and curb ramps are evaluated based on the guidelines set forth by DDOT's *Design and Engineering Manual (2023)* in addition to Americans with Disabilities Act (ADA) standards. These facilities are shown within their respective land use types based on DC's Zoning Regulations of 2016, which determine which of DDOT's sidewalk width requirements apply. These sidewalk width requirements are shown in Table 12.

Table 12: DDOT Sidewalk Width Requirements

Street Type	Curb Walk	Tree/Fur-nishing Zone	Sidewalk Unobstructed Clear Width	Total Minimum Sidewalk Width
Low to Moderate Density Residential	None	4 - 6 feet	6 feet	10 feet
High Density Residential or Light Commercial	1 foot	4 - 8 feet	8 feet	13 feet
Central DC and Commercial Areas	1 - 2 feet	4 - 10 feet	10 feet	16 feet

Source: DDOT *Design and Engineering Manual*

Sidewalks

As shown on Figure 27, the pedestrian study area includes streets within the "Low to Moderate Density Residential" and "High Density Residential or Light Commercial" categories of sidewalk width requirements. There are several streets within the study area that do not have sidewalks, particularly in the residential areas immediately west and northeast of the site. There are also some sidewalks nearby that do not meet minimum width requirements. In some cases, as along the south side of Massachusetts Avenue NW, the sidewalk meets the width requirement of a lower intensity land use, but not its applicable land use. In other cases, as on the American University campus, the sidewalk is not accompanied by a tree/furnishing zone.

Curb ramps

ADA standards require that all curb ramps be provided wherever an accessible route crosses a curb and must have a detectable warning. Additionally, curb ramps shared between two crosswalks are not desired but where they are present, a 48" clear space is required outside active vehicle traffic lanes and within marked crossings. As shown on Figure 27, there are some intersections near the project site that are missing a curb ramp and/or crosswalk on one or more leg.

Crosswalks

DDOT's *Design and Engineering Manual (2023)* requires crosswalks at all intersections or mid-block locations controlled by vehicular and/or pedestrian traffic signals or all-way stop signs. Additionally, high-visibility crosswalks are required at all uncontrolled crosswalks and all crosswalks (including signalized or stop-controlled crosswalks) leading to a block with a school,

within a designated school zone area, along a designated school walking route, on blocks adjacent to a Metro station, in areas with moderate to high pedestrian volumes, and in locations with high frequencies of conflicts with pedestrians and turning vehicles.

As shown on Figure 27, there are several instances near the site where crosswalks are not present, or a crosswalk is present but not a high-visibility type at a location where it is required.

Proposed Pedestrian Infrastructure

The Wesley Campus Plan will provide a new sidewalk and streetscape along the buildings northern side to connect to provide links to adjacent pedestrian infrastructure within the campus.

The Applicant is also coordinating with American University (AU) on options to maintain the existing pedestrian connection between the two campuses, located on the east side of the project site.

Site-Generated Pedestrian Impacts

The proposed development is projected to generate 12 pedestrian trips (5 inbound, 7 outbound) during the AM peak hour and 35 pedestrian trips (17 inbound, 18 outbound) during the PM peak hour.

The origins and destinations of these pedestrian trips are likely to be:

- Retail and restaurant locations; and
- Neighborhood destinations such as libraries and parks.

In addition to these trips, the transit trips generated by the site will also generate pedestrian demand between the site and nearby bus stops. It is expected that existing pedestrian facilities can accommodate these new site-generated trips.

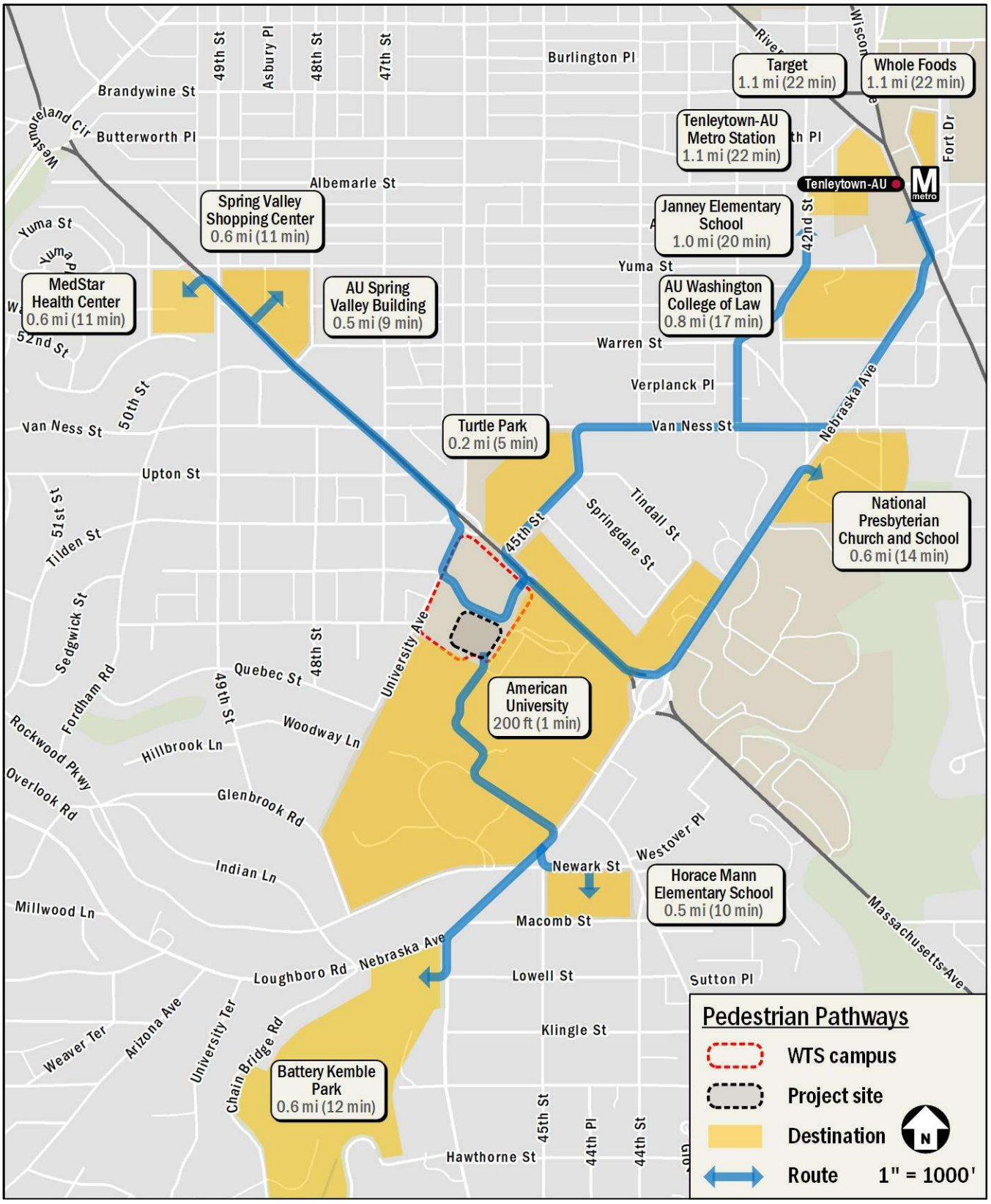


Figure 26: Existing Pedestrian Pathways

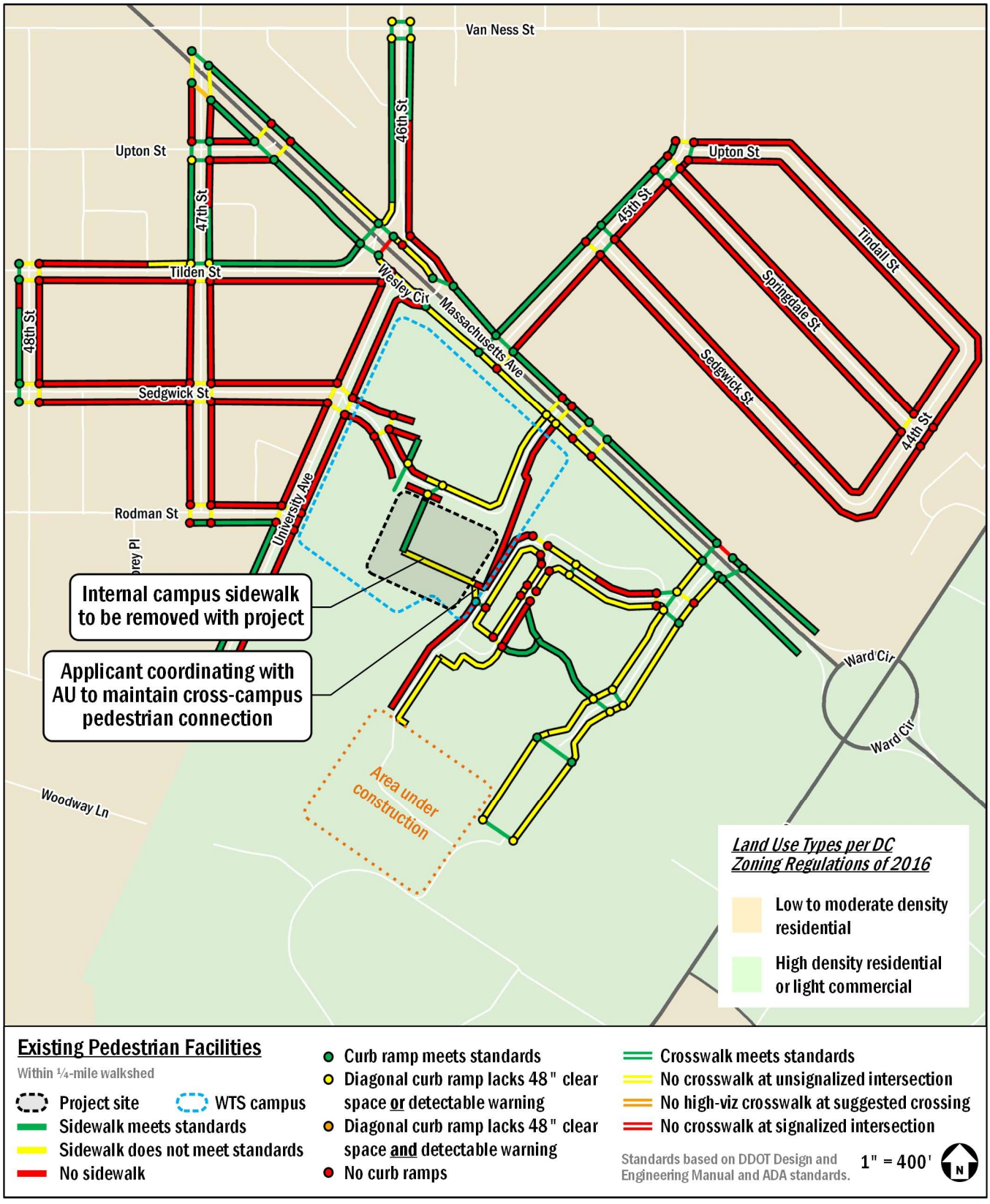


Figure 27: Existing Pedestrian Facilities

Bicycle Facilities

This chapter summarizes existing bicycle access to the site and reviews the impacts of the site on the bicycle network.

The following conclusions are reached within this chapter:

- The site is proximate to several on-street bicycle facilities;
- Several planned and proposed bicycle projects will improve bicycle access to the site;
- The project is expected to generate a manageable number of bicycle trips; therefore, site-generated bicycle trips can be accommodated on existing infrastructure; and
- The project will include short- and long-term bicycle parking that meets zoning requirements.

Existing Bicycle Facilities

The site is located approximately 0.5 miles northwest of the bike lanes on New Mexico Avenue NW, 0.7 miles southwest of the bike lanes on Van Ness Street NW, and 0.5 miles southwest of the sharrow on 42nd Street NW. Using these facilities, bicyclists have access to several off-street bike facilities, such as the Rock Creek Trail and the Klingle Valley Trail.

Existing bicycle facilities are shown on Figure 28.

Capital Bikeshare

In addition to personal bicycles, the Capital Bikeshare program provides an additional cycling options for residents, students, employees, and visitors of the proposed project. The program has placed over 500 bikeshare stations across the Washington, DC metropolitan area with over 4,500 bicycles in the fleet. The following Capital Bikeshare stations are within a quarter-mile of the site:

- A 14-dock station at Ward Circle / American University, 0.2 miles east of the site; and
- A 19-dock station at American University East Campus, 0.25 miles southeast of the site.
- A 18-dock station at 44th Street and New Mexico Avenue NW, 0.4 miles southeast of the site.

Figure 28 illustrates these and other Capital Bikeshare locations in the area.

Shared Mobility

Shared mobility service in the District is provided by four (4) electric-assist scooter (e-scooter) and electric-assist bicycle (e-bike) companies provide Personal Mobility Device (PMD) service in the District: Lime, Lyft, Spin, and Veo. These Personal Mobility Devices (PMDs) are provided by private companies that give registered users access to a variety of e-scooter and e-bike options. These devices are used through each company-specific mobile phone application. Many PMDs do not have designated stations where pick-up/drop-off activities occur like with Capital Bikeshare; instead, many PMDs are parked in public space, most commonly in the “furniture zone” (the portion of sidewalk between where people walk and the curb, often where other street signs, street furniture, trees, parking meters, etc. are located). Currently, PMD programs are present in Arlington County, the District, Fairfax County, the City of Alexandria, and Montgomery County.

Funded Bicycle Facilities

There are no bicycle improvements near the site that are planned, funded, and scheduled to open in the near future.

Planned Bicycle Facilities

Several bicycle improvements are planned near the site but are not yet funded. These are shown on Figure 29.

MoveDC Bicycle Element

The bicycle element of *MoveDC*, the District’s multimodal long-range transportation plan, includes the following bicycle improvements near the development that are planned but not yet funded:

- Bicycle improvements along Massachusetts Avenue NW east of Ward Circle, Nebraska Avenue NW south of Ward Circle, Loughboro Road NW, Glenbrook Road NW, 49th Street NW, Albermarle Street NW, Glenbrook Road NW, and Rockwood Parkway NW.

Capital Bikeshare Development Plan

DDOT’s Capital Bikeshare Development Plan was originally released in 2016 to guide the continued growth of Capital Bikeshare in the District of Columbia. The most recent update of the Development Plan was released in 2020 and includes the following:

- A planned station at Turtle Park, 0.2 miles from the site;
- A proposed station at Quebec Street and 48th Street NW, 0.4 miles from the site; and

- A proposed station at 47th Street and Warren Street NW, 0.5 miles from the site.

Site-Generated Bicycle Impacts

This section summarizes the impacts of the project on bicycling conditions surrounding the project site.

On-site Bicycle Infrastructure

The project will meet zoning requirements by providing at least 62 long-term bicycle parking spaces inside the building and at least 12 short-term bicycle parking spaces.

Bicycle Trip Generation

The proposed project is projected to generate 2 bicycle trips (1 inbound, 1 outbound) during the AM peak hour and 7 bicycle trip (3 inbound, 4 outbound) during the PM peak hour.

It is expected that existing bicycle facilities can accommodate these new site-generated trips.

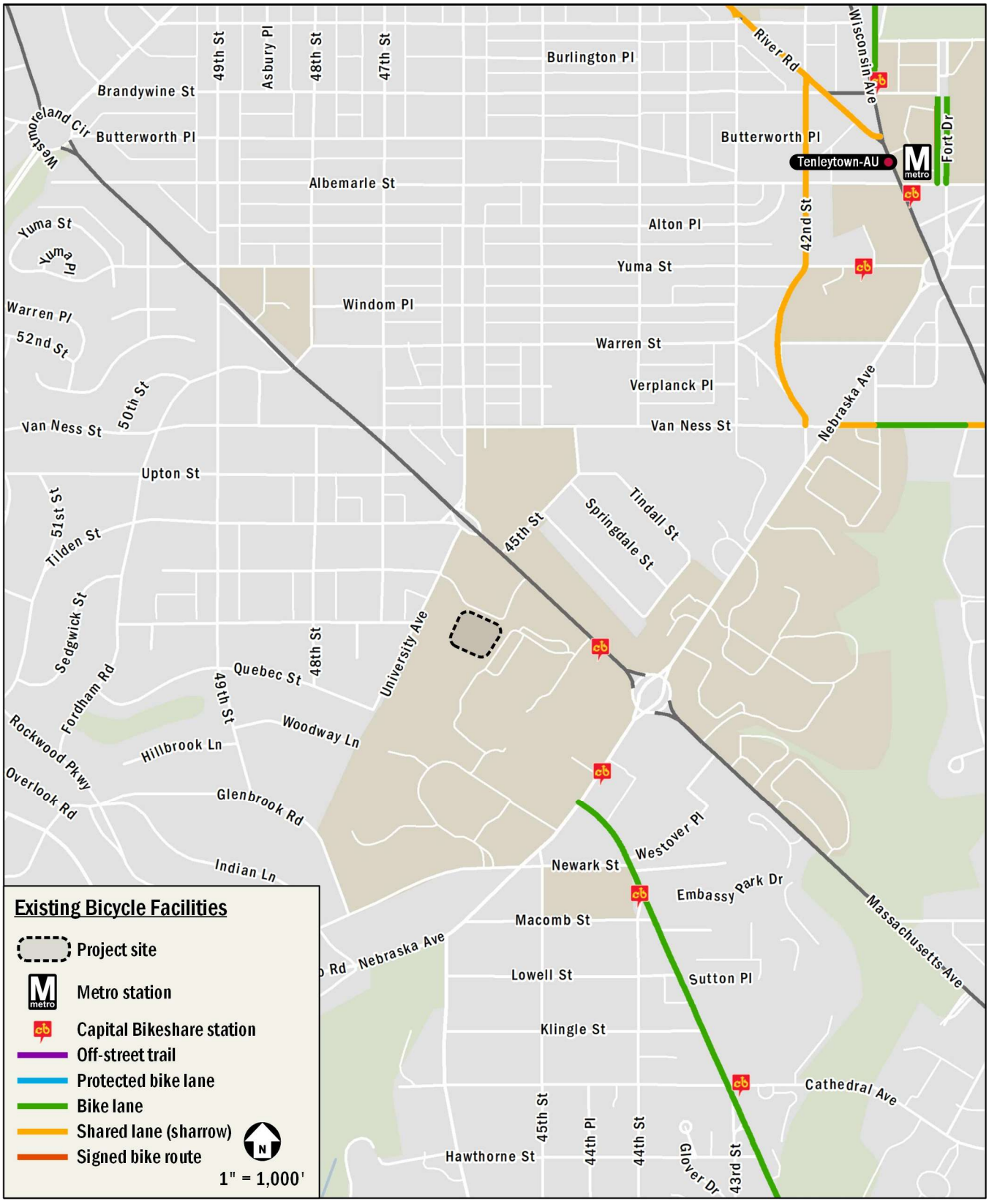


Figure 28: Existing Bicycle Facilities

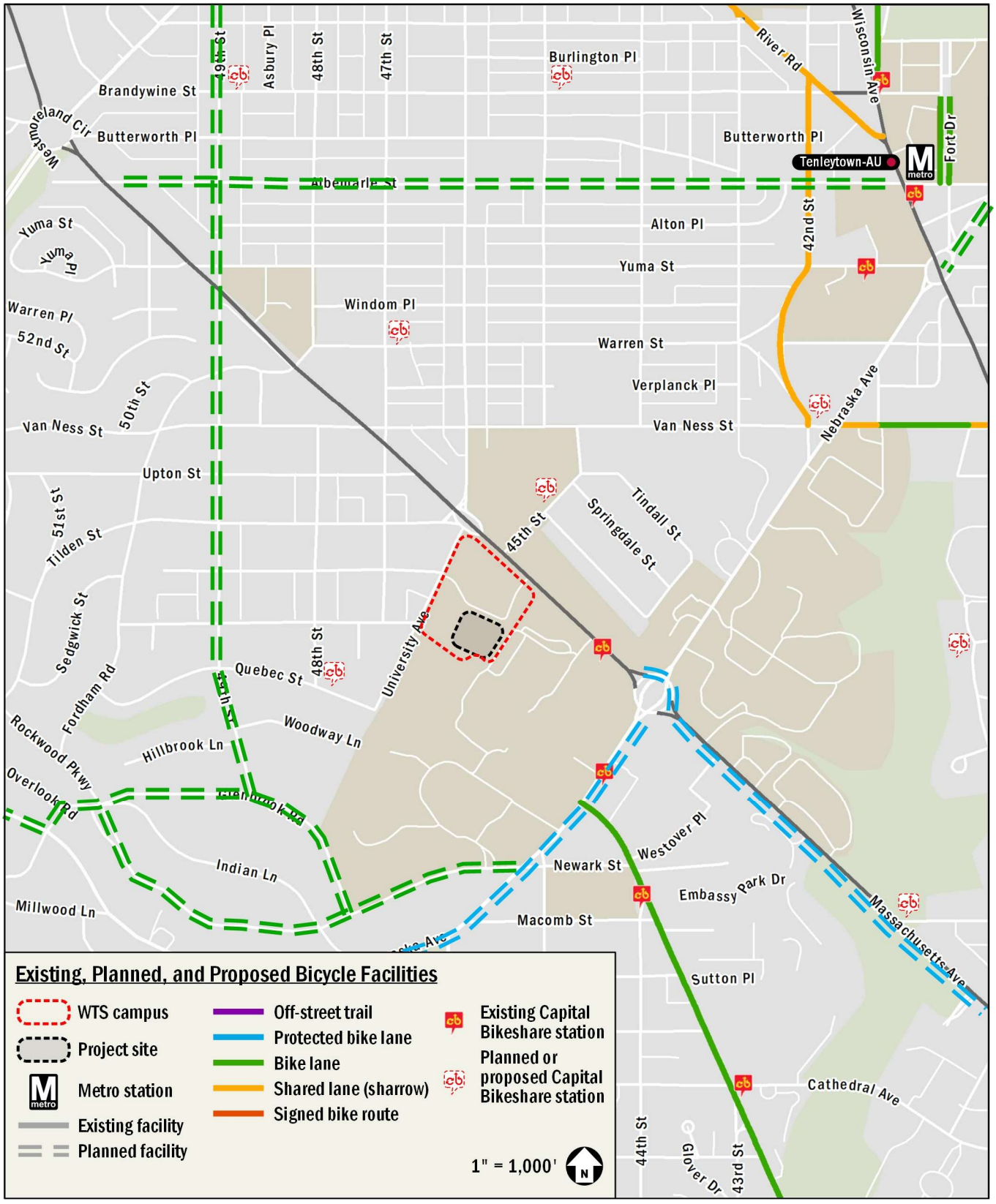


Figure 29: Existing, Planned, and Proposed Bicycle Facilities

Safety Analysis

This chapter includes a high-level qualitative review of any vehicle, pedestrian, or bicycle conflicts at the study area intersections or street links within the study area. This review notes any intersections within the study area that have relatively high number of crashes and makes recommendations to improve safety conditions. These recommendations are presented for DDOT's consideration, not for the Applicant to complete as part of the proposed project.

Summary of Safety Analysis

A safety analysis was performed to determine if there are any intersections that pose obvious conflicts with vehicles, pedestrians, or bicyclists. This was determined based on data included in DDOT's most recent *Vision Zero Action Plan* and Open Data DC Vision Zero Safety data.

Based on a review of facilities in the area and crash data, one (1) intersection was identified for further evaluation. The following section details the potential conflicts at the identified study area intersection.

Ward Circle (Massachusetts Avenue and Nebraska Avenue NW)

While technically outside of the study area of this CTR, the DDOT-maintained "Crashes in DC" database shows a moderate number of crashes at this intersection compared to other intersections within the study area since September 2023, as shown on Figure 30, including two (2) pedestrian-involved crashes, as shown on Figure 31.

This intersection operates as multi-node, signalized traffic circle. Crosswalks are currently provided at every location where there is a traffic signal and/or stop sign. Curb ramps that include detectable warnings per ADA standards are provided at every crosswalk.

As shown in Figure 29, the planned but unfunded bike lane through the northern half of Ward Circle would likely improve conditions for both bicyclists and pedestrians at this intersection. Protected bike lanes could improve conditions for bicyclists by providing physical separation from vehicular traffic, and could improve conditions for pedestrians by reducing the distance across vehicle lanes pedestrians needed to cross. This project is not expected to exacerbate safety concerns within the intersection.

DDOT performed a Traffic Operations and Safety Analysis in 2014, and this report recommends that DDOT either update that study or perform a safety audit at this intersection as part of its Traffic Safety Assessment program to further evaluate the extent of safety issues and determine if any action is needed.

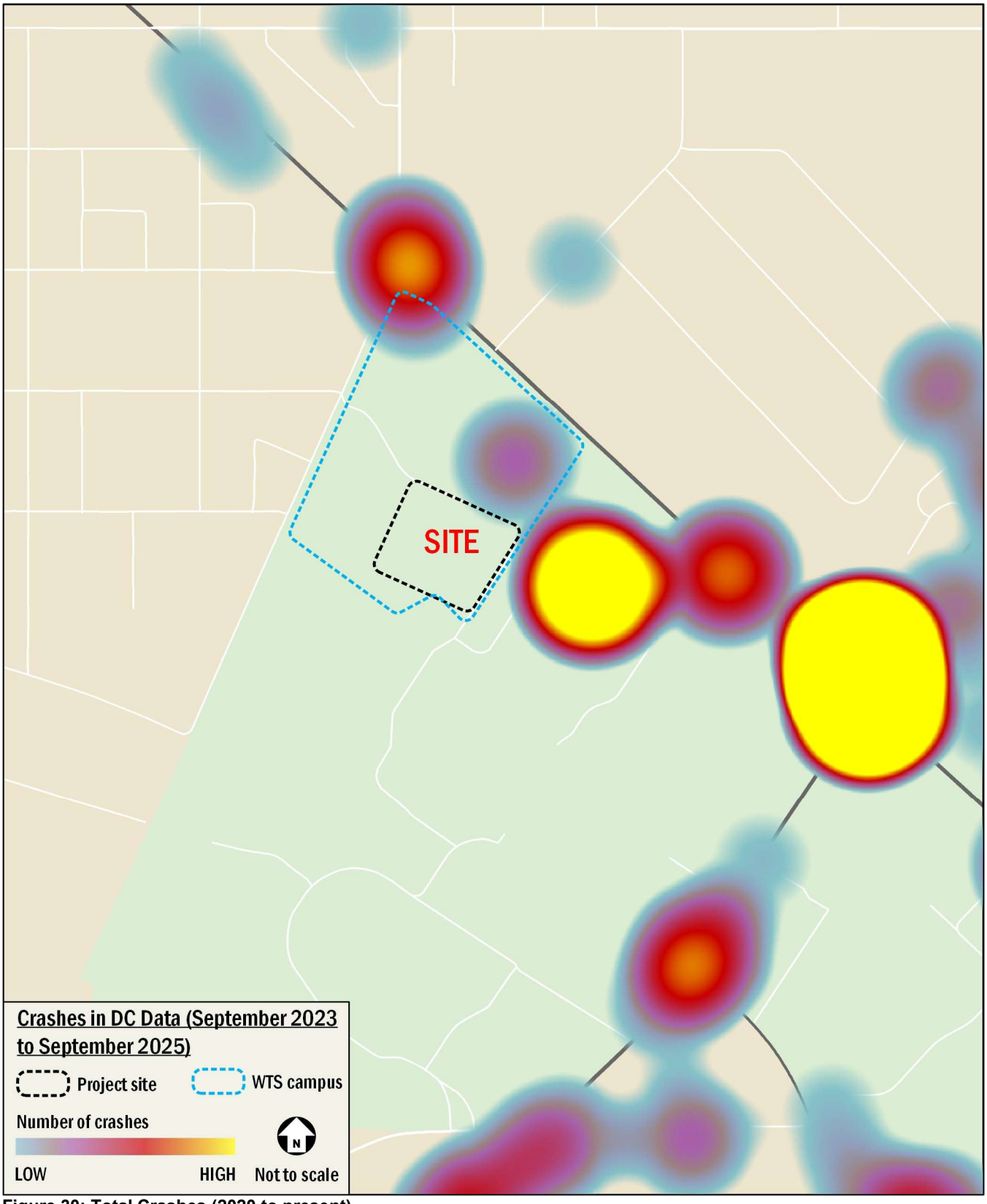


Figure 30: Total Crashes (2020 to present)

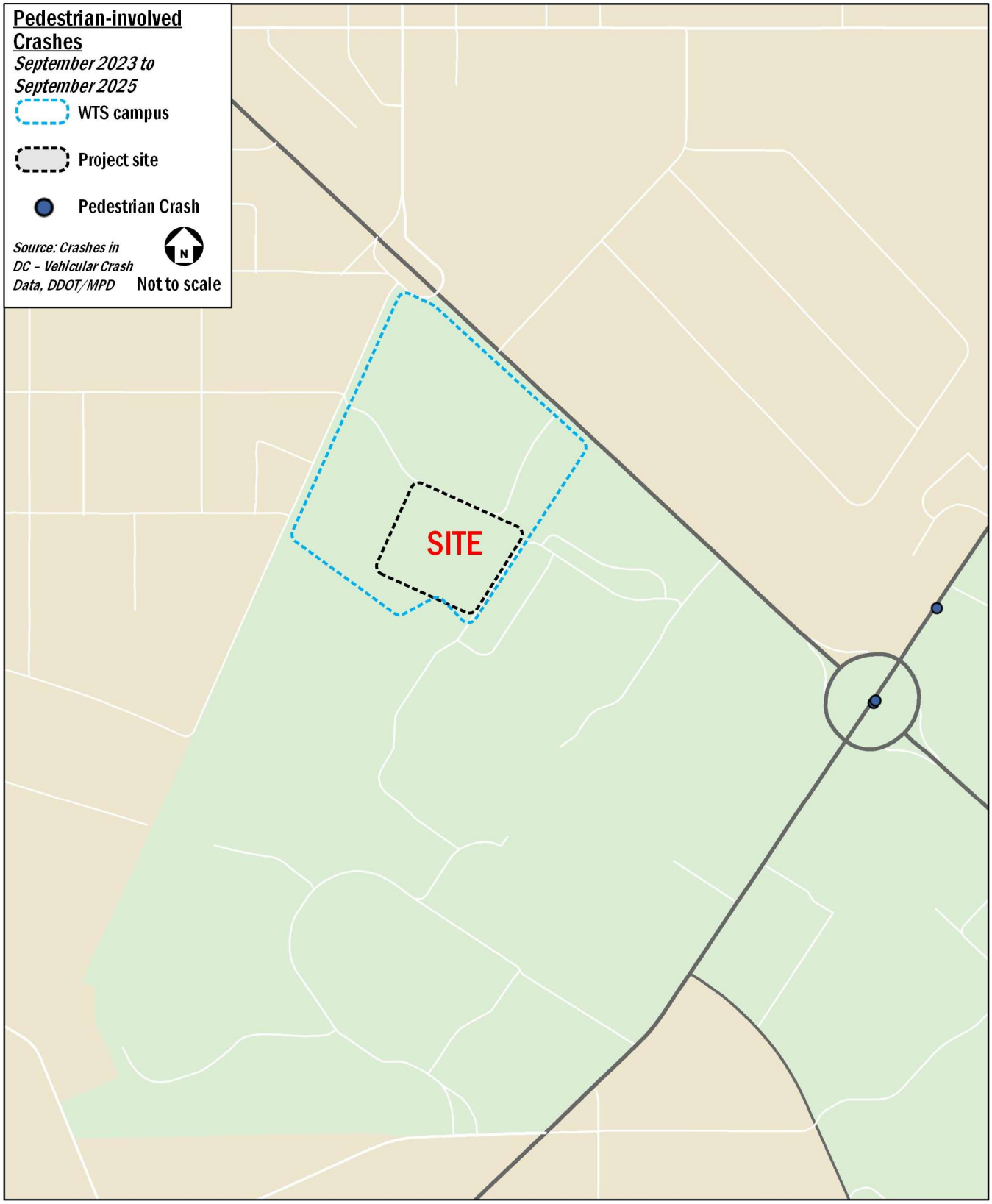


Figure 31: Pedestrian-involved Crashes (2020 to present)

Summary and Conclusions

This report has evaluated whether the Wesley Theological Seminary of The United Methodist Church Further Processing Application for the construction of the new university housing project (Zoning Commission Case 23-08A) will generate a detrimental impact to the transportation network surrounding the site. This evaluation is based on a technical comparison of the Existing Conditions, Background Conditions, and Total Future Conditions. This report concludes that **the project will not have a detrimental impact** to the surrounding transportation network.

Proposed Project

The development site location is within the WTS campus, which is generally bounded by University Avenue NW to the west, Massachusetts Avenue NW to the north, and the American University (AU) campus to the east and south. The portion of the site to be redeveloped includes the Old President's House, a surface parking lot and two (2) student housing and administration buildings.

The proposed project includes replacement of the Old President's House and removing the surface parking lot and existing buildings to construct a new student housing building containing approximately 215 dwelling units and 264 below-grade parking spaces.

The proposed student housing building will be for WTS and AU students and may also house immediate families, faculty and staff and building employees. The housing will not otherwise serve the general public.

Multimodal Overview

Trip Generation

The development is expected to generate new trips within the surrounding transportation network across all transportation modes during the morning and afternoon peak hours. However, with the implementation of a Transportation Demand Management (TDM) plan included in the Campus Plan approved in 2025, the resulting new trips generated by the project will not have a detrimental impact on the transportation network. The multimodal trip generation for the proposed project is as follows:

- AM Peak Hour: 8 vehicles/hour, 24 transit riders/hour, two (2) bicycle trips/hour, and 12 walking trips/hour.
- PM Peak Hour: 24 vehicles/hour, 70 transit riders/hour, seven (7) bicycle trips/hour, and 35 walking trips/hour.

Transit

The site is located approximately one (1) mile of the Tenleytown-AU Metro station on the Red Line and is served by local bus routes.

The site is expected to generate a manageable amount of transit trips, and the existing service can accommodate these new trips.

Pedestrian

The site is surrounded by a generally adequate pedestrian network. Despite some incidences of missing sidewalks, curb ramps, and crosswalks on minor streets near the project site, there are generally adequate pedestrian facilities along primary walking routes between the site and major local destinations.

The site is expected to generate a manageable amount of pedestrian trips, and the existing pedestrian facilities can accommodate these new trips.

Bicycle

The site is proximate to several on-street bicycle facilities, including the bike lanes on New Mexico Avenue NW and Van Ness Street NW, and the on-street signed bike routes on 42nd Street NW, River Road, and Van Ness Street. Using these facilities, bicyclists have access to several off-street bike facilities, such as the Rock Creek Trail and the Klingle Valley Trail.

Several planned and proposed bicycle projects will improve bicycle access to the site, including protected bike lanes on Massachusetts Avenue NW east of Ward Circle, Nebraska Avenue NW south of Ward Circle, Loughboro Road NW, Glenbrook Road NW, 49th Street NW, Albermarle Street NW, Glenbrook Road NW, and Rockwood Parkway NW.

The project will include long-term bicycle parking inside the building and short-term bicycle parking along the perimeter of the site that meets zoning requirements.

The site is expected to generate a manageable amount of bicycle trips, and the existing bicycle facilities can accommodate these new trips.

Vehicular

The site is accessible via Massachusetts Avenue NW, a principal arterial which connects the site to expressways within the District such as the Southeast Freeway (I-695), the Southwest Freeway (I-395), and the Anacostia Freeway (DC-295). These

expressways connect with the Capital Beltway (I-495) and other regional Interstates.

To identify the project's impact on the transportation network, future conditions were analyzed with and without the project. Intersection analyses were performed to calculate the average delays and queues for vehicles at each of the study intersections. These average delays and queues were compared to the acceptable levels of delay and queue impacts set by DDOT standards to determine if the project will negatively impact the study area.

The analysis concluded that none of the study intersections would meet DDOT's delay-related threshold for mitigation under the Existing, Background, and Total Future scenarios.

Parking

As part of the CTR, detailed counts of parking supply and demand were conducted within a two-block radius of the site. The purpose of the study was to determine the parking supply of the streets within walking distance of the site and identify trends or patterns associated with parking demand generated by the campus and proposed Project. The results of the analysis of on-street parking facilities within the vicinity of the site indicate there is ample available on-street parking. The study concluded that on-street parking occupancy rate does not exceed 29% in the study area across all study periods. Traditionally, an 85% occupancy rate is considered an ideal level of parking utilization and is at this rate that a block face is considered "full".

In addition to the on-street parking data collection, on-site data collection was conducted. The on-site parking occupancy rate peaked at 33% across all study periods, indicating that there is sufficient on-site parking to accommodate WTS needs under typical operating conditions under existing conditions and when the site redevelops.

Safety Recommendations

A qualitative review of the crash data available through the DDOT-maintained and publicly-available "Crashes in DC" database was performed to identify study intersections, if any, in which conditions for vehicles, pedestrians, and bicyclists may be improved.

Based on a review of facilities in the area and relevant crash data, one (1) intersection was identified for further evaluation. Recommendations for this intersection, presented for DDOT's consideration and not for the Applicant to complete as part of the proposed project, are summarized below:

Massachusetts Avenue and Wesley Circle NW

Installation of the proposed shared use path along Massachusetts Avenue NW would improve conditions for bicyclists and pedestrians. Further, a safety audit should be performed as part of DDOT's Traffic Safety Assessment program.

Transportation Demand Management (TDM) Plan

Per the DDOT CTR guidelines, the goal of implementing TDM measures is to reduce the number of single occupancy vehicles and vehicle ownership within the District. TDM measures were previously proposed under the Welsey Campus Plan approved 2025 and will be summarized in the Project Design section of this report.

Summary

This report concludes that the Wesley Campus Redevelopment will not have a detrimental impact on the surrounding transportation network.

The project has several positive design elements that minimize potential transportation impacts, including but not limited to the following:

- The TDM approved as part of 2022-2032 Wesley Campus Plan, aimed at reducing the demand of single-occupancy, private vehicles during peak period travel times or on shifting single-occupancy vehicular demand to off-peak periods;
- The PMP approved as part of 2022-2032 Wesley Campus Plan, which will continuously track progress towards its TDM goals;
- The potential signalization of the site driveway along Massachusetts Avenue NW, which could improve operations at the driveway if needed;
- The construction of pedestrian improvements agreed to as part of the 2022-2032 Wesley Campus Plan;
- The site's proximity to transit service and bicycle infrastructure;
- The site's location within a generally adequate pedestrian network along major walking routes;
- The site's loading facility design, which maintains loading activity within private property and provides loading circulation that ensures head-in/head-out truck movements are performed from the public roadway network;

- The inclusion of secure long-term bicycle parking spaces that meet zoning requirements; and
- The inclusion of short-term bicycle parking spaces within the site that meet zoning requirements.

Transportation Technical Attachments

Wesley Campus Plan

Washington, DC

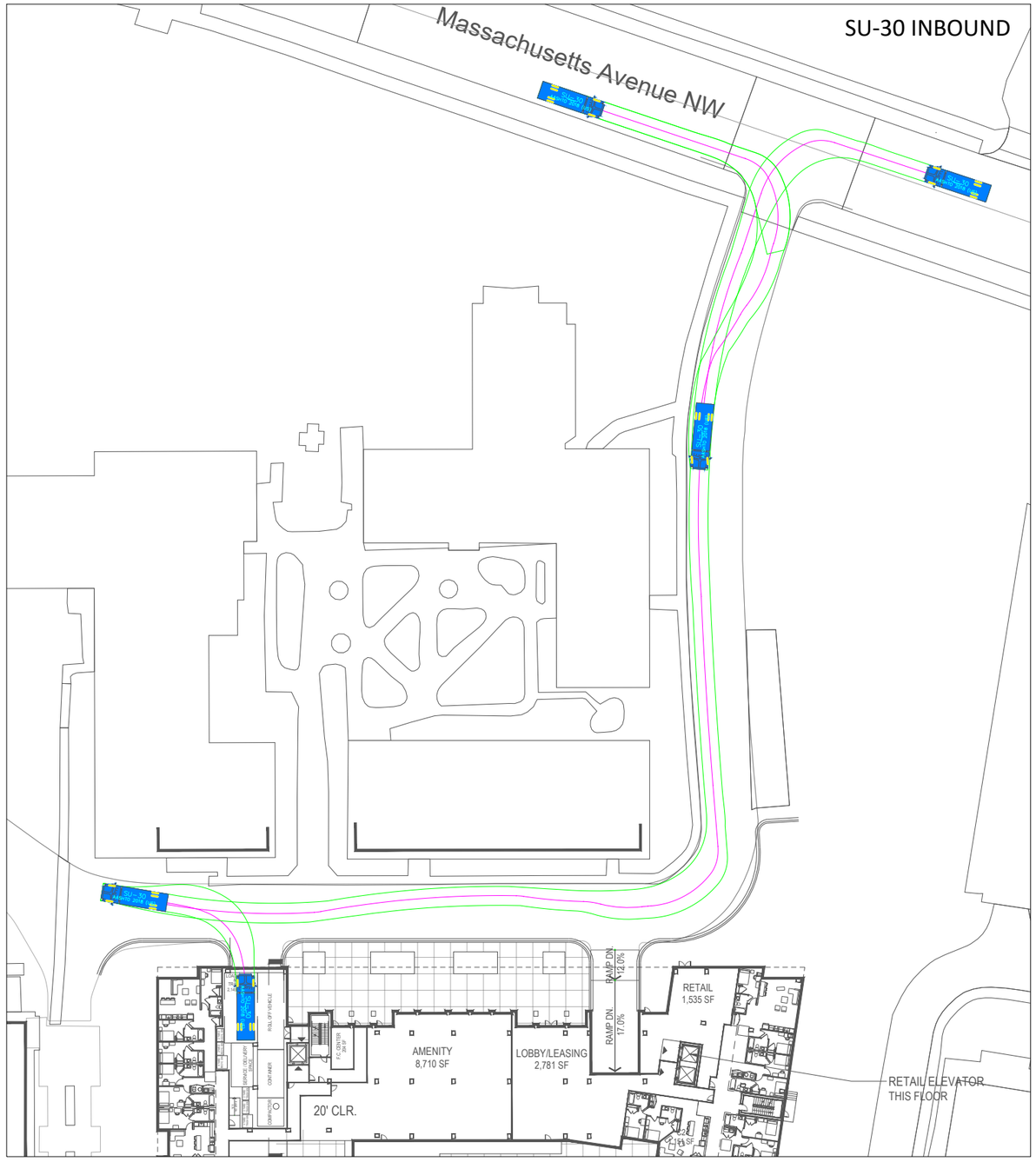
October 10, 2025

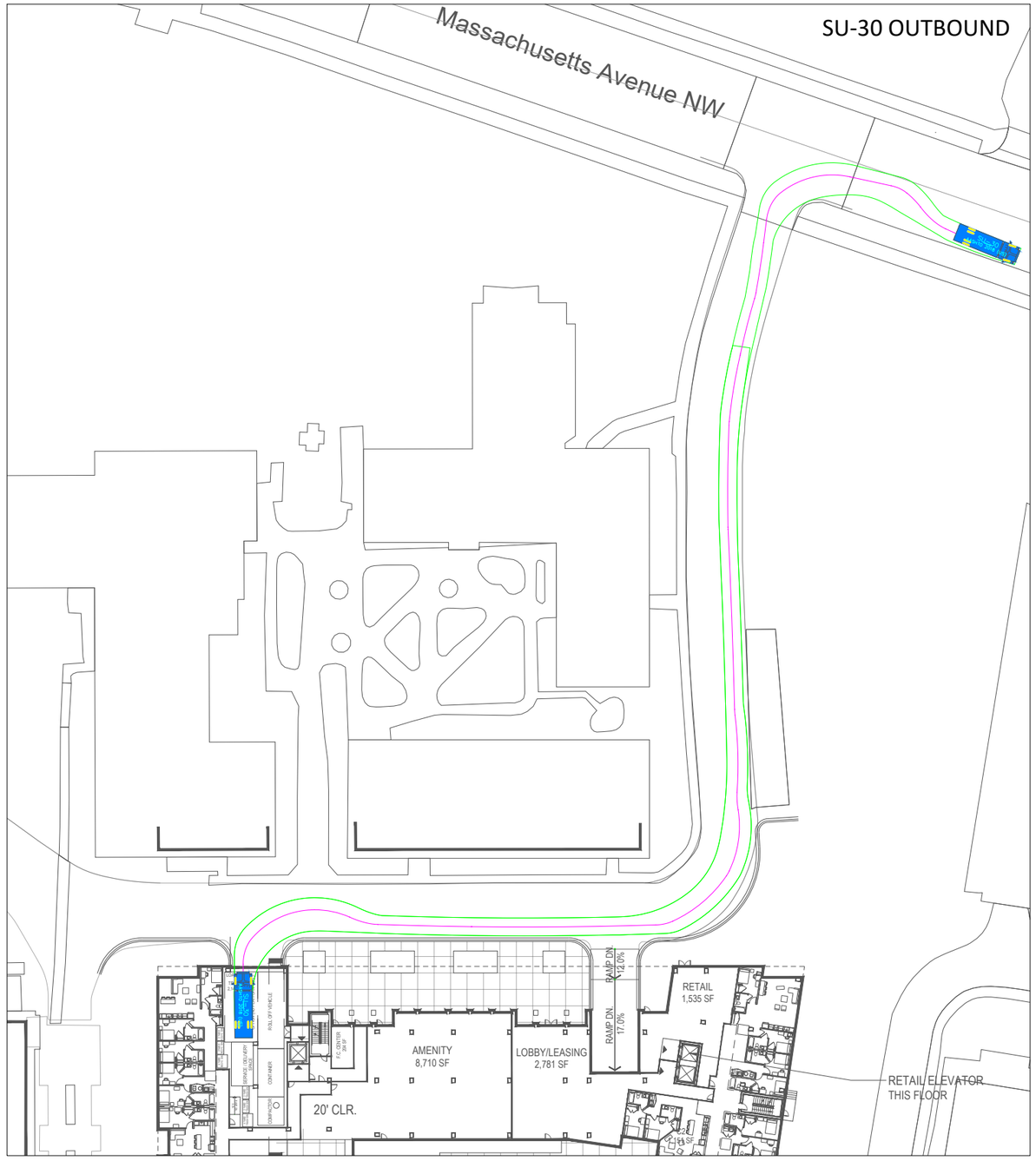
GOROVE SLADE
Transportation Planners and Engineers

CONTENTS

(Note: Click on heading to navigate directly to each section of the Technical Attachments)

A. Truck Maneuvering Diagrams





GOROVE SLADE
Transportation Planners and Engineers

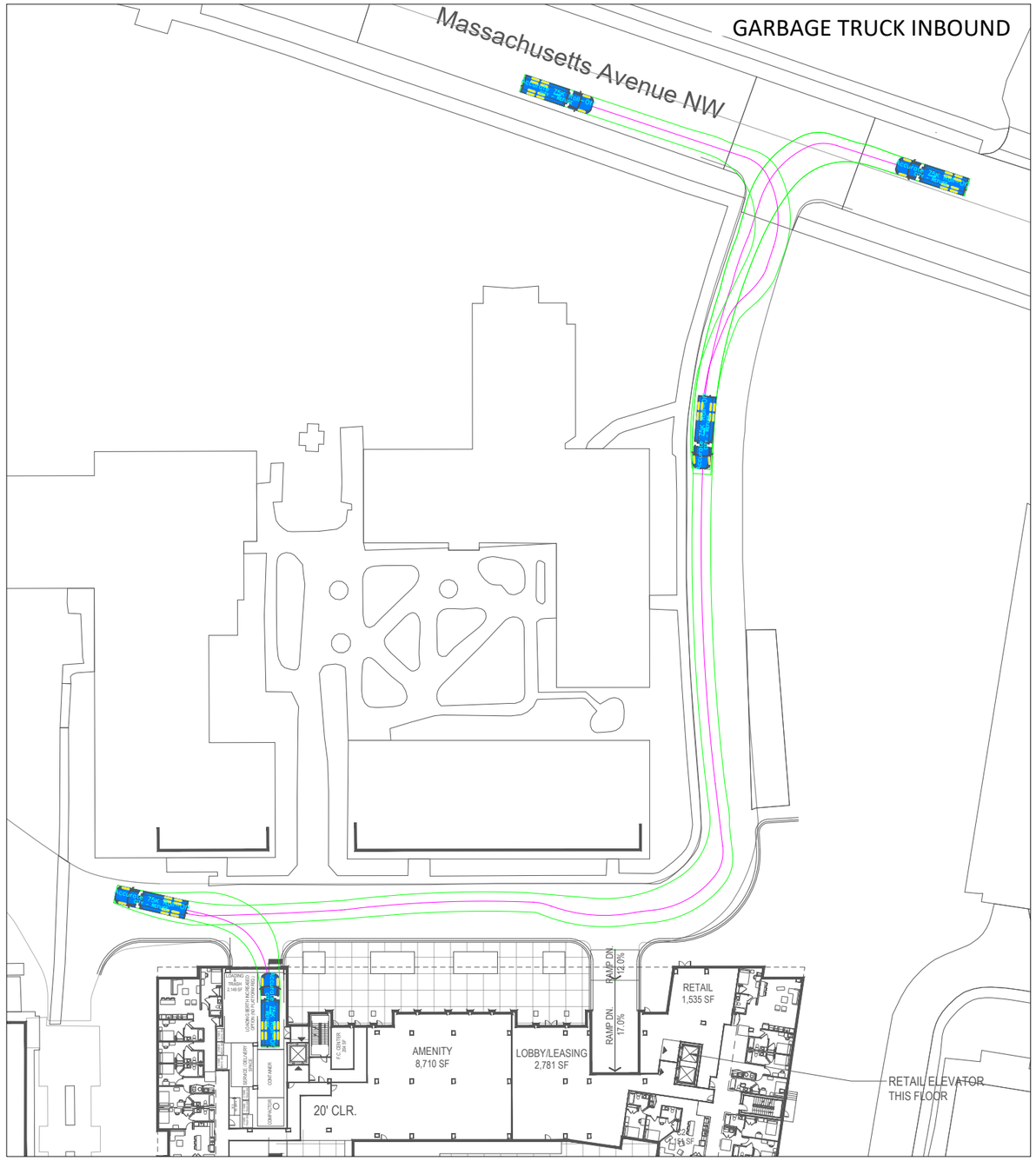
Landmark Housing at Wesley Theological Seminary: Loading Analysis

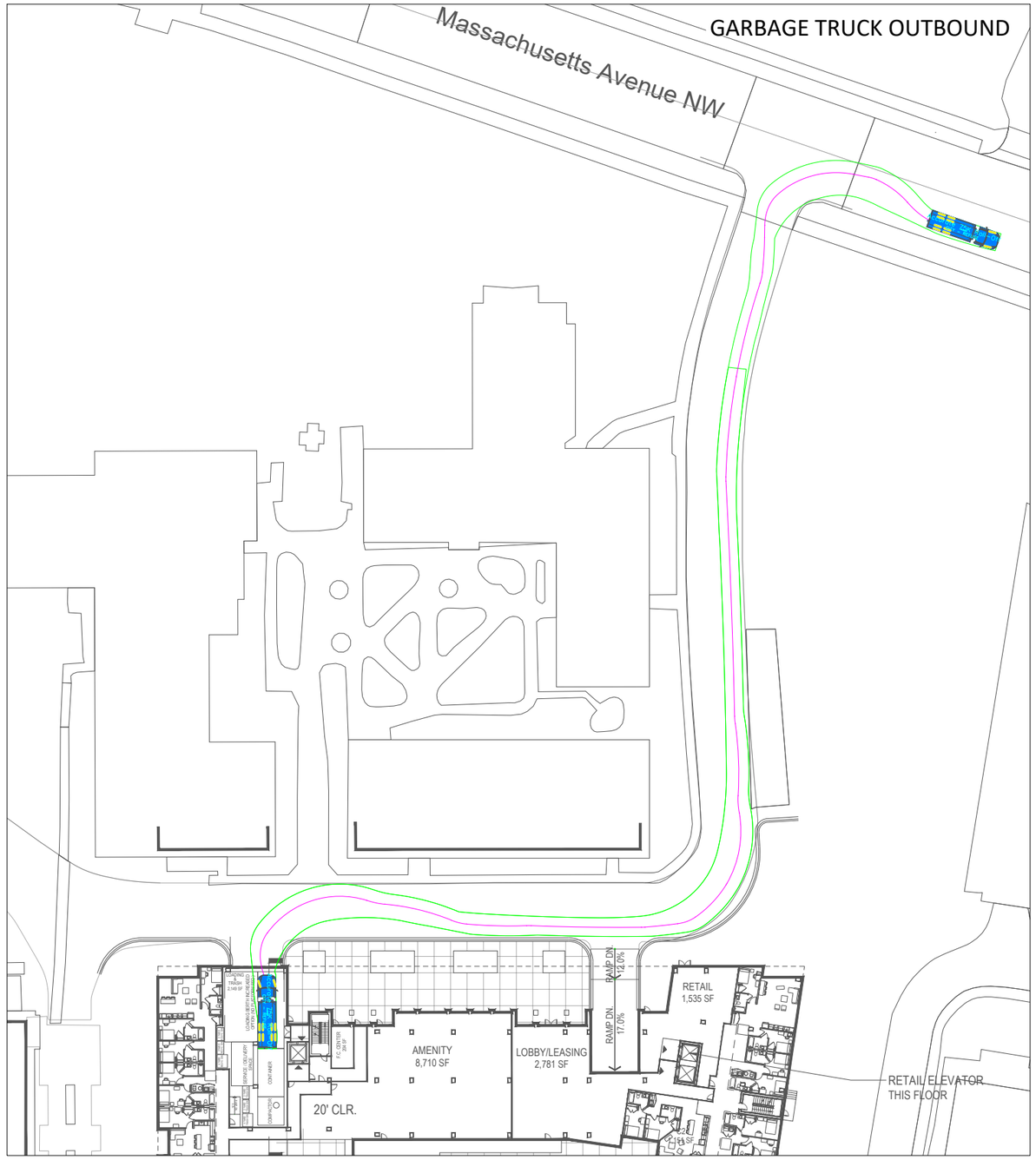
Bohler DC
November 19, 2021
Sheet 1 of 7

NW, Washington, DC

P:\2997-001 Landmark Housing at Wesley Seminary (7301-2811)\CAD\Landmark Housing at WTS AT 11.18.2021.dwg - 11/19/2021 9:55 AM

N
SCALE: 1" = 60'





GOROVE SLADE
Transportation Planners and Engineers

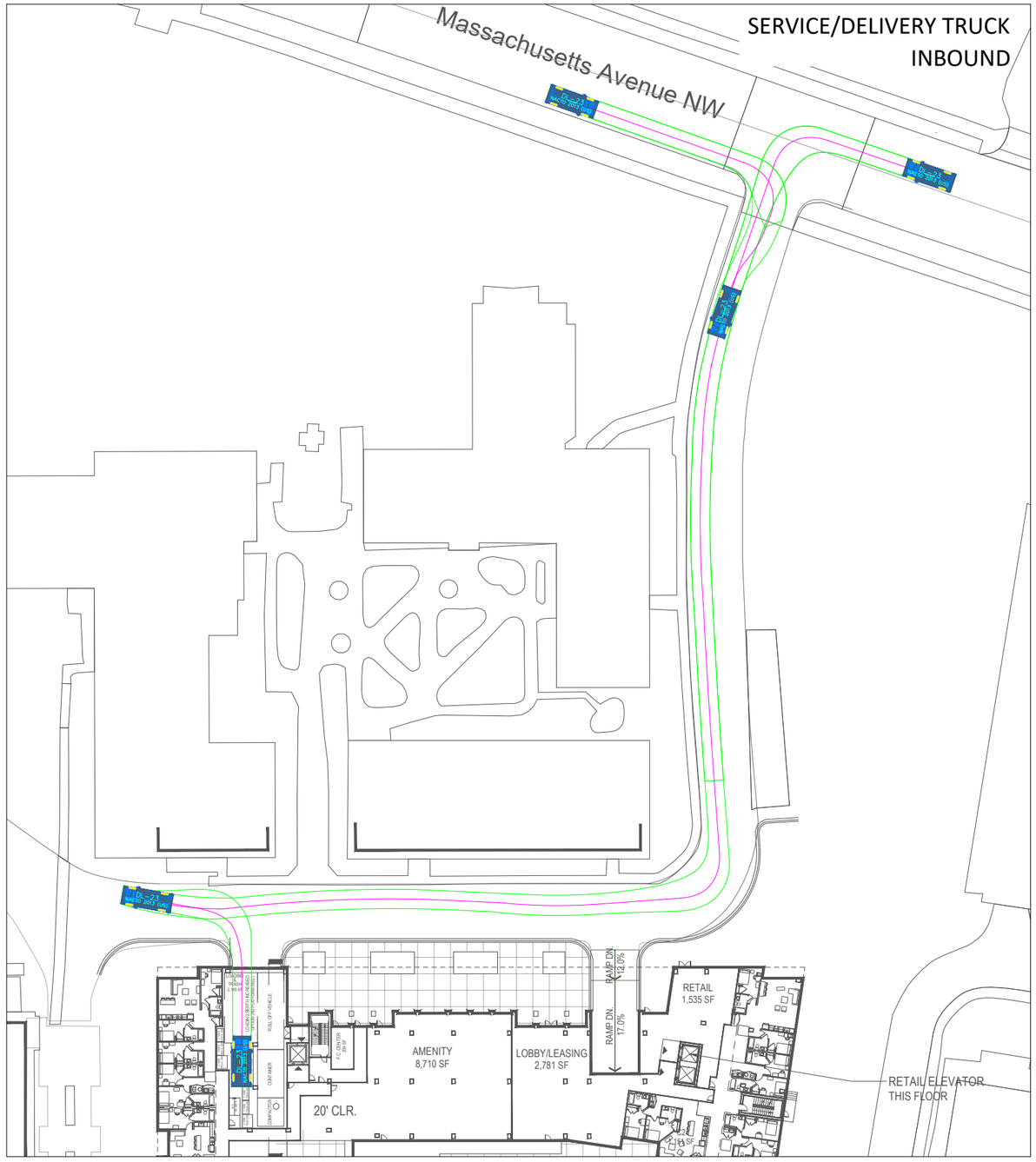
Landmark Housing at Wesley Theological Seminary: Loading Analysis

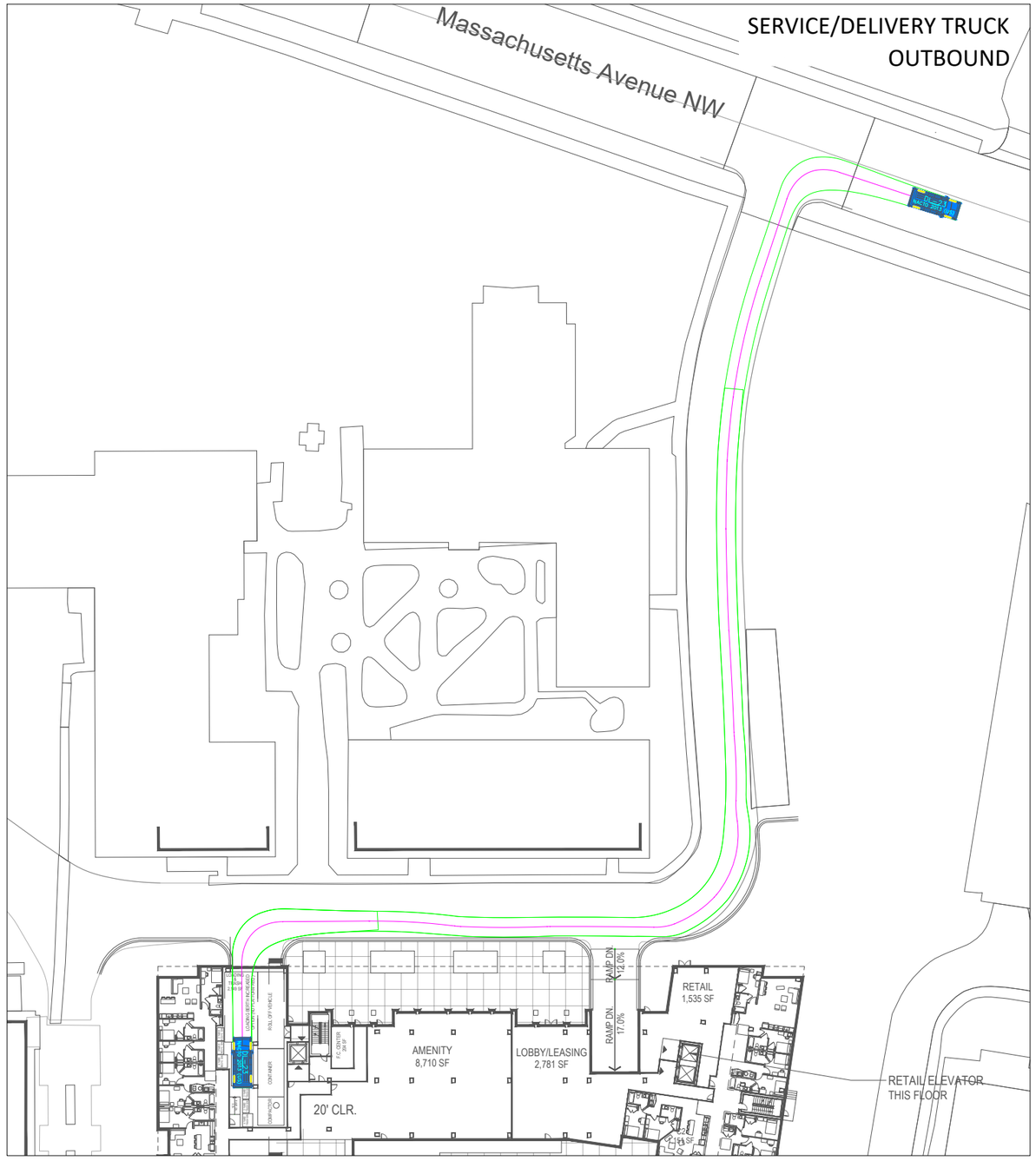
Bohler DC
November 19, 2021
Sheet 2 of 7

NW, Washington, DC

P:\2997-001 Landmark Housing at Wesley Seminary (7301-2811)\CAD\Landmark Housing at WTS AT 11.18.2021.dwg - 11/19/2021 9:55 AM

N
SCALE: 1" = 60'





GOROVE SLADE
Transportation Planners and Engineers

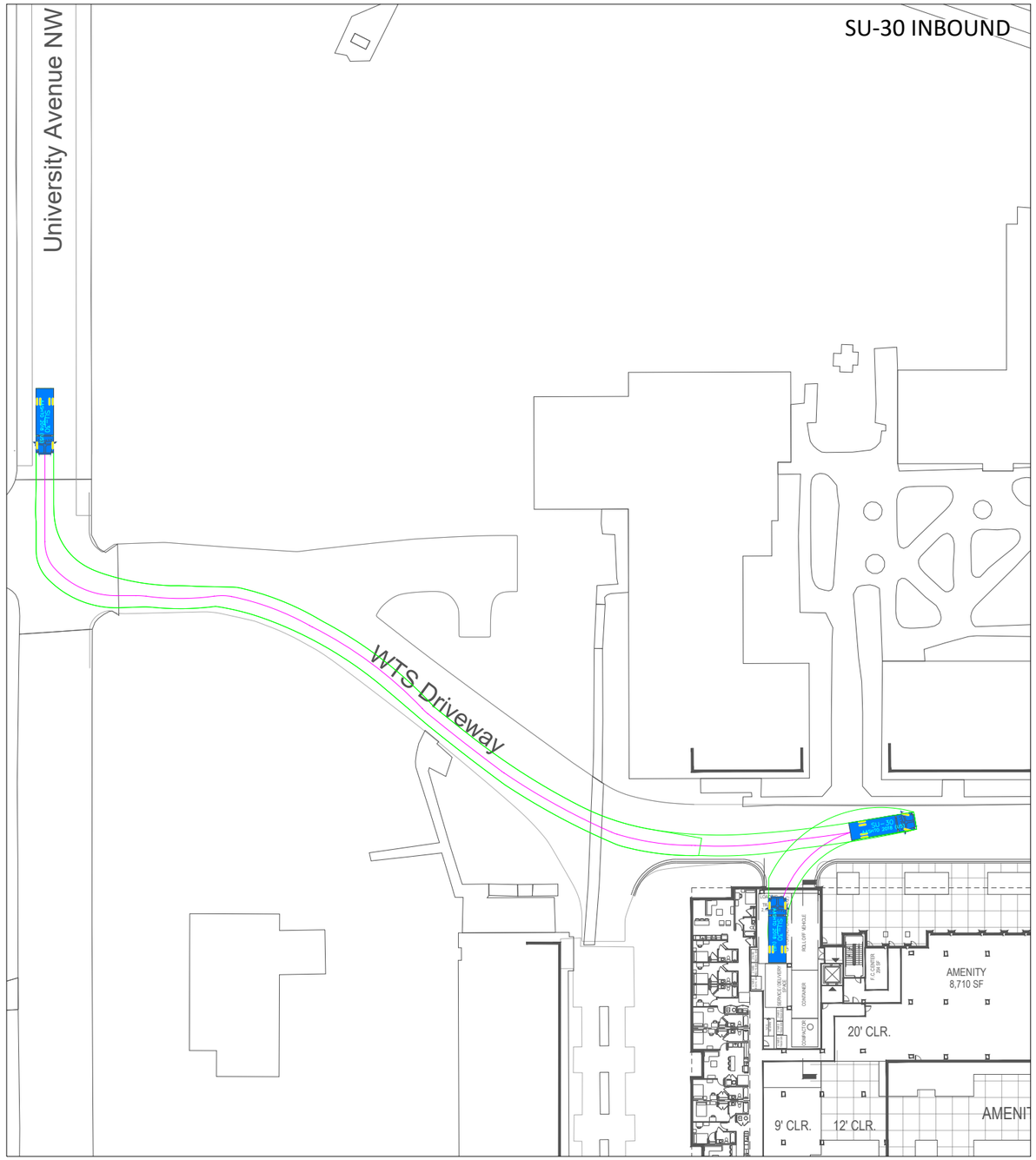
Landmark Housing at Wesley Theological Seminary: Loading Analysis

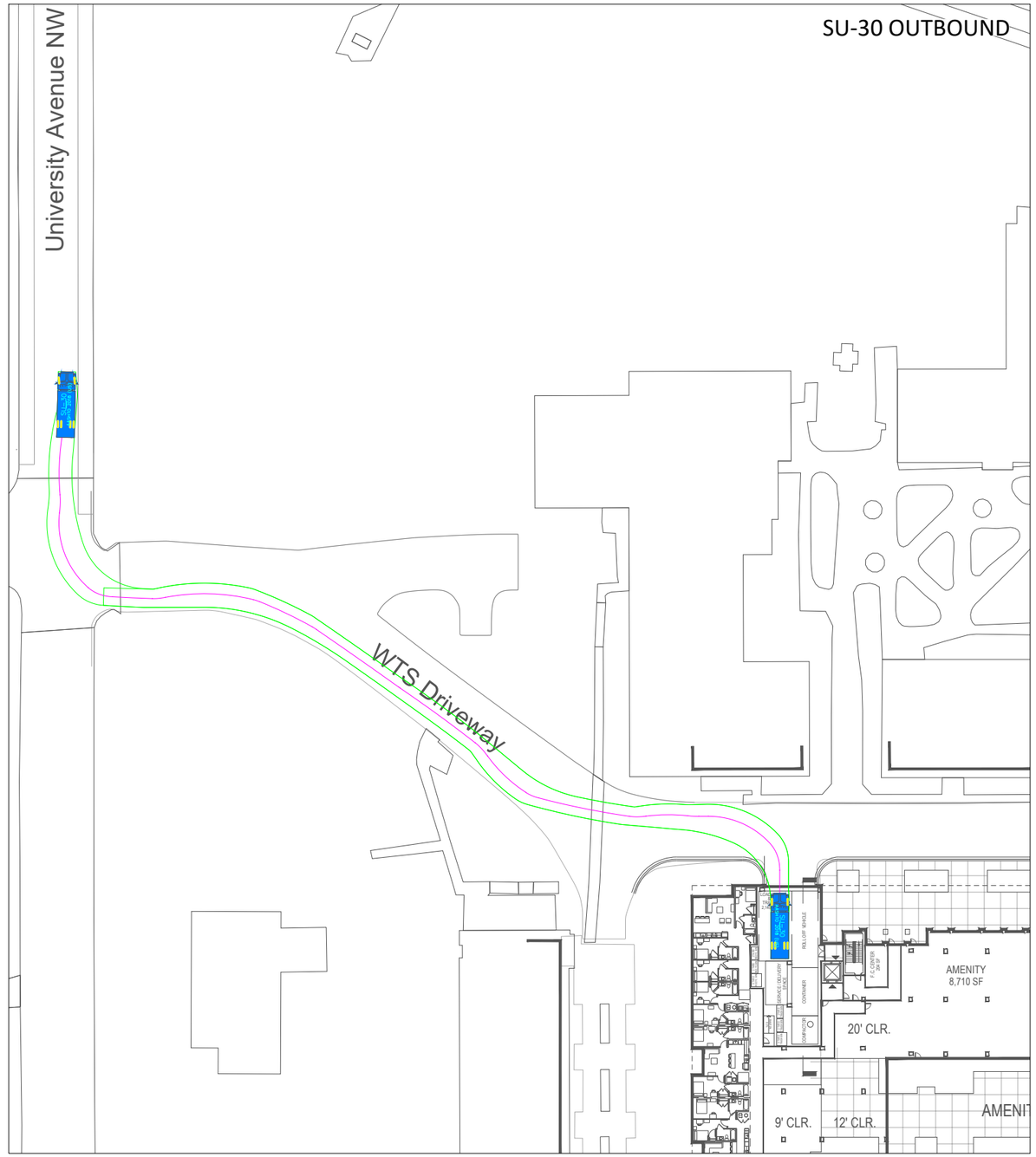
Bohler DC
November 19, 2021
Sheet 3 of 7

NW, Washington, DC

P:\2997-001 Landmark Housing at Wesley Seminary (7301-2811)\CAD\Landmark Housing at WTS AT 11.18.2021.dwg - 11/19/2021 9:55 AM

N
SCALE: 1" = 60'





GOROVE SLADE
Transportation Planners and Engineers

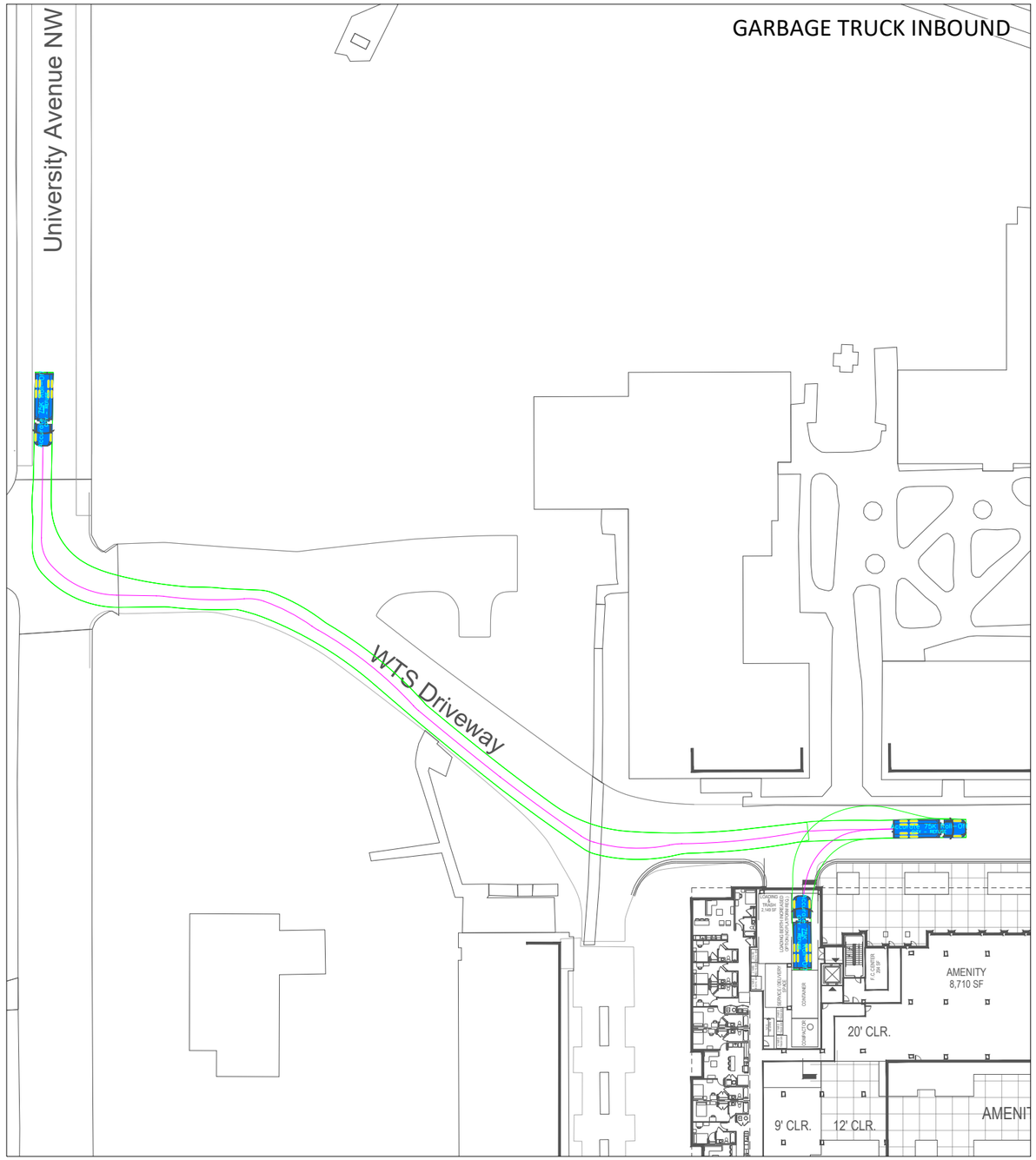
Landmark Housing at Wesley Theological Seminary: Loading Analysis

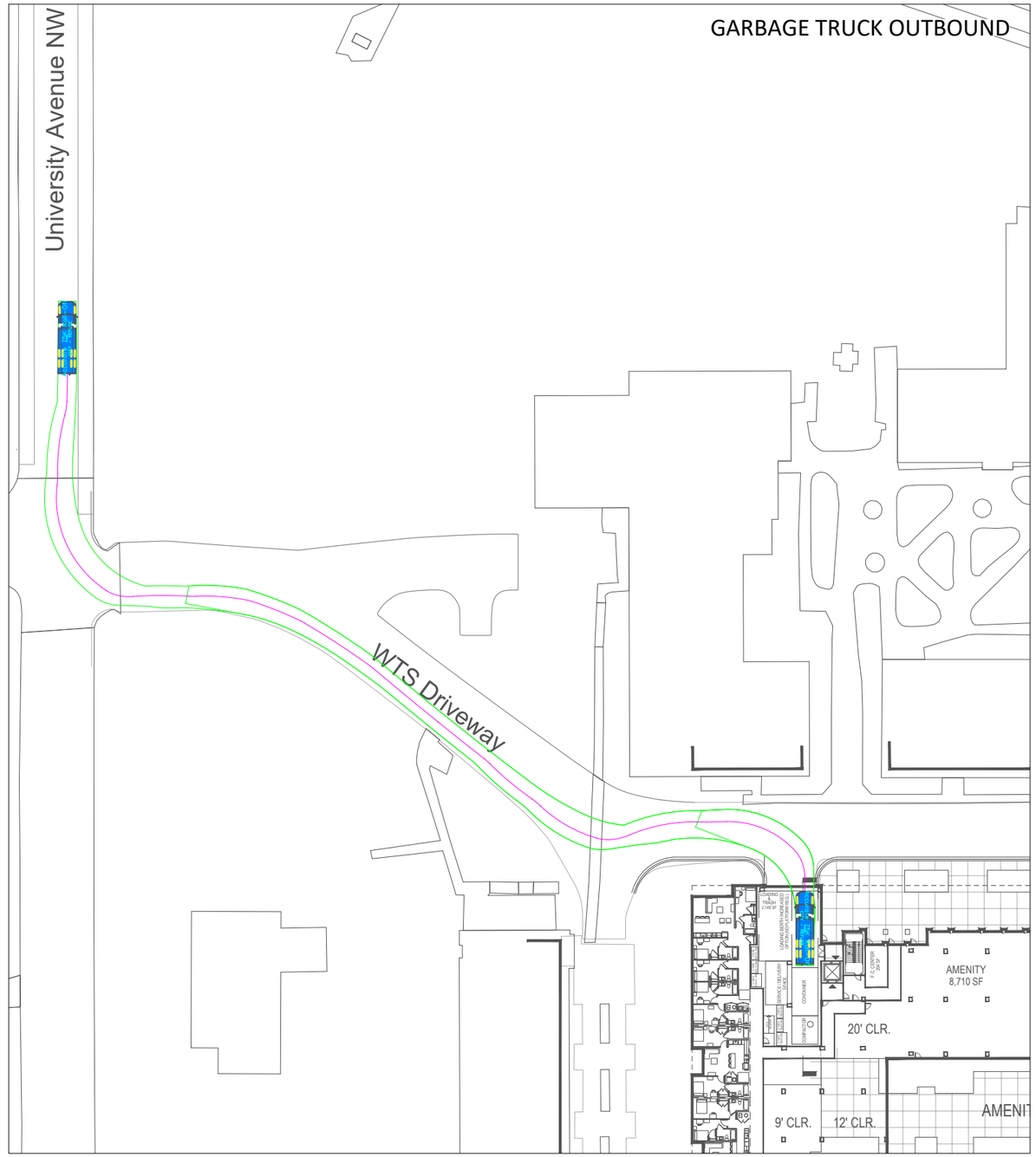
Bohler DC
November 19, 2021
Sheet 4 of 7

NW, Washington, DC

P:\2997-001 Landmark Housing at Wesley Seminary (7301-2811)\CAD\Landmark Housing at WTS AT 11.18.2021.dwg - 11/19/2021 9:55 AM

N
SCALE: 1" = 60'





GOROVE SLADE
Transportation Planners and Engineers

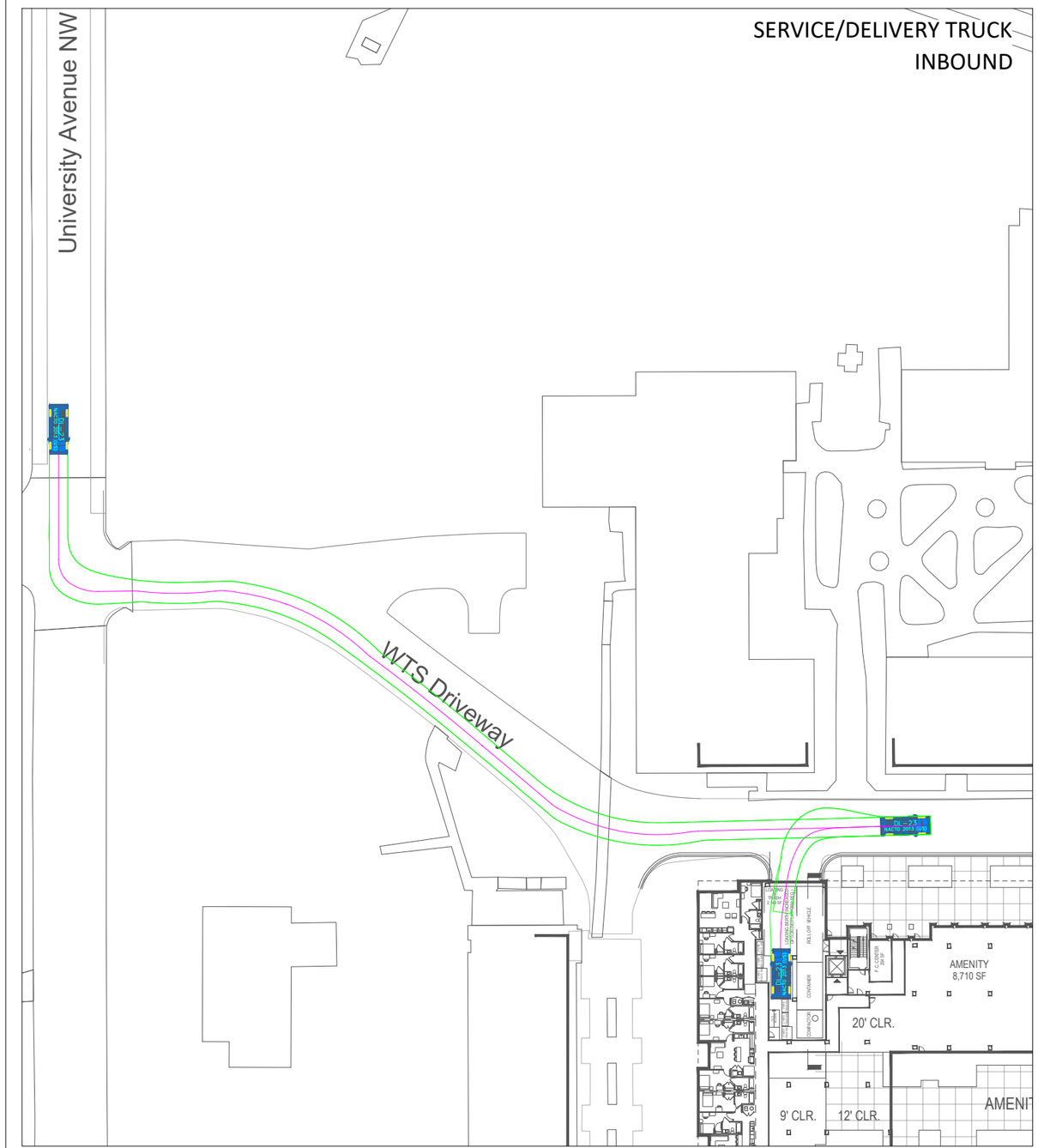
Landmark Housing at Wesley Theological Seminary: Loading Analysis

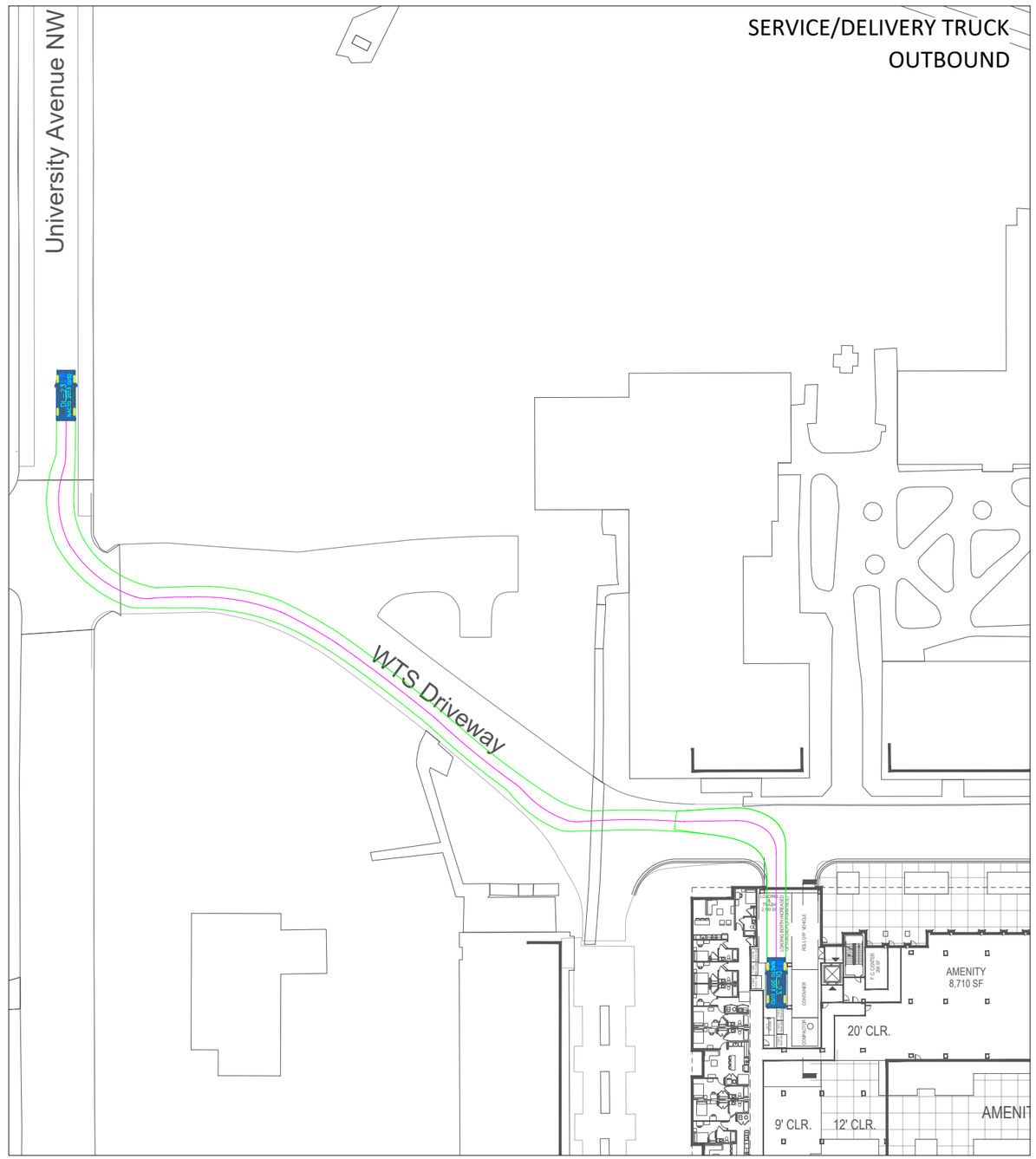
Bohler DC
November 19, 2021
Sheet 5 of 7

NW, Washington, DC

P:\2997-001 Landmark Housing at Wesley Seminary (7301-2811)\CAD\Landmark Housing at WTS AT 11.18.2021.dwg - 11/19/2021 9:55 AM

N
SCALE: 1" = 60'





GOROVE SLADE
Transportation Planners and Engineers

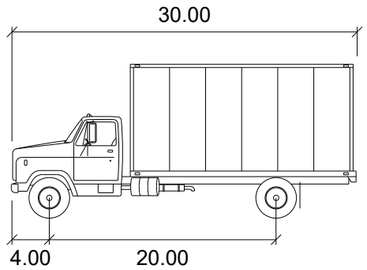
Landmark Housing at Wesley Theological Seminary: Loading Analysis

Bohler DC
November 19, 2021
Sheet 6 of 7

NW, Washington, DC

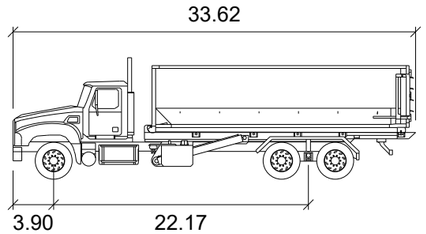
P:\2997-001 Landmark Housing at Wesley Seminary (7301-2811)\CAD\Landmark Housing at WTS AT 11.18.2021.dwg - 11/19/2021 9:55 AM

N
SCALE: 1" = 60'



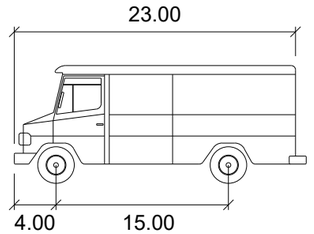
SU-30

	feet
Width	: 8.00
Track	: 8.00
Lock to Lock Time	: 6.0
Steering Angle	: 31.8



Accurate 75K Roll-Off

	feet
Width	: 8.17
Track	: 8.02
Lock to Lock Time	: 6.0
Steering Angle	: 32.7



DL-23

	feet
Width	: 8.50
Track	: 8.50
Lock to Lock Time	: 6.0
Steering Angle	: 40.4

GOROVE SLADE
Transportation Planners and Engineers

Landmark Housing at Wesley Theological Seminary: Loading Analysis Vehicle Profiles

Bohler DC
November 19, 2021
Sheet 7 of 7

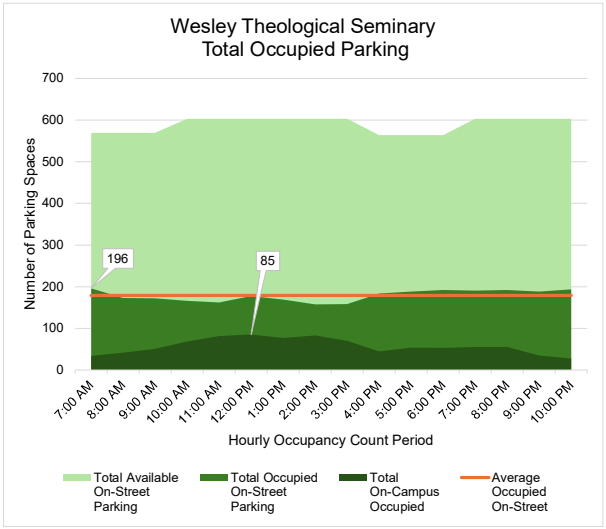
NW, Washington, DC

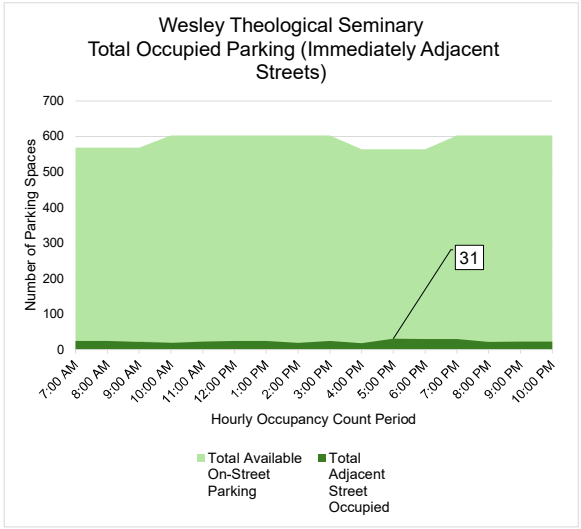
P:\2997-001 Landmark Housing at Wesley Seminary (7301-2811)\CAD\Landmark Housing at WTS AT 11.18.2021.dwg - 11/19/2021 9:55 AM

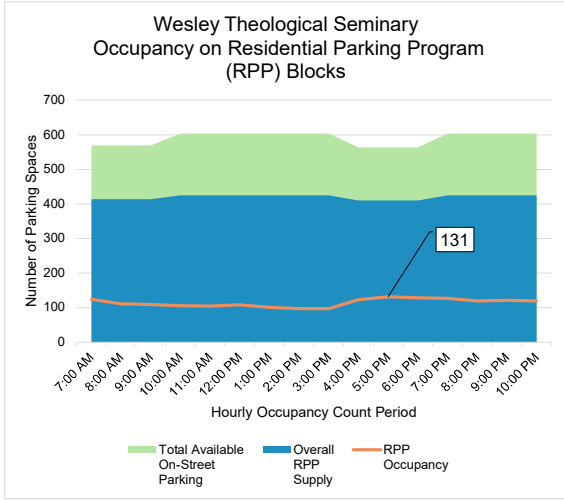
N.T.S.

B. Detailed Parking Study Data

Study Period	Total Available On-Street Parking	Total Occupied On-Street Parking	% Occupied	Total On-Campus Parking Available	Total On-Campus Occupied	% On-Campus Occupied	Total Adjacent Street Parking	Total Adjacent Street Occupied	% Adjacent Street Occupied	Average Occupied On-Street	Maximum On-Street Occupied	Minimum On-Street Occupied	Overall RPP Supply	RPP Occupancy	% Occupied	RPP % Occupancy Overall	Overall Non-RPP Supply	Non-Rpp Occupancy	% Occupied	Non-RPP % Occupancy Overall
7:00 AM	569	196	34%	213	34	16%	156	24	15%	179	196		414	124	30%	63%	155	72	**46%**	37%
8:00 AM	569	173	30%	213	41	19%	156	24	15%	179			414	110	27%	64%	155	62	40%	36%
9:00 AM	569	172	30%	213	50	24%	156	22	14%	179			414	109	26%	64%	155	62	40%	36%
10:00 AM	603	166	27%	213	68	32%	156	19	12%	179			425	106	25%	64%	178	60	34%	36%
11:00 AM	603	162	27%	213	82	38%	156	23	15%	179			425	104	25%	64%	178	58	32%	36%
12:00 PM	603	178	29%	213	85	**40%**	156	24	15%	179			425	108	25%	61%	178	70	39%	39%
1:00 PM	603	169	28%	213	77	36%	156	24	15%	179			425	101	24%	60%	178	68	38%	**40%**
2:00 PM	603	157	26%	213	83	39%	156	19	12%	179		157	425	97	23%	62%	178	60	34%	38%
3:00 PM	603	158	26%	213	70	33%	156	24	15%	179			425	97	23%	61%	178	61	34%	39%
4:00 PM	564	184	33%	213	44	21%	156	18	12%	179			410	122	30%	67%	154	61	40%	33%
5:00 PM	564	188	33%	213	54	25%	156	31	20%	179			410	131	**32%**	**69%**	154	58	37%	31%
6:00 PM	564	192	34%	213	53	25%	156	30	19%	179			410	128	31%	67%	154	64	41%	33%
7:00 PM	603	191	32%	213	55	26%	156	30	19%	179			425	127	30%	67%	178	64	36%	33%
8:00 PM	603	192	32%	213	55	26%	156	22	14%	179			425	119	28%	62%	178	73	41%	38%
9:00 PM	603	188	31%	213	35	16%	156	23	15%	179			425	121	29%	64%	178	67	38%	36%
10:00 PM	603	193	32%	213	28	13%	156	23	15%	179			425	119	28%	61%	178	74	42%	39%







C. Detailed Trip Generation and Mode Split Information

Mode Split Assumptions

Residential Component

Pertinent Mode Split data from other sources:

Information Source	Mode							
	SOV	Carpool	Rideshare	Transit	Bike	Walk	Telecommute	Other
CTPP - TAZ Residents (Average of Census Tracts 8.03, 9.03, 10.02, 10.03, 10.04)	38%	5%	---	20%	3%	9%	23%	2%
State of the Commute 2016 (of District residents)	35%	4%	---	42%	16%		3%	
AU 2021 Campus Plan - student commute to campus	14%	2%	4%	50%	28%		---	2%
WMATA Ridership Survey Table 9 (Residential Mode Share for All Trips by Concentric Location Typology)	39%		---	48%	13%		---	

Mode Split assumed in TIS:

Land Use	Mode				
	Drive	Transit	Bike	Walk	Telecommute/Other
Residential Mode Split	20%	50%	5%	25%	---

Notes: Mode split based primarily on census data and mode split for AU students commuting to campus, adjusted for the project site being located on campus.

ITE 12th Edition Trip Generation, LUC 226

Step 1: Base trip generation using ITEs' *Trip Generation*

Land Use	Land Use Code	Quantity (x)	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	Total
Apartments	226	569 br	18 veh/hr	22 veh/hr	40 veh/hr	56 veh/hr	63 veh/hr	119 veh/hr	1462 veh
		Calculation Details:	*46%*	*54%*	*=0.07X*	*47%*	*53%*	*=0.21X*	*=2.57X*

Step 2: Convert to people per hour, before applying mode splits

Land Use	People/Car (from 2017 NHTS, Table 16)	AM Peak Hour			PM Peak Hour			Daily
		In	Out	Total	In	Out	Total	Total
Apartments	1.18 ppl/veh	21 ppl/hr	26 ppl/hr	47 ppl/hr	66 ppl/hr	74 ppl/hr	140 ppl/hr	1725 ppl

Step 3: Split between modes, per assumed Mode Splits

Land Use	Mode	Split	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	Total
Apartments	Auto	20%	4 ppl/hr	5 ppl/hr	9 ppl/hr	13 ppl/hr	15 ppl/hr	28 ppl/hr	345 ppl
Apartments	Transit	50%	11 ppl/hr	13 ppl/hr	24 ppl/hr	33 ppl/hr	37 ppl/hr	70 ppl/hr	863 ppl
Apartments	Bike	5%	1 ppl/hr	1 ppl/hr	2 ppl/hr	3 ppl/hr	4 ppl/hr	7 ppl/hr	86 ppl
Apartments	Walk	25%	5 ppl/hr	7 ppl/hr	12 ppl/hr	17 ppl/hr	18 ppl/hr	35 ppl/hr	431 ppl

Step 4: Convert auto trips back to vehicles/hour

Land Use	People/Car (from 2017 NHTS, Table 16)	AM Peak Hour			PM Peak Hour			Daily
		In	Out	Total	In	Out	Total	Total
Apartments	1.18 ppl/veh	3 veh/hr	5 veh/hr	8 veh/hr	11 veh/hr	13 veh/hr	24 veh/hr	292 veh

Trip Gen Summary for Residential

Mode	AM Peak Hour			PM Peak Hour			Daily
	In	Out	Total	In	Out	Total	Total
Auto	3 veh/hr	5 veh/hr	8 veh/hr	11 veh/hr	13 veh/hr	24 veh/hr	292 veh
Transit	11 ppl/hr	13 ppl/hr	24 ppl/hr	33 ppl/hr	37 ppl/hr	70 ppl/hr	863 ppl
Bike	1 ppl/hr	1 ppl/hr	2 ppl/hr	3 ppl/hr	4 ppl/hr	7 ppl/hr	86 ppl
Walk	5 ppl/hr	7 ppl/hr	12 ppl/hr	17 ppl/hr	18 ppl/hr	35 ppl/hr	431 ppl

D. Scoping Information

District Department of Transportation (DDOT)
Comprehensive Transportation Review (CTR) Scoping Form

The purpose of the Comprehensive Transportation Review (CTR) study is to evaluate potential impacts to the transportation network that can be expected to result from an approved action by the Zoning Commission (ZC), Board of Zoning Adjustment (BZA), Public Space Committee (PSC), a Federal or District agency, or an operational change to the transportation network. The Scoping Form accompanies the *Guidance for Comprehensive Transportation Review* and provides the Applicant with an opportunity to propose a scope of work to evaluate the potential transportation impacts of the project.

Directions: The *CTR Scoping Form* contains study elements that an Applicant is expected to complete to determine the scope of the analysis. An Applicant should fill out this *Scoping Form* with a proposed scope of analysis commensurate with the requested action and submit to DDOT in Word format for review and concurrence. Accordingly, not all elements and figures identified in the *Scoping Form* are required for every action, and there may be situations where additional analyses and figures may be necessary. The Applicant should fill out as many sections as possible, and leave blank any sections that are not relevant to their project. Once a completed *Scoping Form* is submitted, DDOT will provide feedback on the initial proposed scope. DDOT's turnaround times are four (4) weeks for CTRs with a Traffic Impact Analysis (TIA) and three (3) weeks for all other lower tier studies. After the *Scoping Form* has been finalized and agreed to by DDOT, the Applicant is required to expand upon the elements outlined in this *Form* within the study and comply with all CTR requirements not specifically addressed in this *Form*.

Scoping Information
Date(s) Scoping Form Submitted to DDOT: 9/25/2025
DDOT Case Manager: Erkin Ozberk
Date(s) Scoping Form Comments Returned to Applicant:
Date Scoping Form Finalized:

Project Overview	**Proposed Development Program**
Project Name: Wesley Theological Seminary Further Processing (ZC Case No. 23-08A)	**Use(s)** Student Housing
Case Type & No. (ZC, BZA, PSC, etc.): ZC Case No. 23-08A	**Residential (dwelling units):** 215 dwelling units, 569 net new beds
Applicant/Developer Name: LCD Acquisitions, LLC	**Retail (square feet):** N/A
Transportation Consultant and Contact Info: Gorove/Slade Associates, Inc., 1140 Connecticut Avenue NW, Suite 1010, Washington, DC 20036 Daniel Solomon, 202-540-1928, dsolomon@goroveslade.com Ashley Orr, 202-293-7263, ashley.orr@goroveslade.com	**Office (square feet):** N/A
Land Use Counsel and Contact Info: Greenstein DeLorme & Luchs, P.C. , 801 17th Street NW, Suite 1000, Washington, DC 20006 John Patrick Brown, Jr., Esq., JPB@gdllaw.com	**Hotel (rooms):** N/A

Site Street Address: Wesley Theological Seminary (WTS) campus, 4500 Massachusetts Avenue, NW Washington, DC	**Other:** N/A
Site Square & Lot: Site Square 1600 Lot 818	**# of Vehicle Parking Spaces:** Existing: 174 surface parking spaces Proposed: 31 surface parking spaces + 264 parking garage spaces (295 total spaces, with 108 spaces reserved for WTS and 187 spaces available for non-WTS residents) 70 spaces required by ZR16
Current Zoning and/or Overlay District: RA-1	**# of Carshare spaces:** N/A
Estimated Date of Hearing: November 24, 2025	**# of Electric Vehicle Stations:** 6 stations
ANC/SMD No. & SMD Commissioner Name: ANC 3E, SMD 3E07 & 3E08, Elizabeth Graff	**Bicycle Parking Facilities**
OP Small Area Plan (if applicable): N/A	**Long-term / Short-Term spaces:** Long-Term: 62 proposed spaces, 61 required by ZR16 Short-Term: 12 proposed spaces, 11 required by ZR16
DDOT Livability Study (if applicable): N/A	**Showers / Lockers (non-residential):** N/A
Within ½ Mile of Metrorail or ¼ mile of Priority Bus/Streetcar?: No	**Loading Berths/Spaces:** One (1) existing loading berth, 1 required by ZR16 One (1) existing service/delivery space, 1 required by ZR16

Documents to be Submitted to DDOT: *Any action requiring a CTR or some other evaluation of on-site or off-site transportation facilities must submit one of the following documents to DDOT. It must be appropriately scoped for the specific action proposed and document all relevant site operations and transportation analyses.*

☒ **CTR Study** (100 or more total peak hour person trips OR 25 or more peak hour vehicle trips in peak direction, or as deemed necessary by DDOT)

☐ **TIA Component of CTR Study Triggered** (25 or more peak hour vehicle trips in peak direction, or as deemed necessary by DDOT)

☐ **Transportation Statement** (limited scope based on specifics of project OR if Low Impact Development Exemption from CTR and TIA is requested)

☐ **Standalone TIA** (project proposes a change to roadway capacity, operations, or directionality, has a site access challenge, or as deemed necessary by DDOT)

☐ **Other, specify:** _____

☐ Include PDF of report with appendices, traffic analysis files, and traffic counts in DDOT spreadsheet format (total size of all digital files under 15 MB, if possible)

Existing Site and Description of Action: *Describe the type(s) of regulatory approval(s) being requested and any background information on the project relevant to the requested action such as the existing uses, amount of vehicle parking, and other notable proposed changes on-site. Also note any other needed regulatory approvals outside of the zoning action discussed in this Form (e.g., Surveyor's Order for alley closure).*

The project, referred to as Wesley Theological Seminary Further Processing, includes the redevelopment of a portion of the site which is currently occupied by a surface parking lot and two (2) student housing and administration buildings. The proposed project includes removing the surface parking lot and existing buildings, replacing them with a new student housing building containing approximately 215 dwelling units and 264 below-grade parking spaces. The subject site location is within the Wesley Theological Seminary (WTS) campus, which is generally bounded by University Avenue NW to the west, Massachusetts Avenue NW to the north, and the American University (AU) campus to the east and south. The site is located in the RA-1 Zone District, which provides for areas predominantly developed with low- to moderate-density development, including detached dwellings, rowhouses, and low-rise apartments. RA-1 zoning also permits the construction of those institutional and semi-public buildings that would be compatible with adjoining residential uses and that are excluded from the more restrictive residential zones.

This application for Further Processing is consistent with the Wesley Theological Seminary Campus Plan for 2022-2032 (Z.C. Case No. 23-08(1)) which was approved by the District of Columbia Zoning Commission in 2025

The location of existing curb cuts are intended to be maintained as compared to existing conditions. One (1) existing curb cut along Massachusetts Avenue NW serves as the primary access to the property and one (1) existing curb cut along University Avenue NW serves as a one-way, right-out exit out of the property. Both accesses serve the entire site including the proposed students housing. The proposed loading facilities are anticipated to accommodate all loading activity and delivery demand for the proposed project, maintain loading and trash collection activity within private property, and provide loading circulation that ensures head-in/head-out truck movements are performed from the public roadway network.

As previously mentioned, vehicle access to and from the site will continue to be through the existing curb cuts on Massachusetts Avenue NW and University Avenue NW. Pedestrian access is provided via the primary property entrance on Massachusetts Avenue NW. The project will meet or exceed zoning requirements by providing at least 62 long-term bicycle parking spaces inside the garage and at least 12 short-term bicycle parking spaces on exterior racks within the site.

Prior Related Action(s), Conditions, and Commitments: *Note any prior approvals by ZC, BZA, or PSC (e.g., Campus Master Plan, First Stage PUD, student/faculty cap, etc.) for the site and list all relevant conditions and proffers still in effect from the previous approval and status of completion. Attach a copy of the Decision section from the previous Zoning Order if still in effect.*

A Campus Plan for 2022-2032 (Z.C. Case No. 23-08(1)) was approved by the District of Columbia Zoning Commission in 2025.

Section 1: SITE DESIGN

DDOT reviews the site plan to evaluate consistency with DDOT's standards, policies, and approach to access as documented in the most recent Design and Engineering Manual (DEM). If the proposal for use of public space is found to be inconsistent with the agency approach, DDOT will note this regardless of its relevance to the action. It is DDOT's position that issues regarding public space be addressed at the earliest possible opportunity to ensure the highest quality project design and to minimize project delays and the need to re-design a site in the future.

CATEGORY & GUIDELINES	APPLICANT PROPOSAL	DDOT COMMENTS
Site Access and Connectivity Show site access points for all modes. Include proposed curb cut locations, curb cuts to be closed, access controls (e.g., right-in/out, signalized), sight distances and sight triangles from access points and new intersections, driveway widths and spacing, on- and off-site parking locations, inter-parcel connections, public/private status of driveways, alleys, and streets, and whether easements, dedications, or ROW closures are proposed. *See Section 1.1 of the CTR Guidelines for more detailed guidance.*	Site access points for vehicles, pedestrians, and cyclists will be highlighted in the CTR. All access to the campus will remain unchanged from the existing condition. One (1) existing curb cut along Massachusetts Avenue NW serves as the primary access to the property and one (1) existing curb cut along University Avenue NW serves as a one-way, right-out exit out of the property. Vehicles exiting the Campus can only turn right onto Massachusetts Avenue. The University Avenue driveway is currently exit only for right turn only with no left turn or straight movement permitted. A limited number of delivery and service vehicles are allowed to enter the Campus from University Avenue Both accesses serve the entire site including the proposed student housing. The proposed loading facilities are anticipated to accommodate all loading activity and delivery demand for the proposed project, maintain loading and trash collection activity within private property, and provide loading circulation that ensures head-in/head-out truck movements are performed from the public roadway network. Pedestrian access is provided via the primary property entrance on Massachusetts Avenue NW. Short-term bicycle parking spaces will be located within the perimeter of the site. Long-term bicycle parking spaces can be accessed via the existing curb cuts to the below-grade parking garage within the site. ☒ *Scoping Graphic: Project Location Map* ☒ *Scoping Graphic: Site Circulation Plan* ☒ *Scoping Graphic: Plat for Site's Square and Lot from Office of the Surveyor (if official plat not available, provide copy from SURDOCS)*	
Loading Discuss and show the quantity and sizes of loading berths/delivery spaces, trash storage locations, on- and off-site loading locations, turnaround design, nearby commercial loading zones, and anticipated demand, operations, and routing of delivery and trash vehicles. Identify the sizes of trucks anticipated to serve the site and design vehicles to be used in truck turning diagrams. Provide truck turning diagrams in the body of the report not the appendix. Include a Loading Management Plan (LMP) if zoning relief, back-in loading, or curbside loading is proposed. *See Section 1.2 of the CTR Guidelines for more detailed guidance. A template LMP is provided in Appendix E.*	Loading and deliveries will occur in an internal loading area accessed from the existing WTS campus driveway. The loading area will include one (1) 30' x 12' loading berth and one (1) 20' x 10' service/delivery space, satisfying ZR16 regulations. These berths are accessed via head-in/head-out maneuvers in public space using the two (2) existing curb cuts on Massachusetts Avenue NW and University Avenue NW. These operations fulfill all requirements set by DDOT and Subtitle C § 901, which requires that for all residential buildings with more than 50 dwelling units, one (1) loading berth & loading platform and one (1) service/delivery space be provided. ☐ *Scoping Graphic: Location of loading area with internal building routing* ☐ *Scoping Graphic: Truck Turning Diagrams (to/from the site, alley, truck routes)*	

Vehicle Parking

Identify all off-street parking locations (on- and off-site) and justify the amount of on-site vehicle parking, including a comparison to the number of spaces required by ZR16 and DDOT's Preferred Maximum rates (Figure 10). Provide parking calculations and parking ratios by land use, including any eligible ZR16 vehicle parking reductions (i.e., within ¼ mile of Priority Bus Route, within ½ mile of Metrorail Station, providing carshare spaces, located within a D zone, etc.). Confirm whether ZR16 TDM Measures will be required per Subtitle C § 707.3 for providing more than double the required amount of parking.

See Section 1.3 of the CTR Guidelines for more detailed guidance.

Under ZR16, the project is required to have a minimum of 70 vehicle parking spaces. The WTS site is currently served by 174 surface parking spaces. The proposed development will displace 143 of the existing surface parking spaces and will include 264 parking spaces within the below-grade garage. As a result, the site will provide 108 parking spaces for WTS and 187 spaces for non-WTS residents for 295 parking spaces in total, consistent with the Campus Master Plan approvals.

Based on information provided by the Applicant, 108 parking spaces are sufficient for WTS general use. Per Subtitle C § 701.5, college/university land uses should provide parking as set forth in the approved Campus Plan.

It should also be noted that because the proposed residential building is for WTS and AU students only, its parking supply will function primarily as long-term vehicle storage and is not expected to generate significant peak hour vehicle trips, as is typical of more traditional residential parking facilities.

The ZR16 requirements are outlined in the table below.

☒ *Scoping Table: Parking Calculations with Comparison to ZR16 and DDOT's Preferred Maximum Vehicle Parking (Figure 10)*

☐ *Scoping Graphic: Off-Street Parking Locations (both on- and off-site)*

Land Use	Proposed Size	Unit	ZR16 Requirement	ZR16 Required Parking	DDOT-Preferred Rates	ZR16 Mitigation Threshold	Proposed Parking Spots
Residential							
Student Housing	215	du	0.33/unit (in excess of 4 units)	70 spaces	0.25/du (54 spaces)	140 spaces	295 spaces (108 WTS spaces, 295 non-WTS spaces)

Bicycle Parking

Identify the locations of proposed bicycle parking and justify the amount of long- and short-term spaces proposed. Provide a calculation of the number of spaces required by ZR16, as well as showers and lockers for non-residential uses, and ensure they are designed appropriately into the project.

See Section 1.4 and Appendix F of the CTR Guidelines, and the latest DDOT Bike Parking Guide, for more detailed design guidance.

The project will exceed ZR16 bicycle parking requirements by providing at least one (1) short-term bicycle parking space for each 20 dwelling units and by providing more than one (1) long-term space for each 3 dwelling units. The ZR16 requirements and proposed bicycle parking spaces are outlined in the table below.

The project plans to place all bicycle parking in easily accessible locations consistent with DDOT CTR guidelines found in sections 1.4.1 and 1.4.2, as well as DDOT's Bike Parking Guide. A bike room and bike repair station will be located on level P1 of the garage and will provide long-term bike parking, at least 50% of which (at least 31 spaces) will be located horizontally on the floor of the bike room. At least 10% of long-term spaces (at least 6 spaces) will be served by electrical outlets for e-bikes/scooters. At least 5% of long-term spaces (at least 3 spaces) will be designed to accommodate larger cargo/tandem bikes (10 feet by 3 feet size). At least 12 short-term bike parking spaces will be provided within the site.

Land Use	Size	Unit	ZR16 Requirements		Long-Term Required Parking (Min.)	Short-Term Required Parking (Min.)	Proposed Long-Term	Proposed Short-Term
			Long-Term	Short-Term				
Residential								
Student Housing	215	du	1/3 units*	1/20 units	61 spaces	11 spaces	62	12
Total					**62 spaces**	**12 spaces**	**62**	**12**

* Per DCMR 18-1214.4, all new residential buildings with eight (8) or more units shall have at least one (1) secure bicycle parking space for each three (3) residential units. This calculation provides accommodation for the 50% reduction after 50 spaces afforded in ZR16 Subtitle C § 802.2.

☒ *Scoping Graphic: Locations of internal bicycle parking spaces, routing to these spaces, and related support facilities including locker rooms, showers, storage areas, and service repair rooms*

Streetscape and Public Realm Provide a conceptual layout of the streetscape and public realm including at minimum: curb cuts, vaults, sidewalk widths, street trees, grade changes, building projections, short-term bicycle parking, and any existing bus stops. Also provide the permit tracking numbers and PSC hearing date, if known, for any approved public space designs. Note any non-compliant public space elements requiring a DCRA code modification or PSC approval. *See Section 1.5 of the CTR Guidelines for more detailed guidance. A summary of public space best practices and DDOT standards are also documented in the DEM, Public Realm Design Manual, and corridor Streetscape Guidelines (if applicable).*	The study will evaluate whether pedestrian facilities along the site's WTS driveway frontage meet DDOT and ADA standards. ☐ *Scoping Graphic: Preliminary Public Space Concept*	
Sustainable Transportation Elements Identify all sustainable transportation elements, such as electric vehicle (EV) charging stations and carshare spaces proposed to be included in the project. Electrical conduit should be installed in parking garage so that additional EV stations can be provided later. DDOT recommends 1 per 50 vehicle spaces be served by an EV station. Note that District regulations for EV infrastructure is fast evolving and additional requirements may go into effect. *See Section 1.6 of the CTR Guidelines for more detailed guidance.*	The Applicant will meet EV parking standards set forth by the Comprehensive Electric Vehicle Infrastructure Access, Readiness, and Sustainability Amendment Act of 2024, which goes into effect in 2027. Based on DDOT's recommendation, at least 6 EV charging stations will be provided (one for every 50 parking spaces).	
Heritage, Special, and Street Trees Heritage Trees are defined as having a circumference of 100 inches or more. They are protected by District law and must be preserved if deemed non-hazardous by Urban Forestry Division (UFD). Special Trees are between 44 inches and 99.99 inches in circumference and may be removed with a permit. Note whether there are existing Heritage Trees on-site or in adjacent public space. The presence of Heritage Trees will impact site design since they may not be cut down. Conduct an inventory of existing and missing street trees within a 2-block radius of the site. Provide a screenshot from UFD's map of existing and missing street trees.	The Applicant will work with UFD to determine if there are any Heritage or Special Trees that will be impacted by this work.	

See Section 1.7 of the CTR Guidelines for more detailed guidance.		

Section 2: MULTI-MODAL TRIP GENERATION

CATEGORY & GUIDELINES	APPLICANT PROPOSAL	DDOT COMMENTS
Mode Split Provide mode split assumptions with sources and justification. Adjustments to mode split assumptions may be made, as appropriate, if the number of vehicle parking spaces proposed is significantly lower or higher than expected for the context of the neighborhood. The agreed upon mode split assumptions may not be revised between scoping and CTR submission without amending the scoping form and receiving DDOT concurrence. *See Section 2.1 of the CTR Guidelines for acceptable data sources and methodologies.*	Mode split assumptions are shown below and are primarily based on census data and mode split for AU students commuting to campus, adjusted for the project site being located on campus. These mode splits are consistent with those used in the approved CMP. ☒ *Scoping Table: Mode Split Assumptions by Land Use*	

Land Use	Mode			
	Drive	Transit	Bike	Walk
Residential	20%	50%	5%	25%

Trip Calculations

Provide site-generated person trip estimates, utilizing the most recent version of ITE *Trip Generation Manual* or another agreed upon methodology such as manual doorway or driveway counts at similar facilities. Estimates must be provided by mode, type of trip, land use, and development phase during weekday AM and PM commuter peaks, Saturday mid-day peak, and daily totals. CTR must also include existing site trip generation based on observed counts. Include estimates for the transit, bicycle, walk, and automobile modes.

The agreed upon trip generation methodology may not be revised between scoping and CTR submission without amending the scoping form and receiving DDOT concurrence. Consult the DDOT Case Manager if site plan, development program, land uses, or density changes significantly.

See Section 2.2 of the CTR Guidelines for guidance on auto occupancy rates, acceptable trip reductions, and other methodologies.

The multi-modal trip generation for the proposed use was calculated using ITE 12th Edition rates for the ITE land use 226 (Off-Campus Student Apartment, Mid-Rise, Adjacent to Campus). This differs from the previously approved CMP CTR, which used the ITE 11th Edition curve for the ITE land use 225 (Off-Campus Student Apartment, Low-Rise, Adjacent to Campus), because the ITE 12th Edition has since been published as of August 2025, and the ITE land use 226 (Off-Campus Student Apartment, Mid-Rise, Adjacent to Campus) is a more appropriate description of the proposed building, which has seven (7) floors of housing. The table below compares the previously approved ITE 11th Edition LUC 225 trips, what the trips would be under the ITE 12th Edition LUC 225, and the recommended ITE 12th Edition LUC 226 trips. As shown below, the ITE 12th Edition LUC 226 produces the fewest number of trips compared to the other trip generation alternatives.

Under future conditions, the site will include 215 student housing units with 569 net-new student beds. As can be seen in the table below, the trip generation for the total vehicular site trips are expected to be minimal and are not anticipated to have a detrimental impact on the surrounding transportation network with the proposed site design elements, robust Transportation Demand Management plan, and annual Performance Monitoring Plan.

Mode	Mode Split	ITE 12th Edition, Land Use 226						ITE 12th Edition, Land Use 225						ITE 11th Edition, Land Use 225					
		AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
Auto (veh/hr)	20%	3	5	8	11	13	24	5	9	14	14	13	27	5	8	13	14	14	28
Transit (ppl/hr)	50%	11	13	24	33	37	70	16	24	40	40	41	81	15	22	37	42	40	82
Bike (ppl/hr)	5%	1	1	2	3	4	7	2	2	4	4	4	8	2	2	4	4	4	8
Walk (ppl/hr)	25%	5	7	12	17	18	35	8	12	20	20	21	41	8	10	18	21	20	41

☒ *Scoping Table: Multi-Modal Trip Gen Summary (with mode split and applicable reductions, as appropriate)*

Section 3: MULTI-MODAL NETWORK EVALUATION

A multi-modal network evaluation is required in the CTR or Transportation Statement if the project generates 100 or more total person trips (combined inbound and outbound) OR 25 or more vehicle trips in the peak direction (highest of inbound or outbound) during any peak hour period. Existing site traffic, pass-by, TDM, internal capture or other reductions may not be taken in the calculation to determine if the project meets these thresholds. However, the reductions may be applied in the analysis, as appropriate, if a study is triggered. Multi-modal analyses in this section are required in all CTRs, unless otherwise specified. A Transportation Statement may only require some of the following sections depending on the specifics of the project and zoning action.

Requirement for a CTR may be waived if site is within ½ mile from Metrorail or ¼ mile from Priority Transit, total vehicle parking supply is below the max amount for its distance to transit (see Figure 10), site has a maximum of 100 parking spaces, a Baseline TDM Plan is implemented, site access and loading design are acceptable, an off-site safety or non-auto improvement is constructed, and long-term bike parking requirements are exceeded. Additional criteria may be found in the Low Impact Development Exemption section of the *CTR Guidelines*.

CATEGORY & GUIDELINES	APPLICANT PROPOSAL	DDOT COMMENTS

Strategic Planning Elements List any relevant planning efforts and demonstrate how the proposed action is consistent with District-wide planning documents, as well as localized studies. Note in any recommendations from these documents relevant to the development proposal. *See Section 3.1 of CTR Guidelines for a list of strategic planning documents. Details on additional relevant plans and studies may be provided by the DDOT Case Manager.*	The CTR will consider the suggested studies in Section 3.1 of the DDOT CTR Guidance in addition to the following study located near the development: • Sustainable DC Plan • MoveDC Multimodal Transportation Plan • Vision Zero Action Plan • Capital Bikeshare Development Plan • District of Columbia Comprehensive Plan • WMATA Better Bus Network 2025	
Pedestrian Network Evaluate the condition of the existing pedestrian network and forecast the project's impact. Evaluation must include, at a minimum, critical walking routes, sidewalk widths, network completeness, and whether facilities meet DDOT and ADA standards. Study area will include, at a minimum, all roadway segments and multi-use trails within a ¼ mile radius from the site, with a focus on connectivity to Metrorail, transit stops, schools, and activity centers, and other neighborhood amenities. *See Section 3.2 of the CTR Guidelines for more detailed guidance.*	The CTR will review pedestrian walking routes to and from the site along with an assessment of facilities along these walking routes including all pedestrian facilities within a quarter mile of the site following Section 3.2 of DDOT's CTR guidelines. ☒ *Scoping Graphic: Pedestrian Study Area with Walking Routes to Transit, Schools, Activity Centers, and Neighborhood Amenities*	
Bicycle Network Evaluate the condition of the existing bicycle network and forecast the project's impact, including Capital Bikeshare (CaBi). Evaluation must include, at a minimum, bicycle network	The study will include a high-level assessment of the project's bicycle accommodations and facilities within a half mile of the site, including the amount of bicycle parking planned for the development, and the locations of bicycle parking within the building and on the streetscape. The review of bicycle facilities will follow DDOT's CTR guidelines found in section 3.3.1.	

completeness, types of facilities, and adequacy of CaBi locations and availability. Study area will include, at a minimum, all roadway segments and multi-use trails within a ½ mile radius from the site, with a focus on connectivity to Metrorail, transit stops, schools, major activity centers, and other bicycle trails or facilities. Look for opportunities to convert traditional bike lanes to protected bike lanes. *See Section 3.3 of the CTR Guidelines for more detailed guidance.*	☒ *Scoping Graphic: Bicycle Study Area with Bicycling Routes to Transit, Schools, Activity Centers, and Other Bicycle Facilities and Trails*	
Transit Network Evaluate, at a minimum, existing transit stop locations, adjacent bus routes and Metro headways, planned transit improvements, and an assessment of existing transit stop conditions (e.g., ADA compliance, bus shelters, benches, wayfinding, etc.). Study area is 1.0 mile for Metrorail stations and ½ mile for Streetcar, Circulator, and buses. *See Section 3.4 of the CTR Guidelines for more detailed guidance.*	The study will include a high-level assessment of transit within 1 mile of the site, including the bus routes that are in close proximity to the site as well as any Metrorail stations that will serve the site. The review of these transit facilities will follow DDOT's CTR guidelines found in section 3.4. ☒ *Scoping Graphic: Transit Study Area with Adjacent Routes and Stations* ☒ *Scoping Graphic: Screenshots from DDOT Transit Maps Showing Where the Site Falls within Buffers from Metrorail and Priority Transit*	
Safety Analysis Qualitatively evaluate safety conditions at intersections and along blocks within the vehicle study area using professional expertise. This might identify geometric design issues, missing critical signage or restrictions, or unforeseen pedestrian desire lines, for example. Perform a review of DDOT Vision Action Plan. Note whether any study intersections have been identified by DDOT as high crash locations, if any safety	The study will include a qualitative safety review within the study area following the guidance set forth in section 3.5 of DDOT's CTR guidelines.	

studies have been previously conducted, and discuss the recommendations. *See Section 3.5 of the CTR Guidelines for more detailed guidance.*		
Curbside Management Propose a preliminary curbside management plan that is consistent with current DDOT policies and practices. Curbside signage / restrictions reset with new development and the Applicant is responsible for installing meters if required. The curbside management plan must delineate existing and proposed on-street parking designations/restrictions, including but not limited to pick-up/drop-off zones, loading zones, multi-space meters, RPP, and net change in number of on-street spaces as a result of the proposal. *See Section 3.6 of the CTR Guidelines for more detailed guidance.*	The application does not propose changes to existing curbside management. The two (2) curb cuts on Massachusetts Avenue NW and University Avenue NW will be maintained. An exhibit showing curbside designations within 2 blocks of the campus will be provided as part of the CTR. ☐ *Scoping Graphic: Existing Curbside Designations (minimum 2 block radius of site)*	
Pick-Up and Drop-Off Plan Required for all new and existing schools and daycares with 20 or more students. May also be required for churches, hotels, or any other use expected to have significant pick-up/drop-off operations, as necessary. The plan will identify pick-up/drop-off locations and demonstrate adequate circulation so that the flow of bicycles and vehicles on adjacent street is not impeded and queueing does	A pick-up/drop-off plan is not necessary. The intensity of the development program is not expected to have significant pick-up and drop-off operations.	

not occur through the pedestrian realm. *See Section 3.6.4 of the CTR Guidelines for more detailed guidance.*		
On-Street Parking Occupancy Study This analysis is required if relief from 5 or more on-site vehicle parking spaces is being requested. It may also be required as part of a zoning or permitting case if DDOT has concerns about site-generated vehicles parking in adjacent residential neighborhoods. *See Section 3.6.5 of the CTR Guidelines for more detailed guidance on study periods and analysis requirements.*	The CTR will include a parking study that evaluates the utilization of on-site parking lots and on-street curbside parking within a two-block walkshed. This study will be done on a typical weekday and will include parking occupancy data collected at the top of each hour for the time period from 7 AM to 10 PM to demonstrate patterns and changes throughout the day, as well as interactions between residential and WTS parking demand. ☒ *Scoping Graphic: Study Area and Block Faces*	
Parking Garage/Drive-Thru Queuing Analysis If site contains 150 or more vehicle parking spaces AND direct access to a public street OR site contains a drive-thru, evaluate on-site vehicle queueing demand and provide analysis demonstrating parking entrance/ramps or drive aisle can properly process vehicles without queuing onto public streets. *See Section 1.3.4 of CTR Guidelines for more detailed guidance.*	Because access to the below-grade parking garage is not accessed directly off of Massachusetts Avenue NW or University Avenue NW, a parking garage queuing analysis is not necessary.	
Motorcoaches Propose methodology for data collection and analysis. Describe and show the parking locations, anticipated demand, existing areas on- and off-site for loading and unloading (and desired loading times restrictions, if any), and potential routes to	No material motorcoach activity is anticipated.	

and from designated truck routes. If on-street motorcoach parking is proposed, a plan for installation of signage and meters is required, subject to DDOT approval. This section is typically only required for uses that generate significant tourist activity (hotels, museums, cruises, concerts, etc.). *See Section 3.7 of the CTR Guidelines for more detailed guidance.*		

Section 4: TRAFFIC IMPACT ANALYSIS (TIA)

The TIA component of a CTR is required when a development generates 25 or more vehicle trips in the peak direction (higher of either inbound or outbound vehicles) during any of the critical peak hour periods, after mode split is applied. Existing site traffic, pass-by, TDM, internal capture or other reductions may not be applied when calculating whether a TIA is required. However, trip reductions may be used in the multi-modal trip generation summary and assignment of trips within the TIA, as appropriate and agreed to by DDOT. A standalone TIA may also be required if the project proposes a change to roadway capacity, operations, or directionality; has a site access challenge; or as otherwise deemed necessary by DDOT.

CATEGORY & GUIDELINES	APPLICANT PROPOSAL	DDOT COMMENTS
TIA Study Area and Data Collection Identify study intersections commensurate with the impact of the proposed project and the travel demand it will generate. Study area must include all major signalized and unsignalized intersections, intersections expected to realize large numbers of new traffic, and intersections that may experience changing traffic patterns. *See Sections 4.1 and 4.2 of the CTR Guidelines for more detailed guidance on study intersection selection and TMC count periods.*	The study area will include intersections where site impacts are most likely to occur, including: 1. All site access points 2. Adjacent streets/intersections as the boundary of the site 3. The nearest intersection(s) with an arterial street Weekday TMCs will be collected at seven (7) proposed study intersections shown below, as well as in and out driveway counts at all existing curb cuts for the site. TMCs will be conducted on a typical weekday from 6:30 to 9:30 AM and 4:00 to 7:00 PM, including pedestrian and bicycle counts along with percentage of truck traffic. The TIA study area and data collection will comply with Sections 4.1 and 4.2 of DDOT's CTR guidelines. These intersections are the same as those that were studied as part of the CMP approvals. 1. Massachusetts Avenue & 46th Street/Tilden Street/Wesley Circle NW 2. University Avenue & Wesley Circle NW 3. Massachusetts Avenue & Wesley Circle NW 4. University Avenue & Sedgwick Street/WTS Driveway NW 5. Massachusetts Avenue & 45th Street NW 6. Massachusetts Avenue & WTS Driveway NW 7. Massachusetts Avenue & Glover Gate/Katzen Driveway NW ☒ *Scoping Graphic: Proposed Study Intersections* ☒ *Will provide hard copies of TMCs in CTR appendix and electronic copies in DDOT spreadsheet format at time of submission.*	
TIA Study Scenarios Propose an appropriate set of scenarios to analyze. These commonly include Existing, Background (No Build), Total	The following scenarios are proposed, following Section 4.3 of DDOT's CTR guidelines. • Existing Conditions (2025) • 2029 Future Conditions without the development (2029 Background Conditions) • 2029 Future Conditions with the development (2029 Total Future Conditions) • 2029 Future Conditions with the development and associated intersection mitigations (2029 Mitigated Total Future Conditions)	

Future, and Future with Mitigation. Note the anticipated build-out year and project phasing. *See Section 4.3 of CTR Guidelines for guidance on study scenarios.*		
TIA Methodology Propose an appropriate methodology for the capacity analysis including the type of software program to be used. Per DEM 38.3.5.1, HCM methodology will be used to determine Level of Service (LOS), v/c, and vehicle queue lengths. LOS must be reported by intersection approach and v/c by lane group. DDOT prefers Synchro 9 or newer software for capacity and queueing analyses. *See Section 4.4 of the CTR Guidelines for more detailed guidance. DDOT's required standard Synchro and SimTraffic inputs/settings are provided in Appendix H.*	Capacity analyses will be performed using Highway Capacity Manual (HCM) methodologies with an industry recognized software package. Analysis is proposed to be done in Synchro 11, reporting the results in delay and LOS using HCM 2000 methodologies. Proposed analysis periods include morning and afternoon commuter peak hours, using the system peaks at all study area intersections. Synchro files will be obtained from DDOT for use in the vehicular capacity analysis. Signal timings for the study area intersections will be obtained from DDOT. The capacity analysis results will show the average delay and the resulting LOS for each approach and for the overall intersection (where available), as well as the queuing results obtained from Synchro 11 for the average and 95th percentile queue for each lane group. • All LOS E or LOS F conditions per intersection and approach will be highlighted. • Mitigation measures will be proposed at intersections or approaches that degrade to an LOS E or F as a result of the development, or intersections or approaches operating under LOS E or F under background conditions that observe an increase in delay of greater than five (5) percent, when compared to the background scenario. • All locations where the 95th percentile queue length exceeds the length of storage will be highlighted. Locations will be noted where the proposed project causes the 95th percentile queue length to exceed the available capacity of a lane group when it does not in the background scenario. • Mitigation measures will be proposed at intersections where the proposed project causes any 95th percentile queue lengths that exceed the available capacity to experience an increase in length of greater than 150 feet along any lane group. An assessment of feasibility given the existing ROW at each location will be given for each mitigation measure, as appropriate. ☒ *Will provide copies of Synchro, SimTraffic, and other analysis software printouts in study appendix and electronic copies of analysis files at time of CTR submission.*	
Transportation Network Improvements List and map all roadway, transit, bicycle, and pedestrian projects funded by DDOT or WMATA, or proffered by others, in the vicinity of the study area and expected to open for public use prior to the proposal's anticipated build-out year. Review the STIP, CLRP, and proffers/commitments for other nearby developments. *See Section 4.5 of the CTR Guidelines for more detailed guidance.*	There are no known transportation network improvements that will be included in the CTR. ☐ *Scoping Graphic: Locations of Background Transportation Network Improvements and Anticipated Completion Years*	

Background Development / Local Growth

List and map developments to be analyzed as local background growth. This will include known matter-of-right and zoning-approved developments within ¼ mile of site and others more than ¼ mile from site if their traffic is distributed through study intersections. Document the portions of developments anticipated to open by the projected build-out year.

See Section 4.6.1 of the CTR Guidelines for more detailed guidance.

The Ladybird development consisting of 214 residential units, a 13,000 square foot grocer, and five townhouses located 0.6 miles from the site will be included in the CTR.

☒ *Scoping Graphic: Background Development Projects Near Study Area*

☐ *Scoping Table: Completion Amounts/Portions Occupied of Background Developments*

Regional Traffic Growth

Propose a methodology to account for growth in regional travel demand passing through the study area. An appropriate methodology could include reviewing historic AADT traffic counts, MWCOG model growth rates, data from other planning studies, or recently conducted nearby CTRs. These sources should only be used as a guide.

Generally, maximum annually compounding growth rates of 0.5% in peak direction and 2.0% in non-peak direction are acceptable. Adjustments to the rates may be necessary depending on the amount of traffic assumed from local background developments or if there were recent changes to the transportation network.

See Section 4.6.2 of the CTR Guidelines for more detailed guidance.

Volumes contained in the MWCOG regional model are proposed for analysis to develop an average annual growth rate for study area roadways. This methodology is preferred for calculating growth rates as it considers all future projects and developments in the COG model and allows for District growth rates by direction and time of day. Growth rates for this study are based on the differences between the years 2025 and 2029 COG model scenarios to determine an annual growth rate for the study scenarios. Where the COG model showed negative or minimal growth, a conservative 0.1% per year minimum growth was assumed. A maximum growth rate of 2.0% was used for volumes moving in the non-peak direction, while a maximum growth rate of 0.5% was used for volumes moving in the peak direction. Based on this methodology, the following is a summary of the growth rates to be used:

Roadway	Dir.	Proposed Annual Growth Rate Between 2025 and 2029				Proposed Total Growth Between 2025 and 2029	
		AM Peak Hour		PM Peak Hour		AM Peak Hour	PM Peak Hour
		Calculated Growth Rate	Rounded Growth Rate [1]	Calculated Growth Rate	Rounded Growth Rate [1]	Rounded Growth Rate [1]	Rounded Growth Rate [1]
Massachusetts Ave NW	EB	2.24%	0.50%	-10.10%	0.10%	2.02%	0.40%
	WB	-5.60%	0.10%	6.82%	0.50%	0.40%	2.02%
Sedgewick St NW [2]	EB	N/A	0.10%	N/A	0.10%	0.40%	0.40%
	WB	N/A	0.10%	N/A	0.10%	0.40%	0.40%
Tilden St NW [2]	EB	N/A	0.10%	N/A	0.10%	0.40%	0.40%
	WB	N/A	0.10%	N/A	0.10%	0.40%	0.40%
46th St NW	NB	2.35%	2.00%	-2.11%	0.10%	8.24%	0.40%
	SB	1.26%	0.50%	1.43%	1.43%	2.02%	5.83%
University Ave	NB	-6.44%	0.10%	0.96%	0.96%	0.40%	3.88%

	SB	-13.07%	0.96%	4.61%	0.50%	3.88%	2.02%
45th St NW	NB	6.67%	2.00%	3.92%	0.50%	8.24%	2.02%
	SB	-32.08%	0.10%	3.51%	2.00%	0.40%	8.24%
Campus Dr NW [2]	NB	N/A	0.10%	N/A	0.10%	0.40%	0.40%
	SB	N/A	0.10%	N/A	0.10%	0.40%	0.40%

[1] DDOT CTR Guidelines recommends maximum annual growth rates of 0.50% in the peak direction of traffic and 2.0% in the non-peak direction, as well as a minimum growth rate of 0.10% in situations where available data shows there has been zero or negative growth in recent years

[2] The MWCOG model does not have data along Sedgewick St NW, Tilden St NW, and Campus Dr NW, so annual growth rates of 0.10% were applied for every year between 2025 and 2029, totaling 0.40% for each direction.

☒ *Scoping Table and Graphic: Projected Regional Growth Assumptions (dependent on methodology), Show Growth rates by Road, Direction, and Time of Day*

Trip Distribution

Provide sources and justification for proposed percentage distribution of site-generated trips. Additionally, document proposed pass-by distributions and the re-routing of existing or future vehicles based on any changes to the transportation network. Percentage distributions must be shown turning at intersections throughout the transportation network and at site driveways and garage entrances to ensure appropriate routing assumptions.

The agreed upon trip distribution methodology may not be revised between scoping and CTR submission without amending this scoping form and receiving concurrence by DDOT Case Manager.

See Section 4.7 of the CTR Guidelines for more detailed guidance.

Trip distribution for the site was determined based on (1) CTPP TAZ flow data, (2) CTPP Census Tract flow data, and (3) existing traffic volumes collected in 2021 and travel patterns in the study area. This data will be verified with data collected in 2025. The proposed trip distributions are illustrated in an attached graphic.

☒ *Scoping Graphic(s): Percentage Distribution by Land Use, Direction, Time of Day (must be shown turning at intersections and driveways)*

Section 5: MITIGATION

The completed CTR must detail all proposed mitigations. The purpose of discussing mitigation at the scoping stage is to highlight DDOT's Significant Impact Policy, DDOT's approach to mitigation, and to give the Applicant an opportunity to gain initial feedback on potential mitigations that are under consideration. Any mitigation strategies discussed and included in the *Scoping Form* are considered non-binding until formally evaluated in the study and committed to in-documentation submitted as part of the case record.

CATEGORY & GUIDELINES	APPLICANT PROPOSAL	DDOT COMMENTS
DDOT Significant Impact Policy DDOT has two primary impact mitigation tests for development projects: 1) off-street vehicle parking supply, and 2) capacity impacts at intersections. *See Section 5.1 of the CTR Guidelines for detailed policies and metrics for each of the two impact tests.*	☒ *The Applicant acknowledges DDOT's Significant Impact Policy in Section 5.1 of the CTR Guidelines.* ☒ *The study will comply with all other policies in the CTR Guidelines not explicitly documented in the Applicant Proposal or DDOT Comments columns.* ☒ *The study will include all of the required graphics, tables, and deliverables for the relevant sections determined during scoping, as shown in Figure 7 of the CTR Guidelines.*	
DDOT's Approach to Mitigation DDOT's approach to mitigation prioritizes (in order of preference) optimal site design, reducing vehicle parking, implementing TDM strategies, making non-automotive network improvements, and making a monetary contribution to DDOT's Mitigation Fund for non-auto improvements, before considering options that increase roadway capacity or alter roadway operations. *See Section 5.2 and Figure 18 of the CTR Guidelines for more detailed guidance on mitigation selection.*	☒ *The Applicant acknowledges DDOT's approach to mitigation in Section 5.2 of the CTR Guidelines.*	
Transportation Demand Management (TDM) A TDM Plan is typically required to offset site-generated impacts to the	The study will summarize the previously proposed TDM. ☒ *The study will include at least a Baseline TDM Plan. The TDM plan will increase depending on the parking supply and other impacts identified in the study.*	

transportation network or in situations where a site provides more parking than DDOT determines is practical for the use and surrounding context. Document all existing TDM strategies being implemented on-site (even outside of a formal TDM Plan) and those being proposed and committed to by the Applicant. Elements of the TDM Plan included in CTR must be broken down by land use and user. *See Section 5.3 of the CTR Guidelines for more detailed guidance. Sample TDM plans by land use and tier can be found in Appendix C.*		
Performance Monitoring Plan (PMP) DDOT may require a PMP in situations where anticipated vehicle trips are large in magnitude, unpredictable, or necessitate a vehicle trip cap. Typically, this is required for campus plans, schools, or large developments expected to have a significant amount of single occupancy vehicle trips. Document any existing performance monitoring Plans in effect and any proposed changes. *See Section 5.4 of the CTR Guidelines for more detailed guidance. Sample PMPs can be found in Appendix D.*	The study will summarize the previously approved PMP.	
Roadway Operational and Geometric Changes Describe all proposed roadway operational and geometric changes in CTR with supporting analysis and warrants in the study	The study will include analysis of any proposed mitigation related to the development.	

appendix. Detail must be provided on any ROW implications of proposed mitigations. Note any preliminary ideas being considered. *See Section 5.7 of the CTR Guidelines for more detailed guidance.*		

Section 6: ADDITIONAL TOPICS FOR DISCUSSION DURING SCOPING

CATEGORY & GUIDELINES	APPLICANT PROPOSAL	DDOT COMMENTS
ANC Discussions and Feedback Provide an update on the status of Community Benefits Agreement (CBA), any on-going ANC discussions/meetings, and any concerns expressed by the community. DDOT can provide ideas and a feasibility check for transportation items to be included in the CBA.	The Applicant will work closely with the ANC and other community stakeholders as the application proceeds.	
Miscellaneous Items for Discussion Any relevant on-going conversations with DOEE, SHPO, DMPED, GSA, NPS, neighboring jurisdictions, Historic Preservation, etc.? Seeking direction on other types of analyses such as traffic calming, TOPP, TMP, IMR/IJR, etc.? Anything unusual proposed not covered under other sections, such as air-rights, right-of-way actions, removal from Highway Plan, removal of BRLs, or construction under or close to a bridge?	N/A.	

E. Vehicle Level of Service Definitions

A. Level of Service Definitions

All capacity analyses are based on the procedures specified by the Transportation Research Board, Special Report 209: Highway Capacity Manual (HCM), 2000. Levels of service (LOS) range from A to F. A brief description of each level of service for signalized and unsignalized intersections is provided below.

Signalized Intersections

Level of service is based upon the traffic volume present in each lane on the roadway, the capacity of each lane at the intersection and the delay associated with each directional movement. The levels of service for signalized intersections are defined below:

- **LOS A** describes operations with very low average delay per vehicle, i.e., less than 10.0 seconds. This occurs when progression is extremely favorable, and most vehicles arrive during the green phase. Most vehicles do not stop. Short signal cycle lengths may also contribute to low delay.

- **LOS B** describes operations with average delay in the range of 10.1 to 20.0 seconds per vehicle. This generally occurs with good progression and/or short cycle lengths. More vehicles stop than for LOS A, causing higher levels of average delay.

- **LOS C** describes operations with delay in the range of 20.1 to 35.0 seconds per vehicle. These higher delays may result from fair progression and/or longer cycle lengths. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant at this level although many still pass through the intersection without stopping. This is generally considered the lower end of the range of the acceptable level of service in rural areas.

- **LOS D** describes operations with delay in the range of 35.1 to 55.0 seconds per vehicle. At LOS D, the influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, and/or high traffic volumes as compared to the roadway capacity. Many vehicles are required to stop and the number of vehicles that do not have to stop declines. Individual signal cycle failures, where all waiting vehicles do not clear the intersection during a single green time, are noticeable. This is generally considered the lower end of the range of the acceptable level of service in urban areas.

- **LOS E** describes operations with delay in the range of 55.1 to 80.0 seconds per vehicle. These higher delay values generally indicate poor progression, long cycle lengths, and high traffic volumes. Individual cycle failures are frequent occurrences. LOS E has been set as the limit of acceptable conditions.

- **LOS F** describes operations with average delay in excess of 80.0 seconds per vehicle. This is considered to be unacceptable to most drivers. This condition often occurs with over-saturation, i.e., when traffic arrives at a flow rate that exceeds the capacity of the intersection. It may also occur at high volumes with many individual cycle failures. Poor progression and long cycle lengths may also contribute to such delays.

Unsignalized Intersections

At an unsignalized intersection, the major street through traffic and right turns are assumed to operate unimpeded and therefore receive no level of service rating. The level of service for the minor street and the major street left turn traffic is dependent on the volume and capacity of the available lanes, and, the number and frequency of acceptable gaps in the major street traffic to make a conflicting turn.

The level of service grade is provided for each conflicting movement at an unsignalized intersection and is based on the total average delay experienced by each vehicle. The delay includes the time it takes a vehicle to move from the back of a queue through the intersection.

The unsignalized intersection level of service analysis does not account for variations in driver behavior or the effects of nearby traffic signals. Therefore, the results from this analysis usually indicate worse levels of service than may be experienced in the field. The unsignalized intersection level of service descriptions are provided below:

- **LOS A** describes operations where there is very little to no conflicting traffic for a minor side street movement, i.e., an average total delay of less than 10.0 seconds per vehicle.
- **LOS B** describes operations with average total delay in the range of 10.1 to 15.0 seconds per vehicle.
- **LOS C** describes operations with average total delay in the range of 15.1 to 25.0 second per vehicle.
- **LOS D** describes operations with average total delay in the range of 25.1 to 35.0 seconds per vehicle.
- **LOS E** describes operations with average total delay in the range of 35.1 to 50.0 seconds per vehicle.
- **LOS F** describes operations with average total delay of 50 seconds per vehicle. LOS F exists when there are insufficient gaps of suitable size to allow a side street demand to cross safely through or enter a major street traffic stream. This level of service is generally evident from extremely long total delays experienced by side street traffic and by queuing on the minor approaches. It is important to note that LOS F may not always result in long queues but may result in adjustments to normal driver behavior.

F. 2025 Turning Movement Counts

Gorove/Slade Associates - Multimodal Turning Movement Count Report

Project Name : Wesley Theological Seminary Further
Project # : 2997-002
Location Washington, DC
Data Source: Gorove/Slade Associates, Inc.

Analysis Period: STUDY_PERIOD 06:30 AM to 09:30 AM
Date of Counts: Thursday, September 11, 2025
Weather: Partly Cloudy

Volumes Displayed as: 2. System Peak (vehicle)
Intersection Peak Hour (all vehicles): 07:45 AM to 08:45 AM
System Peak Hour (all vehicles): 07:45 AM to 08:45 AM
User-Defined Peak Hour: 07:30 AM to 08:30 AM

Intersection: 1. 46th Street NW/Wesley Cir NW & Massachusetts Avenue NW

ALL VEHICLES

	Direction:	Southbound					Westbound					Northbound					Eastbound				
	Roadway:	46th Street NW					Massachusetts Avenue NW					Wesley Cir NW					Massachusetts Avenue NW				
	Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
06:30 AM	to 06:45 AM	0	5	0	1	7	0	2	60	0	0	0	0	0	0	3	0	0	72	0	0
06:45 AM	to 07:00 AM	0	8	0	0	1	0	2	62	0	0	0	0	0	0	3	0	0	128	1	1
07:00 AM	to 07:15 AM	0	13	1	0	2	0	2	86	0	0	0	0	0	0	1	0	0	147	0	0
07:15 AM	to 07:30 AM	0	12	0	0	2	0	3	98	0	0	0	0	0	0	1	0	0	244	1	0
07:30 AM	to 07:45 AM	0	22	1	0	6	0	3	103	0	0	0	0	0	0	2	0	0	314	0	2
07:45 AM	to 08:00 AM	0	20	5	2	3	0	4	140	0	0	0	0	0	0	2	0	0	298	1	1
08:00 AM	to 08:15 AM	0	34	2	0	1	0	8	145	0	0	0	0	0	0	2	0	0	269	1	1
08:15 AM	to 08:30 AM	0	33	8	1	0	0	3	145	0	0	0	0	0	0	1	0	0	280	3	2
08:30 AM	to 08:45 AM	0	42	7	0	3	0	4	126	0	0	0	0	0	0	4	0	0	286	2	1
08:45 AM	to 09:00 AM	0	40	6	1	1	0	2	114	0	0	0	0	0	0	4	0	0	261	1	2
09:00 AM	to 09:15 AM	0	14	3	1	1	1	5	95	0	0	0	0	0	0	3	0	0	233	1	0
09:15 AM	to 09:30 AM	0	8	4	2	10	0	3	101	0	0	0	0	0	0	12	0	0	208	0	3
09:30 AM	to 09:45 AM																				
09:45 AM	to 10:00 AM																				
10:00 AM	to 10:15 AM																				
10:15 AM	to 10:30 AM																				
10:30 AM	to 10:45 AM																				
10:45 AM	to 11:00 AM																				
11:00 AM	to 11:15 AM																				
11:15 AM	to 11:30 AM																				
SYSTEM PEAK HR (VEH.)		154				7	575				0	0				9	1140				5
07:45 AM	to 08:45 AM	0	129	22	3		0	19	556	0		0	0	0	0		0	0	1133	7	
Peak Hour	Overall	U	Left	Thru	Right	**SB**	U	Left	Thru	Right	**WB**	U	Left	Thru	Right	**NB**	U	Left	Thru	Right	**EB**
Factor (PHF)	**0.99**	n/a	0.77	0.69	0.38	**0.79**	n/a	0.59	0.96	n/a	**0.94**	n/a	n/a	n/a	n/a	**n/a**	n/a	n/a	0.95	0.58	**0.95**

HEAVY VEHICLES (FHWA 4+)

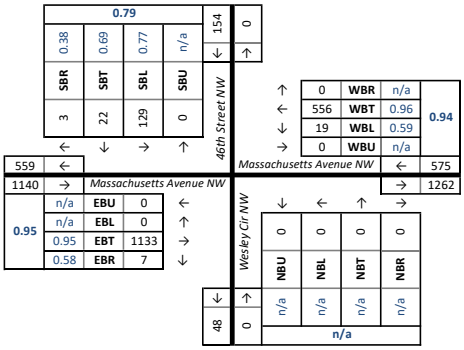
	Direction:	Southbound					Westbound					Northbound					Eastbound				
	Roadway:	46th Street NW					Massachusetts Avenue NW					Wesley Cir NW					Massachusetts Avenue NW				
	Movement:	U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right	
06:30 AM	to 06:45 AM	0	0	0	0		0	1	1	0		0	0	0	0		0	0	5	0	
06:45 AM	to 07:00 AM	0	1	0	0		0	0	2	0		0	0	0	0		0	0	4	0	
07:00 AM	to 07:15 AM	0	1	0	0		0	0	11	0		0	0	0	0		0	0	0	0	
07:15 AM	to 07:30 AM	0	0	0	0		0	0	6	0		0	0	0	0		0	0	2	0	
07:30 AM	to 07:45 AM	0	0	0	0		0	0	4	0		0	0	0	0		0	0	5	0	
07:45 AM	to 08:00 AM	0	1	0	0		0	0	7	0		0	0	0	0		0	0	5	1	
08:00 AM	to 08:15 AM	0	1	0	0		0	1	5	0		0	0	0	0		0	0	11	0	
08:15 AM	to 08:30 AM	0	0	0	0		0	0	5	0		0	0	0	0		0	0	5	0	
08:30 AM	to 08:45 AM	0	0	0	0		0	0	3	0		0	0	0	0		0	0	4	0	
08:45 AM	to 09:00 AM	0	0	0	0		0	0	6	0		0	0	0	0		0	0	7	0	
09:00 AM	to 09:15 AM	0	0	0	0		0	0	5	0		0	0	0	0		0	0	5	0	
09:15 AM	to 09:30 AM	0	0	0	0		0	0	1	0		0	0	0	0		0	0	5	0	
09:30 AM	to 09:45 AM																				
09:45 AM	to 10:00 AM																				
10:00 AM	to 10:15 AM																				
10:15 AM	to 10:30 AM																				
10:30 AM	to 10:45 AM																				
10:45 AM	to 11:00 AM																				
11:00 AM	to 11:15 AM																				
11:15 AM	to 11:30 AM																				
SYSTEM PEAK HR (VEH.)		2					21					0					26				
07:45 AM	to 08:45 AM	0	2	0	0		0	1	20	0		0	0	0	0		0	0	25	1	
Heavy Vehicle % (PHV):		0.0%	1.6%	0.0%	0.0%	**1.3%**	0.0%	5.3%	3.6%	0.0%	**3.7%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	2.2%	14.3%	**2.3%**
INT. PEAK HR (HV ONLY)		2					22					0					27				
07:30 AM	to 08:30 AM	0	2	0	0		0	1	21	0		0	0	0	0		0	0	26	1	
Heavy Vehicle % (PHV):		0.0%	1.8%	0.0%	0.0%	**1.6%**	0.0%	5.6%	3.9%	0.0%	**4.0%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	2.2%	20.0%	**2.3%**

BICYCLES

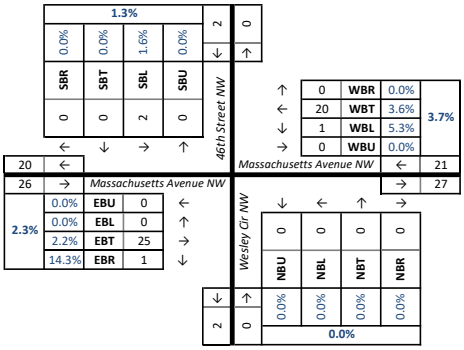
	Direction:	Southbound				Westbound				Northbound				Eastbound			
	Roadway:	46th Street NW				Massachusetts Avenue NW				Wesley Cir NW				Massachusetts Avenue NW			
	Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
06:30 AM	to 06:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 AM	to 07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 AM	to 07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	to 07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
07:30 AM	to 07:45 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0
07:45 AM	to 08:00 AM	0	1	0	1	0	0	0	0	0	1	0	0	0	0	1	0
08:00 AM	to 08:15 AM	0	0	0	1	0	0	1	0	0	0	0	0	0	0	3	0
08:15 AM	to 08:30 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0
08:30 AM	to 08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
08:45 AM	to 09:00 AM	0	0	1	0	0	0	2	0	0	0	0	0	0	0	1	0
09:00 AM	to 09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
09:15 AM	to 09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0
09:30 AM	to 09:45 AM																
09:45 AM	to 10:00 AM																
10:00 AM	to 10:15 AM																
10:15 AM	to 10:30 AM																
10:30 AM	to 10:45 AM																
10:45 AM	to 11:00 AM																
11:00 AM	to 11:15 AM																
11:15 AM	to 11:30 AM																
SYSTEM PEAK HR (VEH.)		4				1				1				6			
07:45 AM	to 08:45 AM	0	1	1	2	0	0	1	0	0	1	0	0	0	0	6	0
INT. PEAK HR (BIKES)		4				1				1				7			
07:15 AM	to 08:15 AM	0	1	0	3	0	0	1	0	0	1	0	0	0	0	7	0

DATA COLLECTION NOTES :

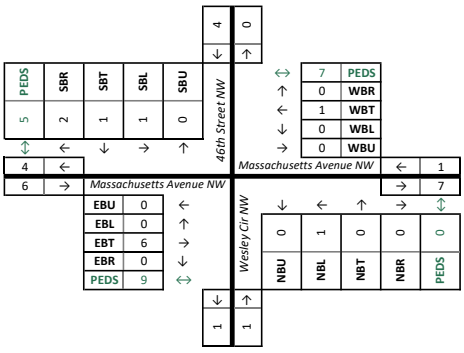
VEHICLE PEAK HOUR VOLS AND PHF: System Peak (vehicle)



HEAVY VEH PEAK HOUR VOLS AND PHV: System Peak (vehicle)



PED AND BIKE PEAK HOUR VOLUMES: System Peak (vehicle)



Gorove/Slade Associates - Multimodal Turning Movement Count Report

Project Name : Wesley Theological Seminary Further
Project # : 2997-002
Location Washington, DC
Data Source: Gorove/Slade Associates, Inc.

Analysis Period: STUDY_PERIOD 06:30 AM to 09:30 AM
Date of Counts: Thursday, September 11, 2025
Weather: Partly Cloudy

Volumes Displayed as: 2. System Peak (vehicle)
Intersection Peak Hour (all vehicles): 07:15 AM to 08:15 AM
System Peak Hour (all vehicles): 07:45 AM to 08:45 AM
User-Defined Peak Hour: 07:30 AM to 08:30 AM

Intersection: 1. /University Avenue NW & Wesley Circle NW

ALL VEHICLES

Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:						Wesley Circle NW					University Avenue NW					Wesley Circle NW				
Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
06:30 AM to 06:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	4	0	0
06:45 AM to 07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	3	2	0
07:00 AM to 07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	2	1	0
07:15 AM to 07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	6	1	0
07:30 AM to 07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	8	2	0	0	11	2	0
07:45 AM to 08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	5	2	0	0	3	5	0
08:00 AM to 08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	6	4	0	0	7	4	0
08:15 AM to 08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	2	5	0
08:30 AM to 08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	2	0	0	7	2	0
08:45 AM to 09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	9	1	0	0	4	6	0
09:00 AM to 09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	10	1	0	0	2	5	0
09:15 AM to 09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1	0	0	6	0	0
09:30 AM to 09:45 AM																				
09:45 AM to 10:00 AM																				
10:00 AM to 10:15 AM																				
10:15 AM to 10:30 AM																				
10:30 AM to 10:45 AM																				
10:45 AM to 11:00 AM																				
11:00 AM to 11:15 AM																				
11:15 AM to 11:30 AM																				
SYSTEM PEAK HR (VEH.)	0				0	0				0	22				8	35				0
07:45 AM to 08:45 AM	0	0	0	0		0	0	0	0		0	0	0	22		0	0	19	16	
Peak Hour Factor (PHF) Overall **0.84**	U n/a	Left n/a	Thru n/a	Right n/a	**SB n/a**	U n/a	Left n/a	Thru n/a	Right n/a	**WB n/a**	U n/a	Left n/a	Thru n/a	Right 0.69	**NB 0.69**	U n/a	Left n/a	Thru 0.68	Right 0.80	**EB 0.80**

HEAVY VEHICLES (FHWA 4+)

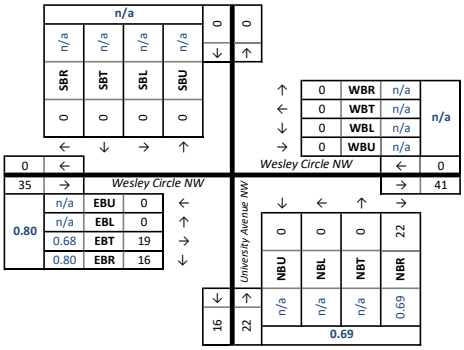
Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:						Wesley Circle NW					University Avenue NW					Wesley Circle NW				
Movement:	U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right	
06:30 AM to 06:45 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
06:45 AM to 07:00 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
07:00 AM to 07:15 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
07:15 AM to 07:30 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
07:30 AM to 07:45 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
07:45 AM to 08:00 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	1	
08:00 AM to 08:15 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
08:15 AM to 08:30 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
08:30 AM to 08:45 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
08:45 AM to 09:00 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
09:00 AM to 09:15 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
09:15 AM to 09:30 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
09:30 AM to 09:45 AM																				
09:45 AM to 10:00 AM																				
10:00 AM to 10:15 AM																				
10:15 AM to 10:30 AM																				
10:30 AM to 10:45 AM																				
10:45 AM to 11:00 AM																				
11:00 AM to 11:15 AM																				
11:15 AM to 11:30 AM																				
SYSTEM PEAK HR (VEH.)	0					0					0					1				
07:45 AM to 08:45 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	1	
Heavy Vehicle % (PHV):	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	6.3%	**2.9%**
INT. PEAK HR (HV ONLY)	0					0					0					1				
07:00 AM to 08:00 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	1	
Heavy Vehicle % (PHV):	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	11.1%	**3.2%**

BICYCLES

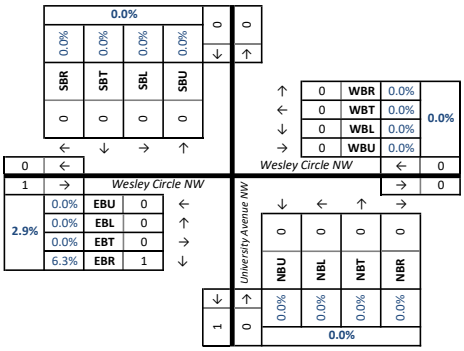
Direction:	Southbound				Westbound				Northbound				Eastbound			
Roadway:					Wesley Circle NW				University Avenue NW				Wesley Circle NW			
Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
06:30 AM to 06:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 AM to 07:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
07:00 AM to 07:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
07:15 AM to 07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM to 07:45 AM	0	0	0	0	0	0	2	0	0	0	0	3	0	0	0	0
07:45 AM to 08:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	3	0
08:00 AM to 08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
08:15 AM to 08:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
08:30 AM to 08:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
08:45 AM to 09:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0
09:00 AM to 09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM to 09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM to 09:45 AM																
09:45 AM to 10:00 AM																
10:00 AM to 10:15 AM																
10:15 AM to 10:30 AM																
10:30 AM to 10:45 AM																
10:45 AM to 11:00 AM																
11:00 AM to 11:15 AM																
11:15 AM to 11:30 AM																
SYSTEM PEAK HR (VEH.)	0				2				1				4			
07:45 AM to 08:45 AM	0	0	0	0	0	1	1	0	0	0	0	1	0	0	4	0
INT. PEAK HR (BIKES)	0				3				4				4			
07:30 AM to 08:30 AM	0	0	0	0	0	0	3	0	0	0	0	4	0	0	4	0

DATA COLLECTION NOTES :

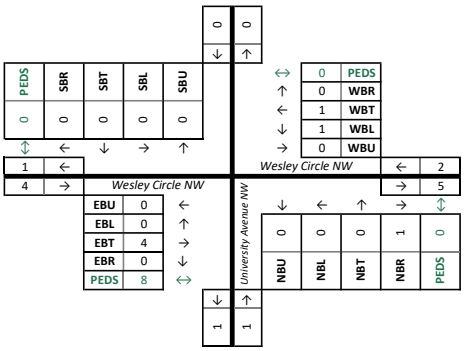
VEHICLE PEAK HOUR VOLS AND PHF: System Peak (vehicle)



HEAVY VEH PEAK HOUR VOLS AND PHV: System Peak (vehicle)



PED AND BIKE PEAK HOUR VOLUMES: System Peak (vehicle)



Gorove/Slade Associates - Multimodal Turning Movement Count Report

Project Name : Wesley Theological Seminary Further
Project # : 2997-002
Location Washington, DC
Data Source: Gorove/Slade Associates, Inc.

Analysis Period: STUDY_PERIOD 06:30 AM to 09:30 AM
Date of Counts: Thursday, September 11, 2025
Weather: Partly Cloudy

Volumes Displayed as: 2. System Peak (vehicle)
Intersection Peak Hour (all vehicles): 07:45 AM to 08:45 AM
System Peak Hour (all vehicles): 07:45 AM to 08:45 AM
User-Defined Peak Hour: 07:30 AM to 08:30 AM

Intersection: 1. Wesley Circle NW & Massachusetts Avenue NW

ALL VEHICLES

Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:	Wesley Circle NW					Massachusetts Avenue NW					Wesley Circle NW					Massachusetts Avenue NW				
Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
06:30 AM to 06:45 AM	0	0	0	0	2	0	0	62	5	0	0	0	0	5	5	0	1	76	0	0
06:45 AM to 07:00 AM	0	0	0	0	1	0	0	63	5	0	0	1	0	4	2	0	0	136	0	0
07:00 AM to 07:15 AM	0	0	0	0	2	0	0	88	5	0	0	0	0	7	0	0	0	159	0	0
07:15 AM to 07:30 AM	0	0	0	0	1	0	0	100	4	0	0	0	0	14	1	0	0	256	0	0
07:30 AM to 07:45 AM	0	0	0	0	6	0	0	105	7	0	0	1	1	17	2	0	1	335	0	0
07:45 AM to 08:00 AM	0	0	0	0	3	0	0	144	13	0	0	0	1	7	2	0	1	317	0	0
08:00 AM to 08:15 AM	0	0	0	0	0	0	0	152	12	1	0	1	0	12	2	0	3	300	0	0
08:15 AM to 08:30 AM	0	0	0	0	0	0	0	148	9	0	0	0	2	8	1	0	1	312	0	0
08:30 AM to 08:45 AM	0	0	0	0	3	0	0	129	8	0	0	1	0	9	0	0	0	329	0	0
08:45 AM to 09:00 AM	0	0	0	0	2	0	0	116	5	0	0	0	0	13	2	0	3	298	0	0
09:00 AM to 09:15 AM	0	0	0	0	2	0	0	100	4	0	0	1	0	11	0	0	1	246	0	0
09:15 AM to 09:30 AM	0	0	0	0	11	0	0	104	10	0	0	0	0	10	9	0	1	215	0	0
09:30 AM to 09:45 AM																				
09:45 AM to 10:00 AM																				
10:00 AM to 10:15 AM																				
10:15 AM to 10:30 AM																				
10:30 AM to 10:45 AM																				
10:45 AM to 11:00 AM																				
11:00 AM to 11:15 AM																				
11:15 AM to 11:30 AM																				
SYSTEM PEAK HR (VEH.)	0				6	615				1	41				5	1263				0
07:45 AM to 08:45 AM	0	0	0	0		0	0	573	42		0	2	3	36		0	5	1258	0	
Peak Hour Overall	U	Left	Thru	Right	**SB**	U	Left	Thru	Right	**WB**	U	Left	Thru	Right	**NB**	U	Left	Thru	Right	**EB**
Factor (PHF) **0.99**	n/a	n/a	n/a	n/a	**n/a**	n/a	n/a	0.94	0.81	**0.94**	n/a	0.50	0.38	0.75	**0.79**	n/a	0.42	0.96	n/a	**0.96**

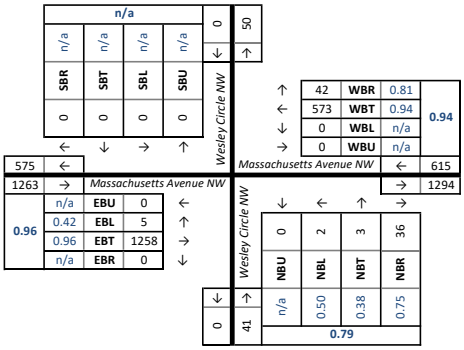
HEAVY VEHICLES (FHWA 4+)

Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:	Wesley Circle NW					Massachusetts Avenue NW					Wesley Circle NW					Massachusetts Avenue NW				
Movement:	U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right	
06:30 AM to 06:45 AM	0	0	0	0		0	0	2	0		0	0	0	0		0	0	5	0	
06:45 AM to 07:00 AM	0	0	0	0		0	0	2	2		0	0	0	0		0	0	5	0	
07:00 AM to 07:15 AM	0	0	0	0		0	0	11	1		0	0	0	0		0	0	1	0	
07:15 AM to 07:30 AM	0	0	0	0		0	0	6	0		0	0	0	0		0	0	2	0	
07:30 AM to 07:45 AM	0	0	0	0		0	0	4	1		0	0	0	0		0	0	6	0	
07:45 AM to 08:00 AM	0	0	0	0		0	0	7	0		0	0	0	0		0	0	6	0	
08:00 AM to 08:15 AM	0	0	0	0		0	0	6	0		0	0	0	0		0	0	12	0	
08:15 AM to 08:30 AM	0	0	0	0		0	0	5	0		0	0	0	0		0	0	5	0	
08:30 AM to 08:45 AM	0	0	0	0		0	0	3	1		0	0	0	0		0	0	4	0	
08:45 AM to 09:00 AM	0	0	0	0		0	0	6	0		0	0	0	0		0	0	7	0	
09:00 AM to 09:15 AM	0	0	0	0		0	0	5	0		0	0	0	0		0	1	4	0	
09:15 AM to 09:30 AM	0	0	0	0		0	0	1	0		0	0	0	0		0	0	5	0	
09:30 AM to 09:45 AM																				
09:45 AM to 10:00 AM																				
10:00 AM to 10:15 AM																				
10:15 AM to 10:30 AM																				
10:30 AM to 10:45 AM																				
10:45 AM to 11:00 AM																				
11:00 AM to 11:15 AM																				
11:15 AM to 11:30 AM																				
SYSTEM PEAK HR (VEH.)	0					22					0					27				
07:45 AM to 08:45 AM	0	0	0	0		0	0	21	1		0	0	0	0		0	0	27	0	
Heavy Vehicle % (PHV):	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	3.7%	2.4%	**3.6%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	2.1%	0.0%	**2.1%**
INT. PEAK HR (HV ONLY)	0					23					0					29				
07:30 AM to 08:30 AM	0	0	0	0		0	0	22	1		0	0	0	0		0	0	29	0	
Heavy Vehicle % (PHV):	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	4.0%	2.4%	**3.9%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	2.3%	0.0%	**2.3%**

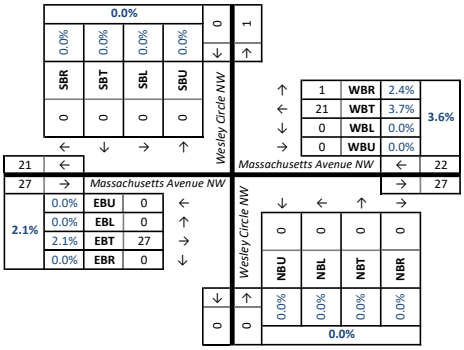
BICYCLES

Direction:	Southbound				Westbound				Northbound				Eastbound			
Roadway:	Wesley Circle NW				Massachusetts Avenue NW				Wesley Circle NW				Massachusetts Avenue NW			
Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
06:30 AM to 06:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 AM to 07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 AM to 07:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
07:15 AM to 07:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0
07:30 AM to 07:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
07:45 AM to 08:00 AM	0	0	0	0	0	0	2	1	0	0	3	0	0	0	1	0
08:00 AM to 08:15 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0
08:15 AM to 08:30 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
08:30 AM to 08:45 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0
08:45 AM to 09:00 AM	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0
09:00 AM to 09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
09:15 AM to 09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
09:30 AM to 09:45 AM																
09:45 AM to 10:00 AM																
10:00 AM to 10:15 AM																
10:15 AM to 10:30 AM																
10:30 AM to 10:45 AM																
10:45 AM to 11:00 AM																
11:00 AM to 11:15 AM																
11:15 AM to 11:30 AM																
SYSTEM PEAK HR (VEH.)	0				5				5				2			
07:45 AM to 08:45 AM	0	0	0	0	0	0	3	2	0	0	5	0	0	0	2	0
INT. PEAK HR (BIKES)	0				4				5				3			
07:15 AM to 08:15 AM	0	0	0	0	0	0	3	1	0	1	4	0	0	0	3	0

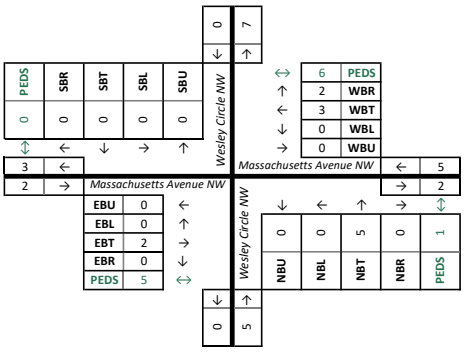
VEHICLE PEAK HOUR VOLS AND PHF: System Peak (vehicle)



HEAVY VEH PEAK HOUR VOLS AND PHV: System Peak (vehicle)



PED AND BIKE PEAK HOUR VOLUMES: System Peak (vehicle)



DATA COLLECTION NOTES :

Gorove/Slade Associates - Multimodal Turning Movement Count Report

Project Name : Wesley Theological Seminary Further
Project # : 2997-002
Location Washington, DC
Data Source: Gorove/Slade Associates, Inc.

Analysis Period: STUDY_PERIOD 06:30 AM to 09:30 AM
Date of Counts: Thursday, September 11, 2025
Weather: Partly Cloudy

Volumes Displayed as: 2. System Peak (vehicle)
Intersection Peak Hour (all vehicles): 07:30 AM to 08:30 AM
System Peak Hour (all vehicles): 07:45 AM to 08:45 AM
User-Defined Peak Hour: 07:30 AM to 08:30 AM

Intersection: 1. University Avenue & WTS Dwy/Sedgwick Street NW

ALL VEHICLES

Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:	University Avenue					WTS Dwy					University Avenue					Sedgwick Street NW				
Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
06:30 AM to 06:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
06:45 AM to 07:00 AM	0	0	1	0	1	0	0	0	0	0	0	0	3	0	0	0	1	0	1	1
07:00 AM to 07:15 AM	0	0	1	0	1	0	0	0	0	1	0	0	2	0	0	0	4	0	0	0
07:15 AM to 07:30 AM	0	0	1	0	0	0	0	0	1	0	0	0	3	0	0	0	2	0	0	0
07:30 AM to 07:45 AM	0	0	2	0	0	0	0	0	1	0	0	0	6	0	0	0	5	0	0	0
07:45 AM to 08:00 AM	0	0	4	0	0	0	1	0	0	2	0	1	6	0	1	0	1	0	0	0
08:00 AM to 08:15 AM	0	1	4	0	0	0	0	0	0	2	0	0	9	0	0	0	1	0	0	1
08:15 AM to 08:30 AM	0	0	4	1	0	0	0	0	0	0	0	0	6	0	0	0	4	0	0	1
08:30 AM to 08:45 AM	0	0	2	0	0	0	0	0	0	1	0	0	4	0	0	0	1	0	2	2
08:45 AM to 09:00 AM	1	0	5	0	0	0	0	0	0	2	0	0	1	0	0	0	4	0	0	1
09:00 AM to 09:15 AM	0	0	5	0	1	0	0	0	1	2	0	0	3	0	0	0	4	0	0	0
09:15 AM to 09:30 AM	0	0	4	0	0	0	0	0	0	3	0	0	4	0	0	0	0	0	1	0
09:30 AM to 09:45 AM																				
09:45 AM to 10:00 AM																				
10:00 AM to 10:15 AM																				
10:15 AM to 10:30 AM																				
10:30 AM to 10:45 AM																				
10:45 AM to 11:00 AM																				
11:00 AM to 11:15 AM																				
11:15 AM to 11:30 AM																				
SYSTEM PEAK HR (VEH.)	16				0	1				5	26				1	9				4
07:45 AM to 08:45 AM	0	1	14	1		0	1	0	0		0	1	25	0		0	7	0	2	
Peak Hour Overall	U	Left	Thru	Right	**SB**	U	Left	Thru	Right	**WB**	U	Left	Thru	Right	**NB**	U	Left	Thru	Right	**EB**
Factor (PHF) **0.87**	n/a	0.25	0.88	0.25	**0.80**	n/a	0.25	n/a	n/a	**0.25**	n/a	0.25	0.69	n/a	**0.72**	n/a	0.44	n/a	0.25	**0.56**

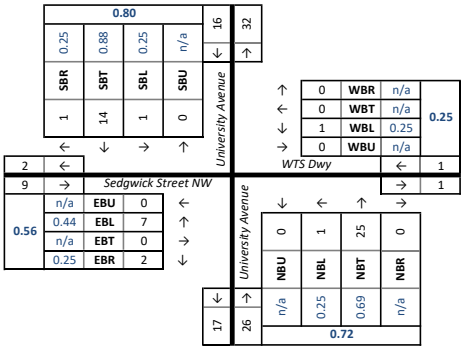
HEAVY VEHICLES (FHWA 4+)

Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:	University Avenue					WTS Dwy					University Avenue					Sedgwick Street NW				
Movement:	U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right	
06:30 AM to 06:45 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
06:45 AM to 07:00 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	1	
07:00 AM to 07:15 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
07:15 AM to 07:30 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
07:30 AM to 07:45 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
07:45 AM to 08:00 AM	0	0	1	0		0	0	0	0		0	0	0	0		0	0	0	0	
08:00 AM to 08:15 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
08:15 AM to 08:30 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
08:30 AM to 08:45 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
08:45 AM to 09:00 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
09:00 AM to 09:15 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
09:15 AM to 09:30 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
09:30 AM to 09:45 AM																				
09:45 AM to 10:00 AM																				
10:00 AM to 10:15 AM																				
10:15 AM to 10:30 AM																				
10:30 AM to 10:45 AM																				
10:45 AM to 11:00 AM																				
11:00 AM to 11:15 AM																				
11:15 AM to 11:30 AM																				
SYSTEM PEAK HR (VEH.)	1					0					0					0				
07:45 AM to 08:45 AM	0	0	1	0		0	0	0	0		0	0	0	0		0	0	0	0	
Heavy Vehicle % (PHV):	0.0%	0.0%	7.1%	0.0%	**6.3%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	**0.0%**
INT. PEAK HR (HV ONLY)	0					0					0					1				
06:30 AM to 07:30 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	1	
Heavy Vehicle % (PHV):	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	100.0%	**11.1%**

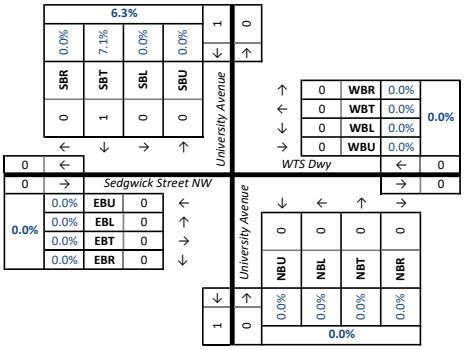
BICYCLES

Direction:	Southbound				Westbound				Northbound				Eastbound			
Roadway:	University Avenue				WTS Dwy				University Avenue				Sedgwick Street NW			
Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
06:30 AM to 06:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 AM to 07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 AM to 07:15 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM to 07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
07:30 AM to 07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM to 08:00 AM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0
08:00 AM to 08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM to 08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM to 08:45 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0
08:45 AM to 09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00 AM to 09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM to 09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM to 09:45 AM																
09:45 AM to 10:00 AM																
10:00 AM to 10:15 AM																
10:15 AM to 10:30 AM																
10:30 AM to 10:45 AM																
10:45 AM to 11:00 AM																
11:00 AM to 11:15 AM																
11:15 AM to 11:30 AM																
SYSTEM PEAK HR (VEH.)	0				0				5				0			
07:45 AM to 08:45 AM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0
INT. PEAK HR (BIKES)	1				0				3				1			
07:00 AM to 08:00 AM	0	0	1	0	0	0	0	0	0	0	3	0	0	1	0	0

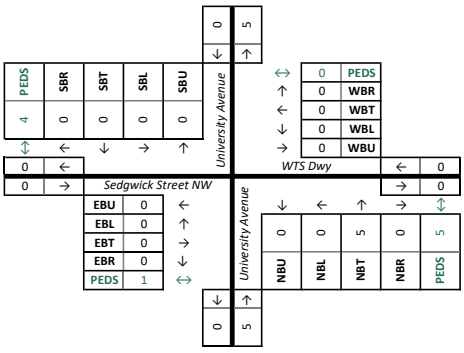
VEHICLE PEAK HOUR VOLS AND PHF: System Peak (vehicle)



HEAVY VEH PEAK HOUR VOLS AND PHV: System Peak (vehicle)



PED AND BIKE PEAK HOUR VOLUMES: System Peak (vehicle)



DATA COLLECTION NOTES :

Gorove/Slade Associates - Multimodal Turning Movement Count Report

Project Name : Wesley Theological Seminary Further
Project # : 2997-002
Location Washington, DC
Data Source: Gorove/Slade Associates, Inc.

Analysis Period: STUDY_PERIOD 06:30 AM to 09:30 AM
Date of Counts: Thursday, September 11, 2025
Weather: Partly Cloudy

Volumes Displayed as: 2. System Peak (vehicle)
Intersection Peak Hour (all vehicles): 07:45 AM to 08:45 AM
System Peak Hour (all vehicles): 07:45 AM to 08:45 AM
User-Defined Peak Hour: 07:30 AM to 08:30 AM

Intersection: 1. 45th Street NW/ & Massachusetts Avenue NW

ALL VEHICLES

Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:	45th Street NW					Massachusetts Avenue NW										Massachusetts Avenue NW				
Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
06:30 AM to 06:45 AM	0	2	0	0	3	0	0	67	0	0	0	0	0	0	0	0	0	81	0	0
06:45 AM to 07:00 AM	0	1	0	1	1	0	0	67	1	1	0	0	0	0	0	0	2	138	0	1
07:00 AM to 07:15 AM	0	2	0	0	1	0	0	93	1	0	0	0	0	0	0	0	1	165	0	0
07:15 AM to 07:30 AM	0	6	0	1	3	0	0	103	2	0	0	0	0	0	0	0	6	264	0	0
07:30 AM to 07:45 AM	0	2	0	1	4	0	0	112	1	0	0	0	0	0	0	0	12	340	0	0
07:45 AM to 08:00 AM	0	4	0	3	3	0	0	154	6	0	0	0	0	0	0	0	13	311	0	0
08:00 AM to 08:15 AM	0	2	0	0	3	0	0	164	8	0	0	0	0	0	0	0	18	294	0	1
08:15 AM to 08:30 AM	0	4	0	2	1	0	0	155	2	1	0	0	0	0	0	0	16	305	0	1
08:30 AM to 08:45 AM	0	7	0	3	2	0	0	134	4	0	0	0	0	0	0	0	10	328	0	3
08:45 AM to 09:00 AM	0	6	0	0	4	0	0	129	4	0	0	0	0	0	0	0	14	297	0	2
09:00 AM to 09:15 AM	0	1	0	4	5	0	0	93	3	0	0	0	0	0	0	0	4	253	0	1
09:15 AM to 09:30 AM	0	7	0	2	16	0	0	112	4	0	0	0	0	0	0	0	5	220	0	4
09:30 AM to 09:45 AM																				
09:45 AM to 10:00 AM																				
10:00 AM to 10:15 AM																				
10:15 AM to 10:30 AM																				
10:30 AM to 10:45 AM																				
10:45 AM to 11:00 AM																				
11:00 AM to 11:15 AM																				
11:15 AM to 11:30 AM																				
SYSTEM PEAK HR (VEH.)	25				9	627				1	0				0	1295				5
07:45 AM to 08:45 AM	0	17	0	8		0	0	607	20		0	0	0	0		0	57	1238	0	
Peak Hour Overall	U	Left	Thru	Right	**SB**	U	Left	Thru	Right	**WB**	U	Left	Thru	Right	**NB**	U	Left	Thru	Right	**EB**
Factor (PHF) **0.99**	n/a	0.61	n/a	0.67	**0.63**	n/a	n/a	0.93	0.63	**0.91**	n/a	n/a	n/a	n/a	**n/a**	n/a	0.79	0.94	n/a	**0.96**

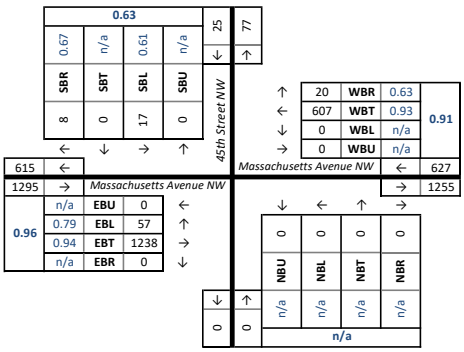
HEAVY VEHICLES (FHWA 4+)

Direction:	Southbound				Westbound				Northbound				Eastbound			
Roadway:	45th Street NW				Massachusetts Avenue NW								Massachusetts Avenue NW			
Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
06:30 AM to 06:45 AM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	5	0
06:45 AM to 07:00 AM	0	0	0	1	0	0	3	0	0	0	0	0	0	0	5	0
07:00 AM to 07:15 AM	0	0	0	0	0	0	12	0	0	0	0	0	0	0	1	0
07:15 AM to 07:30 AM	0	0	0	0	0	0	6	0	0	0	0	0	0	0	2	0
07:30 AM to 07:45 AM	0	0	0	0	0	0	5	0	0	0	0	0	0	0	6	0
07:45 AM to 08:00 AM	0	0	0	0	0	0	7	0	0	0	0	0	0	0	6	0
08:00 AM to 08:15 AM	0	0	0	0	0	0	6	0	0	0	0	0	0	0	12	0
08:15 AM to 08:30 AM	0	0	0	0	0	0	5	0	0	0	0	0	0	0	5	0
08:30 AM to 08:45 AM	0	0	0	0	0	0	4	0	0	0	0	0	0	0	4	0
08:45 AM to 09:00 AM	0	0	0	0	0	0	6	1	0	0	0	0	0	0	7	0
09:00 AM to 09:15 AM	0	0	0	0	0	0	5	0	0	0	0	0	0	0	4	0
09:15 AM to 09:30 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	5	0
09:30 AM to 09:45 AM																
09:45 AM to 10:00 AM																
10:00 AM to 10:15 AM																
10:15 AM to 10:30 AM																
10:30 AM to 10:45 AM																
10:45 AM to 11:00 AM																
11:00 AM to 11:15 AM																
11:15 AM to 11:30 AM																
SYSTEM PEAK HR (VEH.)	0				22				0				27			
07:45 AM to 08:45 AM	0	0	0	0	0	0	22	0	0	0	0	0	0	0	27	0
Heavy Vehicle % (PHV):	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.6%	0.0%	3.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.2%	0.0%	2.1%
INT. PEAK HR (HV ONLY)	0				23				0				29			
07:30 AM to 08:30 AM	0	0	0	0	0	0	23	0	0	0	0	0	0	0	29	0
Heavy Vehicle % (PHV):	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.9%	0.0%	3.8%	0.0%	0.0%	0.0%	0.0%	0.0%	2.3%	0.0%	2.2%

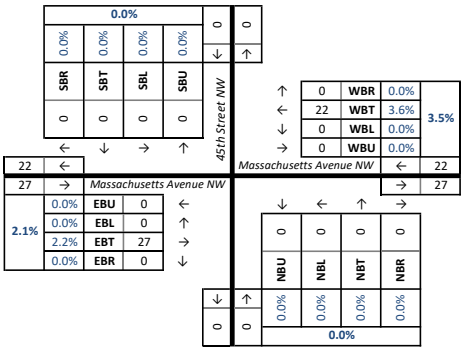
BICYCLES

Direction:	Southbound				Westbound				Northbound				Eastbound			
Roadway:	45th Street NW				Massachusetts Avenue NW								Massachusetts Avenue NW			
Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
06:30 AM to 06:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 AM to 07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 AM to 07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM to 07:30 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	0
07:30 AM to 07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
07:45 AM to 08:00 AM	0	1	0	1	0	0	1	0	0	0	0	0	0	0	2	0
08:00 AM to 08:15 AM	0	1	0	0	0	0	2	1	0	0	0	0	0	0	1	0
08:15 AM to 08:30 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	0
08:30 AM to 08:45 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	2	1	0
08:45 AM to 09:00 AM	0	0	0	1	0	0	1	0	0	0	0	0	0	0	2	0
09:00 AM to 09:15 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	3	0
09:15 AM to 09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0
09:30 AM to 09:45 AM																
09:45 AM to 10:00 AM																
10:00 AM to 10:15 AM																
10:15 AM to 10:30 AM																
10:30 AM to 10:45 AM																
10:45 AM to 11:00 AM																
11:00 AM to 11:15 AM																
11:15 AM to 11:30 AM																
SYSTEM PEAK HR (VEH.)	7				4				0				8			
07:45 AM to 08:45 AM	0	6	0	1	0	0	3	1	0	0	0	0	0	2	6	0
INT. PEAK HR (BIKES)	7				4				0				8			
07:45 AM to 08:45 AM	0	6	0	1	0	0	3	1	0	0	0	0	0	2	6	0

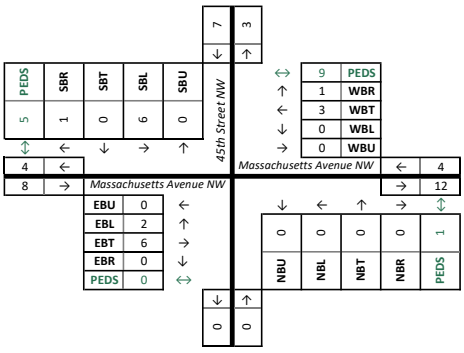
VEHICLE PEAK HOUR VOLS AND PHF: System Peak (vehicle)



HEAVY VEH PEAK HOUR VOLS AND PHV: System Peak (vehicle)



PED AND BIKE PEAK HOUR VOLUMES: System Peak (vehicle)



DATA COLLECTION NOTES :

Gorove/Slade Associates - Multimodal Turning Movement Count Report

Project Name : Wesley Theological Seminary Further
Project # : 2997-002
Location Washington, DC
Data Source: Gorove/Slade Associates, Inc.

Analysis Period: STUDY_PERIOD 06:30 AM to 09:30 AM
Date of Counts: Thursday, September 11, 2025
Weather: Partly Cloudy

Volumes Displayed as: 2. System Peak (vehicle)
Intersection Peak Hour (all vehicles): 07:45 AM to 08:45 AM
System Peak Hour (all vehicles): 07:45 AM to 08:45 AM
User-Defined Peak Hour: 07:30 AM to 08:30 AM

Intersection: 1. Katzen Dwy/WTS Dwy NW & Massachusetts Avenue NW

ALL VEHICLES

Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:	Katzen Dwy					Massachusetts Avenue NW					WTS Dwy NW					Massachusetts Avenue NW				
Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
06:30 AM to 06:45 AM	0	0	0	0	5	0	1	67	0	0	0	0	0	1	5	0	0	83	0	0
06:45 AM to 07:00 AM	0	0	0	0	1	0	1	68	0	0	0	0	0	0	3	0	1	138	0	0
07:00 AM to 07:15 AM	0	0	0	0	1	0	1	94	0	0	0	0	0	0	2	0	1	165	2	0
07:15 AM to 07:30 AM	0	0	0	0	4	0	0	104	0	0	0	0	0	0	4	0	0	270	0	0
07:30 AM to 07:45 AM	0	0	0	1	6	0	1	112	1	0	0	0	0	0	7	0	0	342	0	0
07:45 AM to 08:00 AM	0	0	0	1	5	0	0	159	0	0	0	0	0	0	4	0	1	313	1	0
08:00 AM to 08:15 AM	0	0	0	0	4	0	1	172	0	0	0	0	0	2	8	0	1	291	4	0
08:15 AM to 08:30 AM	0	0	0	0	1	0	0	157	0	0	0	0	0	0	8	0	0	307	2	0
08:30 AM to 08:45 AM	0	0	0	0	2	0	3	137	0	0	0	0	0	0	6	0	0	332	3	0
08:45 AM to 09:00 AM	0	0	0	0	5	0	2	133	0	0	0	0	0	0	5	0	0	302	0	0
09:00 AM to 09:15 AM	0	0	0	0	6	0	2	99	0	0	0	0	0	0	9	0	0	254	0	0
09:15 AM to 09:30 AM	0	0	0	0	14	0	1	112	0	0	0	1	0	0	17	0	0	225	2	0
09:30 AM to 09:45 AM																				
09:45 AM to 10:00 AM																				
10:00 AM to 10:15 AM																				
10:15 AM to 10:30 AM																				
10:30 AM to 10:45 AM																				
10:45 AM to 11:00 AM																				
11:00 AM to 11:15 AM																				
11:15 AM to 11:30 AM																				
SYSTEM PEAK HR (VEH.)	1				12	629				0	2				26	1255				0
07:45 AM to 08:45 AM	0	0	0	1		0	4	625	0		0	0	0	2		0	2	1243	10	
Peak Hour Overall	U	Left	Thru	Right	**SB**	U	Left	Thru	Right	**WB**	U	Left	Thru	Right	**NB**	U	Left	Thru	Right	**EB**
Factor (PHF) **0.99**	n/a	n/a	n/a	0.25	**0.25**	n/a	0.33	0.91	n/a	**0.91**	n/a	n/a	n/a	0.25	**0.25**	n/a	0.50	0.94	0.63	**0.94**

HEAVY VEHICLES (FHWA 4+)

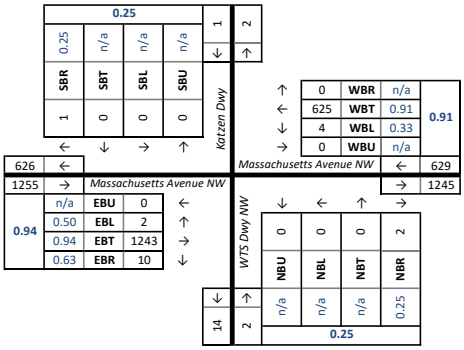
Direction:	Southbound				Westbound				Northbound				Eastbound			
Roadway:	Katzen Dwy				Massachusetts Avenue NW				WTS Dwy NW				Massachusetts Avenue NW			
Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
06:30 AM to 06:45 AM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	5	0
06:45 AM to 07:00 AM	0	0	0	0	0	0	3	0	0	0	0	0	0	0	5	0
07:00 AM to 07:15 AM	0	0	0	0	0	0	12	0	0	0	0	0	0	0	1	0
07:15 AM to 07:30 AM	0	0	0	0	0	0	6	0	0	0	0	0	0	0	2	0
07:30 AM to 07:45 AM	0	0	0	1	0	0	4	1	0	0	0	0	0	0	6	0
07:45 AM to 08:00 AM	0	0	0	0	0	0	7	0	0	0	0	0	0	0	6	0
08:00 AM to 08:15 AM	0	0	0	0	0	0	6	0	0	0	0	0	0	0	12	0
08:15 AM to 08:30 AM	0	0	0	0	0	0	5	0	0	0	0	0	0	0	5	0
08:30 AM to 08:45 AM	0	0	0	0	0	0	4	0	0	0	0	0	0	0	4	0
08:45 AM to 09:00 AM	0	0	0	0	0	0	7	0	0	0	0	0	0	0	7	0
09:00 AM to 09:15 AM	0	0	0	0	0	0	5	0	0	0	0	0	0	0	4	0
09:15 AM to 09:30 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	5	0
09:30 AM to 09:45 AM																
09:45 AM to 10:00 AM																
10:00 AM to 10:15 AM																
10:15 AM to 10:30 AM																
10:30 AM to 10:45 AM																
10:45 AM to 11:00 AM																
11:00 AM to 11:15 AM																
11:15 AM to 11:30 AM																
SYSTEM PEAK HR (VEH.)	0				22				0				27			
07:45 AM to 08:45 AM	0	0	0	0	0	0	22	0	0	0	0	0	0	0	27	0
Heavy Vehicle % (PHV):	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.5%	0.0%	3.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.2%	0.0%	2.2%	0.0%	2.2%
INT. PEAK HR (HV ONLY)	1				23				0				29			
07:30 AM to 08:30 AM	0	0	0	1	0	0	22	1	0	0	0	0	0	0	29	0
Heavy Vehicle % (PHV):	0.0%	0.0%	0.0%	50.0%	0.0%	0.0%	3.7%	100.0%	3.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.3%	0.0%	2.3%	0.0%	2.3%

BICYCLES

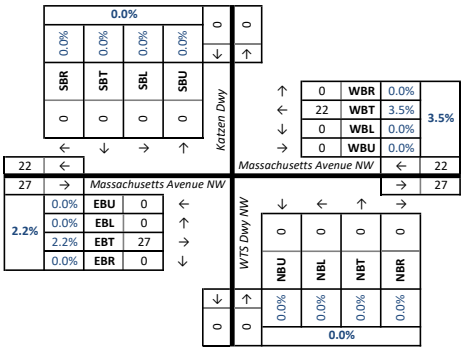
Direction:	Southbound				Westbound				Northbound				Eastbound			
Roadway:	Katzen Dwy				Massachusetts Avenue NW				WTS Dwy NW				Massachusetts Avenue NW			
Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
06:30 AM to 06:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 AM to 07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 AM to 07:15 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
07:15 AM to 07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
07:30 AM to 07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM to 08:00 AM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	5	0
08:00 AM to 08:15 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	3	0
08:15 AM to 08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0
08:30 AM to 08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
08:45 AM to 09:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0
09:00 AM to 09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM to 09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0
09:30 AM to 09:45 AM																
09:45 AM to 10:00 AM																
10:00 AM to 10:15 AM																
10:15 AM to 10:30 AM																
10:30 AM to 10:45 AM																
10:45 AM to 11:00 AM																
11:00 AM to 11:15 AM																
11:15 AM to 11:30 AM																
SYSTEM PEAK HR (VEH.)	0				3				0				15			
07:45 AM to 08:45 AM	0	0	0	0	0	0	3	0	0	0	0	0	0	0	15	0
INT. PEAK HR (BIKES)	0				3				0				15			
07:45 AM to 08:45 AM	0	0	0	0	0	0	3	0	0	0	0	0	0	0	15	0

DATA COLLECTION NOTES :

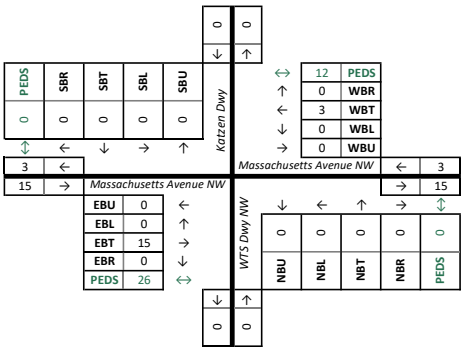
VEHICLE PEAK HOUR VOLS AND PHF: System Peak (vehicle)



HEAVY VEH PEAK HOUR VOLS AND PHV: System Peak (vehicle)



PED AND BIKE PEAK HOUR VOLUMES: System Peak (vehicle)



Gorove/Slade Associates - Multimodal Turning Movement Count Report

Project Name : Wesley Theological Seminary Further
Project # : 2997-002
Location Washington, DC
Data Source: Gorove/Slade Associates, Inc.

Analysis Period: STUDY_PERIOD 06:30 AM to 09:30 AM
Date of Counts: Thursday, September 11, 2025
Weather: Partly Cloudy

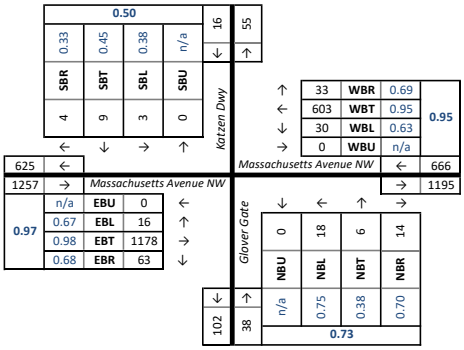
Volumes Displayed as: 2. System Peak (vehicle)
Intersection Peak Hour (all vehicles): 07:45 AM to 08:45 AM
System Peak Hour (all vehicles): 07:45 AM to 08:45 AM
User-Defined Peak Hour: 07:30 AM to 08:30 AM

Intersection: 1. Katzen Dwy/Glover Gate & Massachusetts Avenue NW

ALL VEHICLES

Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:	Katzen Dwy					Massachusetts Avenue NW					Glover Gate					Massachusetts Avenue NW				
Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
06:30 AM to 06:45 AM	0	0	1	0	1	0	9	73	1	2	0	7	3	6	6	0	0	80	13	12
06:45 AM to 07:00 AM	0	2	1	0	3	0	11	58	1	1	0	3	1	5	3	0	0	125	4	3
07:00 AM to 07:15 AM	0	0	1	0	1	0	5	87	2	3	0	4	1	6	5	0	1	148	10	5
07:15 AM to 07:30 AM	0	1	2	1	3	0	8	102	1	3	0	3	2	5	1	0	0	268	8	1
07:30 AM to 07:45 AM	0	0	1	0	2	0	3	89	5	13	0	2	2	6	7	0	7	292	6	6
07:45 AM to 08:00 AM	0	2	5	1	2	0	8	157	5	16	0	4	2	3	2	0	6	300	17	3
08:00 AM to 08:15 AM	0	1	1	3	8	0	12	150	12	27	0	6	4	3	5	0	5	286	23	6
08:15 AM to 08:30 AM	0	0	2	0	3	0	6	158	12	25	0	5	0	5	7	0	2	301	11	4
08:30 AM to 08:45 AM	0	0	1	0	4	0	4	138	4	9	0	3	0	3	3	0	3	291	12	1
08:45 AM to 09:00 AM	0	1	2	0	1	0	13	128	5	29	0	4	0	5	5	0	7	298	22	9
09:00 AM to 09:15 AM	0	2	0	1	5	0	11	85	10	33	0	8	2	10	3	0	5	242	15	9
09:15 AM to 09:30 AM	0	2	2	2	14	0	13	109	17	65	0	8	2	3	8	0	8	225	18	3
09:30 AM to 09:45 AM																				
09:45 AM to 10:00 AM																				
10:00 AM to 10:15 AM																				
10:15 AM to 10:30 AM																				
10:30 AM to 10:45 AM																				
10:45 AM to 11:00 AM																				
11:00 AM to 11:15 AM																				
11:15 AM to 11:30 AM																				
SYSTEM PEAK HR (VEH.)	16				17	666				77	38				17	1257				14
07:45 AM to 08:45 AM	0	3	9	4		0	30	603	33		0	18	6	14		0	16	1178	63	
Peak Hour Overall	U	Left	Thru	Right	**SB**	U	Left	Thru	Right	**WB**	U	Left	Thru	Right	**NB**	U	Left	Thru	Right	**EB**
Factor (PHF) **0.97**	n/a	0.38	0.45	0.33	**0.50**	n/a	0.63	0.95	0.69	**0.95**	n/a	0.75	0.38	0.70	**0.73**	n/a	0.67	0.98	0.68	**0.97**

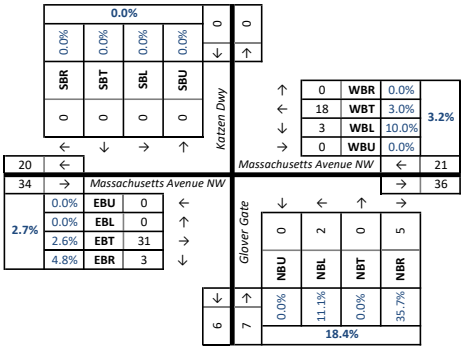
VEHICLE PEAK HOUR VOLS AND PHF: System Peak (vehicle)



HEAVY VEHICLES (FHWA 4+)

Direction:	Southbound				Westbound				Northbound				Eastbound			
Roadway:	Katzen Dwy				Massachusetts Avenue NW				Glover Gate				Massachusetts Avenue NW			
Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
06:30 AM to 06:45 AM	0	0	0	0	0	0	4	0	0	0	0	1	0	0	6	0
06:45 AM to 07:00 AM	0	0	0	0	0	0	2	0	0	1	0	0	0	0	5	0
07:00 AM to 07:15 AM	0	0	1	0	0	0	13	0	0	0	0	2	0	0	2	0
07:15 AM to 07:30 AM	0	0	0	0	0	0	5	0	0	1	0	2	0	0	4	0
07:30 AM to 07:45 AM	0	0	0	0	0	0	4	0	0	1	0	2	0	0	3	0
07:45 AM to 08:00 AM	0	0	0	0	0	0	7	0	0	0	0	2	0	0	6	1
08:00 AM to 08:15 AM	0	0	0	0	0	1	3	0	0	1	0	0	0	0	13	2
08:15 AM to 08:30 AM	0	0	0	0	0	0	5	0	0	0	0	2	0	0	7	0
08:30 AM to 08:45 AM	0	0	0	0	0	2	3	0	0	1	0	1	0	0	5	0
08:45 AM to 09:00 AM	0	0	0	0	0	0	6	0	0	1	0	1	0	0	8	0
09:00 AM to 09:15 AM	0	0	0	0	0	0	4	0	0	1	0	2	0	0	6	0
09:15 AM to 09:30 AM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	12	1
09:30 AM to 09:45 AM																
09:45 AM to 10:00 AM																
10:00 AM to 10:15 AM																
10:15 AM to 10:30 AM																
10:30 AM to 10:45 AM																
10:45 AM to 11:00 AM																
11:00 AM to 11:15 AM																
11:15 AM to 11:30 AM																
SYSTEM PEAK HR (VEH.)	0				21				7				34			
07:45 AM to 08:45 AM	0	0	0	0	0	3	18	0	0	2	0	5	0	0	31	3
Heavy Vehicle % (PHV):	0.0%	0.0%	0.0%	0.0%	0.0%	10.0%	3.0%	0.0%	3.2%	0.0%	11.1%	0.0%	35.7%	18.4%	0.0%	0.0%	2.6%	4.8%	2.7%	
INT. PEAK HR (HV ONLY)	0				21				7				34			
07:45 AM to 08:45 AM	0	0	0	0	0	3	18	0	0	2	0	5	0	0	31	3
Heavy Vehicle % (PHV):	0.0%	0.0%	0.0%	0.0%	0.0%	10.0%	3.0%	0.0%	3.2%	0.0%	11.1%	0.0%	35.7%	18.4%	0.0%	0.0%	2.6%	4.8%	2.7%	

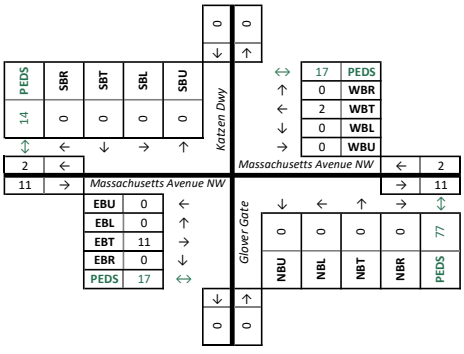
HEAVY VEH PEAK HOUR VOLS AND PHV: System Peak (vehicle)



BICYCLES

Direction:	Southbound				Westbound				Northbound				Eastbound			
Roadway:	Katzen Dwy				Massachusetts Avenue NW				Glover Gate				Massachusetts Avenue NW			
Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
06:30 AM to 06:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 AM to 07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 AM to 07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM to 07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
07:30 AM to 07:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM to 08:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	3	0
08:00 AM to 08:15 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	3	0
08:15 AM to 08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
08:30 AM to 08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0
08:45 AM to 09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
09:00 AM to 09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
09:15 AM to 09:30 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0
09:30 AM to 09:45 AM																
09:45 AM to 10:00 AM																
10:00 AM to 10:15 AM																
10:15 AM to 10:30 AM																
10:30 AM to 10:45 AM																
10:45 AM to 11:00 AM																
11:00 AM to 11:15 AM																
11:15 AM to 11:30 AM																
SYSTEM PEAK HR (VEH.)	0				2				0				11			
07:45 AM to 08:45 AM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	11	0
INT. PEAK HR (BIKES)	0				2				0				11			
07:45 AM to 08:45 AM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	11	0

PED AND BIKE PEAK HOUR VOLUMES: System Peak (vehicle)



DATA COLLECTION NOTES :

Gorove/Slade Associates - Multimodal Turning Movement Count Report

Project Name : Wesley Theological Seminary Further
Project # : 2997-002
Location Washington, DC
Data Source: Gorove/Slade Associates, Inc.

Analysis Period: STUDY_PERIOD 04:00 PM to 07:00 PM
Date of Counts: Thursday, September 11, 2025
Weather: Partly Cloudy

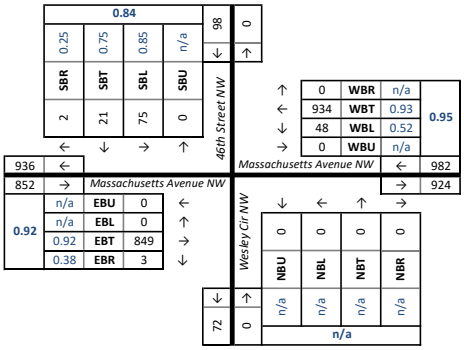
Volumes Displayed as: 2. System Peak (vehicle)
Intersection Peak Hour (all vehicles): 05:30 PM to 06:30 PM
System Peak Hour (all vehicles): 05:30 PM to 06:30 PM
User-Defined Peak Hour: 05:00 PM to 06:00 PM

Intersection: 1. 46th Street NW/Wesley Cir NW & Massachusetts Avenue NW

ALL VEHICLES

	Direction:	Southbound					Westbound					Northbound					Eastbound				
	Roadway:	46th Street NW					Massachusetts Avenue NW					Wesley Cir NW					Massachusetts Avenue NW				
	Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
04:00 PM	to 04:15 PM	0	12	9	2	10	0	9	199	0	0	0	0	0	0	0	0	0	178	0	3
04:15 PM	to 04:30 PM	0	15	5	0	2	0	5	223	0	0	0	0	0	0	4	0	0	194	0	1
04:30 PM	to 04:45 PM	0	21	2	0	5	0	11	206	0	0	0	0	0	0	7	0	0	254	1	0
04:45 PM	to 05:00 PM	0	16	1	0	5	0	5	213	0	0	0	0	0	0	2	0	0	172	2	2
05:00 PM	to 05:15 PM	0	24	11	1	7	0	5	186	0	0	0	0	0	0	5	1	0	224	2	6
05:15 PM	to 05:30 PM	0	22	11	0	8	0	12	178	0	0	0	0	0	0	5	0	0	202	0	1
05:30 PM	to 05:45 PM	0	22	7	0	4	0	9	250	0	0	0	0	0	0	6	0	0	230	1	1
05:45 PM	to 06:00 PM	0	21	5	0	4	0	5	247	0	0	0	0	0	0	5	0	0	213	2	2
06:00 PM	to 06:15 PM	0	17	5	0	6	0	11	218	0	0	0	0	0	0	9	0	0	207	0	0
06:15 PM	to 06:30 PM	0	15	4	2	2	0	23	219	0	0	0	0	0	0	2	0	0	199	0	0
06:30 PM	to 06:45 PM	0	8	3	0	3	0	16	235	0	0	0	0	0	0	7	0	0	184	1	1
06:45 PM	to 07:00 PM	0	13	3	0	2	0	5	160	0	0	0	0	0	0	4	0	0	144	0	2
07:00 PM	to 07:15 PM																				
07:15 PM	to 07:30 PM																				
07:30 PM	to 07:45 PM																				
07:45 PM	to 08:00 PM																				
08:00 PM	to 08:15 PM																				
08:15 PM	to 08:30 PM																				
08:30 PM	to 08:45 PM																				
08:45 PM	to 09:00 PM																				
SYSTEM PEAK HR (VEH.)		98				16	982				0	0				22	852				3
05:30 PM	to 06:30 PM	0	75	21	2		0	48	934	0		0	0	0	0		0	0	849	3	
Peak Hour	Overall	U	Left	Thru	Right	**SB**	U	Left	Thru	Right	**WB**	U	Left	Thru	Right	**NB**	U	Left	Thru	Right	**EB**
Factor (PHF)	**0.93**	n/a	0.85	0.75	0.25	**0.84**	n/a	0.52	0.93	n/a	**0.95**	n/a	n/a	n/a	n/a	**n/a**	n/a	n/a	0.92	0.38	**0.92**

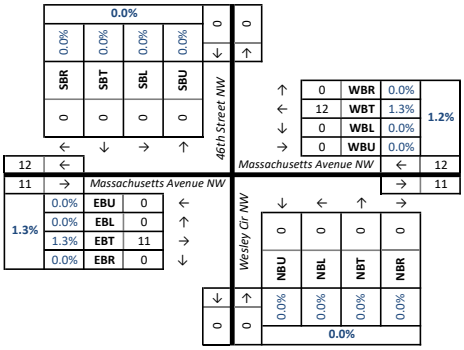
VEHICLE PEAK HOUR VOLS AND PHF: System Peak (vehicle)



HEAVY VEHICLES (FHWA 4+)

	Direction:	Southbound					Westbound					Northbound					Eastbound				
	Roadway:	46th Street NW					Massachusetts Avenue NW					Wesley Cir NW					Massachusetts Avenue NW				
	Movement:	U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right	
04:00 PM	to 04:15 PM	0	0	1	0		0	0	4	0		0	0	0	0		0	0	5	0	
04:15 PM	to 04:30 PM	0	0	0	0		0	0	5	0		0	0	0	0		0	0	6	0	
04:30 PM	to 04:45 PM	0	0	0	0		0	0	3	0		0	0	0	0		0	0	8	0	
04:45 PM	to 05:00 PM	0	0	0	0		0	0	2	0		0	0	0	0		0	0	2	0	
05:00 PM	to 05:15 PM	0	0	0	0		0	0	2	0		0	0	0	0		0	0	2	0	
05:15 PM	to 05:30 PM	0	0	0	0		0	0	1	0		0	0	0	0		0	0	2	0	
05:30 PM	to 05:45 PM	0	0	0	0		0	0	2	0		0	0	0	0		0	0	4	0	
05:45 PM	to 06:00 PM	0	0	0	0		0	0	4	0		0	0	0	0		0	0	2	0	
06:00 PM	to 06:15 PM	0	0	0	0		0	0	3	0		0	0	0	0		0	0	4	0	
06:15 PM	to 06:30 PM	0	0	0	0		0	0	3	0		0	0	0	0		0	0	1	0	
06:30 PM	to 06:45 PM	0	0	0	0		0	0	2	0		0	0	0	0		0	0	4	0	
06:45 PM	to 07:00 PM	0	0	0	0		0	0	2	0		0	0	0	0		0	0	2	0	
07:00 PM	to 07:15 PM																				
07:15 PM	to 07:30 PM																				
07:30 PM	to 07:45 PM																				
07:45 PM	to 08:00 PM																				
08:00 PM	to 08:15 PM																				
08:15 PM	to 08:30 PM																				
08:30 PM	to 08:45 PM																				
08:45 PM	to 09:00 PM																				
SYSTEM PEAK HR (VEH.)		0					12					0					11				
05:30 PM	to 06:30 PM	0	0	0	0		0	0	12	0		0	0	0	0		0	0	11	0	
Heavy Vehicle % (PHV):		0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	1.3%	0.0%	**1.2%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	1.3%	0.0%	**1.3%**
INT. PEAK HR (HV ONLY)		1					14					0					21				
04:00 PM	to 05:00 PM	0	0	1	0		0	0	14	0		0	0	0	0		0	0	21	0	
Heavy Vehicle % (PHV):		0.0%	0.0%	5.9%	0.0%	**1.2%**	0.0%	0.0%	1.7%	0.0%	**1.6%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	2.6%	0.0%	**2.6%**

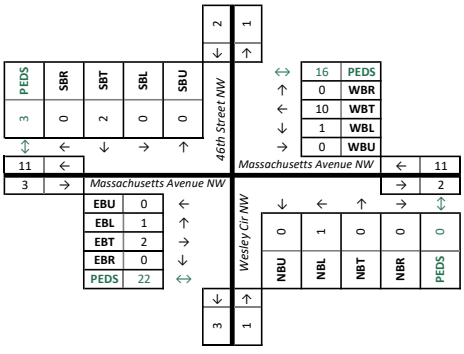
HEAVY VEH PEAK HOUR VOLS AND PHV: System Peak (vehicle)



BICYCLES

	Direction:	Southbound					Westbound					Northbound					Eastbound				
	Roadway:	46th Street NW					Massachusetts Avenue NW					Wesley Cir NW					Massachusetts Avenue NW				
	Movement:	U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right	
04:00 PM	to 04:15 PM	0	0	0	0		0	0	2	0		0	0	0	0		0	0	2	0	
04:15 PM	to 04:30 PM	0	0	3	1		0	0	0	0		0	1	0	0		0	0	0	0	
04:30 PM	to 04:45 PM	0	0	0	0		0	0	2	0		0	0	0	0		0	0	0	0	
04:45 PM	to 05:00 PM	0	0	0	0		0	0	1	0		0	0	0	0		0	0	0	0	
05:00 PM	to 05:15 PM	0	0	0	0		0	0	2	0		0	0	0	0		0	0	3	0	
05:15 PM	to 05:30 PM	0	1	0	0		0	0	2	0		0	1	0	0		0	0	2	0	
05:30 PM	to 05:45 PM	0	0	0	0		0	0	4	0		0	1	0	0		0	0	1	0	
05:45 PM	to 06:00 PM	0	0	0	0		0	0	3	0		0	0	0	0		0	1	1	0	
06:00 PM	to 06:15 PM	0	0	1	0		0	1	1	0		0	0	0	0		0	0	0	0	
06:15 PM	to 06:30 PM	0	0	1	0		0	0	2	0		0	0	0	0		0	0	0	0	
06:30 PM	to 06:45 PM	0	0	0	1		0	0	1	0		0	0	0	0		0	0	1	0	
06:45 PM	to 07:00 PM	0	0	0	0		0	1	2	0		0	0	0	0		0	0	1	0	
07:00 PM	to 07:15 PM																				
07:15 PM	to 07:30 PM																				
07:30 PM	to 07:45 PM																				
07:45 PM	to 08:00 PM																				
08:00 PM	to 08:15 PM																				
08:15 PM	to 08:30 PM																				
08:30 PM	to 08:45 PM																				
08:45 PM	to 09:00 PM																				
SYSTEM PEAK HR (VEH.)		2					11					1					3				
05:30 PM	to 06:30 PM	0	0	2	0		0	1	10	0		0	1	0	0		0	1	2	0	
INT. PEAK HR (BIKES)		1					11					2					8				
05:00 PM	to 06:00 PM	0	1	0	0		0	0	11	0		0	2	0	0		0	1	7	0	

PED AND BIKE PEAK HOUR VOLUMES: System Peak (vehicle)



DATA COLLECTION NOTES :

Gorove/Slade Associates - Multimodal Turning Movement Count Report

Project Name : Wesley Theological Seminary Further
Project # : 2997-002
Location Washington, DC
Data Source: Gorove/Slade Associates, Inc.

Analysis Period: STUDY_PERIOD 04:00 PM to 07:00 PM
Date of Counts: Thursday, September 11, 2025
Weather: Partly Cloudy

Volumes Displayed as: 2. System Peak (vehicle)
Intersection Peak Hour (all vehicles): 05:00 PM to 06:00 PM
System Peak Hour (all vehicles): 05:30 PM to 06:30 PM
User-Defined Peak Hour: 05:00 PM to 06:00 PM

Intersection: 1. /University Avenue NW & Wesley Circle NW

ALL VEHICLES

Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:						Wesley Circle NW					University Avenue NW					Wesley Circle NW				
Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
04:00 PM to 04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	7	4	0	0	4	9	0
04:15 PM to 04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	5	4	0	0	5	6	0
04:30 PM to 04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	4	3	0
04:45 PM to 05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1	0	0	11	2	0
05:00 PM to 05:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	8	2	0	0	7	4	0
05:15 PM to 05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	11	1	0	0	7	9	0
05:30 PM to 05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	8	2	0	0	5	5	0
05:45 PM to 06:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	1	9	0
06:00 PM to 06:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1	0	0	2	4	0
06:15 PM to 06:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	9	6	0
06:30 PM to 06:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1	0	0	5	7	0
06:45 PM to 07:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	1	5	0
07:00 PM to 07:15 PM																				
07:15 PM to 07:30 PM																				
07:30 PM to 07:45 PM																				
07:45 PM to 08:00 PM																				
08:00 PM to 08:15 PM																				
08:15 PM to 08:30 PM																				
08:30 PM to 08:45 PM																				
08:45 PM to 09:00 PM																				
SYSTEM PEAK HR (VEH.)	0				0	0				0	25				3	41				0
05:30 PM to 06:30 PM	0	0	0	0		0	0	0	0		0	0	0	25		0	0	17	24	
Peak Hour Overall	U	Left	Thru	Right	**SB**	U	Left	Thru	Right	**WB**	U	Left	Thru	Right	**NB**	U	Left	Thru	Right	**EB**
Factor (PHF) **0.87**	n/a	n/a	n/a	n/a	**n/a**	n/a	n/a	n/a	n/a	**n/a**	n/a	n/a	n/a	0.69	**0.69**	n/a	n/a	0.47	0.67	**0.68**

HEAVY VEHICLES (FHWA 4+)

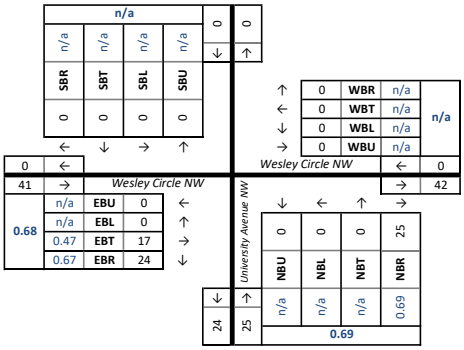
Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:						Wesley Circle NW					University Avenue NW					Wesley Circle NW				
Movement:	U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right	
04:00 PM to 04:15 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	1	
04:15 PM to 04:30 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
04:30 PM to 04:45 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
04:45 PM to 05:00 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
05:00 PM to 05:15 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
05:15 PM to 05:30 PM	0	0	0	0		0	0	0	0		0	0	0	1		0	0	0	0	
05:30 PM to 05:45 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
05:45 PM to 06:00 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
06:00 PM to 06:15 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
06:15 PM to 06:30 PM	0	0	0	0		0	0	0	0		0	0	0	2		0	0	0	0	
06:30 PM to 06:45 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
06:45 PM to 07:00 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
07:00 PM to 07:15 PM																				
07:15 PM to 07:30 PM																				
07:30 PM to 07:45 PM																				
07:45 PM to 08:00 PM																				
08:00 PM to 08:15 PM																				
08:15 PM to 08:30 PM																				
08:30 PM to 08:45 PM																				
08:45 PM to 09:00 PM																				
SYSTEM PEAK HR (VEH.)	0					0					2					0				
05:30 PM to 06:30 PM	0	0	0	0		0	0	0	0		0	0	0	2		0	0	0	0	
Heavy Vehicle % (PHV):	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	8.0%	**8.0%**	0.0%	0.0%	0.0%	0.0%	**0.0%**
INT. PEAK HR (HV ONLY)	0					0					2					0				
05:30 PM to 06:30 PM	0	0	0	0		0	0	0	0		0	0	0	2		0	0	0	0	
Heavy Vehicle % (PHV):	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	8.0%	**8.0%**	0.0%	0.0%	0.0%	0.0%	**0.0%**

BICYCLES

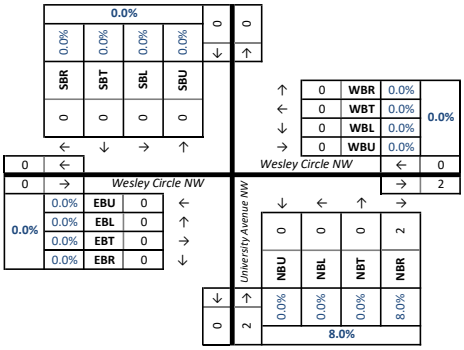
Direction:	Southbound				Westbound				Northbound				Eastbound			
Roadway:					Wesley Circle NW				University Avenue NW				Wesley Circle NW			
Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
04:00 PM to 04:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
04:15 PM to 04:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
04:30 PM to 04:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
04:45 PM to 05:00 PM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
05:00 PM to 05:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
05:15 PM to 05:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
05:30 PM to 05:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
05:45 PM to 06:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
06:00 PM to 06:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
06:15 PM to 06:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:30 PM to 06:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 PM to 07:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 PM to 07:15 PM																
07:15 PM to 07:30 PM																
07:30 PM to 07:45 PM																
07:45 PM to 08:00 PM																
08:00 PM to 08:15 PM																
08:15 PM to 08:30 PM																
08:30 PM to 08:45 PM																
08:45 PM to 09:00 PM																
SYSTEM PEAK HR (VEH.)	0				2				0				3			
05:30 PM to 06:30 PM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	2	1
INT. PEAK HR (BIKES)	0				3				0				3			
05:15 PM to 06:15 PM	0	0	0	0	0	2	1	0	0	0	0	0	0	0	2	1

DATA COLLECTION NOTES :

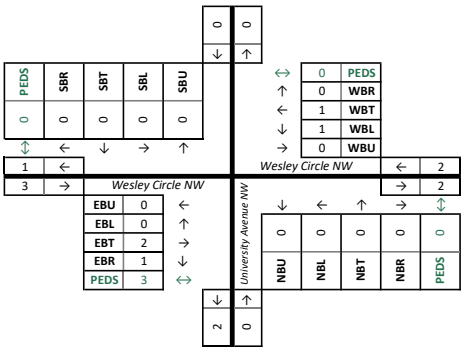
VEHICLE PEAK HOUR VOLS AND PHF: System Peak (vehicle)



HEAVY VEH PEAK HOUR VOLS AND PHV: System Peak (vehicle)



PED AND BIKE PEAK HOUR VOLUMES: System Peak (vehicle)



Gorove/Slade Associates - Multimodal Turning Movement Count Report

Project Name : Wesley Theological Seminary Further
Project # : 2997-002
Location Washington, DC
Data Source: Gorove/Slade Associates, Inc.

Analysis Period: STUDY_PERIOD 04:00 PM to 07:00 PM
Date of Counts: Thursday, September 11, 2025
Weather: Partly Cloudy

Volumes Displayed as: 2. System Peak (vehicle)
Intersection Peak Hour (all vehicles): 05:30 PM to 06:30 PM
System Peak Hour (all vehicles): 05:30 PM to 06:30 PM
User-Defined Peak Hour: 05:00 PM to 06:00 PM

Intersection: 1. Wesley Circle NW & Massachusetts Avenue NW

ALL VEHICLES

	Direction:	Southbound					Westbound					Northbound					Eastbound				
	Roadway:	Wesley Circle NW					Massachusetts Avenue NW					Wesley Circle NW					Massachusetts Avenue NW				
	Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
04:00 PM	04:15 PM	0	0	0	0	7	0	0	207	39	0	0	1	1	9	3	0	1	189	0	0
04:15 PM	04:30 PM	0	0	0	0	3	0	0	226	22	0	0	2	1	7	6	0	1	208	0	0
04:30 PM	04:45 PM	0	0	0	0	5	0	0	217	34	0	0	1	1	5	4	0	0	275	0	0
04:45 PM	05:00 PM	0	0	0	0	5	0	0	218	20	0	0	0	1	15	2	0	0	187	0	0
05:00 PM	05:15 PM	0	0	0	0	9	0	0	190	16	0	0	1	2	12	4	0	0	248	0	0
05:15 PM	05:30 PM	0	0	0	0	5	0	0	190	33	0	0	0	2	16	4	0	1	223	0	0
05:30 PM	05:45 PM	0	0	0	0	4	0	0	259	27	0	0	0	5	8	6	0	0	252	0	0
05:45 PM	06:00 PM	0	0	0	0	5	0	0	252	21	0	0	0	2	8	5	0	1	233	0	0
06:00 PM	06:15 PM	0	0	0	0	3	0	0	230	26	0	0	0	0	6	8	0	0	223	0	0
06:15 PM	06:30 PM	0	0	0	0	2	0	0	241	14	0	0	1	0	13	3	0	0	214	0	0
06:30 PM	06:45 PM	0	0	0	0	3	0	0	252	10	0	0	0	0	10	4	0	0	192	0	0
06:45 PM	07:00 PM	0	0	0	0	3	0	0	164	23	0	0	1	1	4	2	0	0	157	0	0
07:00 PM	07:15 PM																				
07:15 PM	07:30 PM																				
07:30 PM	07:45 PM																				
07:45 PM	08:00 PM																				
08:00 PM	08:15 PM																				
08:15 PM	08:30 PM																				
08:30 PM	08:45 PM																				
08:45 PM	09:00 PM																				
SYSTEM PEAK HR (VEH.)		0				14	1070				0	43				22	923				0
05:30 PM	06:30 PM	0	0	0	0		0	0	982	88		0	1	7	35		0	1	922	0	
Peak Hour	Overall	U	Left	Thru	Right	**SB**	U	Left	Thru	Right	**WB**	U	Left	Thru	Right	**NB**	U	Left	Thru	Right	**EB**
Factor (PHF)	**0.92**	n/a	n/a	n/a	n/a	**n/a**	n/a	n/a	0.95	0.81	**0.94**	n/a	0.25	0.35	0.67	**0.77**	n/a	0.25	0.91	n/a	**0.92**

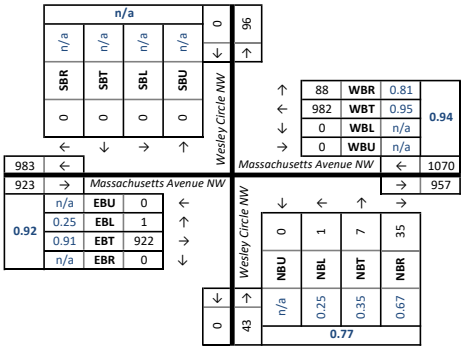
HEAVY VEHICLES (FHWA 4+)

	Direction:	Southbound					Westbound					Northbound					Eastbound				
	Roadway:	Wesley Circle NW					Massachusetts Avenue NW					Wesley Circle NW					Massachusetts Avenue NW				
	Movement:	U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right	
04:00 PM	04:15 PM	0	0	0	0		0	0	4	0		0	0	0	0		0	1	4	0	
04:15 PM	04:30 PM	0	0	0	0		0	0	5	0		0	0	0	0		0	0	6	0	
04:30 PM	04:45 PM	0	0	0	0		0	0	3	1		0	0	0	0		0	0	8	0	
04:45 PM	05:00 PM	0	0	0	0		0	0	2	0		0	0	0	0		0	0	2	0	
05:00 PM	05:15 PM	0	0	0	0		0	0	2	0		0	0	0	0		0	0	2	0	
05:15 PM	05:30 PM	0	0	0	0		0	0	1	0		0	0	0	1		0	0	2	0	
05:30 PM	05:45 PM	0	0	0	0		0	0	2	0		0	0	0	0		0	0	4	0	
05:45 PM	06:00 PM	0	0	0	0		0	0	4	0		0	0	0	0		0	0	2	0	
06:00 PM	06:15 PM	0	0	0	0		0	0	3	0		0	0	0	0		0	0	4	0	
06:15 PM	06:30 PM	0	0	0	0		0	0	3	0		0	0	0	2		0	0	1	0	
06:30 PM	06:45 PM	0	0	0	0		0	0	2	0		0	0	0	0		0	0	4	0	
06:45 PM	07:00 PM	0	0	0	0		0	0	2	0		0	0	0	0		0	0	2	0	
07:00 PM	07:15 PM																				
07:15 PM	07:30 PM																				
07:30 PM	07:45 PM																				
07:45 PM	08:00 PM																				
08:00 PM	08:15 PM																				
08:15 PM	08:30 PM																				
08:30 PM	08:45 PM																				
08:45 PM	09:00 PM																				
SYSTEM PEAK HR (VEH.)		0					12					2					11				
05:30 PM	06:30 PM	0	0	0	0		0	0	12	0		0	0	0	2		0	0	11	0	
Heavy Vehicle % (PHV):		0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	1.2%	0.0%	**1.1%**	0.0%	0.0%	0.0%	5.7%	**4.7%**	0.0%	0.0%	1.2%	0.0%	**1.2%**
INT. PEAK HR (HV ONLY)		0					15					0					21				
04:00 PM	05:00 PM	0	0	0	0		0	0	14	1		0	0	0	0		0	1	20	0	
Heavy Vehicle % (PHV):		0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	1.6%	0.9%	**1.5%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	50.0%	2.3%	0.0%	**2.4%**

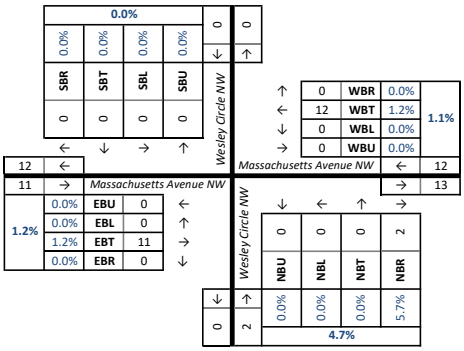
BICYCLES

	Direction:	Southbound					Westbound					Northbound					Eastbound				
	Roadway:	Wesley Circle NW					Massachusetts Avenue NW					Wesley Circle NW					Massachusetts Avenue NW				
	Movement:	U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right	
04:00 PM	04:15 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	1	0	
04:15 PM	04:30 PM	0	0	0	0		0	0	0	1		0	0	0	0		0	0	0	0	
04:30 PM	04:45 PM	0	0	0	0		0	0	1	1		0	0	1	0		0	0	0	0	
04:45 PM	05:00 PM	0	0	0	0		0	1	0	0		0	0	0	0		0	0	0	0	
05:00 PM	05:15 PM	0	0	0	0		0	0	2	0		0	0	0	0		0	0	1	0	
05:15 PM	05:30 PM	0	0	0	0		0	0	2	1		0	0	0	0		0	0	0	0	
05:30 PM	05:45 PM	0	0	0	0		0	0	2	0		0	0	0	0		0	0	1	0	
05:45 PM	06:00 PM	0	0	0	0		0	1	0	0		0	0	0	0		0	0	0	0	
06:00 PM	06:15 PM	0	0	0	0		0	0	2	0		0	0	0	0		0	0	0	0	
06:15 PM	06:30 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	2	0	
06:30 PM	06:45 PM	0	0	0	0		0	0	2	0		0	0	0	0		0	0	0	0	
06:45 PM	07:00 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	2	0	
07:00 PM	07:15 PM																				
07:15 PM	07:30 PM																				
07:30 PM	07:45 PM																				
07:45 PM	08:00 PM																				
08:00 PM	08:15 PM																				
08:15 PM	08:30 PM																				
08:30 PM	08:45 PM																				
08:45 PM	09:00 PM																				
SYSTEM PEAK HR (VEH.)		0					5					0					3				
05:30 PM	06:30 PM	0	0	0	0		0	1	4	0		0	0	0	0		0	0	3	0	
INT. PEAK HR (BIKES)		0					8					1					1				
04:30 PM	05:30 PM	0	0	0	0		0	1	5	2		0	0	1	0		0	0	1	0	

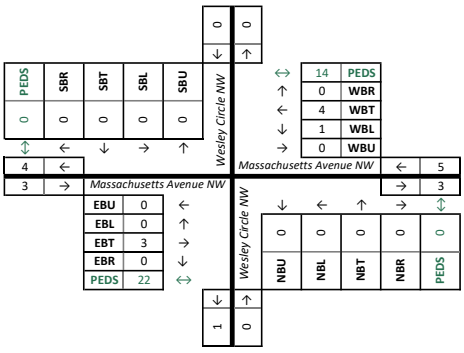
VEHICLE PEAK HOUR VOLS AND PHF: System Peak (vehicle)



HEAVY VEH PEAK HOUR VOLS AND PHV: System Peak (vehicle)



PED AND BIKE PEAK HOUR VOLUMES: System Peak (vehicle)



DATA COLLECTION NOTES :

Gorove/Slade Associates - Multimodal Turning Movement Count Report

Project Name : Wesley Theological Seminary Further
Project # : 2997-002
Location Washington, DC
Data Source: Gorove/Slade Associates, Inc.

Analysis Period: STUDY_PERIOD 04:00 PM to 07:00 PM
Date of Counts: Thursday, September 11, 2025
Weather: Partly Cloudy

Volumes Displayed as: 2. System Peak (vehicle)
Intersection Peak Hour (all vehicles): 05:00 PM to 06:00 PM
System Peak Hour (all vehicles): 05:30 PM to 06:30 PM
User-Defined Peak Hour: 05:00 PM to 06:00 PM

Intersection: 1. University Avenue & WTS Dwy/Sedgwick Street NW

ALL VEHICLES

Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:	University Avenue					WTS Dwy					University Avenue					Sedgwick Street NW				
Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
04:00 PM to 04:15 PM	0	0	6	3	0	0	0	0	1	4	0	1	9	0	3	0	0	0	1	0
04:15 PM to 04:30 PM	0	0	3	3	0	0	0	0	0	3	0	1	5	0	0	0	2	0	0	1
04:30 PM to 04:45 PM	0	0	2	1	2	0	0	0	1	1	0	0	3	0	1	0	0	0	0	0
04:45 PM to 05:00 PM	0	0	2	0	0	0	0	2	1	0	0	1	7	0	0	0	2	0	1	0
05:00 PM to 05:15 PM	0	0	4	0	0	0	0	0	2	0	0	0	3	0	0	0	2	0	1	2
05:15 PM to 05:30 PM	0	0	8	1	0	0	0	0	1	0	0	0	5	0	0	0	2	0	0	1
05:30 PM to 05:45 PM	0	0	4	1	1	0	0	0	2	1	0	0	3	0	0	0	2	0	1	0
05:45 PM to 06:00 PM	0	0	7	1	1	0	0	0	1	0	0	1	5	0	0	0	1	0	1	0
06:00 PM to 06:15 PM	0	0	2	2	0	0	0	0	0	0	0	1	3	0	0	0	2	0	1	0
06:15 PM to 06:30 PM	0	0	4	1	0	0	0	0	0	2	0	0	5	0	0	0	0	1	0	0
06:30 PM to 06:45 PM	2	0	4	1	1	0	0	0	0	0	0	0	4	0	1	0	1	0	0	1
06:45 PM to 07:00 PM	0	0	2	2	2	0	0	0	0	0	0	0	4	0	0	0	2	0	0	0
07:00 PM to 07:15 PM																				
07:15 PM to 07:30 PM																				
07:30 PM to 07:45 PM																				
07:45 PM to 08:00 PM																				
08:00 PM to 08:15 PM																				
08:15 PM to 08:30 PM																				
08:30 PM to 08:45 PM																				
08:45 PM to 09:00 PM																				
SYSTEM PEAK HR (VEH.)	22				2	3				3	18				0	9				0
05:30 PM to 06:30 PM	0	0	17	5		0	0	0	3		0	2	16	0		0	5	1	3	
Peak Hour Overall	U	Left	Thru	Right	**SB**	U	Left	Thru	Right	**WB**	U	Left	Thru	Right	**NB**	U	Left	Thru	Right	**EB**
Factor (PHF) **0.76**	n/a	n/a	0.61	0.63	**0.69**	n/a	n/a	n/a	0.38	**0.38**	n/a	0.50	0.80	n/a	**0.75**	n/a	0.63	0.25	0.75	**0.75**

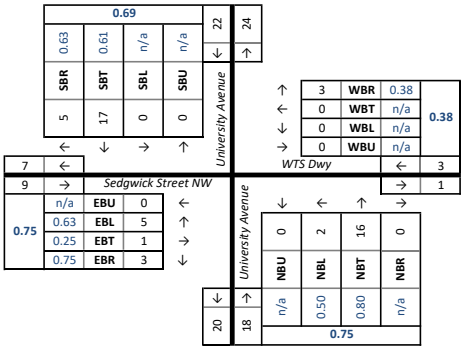
HEAVY VEHICLES (FHWA 4+)

Direction:	Southbound				Westbound				Northbound				Eastbound			
Roadway:	University Avenue				WTS Dwy				University Avenue				Sedgwick Street NW			
Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
04:00 PM to 04:15 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM to 04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM to 04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM to 05:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
05:00 PM to 05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM to 05:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
05:30 PM to 05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM to 06:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00 PM to 06:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:15 PM to 06:30 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0
06:30 PM to 06:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 PM to 07:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 PM to 07:15 PM																
07:15 PM to 07:30 PM																
07:30 PM to 07:45 PM																
07:45 PM to 08:00 PM																
08:00 PM to 08:15 PM																
08:15 PM to 08:30 PM																
08:30 PM to 08:45 PM																
08:45 PM to 09:00 PM																
SYSTEM PEAK HR (VEH.)	0				0				2				0			
05:30 PM to 06:30 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0
Heavy Vehicle % (PHV):	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	12.5%	0.0%	**11.1%**	0.0%	0.0%	0.0%	0.0%	**0.0%**
INT. PEAK HR (HV ONLY)	1				1				0				1			
04:00 PM to 05:00 PM	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1
Heavy Vehicle % (PHV):	0.0%	0.0%	0.0%	14.3%	**5.0%**	0.0%	0.0%	50.0%	0.0%	**20.0%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	50.0%	**16.7%**

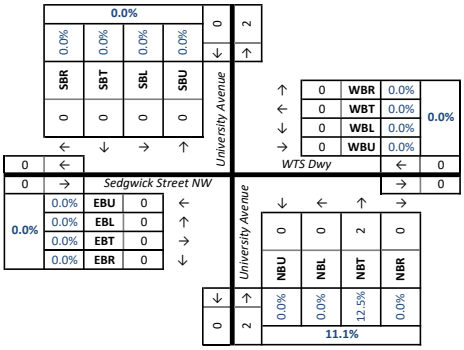
BICYCLES

Direction:	Southbound				Westbound				Northbound				Eastbound			
Roadway:	University Avenue				WTS Dwy				University Avenue				Sedgwick Street NW			
Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
04:00 PM to 04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM to 04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM to 04:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
04:45 PM to 05:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM to 05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM to 05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM to 05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
05:45 PM to 06:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00 PM to 06:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:15 PM to 06:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:30 PM to 06:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
06:45 PM to 07:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 PM to 07:15 PM																
07:15 PM to 07:30 PM																
07:30 PM to 07:45 PM																
07:45 PM to 08:00 PM																
08:00 PM to 08:15 PM																
08:15 PM to 08:30 PM																
08:30 PM to 08:45 PM																
08:45 PM to 09:00 PM																
SYSTEM PEAK HR (VEH.)	2				0				0				1			
05:30 PM to 06:30 PM	0	1	1	0	0	0	0	0	0	0	0	0	0	1	0	0
INT. PEAK HR (BIKES)	1				1				0				1			
04:00 PM to 05:00 PM	0	0	1	0	0	1	0	0	0	0	0	0	0	1	0	0

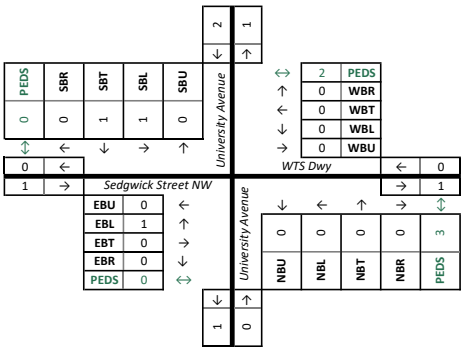
VEHICLE PEAK HOUR VOLS AND PHF: System Peak (vehicle)



HEAVY VEH PEAK HOUR VOLS AND PHV: System Peak (vehicle)



PED AND BIKE PEAK HOUR VOLUMES: System Peak (vehicle)



DATA COLLECTION NOTES :

Gorove/Slade Associates - Multimodal Turning Movement Count Report

Project Name : Wesley Theological Seminary Further
Project # : 2997-002
Location Washington, DC
Data Source: Gorove/Slade Associates, Inc.

Analysis Period: STUDY_PERIOD 04:00 PM to 07:00 PM
Date of Counts: Thursday, September 11, 2025
Weather: Partly Cloudy

Volumes Displayed as: 2. System Peak (vehicle)
Intersection Peak Hour (all vehicles): 05:30 PM to 06:30 PM
System Peak Hour (all vehicles): 05:30 PM to 06:30 PM
User-Defined Peak Hour: 05:00 PM to 06:00 PM

Intersection: 1. 45th Street NW/ & Massachusetts Avenue NW

ALL VEHICLES

	Direction:	Southbound					Westbound					Northbound					Eastbound				
	Roadway:	45th Street NW					Massachusetts Avenue NW										Massachusetts Avenue NW				
	Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
04:00 PM	to 04:15 PM	0	5	0	2	9	0	0	244	7	0	0	0	0	0	0	0	9	189	0	6
04:15 PM	to 04:30 PM	0	5	0	1	8	0	0	247	12	0	0	0	0	0	0	0	5	210	0	6
04:30 PM	to 04:45 PM	0	4	0	2	14	0	0	249	8	0	0	0	0	0	0	0	6	276	0	5
04:45 PM	to 05:00 PM	0	6	0	2	13	0	0	236	7	0	0	0	0	0	0	0	9	193	0	8
05:00 PM	to 05:15 PM	0	5	0	6	14	0	0	200	15	0	0	0	0	0	0	0	7	253	0	3
05:15 PM	to 05:30 PM	0	7	0	6	12	0	0	218	9	0	0	0	0	0	0	0	8	231	0	4
05:30 PM	to 05:45 PM	0	8	0	7	10	0	0	279	19	1	0	0	0	0	0	0	5	255	0	10
05:45 PM	to 06:00 PM	0	2	0	7	3	0	0	266	10	0	0	0	0	0	0	0	5	236	0	5
06:00 PM	to 06:15 PM	0	0	0	4	8	0	0	252	10	0	0	0	0	0	0	0	1	228	0	1
06:15 PM	to 06:30 PM	0	6	0	4	7	0	0	250	4	0	0	0	0	0	0	0	6	220	0	3
06:30 PM	to 06:45 PM	1	5	0	2	7	0	0	260	7	4	0	0	0	0	0	0	7	195	0	2
06:45 PM	to 07:00 PM	0	5	0	4	4	0	0	183	7	0	0	0	0	0	0	0	5	156	0	3
07:00 PM	to 07:15 PM																				
07:15 PM	to 07:30 PM																				
07:30 PM	to 07:45 PM																				
07:45 PM	to 08:00 PM																				
08:00 PM	to 08:15 PM																				
08:15 PM	to 08:30 PM																				
08:30 PM	to 08:45 PM																				
08:45 PM	to 09:00 PM																				
SYSTEM PEAK HR (VEH.)		38				28	1090				1	0				0	956				19
05:30 PM	to 06:30 PM	0	16	0	22		0	0	1047	43		0	0	0	0		0	17	939	0	
Peak Hour	Overall	U	Left	Thru	Right	**SB**	U	Left	Thru	Right	**WB**	U	Left	Thru	Right	**NB**	U	Left	Thru	Right	**EB**
Factor (PHF)	**0.91**	n/a	0.50	n/a	0.79	**0.63**	n/a	n/a	0.94	0.57	**0.91**	n/a	n/a	n/a	n/a	**n/a**	n/a	0.71	0.92	n/a	**0.92**

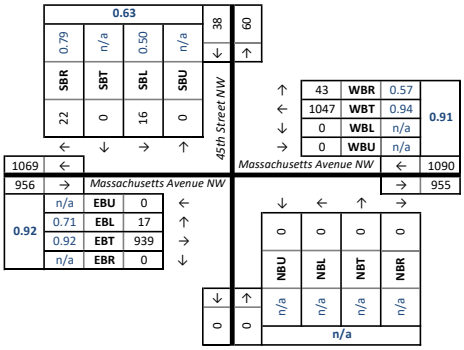
HEAVY VEHICLES (FHWA 4+)

	Direction:	Southbound					Westbound					Northbound					Eastbound				
	Roadway:	45th Street NW					Massachusetts Avenue NW										Massachusetts Avenue NW				
	Movement:	U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right	
04:00 PM	to 04:15 PM	0	0	0	0		0	0	4	0		0	0	0	0		0	0	4	0	
04:15 PM	to 04:30 PM	0	0	0	0		0	0	5	0		0	0	0	0		0	0	6	0	
04:30 PM	to 04:45 PM	0	0	0	0		0	0	4	0		0	0	0	0		0	0	8	0	
04:45 PM	to 05:00 PM	0	0	0	0		0	0	2	0		0	0	0	0		0	0	2	0	
05:00 PM	to 05:15 PM	0	0	0	0		0	0	2	0		0	0	0	0		0	0	2	0	
05:15 PM	to 05:30 PM	0	1	0	0		0	0	1	0		0	0	0	0		0	0	3	0	
05:30 PM	to 05:45 PM	0	0	0	0		0	0	2	0		0	0	0	0		0	0	4	0	
05:45 PM	to 06:00 PM	0	0	0	0		0	0	4	0		0	0	0	0		0	0	2	0	
06:00 PM	to 06:15 PM	0	0	0	0		0	0	3	1		0	0	0	0		0	0	4	0	
06:15 PM	to 06:30 PM	0	0	0	0		0	0	3	0		0	0	0	0		0	0	3	0	
06:30 PM	to 06:45 PM	0	0	0	0		0	0	2	0		0	0	0	0		0	0	4	0	
06:45 PM	to 07:00 PM	0	0	0	0		0	0	2	0		0	0	0	0		0	0	2	0	
07:00 PM	to 07:15 PM																				
07:15 PM	to 07:30 PM																				
07:30 PM	to 07:45 PM																				
07:45 PM	to 08:00 PM																				
08:00 PM	to 08:15 PM																				
08:15 PM	to 08:30 PM																				
08:30 PM	to 08:45 PM																				
08:45 PM	to 09:00 PM																				
SYSTEM PEAK HR (VEH.)		0					13					0					13				
05:30 PM	to 06:30 PM	0	0	0	0		0	0	12	1		0	0	0	0		0	0	13	0	
Heavy Vehicle % (PHV):		0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	1.1%	2.3%	**1.2%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	1.4%	0.0%	**1.4%**
INT. PEAK HR (HV ONLY)		0					15					0					20				
04:00 PM	to 05:00 PM	0	0	0	0		0	0	15	0		0	0	0	0		0	0	20	0	
Heavy Vehicle % (PHV):		0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	1.5%	0.0%	**1.5%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	2.3%	0.0%	**2.2%**

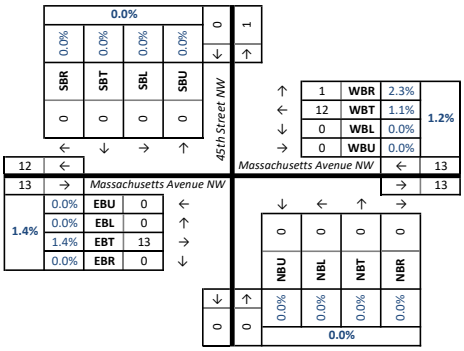
BICYCLES

	Direction:	Southbound				Westbound				Northbound				Eastbound			
	Roadway:	45th Street NW				Massachusetts Avenue NW								Massachusetts Avenue NW			
	Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
04:00 PM	to 04:15 PM	0	1	0	0	0	0	3	3	0	0	0	0	0	0	1	0
04:15 PM	to 04:30 PM	0	1	0	0	0	0	2	0	0	0	0	0	0	0	0	0
04:30 PM	to 04:45 PM	0	1	0	0	0	0	6	0	0	0	0	0	0	0	2	0
04:45 PM	to 05:00 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	to 05:15 PM	0	2	0	0	0	0	5	1	0	0	0	0	0	0	3	0
05:15 PM	to 05:30 PM	0	0	0	0	0	0	4	1	0	0	0	0	0	0	2	0
05:30 PM	to 05:45 PM	0	0	0	0	0	0	5	1	0	0	0	0	0	0	0	0
05:45 PM	to 06:00 PM	0	0	0	0	0	0	4	1	0	0	0	0	0	0	1	0
06:00 PM	to 06:15 PM	0	0	0	0	0	0	4	0	0	0	0	0	0	0	1	0
06:15 PM	to 06:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:30 PM	to 06:45 PM	0	0	0	0	0	0	3	1	0	0	0	0	0	0	0	0
06:45 PM	to 07:00 PM	0	0	0	0	0	0	4	3	0	0	0	0	0	2	1	0
07:00 PM	to 07:15 PM																
07:15 PM	to 07:30 PM																
07:30 PM	to 07:45 PM																
07:45 PM	to 08:00 PM																
08:00 PM	to 08:15 PM																
08:15 PM	to 08:30 PM																
08:30 PM	to 08:45 PM																
08:45 PM	to 09:00 PM																
SYSTEM PEAK HR (VEH.)		0				15				0				2			
05:30 PM	to 06:30 PM	0	0	0	0	0	0	13	2	0	0	0	0	0	0	2	0
INT. PEAK HR (BIKES)		2				22				0				6			
05:00 PM	to 06:00 PM	0	2	0	0	0	0	18	4	0	0	0	0	0	0	6	0

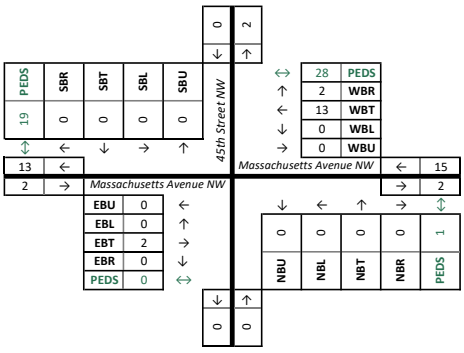
VEHICLE PEAK HOUR VOLS AND PHF: System Peak (vehicle)



HEAVY VEH PEAK HOUR VOLS AND PHV: System Peak (vehicle)



PED AND BIKE PEAK HOUR VOLUMES: System Peak (vehicle)



DATA COLLECTION NOTES :

Gorove/Slade Associates - Multimodal Turning Movement Count Report

Project Name : Wesley Theological Seminary Further
Project # : 2997-002
Location Washington, DC
Data Source: Gorove/Slade Associates, Inc.

Analysis Period: STUDY_PERIOD 04:00 PM to 07:00 PM
Date of Counts: Thursday, September 11, 2025
Weather: Partly Cloudy

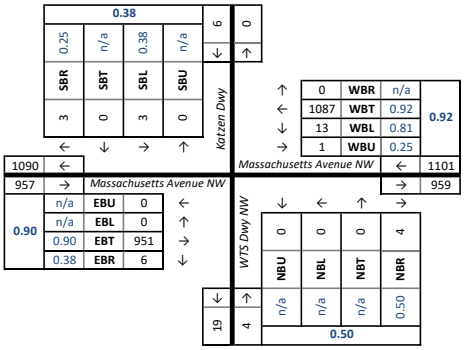
Volumes Displayed as: 2. System Peak (vehicle)
Intersection Peak Hour (all vehicles): 05:30 PM to 06:30 PM
System Peak Hour (all vehicles): 05:30 PM to 06:30 PM
User-Defined Peak Hour: 05:00 PM to 06:00 PM

Intersection: 1. Katzen Dwy/WTS Dwy NW & Massachusetts Avenue NW

ALL VEHICLES

	Direction:	Southbound					Westbound					Northbound					Eastbound				
	Roadway:	Katzen Dwy					Massachusetts Avenue NW					WTS Dwy NW					Massachusetts Avenue NW				
	Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
04:00 PM	to 04:15 PM	0	1	0	4	12	0	3	246	0	0	0	1	0	6	16	0	0	194	0	0
04:15 PM	to 04:30 PM	0	0	0	4	8	1	1	255	0	0	0	0	0	2	11	0	1	214	0	0
04:30 PM	to 04:45 PM	0	0	0	0	14	0	1	257	0	0	0	0	0	6	5	0	0	277	3	0
04:45 PM	to 05:00 PM	0	0	0	1	14	0	3	242	0	0	0	0	0	2	6	0	0	196	3	0
05:00 PM	to 05:15 PM	0	1	0	3	18	0	1	211	1	0	0	0	0	3	8	0	0	257	1	0
05:15 PM	to 05:30 PM	0	0	0	1	15	1	5	225	0	0	0	1	0	1	18	0	0	238	0	0
05:30 PM	to 05:45 PM	0	1	0	3	7	1	4	295	0	0	0	0	0	2	12	0	0	264	1	0
05:45 PM	to 06:00 PM	0	0	0	0	5	0	3	276	0	0	0	0	0	1	10	0	0	234	4	0
06:00 PM	to 06:15 PM	0	2	0	0	6	0	2	262	0	0	0	0	0	1	8	0	0	227	1	0
06:15 PM	to 06:30 PM	0	0	0	0	7	0	4	254	0	0	0	0	0	0	6	0	0	226	0	0
06:30 PM	to 06:45 PM	0	0	0	0	10	0	1	267	0	0	0	0	0	0	11	0	0	200	1	0
06:45 PM	to 07:00 PM	0	0	0	1	8	0	0	190	0	0	0	0	0	2	9	0	0	160	1	0
07:00 PM	to 07:15 PM																				
07:15 PM	to 07:30 PM																				
07:30 PM	to 07:45 PM																				
07:45 PM	to 08:00 PM																				
08:00 PM	to 08:15 PM																				
08:15 PM	to 08:30 PM																				
08:30 PM	to 08:45 PM																				
08:45 PM	to 09:00 PM																				
SYSTEM PEAK HR (VEH.)		6				25	1101				0	4				36	957				0
05:30 PM	to 06:30 PM	0	3	0	3		1	13	1087	0		0	0	0	4		0	0	951	6	
Peak Hour	Overall	U	Left	Thru	Right	**SB**	U	Left	Thru	Right	**WB**	U	Left	Thru	Right	**NB**	U	Left	Thru	Right	**EB**
Factor (PHF)	**0.91**	n/a	0.38	n/a	0.25	**0.38**	0.25	0.81	0.92	n/a	**0.92**	n/a	n/a	n/a	0.50	**0.50**	n/a	n/a	0.90	0.38	**0.90**

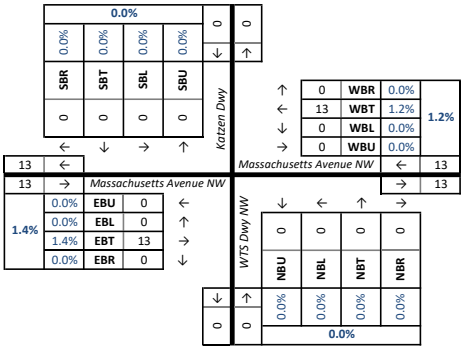
VEHICLE PEAK HOUR VOLS AND PHF: System Peak (vehicle)



HEAVY VEHICLES (FHWA 4+)

	Direction:	Southbound					Westbound					Northbound					Eastbound				
	Roadway:	Katzen Dwy					Massachusetts Avenue NW					WTS Dwy NW					Massachusetts Avenue NW				
	Movement:	U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right	
04:00 PM	to 04:15 PM	0	0	0	0		0	0	4	0		0	0	0	0		0	0	4	0	
04:15 PM	to 04:30 PM	0	0	0	0		0	0	4	0		0	0	0	0		0	0	6	0	
04:30 PM	to 04:45 PM	0	0	0	0		0	0	4	0		0	0	0	0		0	0	7	1	
04:45 PM	to 05:00 PM	0	0	0	0		0	0	2	0		0	0	0	0		0	0	2	0	
05:00 PM	to 05:15 PM	0	0	0	0		0	0	2	0		0	0	0	0		0	0	2	0	
05:15 PM	to 05:30 PM	0	0	0	0		0	0	1	0		0	0	0	0		0	0	4	0	
05:30 PM	to 05:45 PM	0	0	0	0		0	0	2	0		0	0	0	0		0	0	4	0	
05:45 PM	to 06:00 PM	0	0	0	0		0	0	4	0		0	0	0	0		0	0	2	0	
06:00 PM	to 06:15 PM	0	0	0	0		0	0	4	0		0	0	0	0		0	0	4	0	
06:15 PM	to 06:30 PM	0	0	0	0		0	0	3	0		0	0	0	0		0	0	3	0	
06:30 PM	to 06:45 PM	0	0	0	0		0	0	2	0		0	0	0	0		0	0	4	0	
06:45 PM	to 07:00 PM	0	0	0	0		0	0	2	0		0	0	0	0		0	0	2	0	
07:00 PM	to 07:15 PM																				
07:15 PM	to 07:30 PM																				
07:30 PM	to 07:45 PM																				
07:45 PM	to 08:00 PM																				
08:00 PM	to 08:15 PM																				
08:15 PM	to 08:30 PM																				
08:30 PM	to 08:45 PM																				
08:45 PM	to 09:00 PM																				
SYSTEM PEAK HR (VEH.)		0					13					0					13				
05:30 PM	to 06:30 PM	0	0	0	0		0	0	13	0		0	0	0	0		0	0	13	0	
Heavy Vehicle % (PHV):		0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	1.2%	0.0%	**1.2%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	1.4%	0.0%	**1.4%**
INT. PEAK HR (HV ONLY)		0					14					0					20				
04:00 PM	to 05:00 PM	0	0	0	0		0	0	14	0		0	0	0	0		0	0	19	1	
Heavy Vehicle % (PHV):		0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	1.4%	0.0%	**1.4%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	2.2%	16.7%	**2.3%**

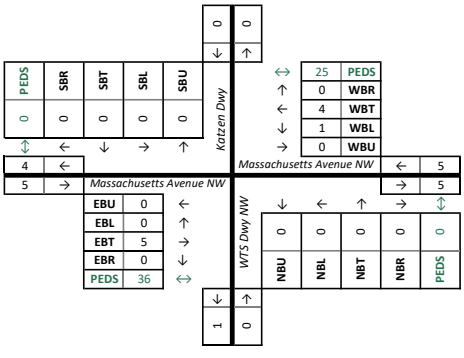
HEAVY VEH PEAK HOUR VOLS AND PHV: System Peak (vehicle)



BICYCLES

	Direction:	Southbound					Westbound					Northbound					Eastbound				
	Roadway:	Katzen Dwy					Massachusetts Avenue NW					WTS Dwy NW					Massachusetts Avenue NW				
	Movement:	U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right	
04:00 PM	to 04:15 PM	0	0	0	0		0	0	1	0		0	0	0	0		0	0	0	0	
04:15 PM	to 04:30 PM	0	0	0	0		0	0	2	0		0	0	0	0		0	0	0	0	
04:30 PM	to 04:45 PM	0	0	0	0		0	1	1	0		0	0	0	0		0	0	3	0	
04:45 PM	to 05:00 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
05:00 PM	to 05:15 PM	0	0	0	0		0	0	1	0		0	0	0	0		0	0	1	0	
05:15 PM	to 05:30 PM	0	0	0	0		0	0	3	0		0	0	0	0		0	0	1	0	
05:30 PM	to 05:45 PM	0	0	0	0		0	0	1	0		0	0	0	0		0	0	1	0	
05:45 PM	to 06:00 PM	0	0	0	0		0	1	2	0		0	0	0	0		0	0	1	0	
06:00 PM	to 06:15 PM	0	0	0	0		0	0	1	0		0	0	0	0		0	0	0	0	
06:15 PM	to 06:30 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	3	0	
06:30 PM	to 06:45 PM	0	0	0	0		0	0	3	0		0	0	0	1		0	0	0	0	
06:45 PM	to 07:00 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	1	0	
07:00 PM	to 07:15 PM																				
07:15 PM	to 07:30 PM																				
07:30 PM	to 07:45 PM																				
07:45 PM	to 08:00 PM																				
08:00 PM	to 08:15 PM																				
08:15 PM	to 08:30 PM																				
08:30 PM	to 08:45 PM																				
08:45 PM	to 09:00 PM																				
SYSTEM PEAK HR (VEH.)		0					5					0					5				
05:30 PM	to 06:30 PM	0	0	0	0		0	1	4	0		0	0	0	0		0	0	5	0	
INT. PEAK HR (BIKES)		0					8					0					4				
05:00 PM	to 06:00 PM	0	0	0	0		0	1	7	0		0	0	0	0		0	0	4	0	

PED AND BIKE PEAK HOUR VOLUMES: System Peak (vehicle)



DATA COLLECTION NOTES :

Gorove/Slade Associates - Multimodal Turning Movement Count Report

Project Name : Wesley Theological Seminary Further
Project # : 2997-002
Location Washington, DC
Data Source: Gorove/Slade Associates, Inc.

Analysis Period: STUDY_PERIOD 04:00 PM to 07:00 PM
Date of Counts: Thursday, September 11, 2025
Weather: Partly Cloudy

Volumes Displayed as: 2. System Peak (vehicle)
Intersection Peak Hour (all vehicles): 05:30 PM to 06:30 PM
System Peak Hour (all vehicles): 05:30 PM to 06:30 PM
User-Defined Peak Hour: 05:00 PM to 06:00 PM

Intersection: 1. Katzen Dwy/Glover Gate & Massachusetts Avenue NW

ALL VEHICLES

Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:	Katzen Dwy					Massachusetts Avenue NW					Glover Gate					Massachusetts Avenue NW				
Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
04:00 PM to 04:15 PM	0	5	3	1	2	0	9	215	4	44	0	28	1	20	7	0	0	187	12	19
04:15 PM to 04:30 PM	0	5	1	3	4	0	10	224	7	41	0	10	0	13	13	0	3	190	17	4
04:30 PM to 04:45 PM	0	4	3	2	3	0	6	218	3	24	0	14	1	16	3	0	0	252	16	9
04:45 PM to 05:00 PM	0	5	2	5	3	0	9	231	3	38	0	13	2	21	1	0	1	212	13	12
05:00 PM to 05:15 PM	0	4	2	1	10	0	8	184	9	64	0	17	2	15	3	0	1	224	22	15
05:15 PM to 05:30 PM	0	3	4	7	10	0	16	180	6	109	0	21	1	18	12	0	5	227	19	7
05:30 PM to 05:45 PM	0	7	3	11	0	0	10	251	5	89	0	27	3	33	3	0	4	253	17	9
05:45 PM to 06:00 PM	0	7	1	4	3	0	11	248	6	45	0	15	2	15	5	0	1	221	9	6
06:00 PM to 06:15 PM	0	4	3	2	2	0	4	246	5	35	0	18	2	29	5	0	2	223	11	15
06:15 PM to 06:30 PM	0	3	1	2	5	0	6	223	5	21	0	16	0	22	6	0	1	217	17	9
06:30 PM to 06:45 PM	0	4	0	2	1	0	18	229	6	20	0	18	0	21	12	0	0	177	9	5
06:45 PM to 07:00 PM	0	5	1	0	6	0	9	173	3	44	0	24	0	16	4	0	0	168	6	18
07:00 PM to 07:15 PM																				
07:15 PM to 07:30 PM																				
07:30 PM to 07:45 PM																				
07:45 PM to 08:00 PM																				
08:00 PM to 08:15 PM																				
08:15 PM to 08:30 PM																				
08:30 PM to 08:45 PM																				
08:45 PM to 09:00 PM																				
SYSTEM PEAK HR (VEH.)	48				10	1020				190	182				19	976				39
05:30 PM to 06:30 PM	0	21	8	19		0	31	968	21		0	76	7	99		0	8	914	54	
Peak Hour Overall	U	Left	Thru	Right	**SB**	U	Left	Thru	Right	**WB**	U	Left	Thru	Right	**NB**	U	Left	Thru	Right	**EB**
Factor (PHF) **0.89**	n/a	0.75	0.67	0.43	**0.57**	n/a	0.70	0.96	0.88	**0.96**	n/a	0.70	0.58	0.75	**0.72**	n/a	0.50	0.90	0.79	**0.89**

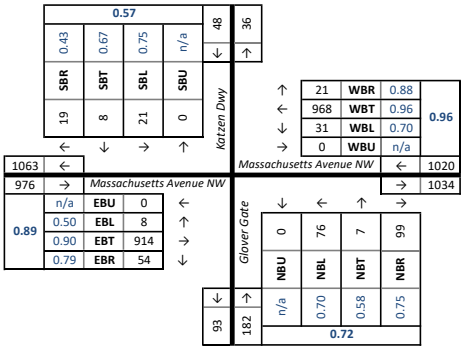
HEAVY VEHICLES (FHWA 4+)

Direction:	Southbound				Westbound				Northbound				Eastbound			
Roadway:	Katzen Dwy				Massachusetts Avenue NW				Glover Gate				Massachusetts Avenue NW			
Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
04:00 PM to 04:15 PM	0	0	0	0	0	0	5	0	0	1	0	2	0	0	4	0
04:15 PM to 04:30 PM	0	0	0	0	0	0	6	0	0	0	0	1	0	0	6	0
04:30 PM to 04:45 PM	0	0	0	0	0	0	3	0	0	0	0	3	0	0	6	0
04:45 PM to 05:00 PM	0	0	0	0	0	0	3	0	0	0	0	3	0	0	1	0
05:00 PM to 05:15 PM	0	0	0	0	0	0	5	0	0	0	0	2	0	0	2	0
05:15 PM to 05:30 PM	0	0	0	0	0	0	1	0	0	0	0	1	0	0	2	1
05:30 PM to 05:45 PM	0	0	0	0	0	0	2	0	0	0	0	3	0	0	4	0
05:45 PM to 06:00 PM	0	0	0	0	0	0	5	0	0	0	0	1	0	0	4	0
06:00 PM to 06:15 PM	0	0	0	0	0	0	3	0	0	1	0	2	0	0	4	0
06:15 PM to 06:30 PM	0	0	0	0	0	0	3	0	0	0	0	2	0	0	0	1
06:30 PM to 06:45 PM	0	0	0	0	0	0	2	0	0	0	0	2	0	0	3	1
06:45 PM to 07:00 PM	0	0	0	0	0	0	2	0	0	0	0	2	0	0	1	0
07:00 PM to 07:15 PM																
07:15 PM to 07:30 PM																
07:30 PM to 07:45 PM																
07:45 PM to 08:00 PM																
08:00 PM to 08:15 PM																
08:15 PM to 08:30 PM																
08:30 PM to 08:45 PM																
08:45 PM to 09:00 PM																
SYSTEM PEAK HR (VEH.)	0				13				9				13			
05:30 PM to 06:30 PM	0	0	0	0	0	0	13	0	0	1	0	8	0	0	12	1
Heavy Vehicle % (PHV):	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.3%	0.0%	1.3%	0.0%	1.3%	0.0%	8.1%	4.9%	0.0%	0.0%	1.3%	1.9%	1.3%
INT. PEAK HR (HV ONLY)	0				17				10				17			
04:00 PM to 05:00 PM	0	0	0	0	0	0	17	0	0	1	0	9	0	0	17	0
Heavy Vehicle % (PHV):	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.9%	0.0%	1.8%	0.0%	1.5%	0.0%	12.9%	7.2%	0.0%	0.0%	2.0%	0.0%	1.9%

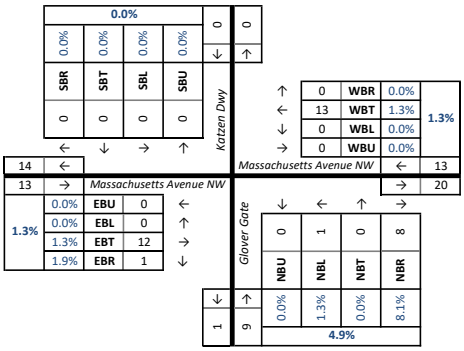
BICYCLES

Direction:	Southbound				Westbound				Northbound				Eastbound			
Roadway:	Katzen Dwy				Massachusetts Avenue NW				Glover Gate				Massachusetts Avenue NW			
Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
04:00 PM to 04:15 PM	0	1	0	0	0	0	0	0	0	0	0	1	0	0	2	0
04:15 PM to 04:30 PM	0	0	0	0	0	0	1	0	0	0	0	2	0	0	0	0
04:30 PM to 04:45 PM	0	0	0	0	0	0	3	0	0	0	0	0	0	0	2	1
04:45 PM to 05:00 PM	0	1	0	0	0	0	1	1	0	0	0	1	0	0	0	0
05:00 PM to 05:15 PM	0	1	0	0	0	0	1	0	0	1	0	0	0	0	3	0
05:15 PM to 05:30 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	1
05:30 PM to 05:45 PM	0	0	0	0	0	0	2	0	0	1	0	0	0	0	1	0
05:45 PM to 06:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0
06:00 PM to 06:15 PM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
06:15 PM to 06:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:30 PM to 06:45 PM	0	1	0	0	0	0	2	0	0	0	0	2	0	0	0	1
06:45 PM to 07:00 PM	0	0	0	0	0	0	2	0	0	1	0	2	0	0	1	0
07:00 PM to 07:15 PM																
07:15 PM to 07:30 PM																
07:30 PM to 07:45 PM																
07:45 PM to 08:00 PM																
08:00 PM to 08:15 PM																
08:15 PM to 08:30 PM																
08:30 PM to 08:45 PM																
08:45 PM to 09:00 PM																
SYSTEM PEAK HR (VEH.)	0				5				1				2			
05:30 PM to 06:30 PM	0	0	0	0	0	0	5	0	0	1	0	0	0	0	2	0
INT. PEAK HR (BIKES)	2				8				4				7			
04:30 PM to 05:30 PM	0	2	0	0	0	0	7	1	0	3	0	1	0	0	5	2

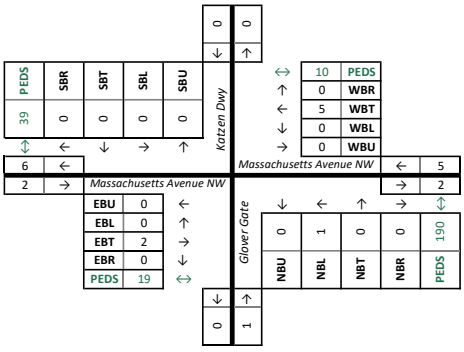
VEHICLE PEAK HOUR VOLS AND PHF: System Peak (vehicle)



HEAVY VEH PEAK HOUR VOLS AND PHV: System Peak (vehicle)

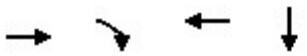


PED AND BIKE PEAK HOUR VOLUMES: System Peak (vehicle)



DATA COLLECTION NOTES :

G. Vehicular Capacity Analysis Worksheets – 2025 Existing Conditions



Lane Group	EBT	EBR	WBT	SBT
Lane Group Flow (vph)	1144	7	581	155
v/c Ratio	0.57	0.01	0.32	0.59
Control Delay	10.4	5.6	4.4	53.1
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	10.4	5.6	4.4	53.1
Queue Length 50th (ft)	208	1	22	109
Queue Length 95th (ft)	262	6	27	183
Internal Link Dist (ft)	1432		152	19
Turn Bay Length (ft)		90		
Base Capacity (vph)	2008	786	1793	262
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	61	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.59	0.01	0.32	0.59

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1133	7	19	556	0	0	0	0	129	22	3
Future Volume (vph)	0	1133	7	19	556	0	0	0	0	129	22	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	10	10	10	10	10	12	12	12	9	9	9
Grade (%)		7%			-7%			0%			7%	
Total Lost time (s)		4.0	4.0		4.0						4.0	
Lane Util. Factor		0.95	1.00		0.95						1.00	
Frpb, ped/bikes		1.00	0.97		1.00						1.00	
Flpb, ped/bikes		1.00	1.00		1.00						1.00	
Frt		1.00	0.85		1.00						1.00	
Flt Protected		1.00	1.00		1.00						0.96	
Satd. Flow (prot)		2869	1123		2861						1254	
Flt Permitted		1.00	1.00		0.89						0.96	
Satd. Flow (perm)		2869	1123		2563						1254	
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	0	1144	7	19	562	0	0	0	0	130	22	3
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	1	0
Lane Group Flow (vph)	0	1144	7	0	581	0	0	0	0	0	154	0
Confl. Peds. (#/hr)	7		9	9		7	5					5
Confl. Bikes (#/hr)			6			1			1			4
Heavy Vehicles (%)	2%	2%	10%	5%	4%	2%	0%	0%	0%	2%	2%	2%
Bus Blockages (#/hr)	0	0	7	0	0	0	0	0	0	0	0	0
Parking (#/hr)					0					0	0	0
Turn Type		NA	Perm	Perm	NA					Split	NA	
Protected Phases		6			2					4	4	
Permitted Phases			6	2								
Actuated Green, G (s)		82.0	82.0		82.0						23.0	
Effective Green, g (s)		84.0	84.0		84.0						25.0	
Actuated g/C Ratio		0.70	0.70		0.70						0.21	
Clearance Time (s)		6.0	6.0		6.0						6.0	
Lane Grp Cap (vph)		2008	786		1794						261	
v/s Ratio Prot		c0.40									c0.12	
v/s Ratio Perm			0.01		0.23							
v/c Ratio		0.57	0.01		0.32						0.59	
Uniform Delay, d1		9.0	5.4		7.0						42.9	
Progression Factor		1.00	1.00		0.56						1.00	
Incremental Delay, d2		1.2	0.0		0.4						9.5	
Delay (s)		10.2	5.5		4.3						52.4	
Level of Service		B	A		A						D	
Approach Delay (s)		10.1			4.3			0.0			52.4	
Approach LOS		B			A			A			D	

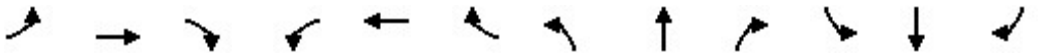
Intersection Summary			
HCM 2000 Control Delay	11.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	56.5%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	19	16	0	0	0	22
Future Volume (Veh/h)	19	16	0	0	0	22
Sign Control	Free			Free	Yield	
Grade	5%			0%	0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	22	19	0	0	0	26
Pedestrians					8	
Lane Width (ft)					10.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					1	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			49		40	40
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			49		40	40
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	97
cM capacity (veh/h)			1549		967	1026

Direction, Lane #	EB 1	NB 1
Volume Total	41	26
Volume Left	0	0
Volume Right	19	26
cSH	1700	1026
Volume to Capacity	0.02	0.03
Queue Length 95th (ft)	0	2
Control Delay (s)	0.0	8.6
Lane LOS		A
Approach Delay (s)	0.0	8.6
Approach LOS		A

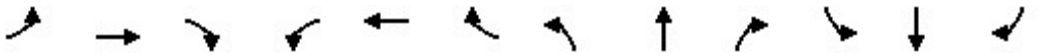
Intersection Summary			
Average Delay	3.3		
Intersection Capacity Utilization	15.7%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	1258	0	0	573	42	2	3	36	0	0	0
Future Volume (Veh/h)	5	1258	0	0	573	42	2	3	36	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			-7%			5%			0%	
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Hourly flow rate (vph)	5	1271	0	0	579	42	2	3	36	0	0	0
Pedestrians					1			5			6	
Lane Width (ft)					12.0			12.0			0.0	
Walking Speed (ft/s)					4.0			4.0			4.0	
Percent Blockage					0			0			0	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		232			230							
pX, platoon unblocked				0.81			0.81	0.81	0.81	0.81	0.81	
vC, conflicting volume	627			1276			1576	1913	642	1290	1892	316
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	627			871			1241	1657	87	888	1632	316
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			100			98	96	95	100	100	100
cM capacity (veh/h)	951			621			105	77	769	177	81	679

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1
Volume Total	429	847	386	235	41
Volume Left	5	0	0	0	2
Volume Right	0	0	0	42	36
cSH	951	1700	1700	1700	391
Volume to Capacity	0.01	0.50	0.23	0.14	0.10
Queue Length 95th (ft)	0	0	0	0	9
Control Delay (s)	0.2	0.0	0.0	0.0	15.3
Lane LOS	A				C
Approach Delay (s)	0.1		0.0		15.3
Approach LOS					C

Intersection Summary				
Average Delay	0.4			
Intersection Capacity Utilization	52.8%	ICU Level of Service		A
Analysis Period (min)	15			



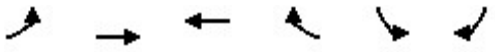
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	0	2	1	0	0	1	25	0	1	14	1
Future Volume (Veh/h)	7	0	2	1	0	0	1	25	0	1	14	1
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	8	0	2	1	0	0	1	29	0	1	16	1
Pedestrians		4			5			1				
Lane Width (ft)		10.0			10.0			10.0				
Walking Speed (ft/s)		4.0			4.0			4.0				
Percent Blockage		0			0			0				
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	54	58	22	58	59	34	21			34		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	54	58	22	58	59	34	21			34		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	99	100	100	100	100	100	100			100		
cM capacity (veh/h)	937	826	1052	928	826	1036	1590			1572		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	10	1	30	18
Volume Left	8	1	1	1
Volume Right	2	0	0	1
cSH	958	928	1590	1572
Volume to Capacity	0.01	0.00	0.00	0.00
Queue Length 95th (ft)	1	0	0	0
Control Delay (s)	8.8	8.9	0.2	0.4
Lane LOS	A	A	A	A
Approach Delay (s)	8.8	8.9	0.2	0.4
Approach LOS	A	A		

Intersection Summary				
Average Delay	1.9			
Intersection Capacity Utilization	15.2%	ICU Level of Service	A	
Analysis Period (min)	15			

Lane Group	EBT	WBT	SBL
Lane Group Flow (vph)	1309	633	25
v/c Ratio	0.58	0.45	0.02
Control Delay	6.5	6.4	5.3
Queue Delay	0.0	0.0	0.0
Total Delay	6.5	6.4	5.3
Queue Length 50th (ft)	111	142	4
Queue Length 95th (ft)	125	174	14
Internal Link Dist (ft)	150	134	207
Turn Bay Length (ft)			
Base Capacity (vph)	2264	1397	1274
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.58	0.45	0.02

Intersection Summary



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	57	1238	607	20	17	8
Future Volume (vph)	57	1238	607	20	17	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		4%	-7%		0%	
Total Lost time (s)		9.0	9.0		9.0	
Lane Util. Factor		0.95	1.00		1.00	
Frpb, ped/bikes		1.00	1.00		0.99	
Flpb, ped/bikes		1.00	1.00		1.00	
Frt		1.00	1.00		0.96	
Flt Protected		1.00	1.00		0.97	
Satd. Flow (prot)		3230	1757		1600	
Flt Permitted		0.88	1.00		0.97	
Satd. Flow (perm)		2848	1757		1600	
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	58	1251	613	20	17	8
RTOR Reduction (vph)	0	0	1	0	2	0
Lane Group Flow (vph)	0	1309	632	0	23	0
Confl. Peds. (#/hr)	9			9	1	5
Confl. Bikes (#/hr)				4		7
Heavy Vehicles (%)	2%	2%	4%	2%	2%	2%
Turn Type	Perm	NA	NA		D.Pm	
Protected Phases		2!	2!			
Permitted Phases	2!				2!	
Actuated Green, G (s)		88.2	88.2		88.2	
Effective Green, g (s)		90.2	90.2		90.2	
Actuated g/C Ratio		0.75	0.75		0.75	
Clearance Time (s)		11.0	11.0		11.0	
Vehicle Extension (s)		1.0	1.0		1.0	
Lane Grp Cap (vph)		2140	1320		1202	
v/s Ratio Prot			0.36			
v/s Ratio Perm		c0.46			0.01	
v/c Ratio		0.61	0.48		0.02	
Uniform Delay, d1		6.8	5.8		3.8	
Progression Factor		0.60	0.68		1.00	
Incremental Delay, d2		1.1	1.0		0.0	
Delay (s)		5.2	4.9		3.8	
Level of Service		A	A		A	
Approach Delay (s)		5.2	4.9		3.8	
Approach LOS		A	A		A	

Intersection Summary			
HCM 2000 Control Delay	5.1	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	99.6%	ICU Level of Service	F
Analysis Period (min)	15		

! Phase conflict between lane groups.

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1245	10	4	626	0	2
Future Volume (Veh/h)	1245	10	4	626	0	2
Sign Control	Free			Free	Stop	
Grade	4%			-7%	0%	
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99
Hourly flow rate (vph)	1258	10	4	632	0	2
Pedestrians					26	
Lane Width (ft)					10.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					2	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	214			651		
pX, platoon unblocked			0.83		0.92	0.83
vC, conflicting volume			1294		1929	660
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			952		1288	191
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		100	100
cM capacity (veh/h)			587		139	670

Direction, Lane #	EB 1	EB 2	WB 1	NB 1
Volume Total	839	429	636	2
Volume Left	0	0	4	0
Volume Right	0	10	0	2
cSH	1700	1700	587	670
Volume to Capacity	0.49	0.25	0.01	0.00
Queue Length 95th (ft)	0	0	1	0
Control Delay (s)	0.0	0.0	0.2	10.4
Lane LOS			A	B
Approach Delay (s)	0.0		0.2	10.4
Approach LOS				B

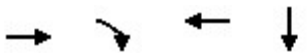
Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	44.8%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBT	WBT	WBR	NBT	NBR	SBT
Lane Group Flow (vph)	1295	653	34	25	14	16
v/c Ratio	0.64	0.62	0.04	0.16	0.08	0.09
Control Delay	4.7	10.1	0.3	48.9	0.8	39.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.7	10.1	0.3	48.9	0.8	39.0
Queue Length 50th (ft)	43	203	0	17	0	8
Queue Length 95th (ft)	48	305	2	45	0	30
Internal Link Dist (ft)	571	391		281		141
Turn Bay Length (ft)						
Base Capacity (vph)	2017	1055	920	157	186	183
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.64	0.62	0.04	0.16	0.08	0.09

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	16	1178	63	30	603	33	18	6	14	3	9	4
Future Volume (vph)	16	1178	63	30	603	33	18	6	14	3	9	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	10	10	10	10	10	10	10	10	10	10	10
Grade (%)		4%			-4%			-1%			5%	
Total Lost time (s)		4.0			4.0	4.0		4.0	4.0		4.0	
Lane Util. Factor		0.95			1.00	1.00		1.00	1.00		1.00	
Frpb, ped/bikes		1.00			1.00	0.90		1.00	0.79		0.98	
Flpb, ped/bikes		1.00			1.00	1.00		0.96	1.00		0.96	
Frt		0.99			1.00	0.85		1.00	0.85		0.97	
Flt Protected		1.00			1.00	1.00		0.96	1.00		0.99	
Satd. Flow (prot)		2845			1572	1206		1366	984		1380	
Flt Permitted		0.94			0.89	1.00		0.82	1.00		0.96	
Satd. Flow (perm)		2687			1406	1206		1157	984		1340	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	16	1214	65	31	622	34	19	6	14	3	9	4
RTOR Reduction (vph)	0	3	0	0	0	9	0	0	12	0	3	0
Lane Group Flow (vph)	0	1292	0	0	653	26	0	25	2	0	13	0
Confl. Peds. (#/hr)	17		17	17		17	14		77	77		14
Confl. Bikes (#/hr)			11			2						
Heavy Vehicles (%)	2%	3%	5%	10%	3%	2%	10%	2%	10%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	2	0	0	0	0	0	0
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA	Perm	Perm	NA	
Protected Phases		6			2			8			4	
Permitted Phases	6			2		2	8		8	4		
Actuated Green, G (s)		88.0			88.0	88.0		14.0	14.0		14.0	
Effective Green, g (s)		90.0			90.0	90.0		16.0	16.0		16.0	
Actuated g/C Ratio		0.75			0.75	0.75		0.13	0.13		0.13	
Clearance Time (s)		6.0			6.0	6.0		6.0	6.0		6.0	
Lane Grp Cap (vph)		2015			1054	904		154	131		178	
v/s Ratio Prot												
v/s Ratio Perm		c0.48			0.46	0.02		c0.02	0.00		0.01	
v/c Ratio		0.64			0.62	0.03		0.16	0.01		0.07	
Uniform Delay, d1		7.2			7.0	3.8		46.1	45.2		45.5	
Progression Factor		0.45			1.00	1.00		1.00	1.00		1.00	
Incremental Delay, d2		1.3			2.7	0.1		2.3	0.2		0.8	
Delay (s)		4.6			9.7	3.9		48.3	45.4		46.3	
Level of Service		A			A	A		D	D		D	
Approach Delay (s)		4.6			9.5			47.3			46.3	
Approach LOS		A			A			D			D	

Intersection Summary			
HCM 2000 Control Delay	7.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	80.7%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBT	EBR	WBT	SBT
Lane Group Flow (vph)	913	3	1056	106
v/c Ratio	0.43	0.00	0.58	0.50
Control Delay	6.6	4.0	3.3	54.4
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	6.6	4.0	3.3	54.4
Queue Length 50th (ft)	122	1	2	75
Queue Length 95th (ft)	155	3	1	135
Internal Link Dist (ft)	1432		152	19
Turn Bay Length (ft)		90		
Base Capacity (vph)	2127	892	1831	210
Starvation Cap Reductn	0	0	51	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.43	0.00	0.59	0.50

Intersection Summary

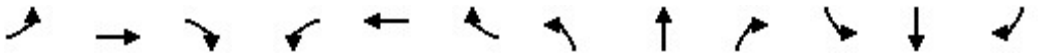
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	849	3	48	934	0	0	0	0	75	21	2
Future Volume (vph)	0	849	3	48	934	0	0	0	0	75	21	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	10	10	10	10	10	12	12	12	9	9	9
Grade (%)		7%			-7%			0%			7%	
Total Lost time (s)		4.0	4.0		4.0						4.0	
Lane Util. Factor		0.95	1.00		0.95						1.00	
Frpb, ped/bikes		1.00	0.96		1.00						1.00	
Flpb, ped/bikes		1.00	1.00		1.00						1.00	
Frt		1.00	0.85		1.00						1.00	
Flt Protected		1.00	1.00		1.00						0.96	
Satd. Flow (prot)		2869	1203		2915						1258	
Flt Permitted		1.00	1.00		0.85						0.96	
Satd. Flow (perm)		2869	1203		2470						1258	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	0	913	3	52	1004	0	0	0	0	81	23	2
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	1	0
Lane Group Flow (vph)	0	913	3	0	1056	0	0	0	0	0	105	0
Confl. Peds. (#/hr)	16		22	22		16	3					3
Confl. Bikes (#/hr)			3			11			1			2
Bus Blockages (#/hr)	0	0	7	0	0	0	0	0	0	0	0	0
Parking (#/hr)					0					0	0	0
Turn Type		NA	Perm	Perm	NA					Split	NA	
Protected Phases		6			2					4	4	
Permitted Phases			6	2								
Actuated Green, G (s)		87.0	87.0		87.0						18.0	
Effective Green, g (s)		89.0	89.0		89.0						20.0	
Actuated g/C Ratio		0.74	0.74		0.74						0.17	
Clearance Time (s)		6.0	6.0		6.0						6.0	
Lane Grp Cap (vph)		2127	892		1831						209	
v/s Ratio Prot		0.32									c0.08	
v/s Ratio Perm			0.00		c0.43							
v/c Ratio		0.43	0.00		0.58						0.50	
Uniform Delay, d1		5.9	4.0		7.0						45.5	
Progression Factor		1.00	1.00		0.29						1.00	
Incremental Delay, d2		0.6	0.0		1.2						8.4	
Delay (s)		6.5	4.0		3.2						53.9	
Level of Service		A	A		A						D	
Approach Delay (s)		6.5			3.2			0.0			53.9	
Approach LOS		A			A			A			D	

Intersection Summary			
HCM 2000 Control Delay	7.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	81.3%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	17	24	0	0	0	25
Future Volume (Veh/h)	17	24	0	0	0	25
Sign Control	Free			Free	Yield	
Grade	5%			0%	0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	20	28	0	0	0	29
Pedestrians					3	
Lane Width (ft)					10.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					0	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			51		37	37
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			51		37	37
tC, single (s)			4.1		6.4	6.3
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.4
p0 queue free %			100		100	97
cM capacity (veh/h)			1552		973	1016

Direction, Lane #	EB 1	NB 1
Volume Total	48	29
Volume Left	0	0
Volume Right	28	29
cSH	1700	1016
Volume to Capacity	0.03	0.03
Queue Length 95th (ft)	0	2
Control Delay (s)	0.0	8.6
Lane LOS		A
Approach Delay (s)	0.0	8.6
Approach LOS		A

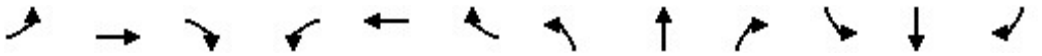
Intersection Summary			
Average Delay	3.3		
Intersection Capacity Utilization	14.3%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	922	0	0	982	88	1	7	35	0	0	0
Future Volume (Veh/h)	1	922	0	0	982	88	1	7	35	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			-7%			5%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	1002	0	0	1067	96	1	8	38	0	0	0
Pedestrians								22			14	
Lane Width (ft)								12.0			0.0	
Walking Speed (ft/s)								4.0			4.0	
Percent Blockage								2			0	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		232			230							
pX, platoon unblocked	0.87			0.89			0.92	0.92	0.89	0.92	0.92	0.87
vC, conflicting volume	1177			1024			1560	2203	523	1674	2155	596
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	894			780			898	1597	217	1022	1545	222
tC, single (s)	4.1			4.1			7.5	6.5	7.0	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.4	3.5	4.0	3.3
p0 queue free %	100			100			100	92	94	100	100	100
cM capacity (veh/h)	653			728			208	95	677	152	103	676

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1
Volume Total	335	668	711	452	47
Volume Left	1	0	0	0	1
Volume Right	0	0	0	96	38
cSH	653	1700	1700	1700	323
Volume to Capacity	0.00	0.39	0.42	0.27	0.15
Queue Length 95th (ft)	0	0	0	0	13
Control Delay (s)	0.1	0.0	0.0	0.0	18.0
Lane LOS	A				C
Approach Delay (s)	0.0		0.0		18.0
Approach LOS					C

Intersection Summary				
Average Delay	0.4			
Intersection Capacity Utilization	43.4%	ICU Level of Service		A
Analysis Period (min)	15			



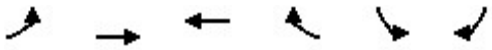
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	1	3	0	0	3	2	16	0	0	17	5
Future Volume (Veh/h)	5	1	3	0	0	3	2	16	0	0	17	5
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	6	1	4	0	0	4	2	19	0	0	20	6
Pedestrians					3						2	
Lane Width (ft)					10.0						10.0	
Walking Speed (ft/s)					4.0						4.0	
Percent Blockage					0						0	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	52	49	23	54	52	24	26			22		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	52	49	23	54	52	24	26			22		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	99	100	100	100	100	100	100			100		
cM capacity (veh/h)	940	840	1054	936	837	1049	1588			1590		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	11	4	21	26
Volume Left	6	0	2	0
Volume Right	4	4	0	6
cSH	967	1049	1588	1590
Volume to Capacity	0.01	0.00	0.00	0.00
Queue Length 95th (ft)	1	0	0	0
Control Delay (s)	8.8	8.4	0.7	0.0
Lane LOS	A	A	A	
Approach Delay (s)	8.8	8.4	0.7	0.0
Approach LOS	A	A		

Intersection Summary				
Average Delay	2.3			
Intersection Capacity Utilization	15.9%	ICU Level of Service	A	
Analysis Period (min)	15			

Lane Group	EBT	WBT	SBL
Lane Group Flow (vph)	1051	1198	42
v/c Ratio	0.45	0.44	0.03
Control Delay	5.5	4.0	4.1
Queue Delay	0.0	0.0	0.0
Total Delay	5.6	4.0	4.1
Queue Length 50th (ft)	125	92	4
Queue Length 95th (ft)	145	105	17
Internal Link Dist (ft)	150	134	207
Turn Bay Length (ft)			
Base Capacity (vph)	2342	2698	1238
Starvation Cap Reductn	153	0	0
Spillback Cap Reductn	0	14	6
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.48	0.45	0.03

Intersection Summary



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	17	939	1047	43	16	22
Future Volume (vph)	17	939	1047	43	16	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		4%	-7%		0%	
Total Lost time (s)		9.0	9.0		9.0	
Lane Util. Factor		0.95	0.95		1.00	
Frpb, ped/bikes		1.00	1.00		0.99	
Flpb, ped/bikes		1.00	1.00		1.00	
Frt		1.00	0.99		0.92	
Flt Protected		1.00	1.00		0.98	
Satd. Flow (prot)		3234	3393		1553	
Flt Permitted		0.91	1.00		0.98	
Satd. Flow (perm)		2944	3393		1553	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	19	1032	1151	47	18	24
RTOR Reduction (vph)	0	0	2	0	6	0
Lane Group Flow (vph)	0	1051	1196	0	36	0
Confl. Peds. (#/hr)	28			28	1	19
Confl. Bikes (#/hr)				15		
Turn Type	Perm	NA	NA		D.Pm	
Protected Phases		2!	2!			
Permitted Phases	2!				2!	
Actuated Green, G (s)		88.2	88.2		88.2	
Effective Green, g (s)		90.2	90.2		90.2	
Actuated g/C Ratio		0.75	0.75		0.75	
Clearance Time (s)		11.0	11.0		11.0	
Vehicle Extension (s)		1.0	1.0		1.0	
Lane Grp Cap (vph)		2212	2550		1167	
v/s Ratio Prot			0.35			
v/s Ratio Perm		c0.36			0.02	
v/c Ratio		0.48	0.47		0.03	
Uniform Delay, d1		5.8	5.7		3.8	
Progression Factor		0.65	0.47		1.00	
Incremental Delay, d2		0.7	0.5		0.0	
Delay (s)		4.4	3.2		3.8	
Level of Service		A	A		A	
Approach Delay (s)		4.4	3.2		3.8	
Approach LOS		A	A		A	

Intersection Summary			
HCM 2000 Control Delay	3.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	61.4%	ICU Level of Service	B
Analysis Period (min)	15		

! Phase conflict between lane groups.
c Critical Lane Group

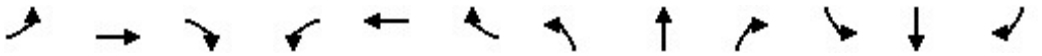
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	951	6	14	1090	0	4
Future Volume (Veh/h)	951	6	14	1090	0	4
Sign Control	Free			Free	Stop	
Grade	4%			-7%	0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	1045	7	15	1198	0	4
Pedestrians					36	
Lane Width (ft)					10.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					3	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	214			651		
pX, platoon unblocked			0.25		0.33	0.25
vC, conflicting volume			1088		1714	1084
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			0		346	0
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			96		100	99
cM capacity (veh/h)			401		195	268

Direction, Lane #	EB 1	WB 1	WB 2	NB 1
Volume Total	1052	414	799	4
Volume Left	0	15	0	0
Volume Right	7	0	0	4
cSH	1700	401	1700	268
Volume to Capacity	0.62	0.04	0.47	0.01
Queue Length 95th (ft)	0	3	0	1
Control Delay (s)	0.0	1.2	0.0	18.6
Lane LOS		A		C
Approach Delay (s)	0.0	0.4		18.6
Approach LOS				C

Intersection Summary			
Average Delay	0.3		
Intersection Capacity Utilization	60.4%	ICU Level of Service	B
Analysis Period (min)	15		

Lane Group	EBT	WBT	NBT	NBR	SBT
Lane Group Flow (vph)	1100	1147	93	111	54
v/c Ratio	0.57	0.61	0.51	0.47	0.27
Control Delay	7.8	10.7	55.6	15.0	33.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	7.8	10.7	55.6	15.0	33.0
Queue Length 50th (ft)	105	213	66	0	22
Queue Length 95th (ft)	118	266	122	54	61
Internal Link Dist (ft)	571	391	281		141
Turn Bay Length (ft)					
Base Capacity (vph)	1923	1876	184	236	198
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.57	0.61	0.51	0.47	0.27

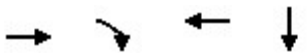
Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	917	54	31	968	21	76	7	99	21	8	19
Future Volume (vph)	8	917	54	31	968	21	76	7	99	21	8	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	10	10	10	10	10	10	10	10	10	10	10
Grade (%)		4%			-4%			-1%			5%	
Total Lost time (s)		4.0			4.0			4.0	4.0		4.0	
Lane Util. Factor		0.95			0.95			1.00	1.00		1.00	
Frpb, ped/bikes		0.99			1.00			1.00	0.66		0.96	
Flpb, ped/bikes		1.00			1.00			0.92	1.00		0.87	
Frt		0.99			1.00			1.00	0.85		0.95	
Flt Protected		1.00			1.00			0.96	1.00		0.98	
Satd. Flow (prot)		2872			3013			1386	829		1184	
Flt Permitted		0.94			0.88			0.73	1.00		0.86	
Satd. Flow (perm)		2710			2647			1055	829		1037	
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	9	1030	61	35	1088	24	85	8	111	24	9	21
RTOR Reduction (vph)	0	4	0	0	1	0	0	0	92	0	17	0
Lane Group Flow (vph)	0	1097	0	0	1146	0	0	93	19	0	37	0
Confl. Peds. (#/hr)	10		19	19		10	39		190	190		39
Confl. Bikes (#/hr)			2			5			1			
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	8%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	2	0	0	0	0	0	0
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		6			2			8			4	
Permitted Phases	6			2			8		8	4		
Actuated Green, G (s)		83.0			83.0			19.0	19.0		19.0	
Effective Green, g (s)		85.0			85.0			21.0	21.0		21.0	
Actuated g/C Ratio		0.71			0.71			0.18	0.18		0.18	
Clearance Time (s)		6.0			6.0			6.0	6.0		6.0	
Lane Grp Cap (vph)		1919			1874			184	145		181	
v/s Ratio Prot												
v/s Ratio Perm		0.40			c0.43			c0.09	0.02		0.04	
v/c Ratio		0.57			0.61			0.51	0.13		0.20	
Uniform Delay, d1		8.6			9.0			44.8	41.8		42.3	
Progression Factor		0.77			1.00			1.00	1.00		1.00	
Incremental Delay, d2		1.1			1.5			9.6	1.9		2.5	
Delay (s)		7.7			10.5			54.4	43.7		44.8	
Level of Service		A			B			D	D		D	
Approach Delay (s)		7.7			10.5			48.6			44.8	
Approach LOS		A			B			D			D	

Intersection Summary			
HCM 2000 Control Delay	13.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	73.8%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

H. Vehicular Capacity Analysis Worksheets – 2029 Background Conditions



Lane Group	EBT	EBR	WBT	SBT
Lane Group Flow (vph)	1198	7	603	158
v/c Ratio	0.60	0.01	0.34	0.60
Control Delay	10.8	5.6	4.4	53.6
Queue Delay	0.1	0.0	0.0	0.0
Total Delay	10.9	5.6	4.4	53.6
Queue Length 50th (ft)	225	1	23	111
Queue Length 95th (ft)	283	6	28	187
Internal Link Dist (ft)	1432		152	19
Turn Bay Length (ft)		90		
Base Capacity (vph)	2008	786	1791	262
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	120	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.63	0.01	0.34	0.60

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1186	7	19	578	0	0	0	0	132	22	3
Future Volume (vph)	0	1186	7	19	578	0	0	0	0	132	22	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	10	10	10	10	10	12	12	12	9	9	9
Grade (%)		7%			-7%			0%			7%	
Total Lost time (s)		4.0	4.0		4.0						4.0	
Lane Util. Factor		0.95	1.00		0.95						1.00	
Frpb, ped/bikes		1.00	0.97		1.00						1.00	
Flpb, ped/bikes		1.00	1.00		1.00						1.00	
Frt		1.00	0.85		1.00						1.00	
Flt Protected		1.00	1.00		1.00						0.96	
Satd. Flow (prot)		2869	1123		2861						1254	
Flt Permitted		1.00	1.00		0.89						0.96	
Satd. Flow (perm)		2869	1123		2558						1254	
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	0	1198	7	19	584	0	0	0	0	133	22	3
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	1	0
Lane Group Flow (vph)	0	1198	7	0	603	0	0	0	0	0	157	0
Confl. Peds. (#/hr)	7		9	9		7	5					5
Confl. Bikes (#/hr)			6			1			1			4
Heavy Vehicles (%)	2%	2%	10%	5%	4%	2%	0%	0%	0%	2%	2%	2%
Bus Blockages (#/hr)	0	0	7	0	0	0	0	0	0	0	0	0
Parking (#/hr)					0					0	0	0
Turn Type		NA	Perm	Perm	NA					Split	NA	
Protected Phases		6			2					4	4	
Permitted Phases			6	2								
Actuated Green, G (s)		82.0	82.0		82.0						23.0	
Effective Green, g (s)		84.0	84.0		84.0						25.0	
Actuated g/C Ratio		0.70	0.70		0.70						0.21	
Clearance Time (s)		6.0	6.0		6.0						6.0	
Lane Grp Cap (vph)		2008	786		1790						261	
v/s Ratio Prot		c0.42									c0.13	
v/s Ratio Perm			0.01		0.24							
v/c Ratio		0.60	0.01		0.34						0.60	
Uniform Delay, d1		9.3	5.4		7.1						43.0	
Progression Factor		1.00	1.00		0.55						1.00	
Incremental Delay, d2		1.3	0.0		0.5						9.9	
Delay (s)		10.6	5.5		4.4						52.9	
Level of Service		B	A		A						D	
Approach Delay (s)		10.6			4.4			0.0			52.9	
Approach LOS		B			A			A			D	

Intersection Summary			
HCM 2000 Control Delay	12.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	58.1%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	19	16	0	0	0	22
Future Volume (Veh/h)	19	16	0	0	0	22
Sign Control	Free			Free	Yield	
Grade	5%			0%	0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	22	19	0	0	0	26
Pedestrians					8	
Lane Width (ft)					10.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					1	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			49		40	40
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			49		40	40
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	97
cM capacity (veh/h)			1549		967	1026

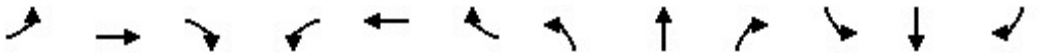
Direction, Lane #	EB 1	NB 1
Volume Total	41	26
Volume Left	0	0
Volume Right	19	26
cSH	1700	1026
Volume to Capacity	0.02	0.03
Queue Length 95th (ft)	0	2
Control Delay (s)	0.0	8.6
Lane LOS		A
Approach Delay (s)	0.0	8.6
Approach LOS		A

Intersection Summary			
Average Delay	3.3		
Intersection Capacity Utilization	15.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	1313	0	0	595	42	2	3	36	0	0	0
Future Volume (Veh/h)	5	1313	0	0	595	42	2	3	36	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			-7%			5%			0%	
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Hourly flow rate (vph)	5	1326	0	0	601	42	2	3	36	0	0	0
Pedestrians					1			5			6	
Lane Width (ft)					12.0			12.0			0.0	
Walking Speed (ft/s)					4.0			4.0			4.0	
Percent Blockage					0			0			0	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		232			230							
pX, platoon unblocked				0.79			0.79	0.79	0.79	0.79	0.79	
vC, conflicting volume	649			1331			1642	1990	669	1340	1969	328
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	649			895			1287	1726	60	906	1700	328
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			100			98	96	95	100	100	100
cM capacity (veh/h)	933			595			95	69	783	168	72	668

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1
Volume Total	447	884	401	242	41
Volume Left	5	0	0	0	2
Volume Right	0	0	0	42	36
cSH	933	1700	1700	1700	370
Volume to Capacity	0.01	0.52	0.24	0.14	0.11
Queue Length 95th (ft)	0	0	0	0	9
Control Delay (s)	0.2	0.0	0.0	0.0	15.9
Lane LOS	A				C
Approach Delay (s)	0.1		0.0		15.9
Approach LOS					C

Intersection Summary				
Average Delay	0.4			
Intersection Capacity Utilization	54.5%	ICU Level of Service		A
Analysis Period (min)	15			



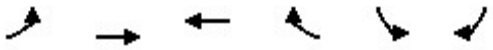
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	0	2	1	0	0	1	25	0	1	15	1
Future Volume (Veh/h)	7	0	2	1	0	0	1	25	0	1	15	1
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	8	0	2	1	0	0	1	29	0	1	17	1
Pedestrians		4			5			1				
Lane Width (ft)		10.0			10.0			10.0				
Walking Speed (ft/s)		4.0			4.0			4.0				
Percent Blockage		0			0			0				
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	54	60	22	58	60	34	22			34		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	54	60	22	58	60	34	22			34		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	99	100	100	100	100	100	100			100		
cM capacity (veh/h)	935	825	1051	927	825	1036	1589			1572		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	10	1	30	19
Volume Left	8	1	1	1
Volume Right	2	0	0	1
cSH	956	927	1589	1572
Volume to Capacity	0.01	0.00	0.00	0.00
Queue Length 95th (ft)	1	0	0	0
Control Delay (s)	8.8	8.9	0.2	0.4
Lane LOS	A	A	A	A
Approach Delay (s)	8.8	8.9	0.2	0.4
Approach LOS	A	A		

Intersection Summary				
Average Delay	1.9			
Intersection Capacity Utilization	15.2%	ICU Level of Service	A	
Analysis Period (min)	15			

Lane Group	EBT	WBT	SBL
Lane Group Flow (vph)	1364	655	25
v/c Ratio	0.60	0.47	0.02
Control Delay	6.7	6.4	5.3
Queue Delay	0.0	0.0	0.0
Total Delay	6.7	6.4	5.3
Queue Length 50th (ft)	114	146	4
Queue Length 95th (ft)	128	178	14
Internal Link Dist (ft)	150	134	207
Turn Bay Length (ft)			
Base Capacity (vph)	2264	1397	1274
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.60	0.47	0.02

Intersection Summary



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	57	1293	629	20	17	8
Future Volume (vph)	57	1293	629	20	17	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		4%	-7%		0%	
Total Lost time (s)		9.0	9.0		9.0	
Lane Util. Factor		0.95	1.00		1.00	
Frpb, ped/bikes		1.00	1.00		0.99	
Flpb, ped/bikes		1.00	1.00		1.00	
Frt		1.00	1.00		0.96	
Flt Protected		1.00	1.00		0.97	
Satd. Flow (prot)		3230	1757		1600	
Flt Permitted		0.88	1.00		0.97	
Satd. Flow (perm)		2847	1757		1600	
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	58	1306	635	20	17	8
RTOR Reduction (vph)	0	0	1	0	2	0
Lane Group Flow (vph)	0	1364	654	0	23	0
Confl. Peds. (#/hr)	9			9	1	5
Confl. Bikes (#/hr)				4		7
Heavy Vehicles (%)	2%	2%	4%	2%	2%	2%
Turn Type	Perm	NA	NA		D.Pm	
Protected Phases		2!	2!			
Permitted Phases	2!				2!	
Actuated Green, G (s)		88.2	88.2		88.2	
Effective Green, g (s)		90.2	90.2		90.2	
Actuated g/C Ratio		0.75	0.75		0.75	
Clearance Time (s)		11.0	11.0		11.0	
Vehicle Extension (s)		1.0	1.0		1.0	
Lane Grp Cap (vph)		2139	1320		1202	
v/s Ratio Prot			0.37			
v/s Ratio Perm		c0.48			0.01	
v/c Ratio		0.64	0.50		0.02	
Uniform Delay, d1		7.1	5.9		3.8	
Progression Factor		0.59	0.67		1.00	
Incremental Delay, d2		1.2	1.0		0.0	
Delay (s)		5.4	5.0		3.8	
Level of Service		A	A		A	
Approach Delay (s)		5.4	5.0		3.8	
Approach LOS		A	A		A	

Intersection Summary			
HCM 2000 Control Delay	5.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	101.0%	ICU Level of Service	G
Analysis Period (min)	15		

! Phase conflict between lane groups.

c Critical Lane Group

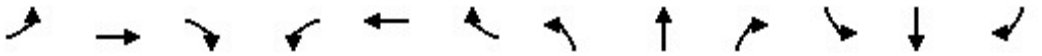
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1300	10	4	649	0	2
Future Volume (Veh/h)	1300	10	4	649	0	2
Sign Control	Free			Free	Stop	
Grade	4%			-7%	0%	
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99
Hourly flow rate (vph)	1313	10	4	656	0	2
Pedestrians					26	
Lane Width (ft)					10.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					2	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	214			651		
pX, platoon unblocked			0.82		0.91	0.82
vC, conflicting volume			1349		2008	688
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			986		1321	180
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		100	100
cM capacity (veh/h)			561		131	670

Direction, Lane #	EB 1	EB 2	WB 1	NB 1
Volume Total	875	448	660	2
Volume Left	0	0	4	0
Volume Right	0	10	0	2
cSH	1700	1700	561	670
Volume to Capacity	0.51	0.26	0.01	0.00
Queue Length 95th (ft)	0	0	1	0
Control Delay (s)	0.0	0.0	0.2	10.4
Lane LOS			A	B
Approach Delay (s)	0.0		0.2	10.4
Approach LOS				B

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	46.3%	ICU Level of Service	A
Analysis Period (min)	15		

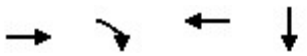
Lane Group	EBT	WBT	WBR	NBT	NBR	SBT
Lane Group Flow (vph)	1351	675	34	25	14	16
v/c Ratio	0.67	0.64	0.04	0.16	0.08	0.09
Control Delay	4.9	10.7	0.3	48.9	0.8	39.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.9	10.7	0.3	48.9	0.8	39.0
Queue Length 50th (ft)	45	217	0	17	0	8
Queue Length 95th (ft)	51	328	2	45	0	30
Internal Link Dist (ft)	571	391		281		141
Turn Bay Length (ft)						
Base Capacity (vph)	2020	1050	920	157	186	183
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.67	0.64	0.04	0.16	0.08	0.09

Intersection Summary



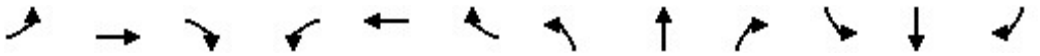
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	16	1232	63	30	625	33	18	6	14	3	9	4
Future Volume (vph)	16	1232	63	30	625	33	18	6	14	3	9	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	10	10	10	10	10	10	10	10	10	10	10
Grade (%)		4%			-4%			-1%			5%	
Total Lost time (s)		4.0			4.0	4.0		4.0	4.0		4.0	
Lane Util. Factor		0.95			1.00	1.00		1.00	1.00		1.00	
Frpb, ped/bikes		1.00			1.00	0.90		1.00	0.79		0.98	
Flpb, ped/bikes		1.00			1.00	1.00		0.96	1.00		0.96	
Frt		0.99			1.00	0.85		1.00	0.85		0.97	
Flt Protected		1.00			1.00	1.00		0.96	1.00		0.99	
Satd. Flow (prot)		2847			1572	1206		1366	984		1380	
Flt Permitted		0.94			0.89	1.00		0.82	1.00		0.96	
Satd. Flow (perm)		2689			1401	1206		1157	984		1340	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	16	1270	65	31	644	34	19	6	14	3	9	4
RTOR Reduction (vph)	0	3	0	0	0	9	0	0	12	0	3	0
Lane Group Flow (vph)	0	1348	0	0	675	26	0	25	2	0	13	0
Confl. Peds. (#/hr)	17		17	17		17	14		77	77		14
Confl. Bikes (#/hr)			11			2						
Heavy Vehicles (%)	2%	3%	5%	10%	3%	2%	10%	2%	10%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	2	0	0	0	0	0	0
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA	Perm	Perm	NA	
Protected Phases		6			2			8			4	
Permitted Phases	6			2		2	8		8	4		
Actuated Green, G (s)		88.0			88.0	88.0		14.0	14.0		14.0	
Effective Green, g (s)		90.0			90.0	90.0		16.0	16.0		16.0	
Actuated g/C Ratio		0.75			0.75	0.75		0.13	0.13		0.13	
Clearance Time (s)		6.0			6.0	6.0		6.0	6.0		6.0	
Lane Grp Cap (vph)		2016			1050	904		154	131		178	
v/s Ratio Prot												
v/s Ratio Perm		c0.50			0.48	0.02		c0.02	0.00		0.01	
v/c Ratio		0.67			0.64	0.03		0.16	0.01		0.07	
Uniform Delay, d1		7.5			7.2	3.8		46.1	45.2		45.5	
Progression Factor		0.45			1.00	1.00		1.00	1.00		1.00	
Incremental Delay, d2		1.5			3.0	0.1		2.3	0.2		0.8	
Delay (s)		4.8			10.3	3.9		48.3	45.4		46.3	
Level of Service		A			B	A		D	D		D	
Approach Delay (s)		4.8			10.0			47.3			46.3	
Approach LOS		A			A			D			D	

Intersection Summary			
HCM 2000 Control Delay	7.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	82.0%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBT	EBR	WBT	SBT
Lane Group Flow (vph)	958	3	1139	110
v/c Ratio	0.45	0.00	0.62	0.52
Control Delay	6.8	4.0	3.7	55.2
Queue Delay	0.0	0.0	0.1	0.0
Total Delay	6.8	4.0	3.7	55.2
Queue Length 50th (ft)	131	1	2	78
Queue Length 95th (ft)	166	3	1	140
Internal Link Dist (ft)	1432		152	19
Turn Bay Length (ft)		90		
Base Capacity (vph)	2127	892	1831	210
Starvation Cap Reductn	0	0	51	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.45	0.00	0.64	0.52

Intersection Summary



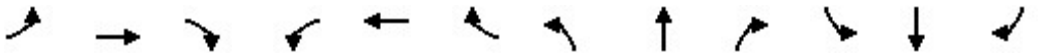
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	891	3	48	1011	0	0	0	0	79	21	2
Future Volume (vph)	0	891	3	48	1011	0	0	0	0	79	21	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	10	10	10	10	10	12	12	12	9	9	9
Grade (%)		7%			-7%			0%			7%	
Total Lost time (s)		4.0	4.0		4.0						4.0	
Lane Util. Factor		0.95	1.00		0.95						1.00	
Frpb, ped/bikes		1.00	0.96		1.00						1.00	
Flpb, ped/bikes		1.00	1.00		1.00						1.00	
Frt		1.00	0.85		1.00						1.00	
Flt Protected		1.00	1.00		1.00						0.96	
Satd. Flow (prot)		2869	1203		2916						1258	
Flt Permitted		1.00	1.00		0.85						0.96	
Satd. Flow (perm)		2869	1203		2470						1258	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	0	958	3	52	1087	0	0	0	0	85	23	2
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	1	0
Lane Group Flow (vph)	0	958	3	0	1139	0	0	0	0	0	109	0
Confl. Peds. (#/hr)	16		22	22		16	3					3
Confl. Bikes (#/hr)			3			11			1			2
Bus Blockages (#/hr)	0	0	7	0	0	0	0	0	0	0	0	0
Parking (#/hr)					0					0	0	0
Turn Type		NA	Perm	Perm	NA					Split	NA	
Protected Phases		6			2					4	4	
Permitted Phases			6	2								
Actuated Green, G (s)		87.0	87.0		87.0						18.0	
Effective Green, g (s)		89.0	89.0		89.0						20.0	
Actuated g/C Ratio		0.74	0.74		0.74						0.17	
Clearance Time (s)		6.0	6.0		6.0						6.0	
Lane Grp Cap (vph)		2127	892		1831						209	
v/s Ratio Prot		0.33									c0.09	
v/s Ratio Perm			0.00		c0.46							
v/c Ratio		0.45	0.00		0.62						0.52	
Uniform Delay, d1		6.0	4.0		7.4						45.6	
Progression Factor		1.00	1.00		0.29						1.00	
Incremental Delay, d2		0.7	0.0		1.4						9.0	
Delay (s)		6.7	4.0		3.6						54.7	
Level of Service		A	A		A						D	
Approach Delay (s)		6.7			3.6			0.0			54.7	
Approach LOS		A			A			A			D	

Intersection Summary			
HCM 2000 Control Delay	7.5	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	85.0%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	17	24	0	0	0	26
Future Volume (Veh/h)	17	24	0	0	0	26
Sign Control	Free			Free	Yield	
Grade	5%			0%	0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	20	28	0	0	0	30
Pedestrians					3	
Lane Width (ft)					10.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					0	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			51		37	37
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			51		37	37
tC, single (s)			4.1		6.4	6.3
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.4
p0 queue free %			100		100	97
cM capacity (veh/h)			1552		973	1016

Direction, Lane #	EB 1	NB 1
Volume Total	48	30
Volume Left	0	0
Volume Right	28	30
cSH	1700	1016
Volume to Capacity	0.03	0.03
Queue Length 95th (ft)	0	2
Control Delay (s)	0.0	8.7
Lane LOS		A
Approach Delay (s)	0.0	8.7
Approach LOS		A

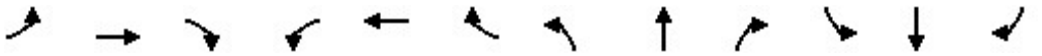
Intersection Summary			
Average Delay	3.3		
Intersection Capacity Utilization	14.3%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	965	0	0	1060	88	1	7	35	0	0	0
Future Volume (Veh/h)	1	965	0	0	1060	88	1	7	35	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			-7%			5%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	1049	0	0	1152	96	1	8	38	0	0	0
Pedestrians								22			14	
Lane Width (ft)								12.0			0.0	
Walking Speed (ft/s)								4.0			4.0	
Percent Blockage								2			0	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		232			230							
pX, platoon unblocked	0.85			0.88			0.91	0.91	0.88	0.91	0.91	0.85
vC, conflicting volume	1262			1071			1649	2335	546	1782	2287	638
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	953			810			923	1678	214	1070	1625	219
tC, single (s)	4.1			4.1			7.5	6.5	7.0	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.4	3.5	4.0	3.3
p0 queue free %	100			100			99	90	94	100	100	100
cM capacity (veh/h)	608			702			197	83	673	137	90	667

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1
Volume Total	351	699	768	480	47
Volume Left	1	0	0	0	1
Volume Right	0	0	0	96	38
cSH	608	1700	1700	1700	298
Volume to Capacity	0.00	0.41	0.45	0.28	0.16
Queue Length 95th (ft)	0	0	0	0	14
Control Delay (s)	0.1	0.0	0.0	0.0	19.3
Lane LOS	A				C
Approach Delay (s)	0.0		0.0		19.3
Approach LOS					C

Intersection Summary				
Average Delay	0.4			
Intersection Capacity Utilization	45.8%	ICU Level of Service		A
Analysis Period (min)	15			



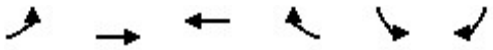
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	1	3	0	0	3	2	17	0	0	17	5
Future Volume (Veh/h)	5	1	3	0	0	3	2	17	0	0	17	5
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	6	1	4	0	0	4	2	20	0	0	20	6
Pedestrians					3						2	
Lane Width (ft)					10.0						10.0	
Walking Speed (ft/s)					4.0						4.0	
Percent Blockage					0						0	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	53	50	23	54	53	25	26			23		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	53	50	23	54	53	25	26			23		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	99	100	100	100	100	100	100			100		
cM capacity (veh/h)	938	839	1054	935	835	1047	1588			1589		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	11	4	22	26
Volume Left	6	0	2	0
Volume Right	4	4	0	6
cSH	966	1047	1588	1589
Volume to Capacity	0.01	0.00	0.00	0.00
Queue Length 95th (ft)	1	0	0	0
Control Delay (s)	8.8	8.4	0.7	0.0
Lane LOS	A	A	A	
Approach Delay (s)	8.8	8.4	0.7	0.0
Approach LOS	A	A		

Intersection Summary				
Average Delay	2.3			
Intersection Capacity Utilization	15.9%	ICU Level of Service	A	
Analysis Period (min)	15			

Lane Group	EBT	WBT	SBL
Lane Group Flow (vph)	1098	1284	45
v/c Ratio	0.47	0.48	0.04
Control Delay	5.7	4.0	4.0
Queue Delay	0.0	0.0	0.0
Total Delay	5.7	4.0	4.0
Queue Length 50th (ft)	131	95	5
Queue Length 95th (ft)	151	109	18
Internal Link Dist (ft)	150	134	207
Turn Bay Length (ft)			
Base Capacity (vph)	2334	2701	1237
Starvation Cap Reductn	106	0	0
Spillback Cap Reductn	0	21	9
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.49	0.48	0.04

Intersection Summary



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	17	982	1126	43	17	24
Future Volume (vph)	17	982	1126	43	17	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		4%	-7%		0%	
Total Lost time (s)		9.0	9.0		9.0	
Lane Util. Factor		0.95	0.95		1.00	
Frpb, ped/bikes		1.00	1.00		0.99	
Flpb, ped/bikes		1.00	1.00		1.00	
Frt		1.00	0.99		0.92	
Flt Protected		1.00	1.00		0.98	
Satd. Flow (prot)		3234	3394		1552	
Flt Permitted		0.91	1.00		0.98	
Satd. Flow (perm)		2935	3394		1552	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	19	1079	1237	47	19	26
RTOR Reduction (vph)	0	0	2	0	6	0
Lane Group Flow (vph)	0	1098	1282	0	39	0
Confl. Peds. (#/hr)	28			28	1	19
Confl. Bikes (#/hr)				15		
Turn Type	Perm	NA	NA		D.Pm	
Protected Phases		2!	2!			
Permitted Phases	2!				2!	
Actuated Green, G (s)		88.2	88.2		88.2	
Effective Green, g (s)		90.2	90.2		90.2	
Actuated g/C Ratio		0.75	0.75		0.75	
Clearance Time (s)		11.0	11.0		11.0	
Vehicle Extension (s)		1.0	1.0		1.0	
Lane Grp Cap (vph)		2206	2551		1166	
v/s Ratio Prot			c0.38			
v/s Ratio Perm		0.37			0.02	
v/c Ratio		0.50	0.50		0.03	
Uniform Delay, d1		5.9	5.9		3.8	
Progression Factor		0.64	0.45		1.00	
Incremental Delay, d2		0.7	0.6		0.1	
Delay (s)		4.5	3.2		3.8	
Level of Service		A	A		A	
Approach Delay (s)		4.5	3.2		3.8	
Approach LOS		A	A		A	

Intersection Summary			
HCM 2000 Control Delay	3.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	62.5%	ICU Level of Service	B
Analysis Period (min)	15		

! Phase conflict between lane groups.
c Critical Lane Group

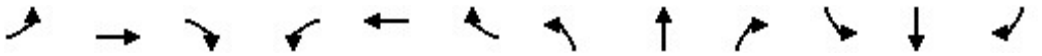
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	994	6	14	1170	0	4
Future Volume (Veh/h)	994	6	14	1170	0	4
Sign Control	Free			Free	Stop	
Grade	4%			-7%	0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	1092	7	15	1286	0	4
Pedestrians					36	
Lane Width (ft)					10.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					3	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	214			651		
pX, platoon unblocked			0.25		0.35	0.25
vC, conflicting volume			1135		1804	1132
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			55		374	42
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			96		100	98
cM capacity (veh/h)			381		194	251

Direction, Lane #	EB 1	WB 1	WB 2	NB 1
Volume Total	1099	444	857	4
Volume Left	0	15	0	0
Volume Right	7	0	0	4
cSH	1700	381	1700	251
Volume to Capacity	0.65	0.04	0.50	0.02
Queue Length 95th (ft)	0	3	0	1
Control Delay (s)	0.0	1.3	0.0	19.6
Lane LOS		A		C
Approach Delay (s)	0.0	0.4		19.6
Approach LOS				C

Intersection Summary			
Average Delay	0.3		
Intersection Capacity Utilization	62.7%	ICU Level of Service	B
Analysis Period (min)	15		

Lane Group	EBT	WBT	NBT	NBR	SBT
Lane Group Flow (vph)	1149	1234	93	111	54
v/c Ratio	0.60	0.66	0.51	0.47	0.27
Control Delay	8.1	11.6	55.6	15.0	33.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	8.1	11.6	55.6	15.0	33.0
Queue Length 50th (ft)	110	244	66	0	22
Queue Length 95th (ft)	123	305	122	54	61
Internal Link Dist (ft)	571	391	281		141
Turn Bay Length (ft)					
Base Capacity (vph)	1921	1876	184	236	198
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.60	0.66	0.51	0.47	0.27

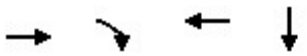
Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	960	54	31	1046	21	76	7	99	21	8	19
Future Volume (vph)	8	960	54	31	1046	21	76	7	99	21	8	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	10	10	10	10	10	10	10	10	10	10	10
Grade (%)		4%			-4%			-1%			5%	
Total Lost time (s)		4.0			4.0			4.0	4.0		4.0	
Lane Util. Factor		0.95			0.95			1.00	1.00		1.00	
Frpb, ped/bikes		0.99			1.00			1.00	0.66		0.96	
Flpb, ped/bikes		1.00			1.00			0.92	1.00		0.87	
Frt		0.99			1.00			1.00	0.85		0.95	
Flt Protected		1.00			1.00			0.96	1.00		0.98	
Satd. Flow (prot)		2874			3014			1386	829		1184	
Flt Permitted		0.94			0.88			0.73	1.00		0.86	
Satd. Flow (perm)		2709			2648			1055	829		1037	
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	9	1079	61	35	1175	24	85	8	111	24	9	21
RTOR Reduction (vph)	0	4	0	0	1	0	0	0	92	0	17	0
Lane Group Flow (vph)	0	1146	0	0	1233	0	0	93	19	0	37	0
Confl. Peds. (#/hr)	10		19	19		10	39		190	190		39
Confl. Bikes (#/hr)			2			5			1			
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	8%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	2	0	0	0	0	0	0
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		6			2			8			4	
Permitted Phases	6			2			8		8	4		
Actuated Green, G (s)		83.0			83.0			19.0	19.0		19.0	
Effective Green, g (s)		85.0			85.0			21.0	21.0		21.0	
Actuated g/C Ratio		0.71			0.71			0.18	0.18		0.18	
Clearance Time (s)		6.0			6.0			6.0	6.0		6.0	
Lane Grp Cap (vph)		1918			1875			184	145		181	
v/s Ratio Prot												
v/s Ratio Perm		0.42			c0.47			c0.09	0.02		0.04	
v/c Ratio		0.60			0.66			0.51	0.13		0.20	
Uniform Delay, d1		8.8			9.6			44.8	41.8		42.3	
Progression Factor		0.76			1.00			1.00	1.00		1.00	
Incremental Delay, d2		1.3			1.8			9.6	1.9		2.5	
Delay (s)		8.0			11.4			54.4	43.7		44.8	
Level of Service		A			B			D	D		D	
Approach Delay (s)		8.0			11.4			48.6			44.8	
Approach LOS		A			B			D			D	

Intersection Summary			
HCM 2000 Control Delay	13.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	76.1%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

I. Vehicular Capacity Analysis Worksheets – 2029 Total Future Conditions



Lane Group	EBT	EBR	WBT	SBT
Lane Group Flow (vph)	1200	6	606	158
v/c Ratio	0.60	0.01	0.34	0.60
Control Delay	10.8	5.5	4.4	53.6
Queue Delay	0.1	0.0	0.0	0.0
Total Delay	10.9	5.5	4.4	53.6
Queue Length 50th (ft)	226	1	23	111
Queue Length 95th (ft)	283	5	28	187
Internal Link Dist (ft)	1432		152	19
Turn Bay Length (ft)		90		
Base Capacity (vph)	2008	786	1781	262
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	123	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.64	0.01	0.34	0.60

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1188	6	20	580	0	0	0	0	132	22	3
Future Volume (vph)	0	1188	6	20	580	0	0	0	0	132	22	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	10	10	10	10	10	12	12	12	9	9	9
Grade (%)		7%			-7%			0%			7%	
Total Lost time (s)		4.0	4.0		4.0						4.0	
Lane Util. Factor		0.95	1.00		0.95						1.00	
Frpb, ped/bikes		1.00	0.97		1.00						1.00	
Flpb, ped/bikes		1.00	1.00		1.00						1.00	
Frt		1.00	0.85		1.00						1.00	
Flt Protected		1.00	1.00		1.00						0.96	
Satd. Flow (prot)		2869	1123		2861						1254	
Flt Permitted		1.00	1.00		0.89						0.96	
Satd. Flow (perm)		2869	1123		2545						1254	
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	0	1200	6	20	586	0	0	0	0	133	22	3
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	1	0
Lane Group Flow (vph)	0	1200	6	0	606	0	0	0	0	0	157	0
Confl. Peds. (#/hr)	7		9	9		7	5					5
Confl. Bikes (#/hr)			6			1			1			4
Heavy Vehicles (%)	2%	2%	10%	5%	4%	2%	0%	0%	0%	2%	2%	2%
Bus Blockages (#/hr)	0	0	7	0	0	0	0	0	0	0	0	0
Parking (#/hr)					0					0	0	0
Turn Type		NA	Perm	Perm	NA					Split	NA	
Protected Phases		6			2					4	4	
Permitted Phases			6	2								
Actuated Green, G (s)		82.0	82.0		82.0						23.0	
Effective Green, g (s)		84.0	84.0		84.0						25.0	
Actuated g/C Ratio		0.70	0.70		0.70						0.21	
Clearance Time (s)		6.0	6.0		6.0						6.0	
Lane Grp Cap (vph)		2008	786		1781						261	
v/s Ratio Prot		c0.42									c0.13	
v/s Ratio Perm			0.01		0.24							
v/c Ratio		0.60	0.01		0.34						0.60	
Uniform Delay, d1		9.3	5.4		7.1						43.0	
Progression Factor		1.00	1.00		0.55						1.00	
Incremental Delay, d2		1.3	0.0		0.5						9.9	
Delay (s)		10.6	5.4		4.4						52.9	
Level of Service		B	A		A						D	
Approach Delay (s)		10.6			4.4			0.0			52.9	
Approach LOS		B			A			A			D	

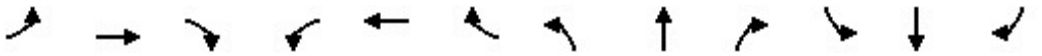
Intersection Summary			
HCM 2000 Control Delay	12.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	58.2%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	19	16	0	0	0	22
Future Volume (Veh/h)	19	16	0	0	0	22
Sign Control	Free			Free	Yield	
Grade	5%			0%	0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	22	19	0	0	0	26
Pedestrians					8	
Lane Width (ft)					10.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					1	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			49		40	40
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			49		40	40
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	97
cM capacity (veh/h)			1549		967	1026

Direction, Lane #	EB 1	NB 1
Volume Total	41	26
Volume Left	0	0
Volume Right	19	26
cSH	1700	1026
Volume to Capacity	0.02	0.03
Queue Length 95th (ft)	0	2
Control Delay (s)	0.0	8.6
Lane LOS		A
Approach Delay (s)	0.0	8.6
Approach LOS		A

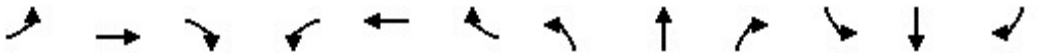
Intersection Summary			
Average Delay	3.3		
Intersection Capacity Utilization	15.7%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	1315	0	0	598	42	2	3	36	0	0	0
Future Volume (Veh/h)	5	1315	0	0	598	42	2	3	36	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			-7%			5%			0%	
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Hourly flow rate (vph)	5	1328	0	0	604	42	2	3	36	0	0	0
Pedestrians					1			5			6	
Lane Width (ft)					12.0			12.0			0.0	
Walking Speed (ft/s)					4.0			4.0			4.0	
Percent Blockage					0			0			0	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		232			230							
pX, platoon unblocked				0.79			0.79	0.79	0.79	0.79	0.79	
vC, conflicting volume	652			1333			1645	1995	670	1344	1974	329
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	652			896			1290	1732	59	909	1705	329
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			100			98	96	95	100	100	100
cM capacity (veh/h)	930			594			94	68	784	167	71	667

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1
Volume Total	448	885	403	243	41
Volume Left	5	0	0	0	2
Volume Right	0	0	0	42	36
cSH	930	1700	1700	1700	369
Volume to Capacity	0.01	0.52	0.24	0.14	0.11
Queue Length 95th (ft)	0	0	0	0	9
Control Delay (s)	0.2	0.0	0.0	0.0	16.0
Lane LOS	A				C
Approach Delay (s)	0.1		0.0		16.0
Approach LOS					C

Intersection Summary				
Average Delay	0.4			
Intersection Capacity Utilization	54.6%	ICU Level of Service		A
Analysis Period (min)	15			



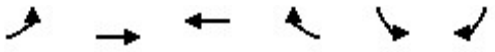
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	0	2	0	0	0	1	25	0	1	16	0
Future Volume (Veh/h)	7	0	2	0	0	0	1	25	0	1	16	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	8	0	2	0	0	0	1	29	0	1	18	0
Pedestrians		4			5			1				
Lane Width (ft)		10.0			10.0			10.0				
Walking Speed (ft/s)		4.0			4.0			4.0				
Percent Blockage		0			0			0				
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	55	60	23	59	60	34	22			34		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	55	60	23	59	60	34	22			34		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	99	100	100	100	100	100	100			100		
cM capacity (veh/h)	935	825	1050	926	825	1036	1589			1572		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	10	0	30	19
Volume Left	8	0	1	1
Volume Right	2	0	0	0
cSH	956	1700	1589	1572
Volume to Capacity	0.01	0.00	0.00	0.00
Queue Length 95th (ft)	1	0	0	0
Control Delay (s)	8.8	0.0	0.2	0.4
Lane LOS	A	A	A	A
Approach Delay (s)	8.8	0.0	0.2	0.4
Approach LOS	A	A		

Intersection Summary				
Average Delay	1.7			
Intersection Capacity Utilization	15.2%	ICU Level of Service	A	
Analysis Period (min)	15			

Lane Group	EBT	WBT	SBL
Lane Group Flow (vph)	1366	658	25
v/c Ratio	0.60	0.47	0.02
Control Delay	6.7	6.4	5.3
Queue Delay	0.0	0.0	0.0
Total Delay	6.7	6.4	5.3
Queue Length 50th (ft)	114	146	4
Queue Length 95th (ft)	128	179	14
Internal Link Dist (ft)	150	134	207
Turn Bay Length (ft)			
Base Capacity (vph)	2261	1397	1274
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.60	0.47	0.02

Intersection Summary



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	57	1295	632	20	17	8
Future Volume (vph)	57	1295	632	20	17	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		4%	-7%		0%	
Total Lost time (s)		9.0	9.0		9.0	
Lane Util. Factor		0.95	1.00		1.00	
Frpb, ped/bikes		1.00	1.00		0.99	
Flpb, ped/bikes		1.00	1.00		1.00	
Frt		1.00	1.00		0.96	
Flt Protected		1.00	1.00		0.97	
Satd. Flow (prot)		3230	1757		1600	
Flt Permitted		0.88	1.00		0.97	
Satd. Flow (perm)		2846	1757		1600	
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	58	1308	638	20	17	8
RTOR Reduction (vph)	0	0	1	0	2	0
Lane Group Flow (vph)	0	1366	657	0	23	0
Confl. Peds. (#/hr)	9			9	1	5
Confl. Bikes (#/hr)				4		7
Heavy Vehicles (%)	2%	2%	4%	2%	2%	2%
Turn Type	Perm	NA	NA		D.Pm	
Protected Phases		2!	2!			
Permitted Phases	2!				2!	
Actuated Green, G (s)		88.2	88.2		88.2	
Effective Green, g (s)		90.2	90.2		90.2	
Actuated g/C Ratio		0.75	0.75		0.75	
Clearance Time (s)		11.0	11.0		11.0	
Vehicle Extension (s)		1.0	1.0		1.0	
Lane Grp Cap (vph)		2139	1320		1202	
v/s Ratio Prot			0.37			
v/s Ratio Perm		c0.48			0.01	
v/c Ratio		0.64	0.50		0.02	
Uniform Delay, d1		7.1	5.9		3.8	
Progression Factor		0.59	0.67		1.00	
Incremental Delay, d2		1.2	1.0		0.0	
Delay (s)		5.4	5.0		3.8	
Level of Service		A	A		A	
Approach Delay (s)		5.4	5.0		3.8	
Approach LOS		A	A		A	

Intersection Summary			
HCM 2000 Control Delay	5.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	101.0%	ICU Level of Service	G
Analysis Period (min)	15		

! Phase conflict between lane groups.

c Critical Lane Group

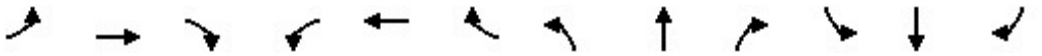
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1300	12	6	652	0	8
Future Volume (Veh/h)	1300	12	6	652	0	8
Sign Control	Free			Free	Stop	
Grade	4%			-7%	0%	
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99
Hourly flow rate (vph)	1313	12	6	659	0	8
Pedestrians					26	
Lane Width (ft)					10.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					2	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	214			651		
pX, platoon unblocked			0.82		0.91	0.82
vC, conflicting volume			1351		2016	688
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			988		1323	179
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		100	99
cM capacity (veh/h)			560		130	670

Direction, Lane #	EB 1	EB 2	WB 1	NB 1
Volume Total	875	450	665	8
Volume Left	0	0	6	0
Volume Right	0	12	0	8
cSH	1700	1700	560	670
Volume to Capacity	0.51	0.26	0.01	0.01
Queue Length 95th (ft)	0	0	1	1
Control Delay (s)	0.0	0.0	0.3	10.4
Lane LOS			A	B
Approach Delay (s)	0.0		0.3	10.4
Approach LOS				B

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	46.3%	ICU Level of Service	A
Analysis Period (min)	15		

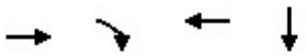
Lane Group	EBT	WBT	WBR	NBT	NBR	SBT
Lane Group Flow (vph)	1357	680	34	25	14	16
v/c Ratio	0.67	0.65	0.04	0.16	0.08	0.09
Control Delay	4.9	10.8	0.3	49.0	0.8	39.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.9	10.8	0.3	49.0	0.8	39.1
Queue Length 50th (ft)	45	220	0	17	0	8
Queue Length 95th (ft)	51	334	2	45	0	30
Internal Link Dist (ft)	571	391		281		141
Turn Bay Length (ft)						
Base Capacity (vph)	2020	1050	920	154	186	182
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.67	0.65	0.04	0.16	0.08	0.09

Intersection Summary



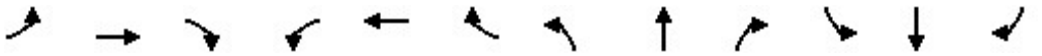
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	16	1238	63	30	630	33	18	6	14	3	9	4
Future Volume (vph)	16	1238	63	30	630	33	18	6	14	3	9	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	10	10	10	10	10	10	10	10	10	10	10
Grade (%)		4%			-4%			-1%			5%	
Total Lost time (s)		4.0			4.0	4.0		4.0	4.0		4.0	
Lane Util. Factor		0.95			1.00	1.00		1.00	1.00		1.00	
Frpb, ped/bikes		1.00			1.00	0.90		1.00	0.79		0.98	
Flpb, ped/bikes		1.00			1.00	1.00		0.96	1.00		0.96	
Frt		0.99			1.00	0.85		1.00	0.85		0.97	
Flt Protected		1.00			1.00	1.00		0.96	1.00		0.99	
Satd. Flow (prot)		2847			1572	1206		1366	984		1380	
Flt Permitted		0.94			0.89	1.00		0.82	1.00		0.96	
Satd. Flow (perm)		2689			1401	1206		1157	984		1340	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	16	1276	65	31	649	34	19	6	14	3	9	4
RTOR Reduction (vph)	0	3	0	0	0	9	0	0	12	0	3	0
Lane Group Flow (vph)	0	1354	0	0	680	26	0	25	2	0	13	0
Confl. Peds. (#/hr)	17		17	17		17	14		77	77		14
Confl. Bikes (#/hr)			11			2						
Heavy Vehicles (%)	2%	3%	5%	10%	3%	2%	10%	2%	10%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	2	0	0	0	0	0	0
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA	Perm	Perm	NA	
Protected Phases		6			2			8			4	
Permitted Phases	6			2		2	8		8	4		
Actuated Green, G (s)		88.0			88.0	88.0		14.0	14.0		14.0	
Effective Green, g (s)		90.0			90.0	90.0		16.0	16.0		16.0	
Actuated g/C Ratio		0.75			0.75	0.75		0.13	0.13		0.13	
Clearance Time (s)		6.0			6.0	6.0		6.0	6.0		6.0	
Lane Grp Cap (vph)		2016			1050	904		154	131		178	
v/s Ratio Prot												
v/s Ratio Perm		c0.50			0.49	0.02		c0.02	0.00		0.01	
v/c Ratio		0.67			0.65	0.03		0.16	0.01		0.07	
Uniform Delay, d1		7.6			7.3	3.8		46.1	45.2		45.5	
Progression Factor		0.45			1.00	1.00		1.00	1.00		1.00	
Incremental Delay, d2		1.5			3.1	0.1		2.3	0.2		0.8	
Delay (s)		4.9			10.4	3.9		48.3	45.4		46.3	
Level of Service		A			B	A		D	D		D	
Approach Delay (s)		4.9			10.1			47.3			46.3	
Approach LOS		A			B			D			D	

Intersection Summary			
HCM 2000 Control Delay	7.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	82.3%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBT	EBR	WBT	SBT
Lane Group Flow (vph)	960	3	1141	110
v/c Ratio	0.45	0.00	0.62	0.52
Control Delay	6.8	4.0	3.6	55.2
Queue Delay	0.0	0.0	0.1	0.0
Total Delay	6.8	4.0	3.7	55.2
Queue Length 50th (ft)	131	1	2	78
Queue Length 95th (ft)	166	3	1	140
Internal Link Dist (ft)	1432		152	19
Turn Bay Length (ft)		90		
Base Capacity (vph)	2127	892	1831	210
Starvation Cap Reductn	0	0	51	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.45	0.00	0.64	0.52

Intersection Summary



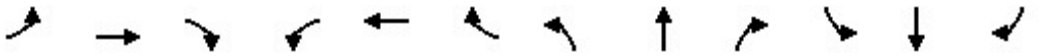
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	893	3	48	1013	0	0	0	0	79	21	2
Future Volume (vph)	0	893	3	48	1013	0	0	0	0	79	21	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	10	10	10	10	10	12	12	12	9	9	9
Grade (%)		7%			-7%			0%			7%	
Total Lost time (s)		4.0	4.0		4.0						4.0	
Lane Util. Factor		0.95	1.00		0.95						1.00	
Frpb, ped/bikes		1.00	0.96		1.00						1.00	
Flpb, ped/bikes		1.00	1.00		1.00						1.00	
Frt		1.00	0.85		1.00						1.00	
Flt Protected		1.00	1.00		1.00						0.96	
Satd. Flow (prot)		2869	1203		2916						1258	
Flt Permitted		1.00	1.00		0.84						0.96	
Satd. Flow (perm)		2869	1203		2470						1258	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	0	960	3	52	1089	0	0	0	0	85	23	2
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	1	0
Lane Group Flow (vph)	0	960	3	0	1141	0	0	0	0	0	109	0
Confl. Peds. (#/hr)	16		22	22		16	3					3
Confl. Bikes (#/hr)			3			11			1			2
Bus Blockages (#/hr)	0	0	7	0	0	0	0	0	0	0	0	0
Parking (#/hr)					0					0	0	0
Turn Type		NA	Perm	Perm	NA					Split	NA	
Protected Phases		6			2					4	4	
Permitted Phases			6	2								
Actuated Green, G (s)		87.0	87.0		87.0						18.0	
Effective Green, g (s)		89.0	89.0		89.0						20.0	
Actuated g/C Ratio		0.74	0.74		0.74						0.17	
Clearance Time (s)		6.0	6.0		6.0						6.0	
Lane Grp Cap (vph)		2127	892		1831						209	
v/s Ratio Prot		0.33									c0.09	
v/s Ratio Perm			0.00		c0.46							
v/c Ratio		0.45	0.00		0.62						0.52	
Uniform Delay, d1		6.0	4.0		7.4						45.6	
Progression Factor		1.00	1.00		0.28						1.00	
Incremental Delay, d2		0.7	0.0		1.4						9.0	
Delay (s)		6.7	4.0		3.6						54.7	
Level of Service		A	A		A						D	
Approach Delay (s)		6.7			3.6			0.0			54.7	
Approach LOS		A			A			A			D	

Intersection Summary			
HCM 2000 Control Delay	7.5	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	85.1%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	17	24	0	0	0	24
Future Volume (Veh/h)	17	24	0	0	0	24
Sign Control	Free			Free	Yield	
Grade	5%			0%	0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	20	28	0	0	0	28
Pedestrians					3	
Lane Width (ft)					10.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					0	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			51		37	37
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			51		37	37
tC, single (s)			4.1		6.4	6.3
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.4
p0 queue free %			100		100	97
cM capacity (veh/h)			1552		973	1016

Direction, Lane #	EB 1	NB 1
Volume Total	48	28
Volume Left	0	0
Volume Right	28	28
cSH	1700	1016
Volume to Capacity	0.03	0.03
Queue Length 95th (ft)	0	2
Control Delay (s)	0.0	8.6
Lane LOS		A
Approach Delay (s)	0.0	8.6
Approach LOS		A

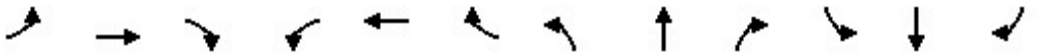
Intersection Summary			
Average Delay	3.2		
Intersection Capacity Utilization	14.3%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	967	0	0	1063	88	0	7	34	0	0	0
Future Volume (Veh/h)	1	967	0	0	1063	88	0	7	34	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			-7%			5%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	1051	0	0	1155	96	0	8	37	0	0	0
Pedestrians								22			14	
Lane Width (ft)								12.0			0.0	
Walking Speed (ft/s)								4.0			4.0	
Percent Blockage								2			0	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		232			230							
pX, platoon unblocked	0.85			0.88			0.91	0.91	0.88	0.91	0.91	0.85
vC, conflicting volume	1265			1073			1652	2340	548	1786	2292	640
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	954			811			923	1680	214	1069	1627	217
tC, single (s)	4.1			4.1			7.5	6.5	7.0	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.4	3.5	4.0	3.3
p0 queue free %	100			100			100	90	94	100	100	100
cM capacity (veh/h)	607			701			197	83	673	137	90	668

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1
Volume Total	351	701	770	481	45
Volume Left	1	0	0	0	0
Volume Right	0	0	0	96	37
cSH	607	1700	1700	1700	297
Volume to Capacity	0.00	0.41	0.45	0.28	0.15
Queue Length 95th (ft)	0	0	0	0	13
Control Delay (s)	0.1	0.0	0.0	0.0	19.3
Lane LOS	A				C
Approach Delay (s)	0.0		0.0		19.3
Approach LOS					C

Intersection Summary				
Average Delay	0.4			
Intersection Capacity Utilization	45.9%	ICU Level of Service		A
Analysis Period (min)	15			



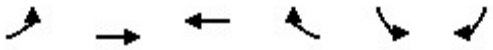
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	1	3	0	0	0	2	17	0	0	17	5
Future Volume (Veh/h)	5	1	3	0	0	0	2	17	0	0	17	5
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	6	1	4	0	0	0	2	20	0	0	20	6
Pedestrians					3						2	
Lane Width (ft)					10.0						10.0	
Walking Speed (ft/s)					4.0						4.0	
Percent Blockage					0						0	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	49	50	23	54	53	25	26			23		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	49	50	23	54	53	25	26			23		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	99	100	100	100	100	100	100			100		
cM capacity (veh/h)	947	839	1054	935	835	1047	1588			1589		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	11	0	22	26
Volume Left	6	0	2	0
Volume Right	4	0	0	6
cSH	972	1700	1588	1589
Volume to Capacity	0.01	0.00	0.00	0.00
Queue Length 95th (ft)	1	0	0	0
Control Delay (s)	8.7	0.0	0.7	0.0
Lane LOS	A	A	A	
Approach Delay (s)	8.7	0.0	0.7	0.0
Approach LOS	A	A		

Intersection Summary				
Average Delay	1.9			
Intersection Capacity Utilization	14.9%	ICU Level of Service	A	
Analysis Period (min)	15			

Lane Group	EBT	WBT	SBL
Lane Group Flow (vph)	1099	1289	46
v/c Ratio	0.47	0.48	0.04
Control Delay	5.7	4.0	4.0
Queue Delay	0.0	0.0	0.0
Total Delay	5.7	4.0	4.0
Queue Length 50th (ft)	131	95	5
Queue Length 95th (ft)	151	108	18
Internal Link Dist (ft)	150	134	207
Turn Bay Length (ft)			
Base Capacity (vph)	2331	2698	1240
Starvation Cap Reductn	104	0	0
Spillback Cap Reductn	0	18	8
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.49	0.48	0.04

Intersection Summary



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	17	983	1129	44	18	24
Future Volume (vph)	17	983	1129	44	18	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		4%	-7%		0%	
Total Lost time (s)		9.0	9.0		9.0	
Lane Util. Factor		0.95	0.95		1.00	
Frpb, ped/bikes		1.00	1.00		0.99	
Flpb, ped/bikes		1.00	1.00		1.00	
Frt		1.00	0.99		0.92	
Flt Protected		1.00	1.00		0.98	
Satd. Flow (prot)		3234	3394		1554	
Flt Permitted		0.91	1.00		0.98	
Satd. Flow (perm)		2934	3394		1554	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	19	1080	1241	48	20	26
RTOR Reduction (vph)	0	0	2	0	6	0
Lane Group Flow (vph)	0	1099	1287	0	40	0
Confl. Peds. (#/hr)	28			28	1	19
Confl. Bikes (#/hr)				15		
Turn Type	Perm	NA	NA		D.Pm	
Protected Phases		2!	2!			
Permitted Phases	2!				2!	
Actuated Green, G (s)		88.2	88.2		88.2	
Effective Green, g (s)		90.2	90.2		90.2	
Actuated g/C Ratio		0.75	0.75		0.75	
Clearance Time (s)		11.0	11.0		11.0	
Vehicle Extension (s)		1.0	1.0		1.0	
Lane Grp Cap (vph)		2205	2551		1168	
v/s Ratio Prot			c0.38			
v/s Ratio Perm		0.37			0.03	
v/c Ratio		0.50	0.50		0.03	
Uniform Delay, d1		5.9	6.0		3.8	
Progression Factor		0.64	0.45		1.00	
Incremental Delay, d2		0.7	0.5		0.1	
Delay (s)		4.5	3.2		3.9	
Level of Service		A	A		A	
Approach Delay (s)		4.5	3.2		3.9	
Approach LOS		A	A		A	

Intersection Summary			
HCM 2000 Control Delay	3.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	62.6%	ICU Level of Service	B
Analysis Period (min)	15		

! Phase conflict between lane groups.
c Critical Lane Group

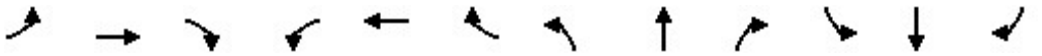
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	992	10	22	1174	0	20
Future Volume (Veh/h)	992	10	22	1174	0	20
Sign Control	Free			Free	Stop	
Grade	4%			-7%	0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	1090	11	24	1290	0	22
Pedestrians					36	
Lane Width (ft)					10.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					3	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	214			651		
pX, platoon unblocked			0.25		0.35	0.25
vC, conflicting volume			1137		1824	1132
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			63		389	41
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			94		100	91
cM capacity (veh/h)			379		186	251

Direction, Lane #	EB 1	WB 1	WB 2	NB 1
Volume Total	1101	454	860	22
Volume Left	0	24	0	0
Volume Right	11	0	0	22
cSH	1700	379	1700	251
Volume to Capacity	0.65	0.06	0.51	0.09
Queue Length 95th (ft)	0	5	0	7
Control Delay (s)	0.0	2.0	0.0	20.7
Lane LOS		A		C
Approach Delay (s)	0.0	0.7		20.7
Approach LOS				C

Intersection Summary			
Average Delay	0.6		
Intersection Capacity Utilization	62.8%	ICU Level of Service	B
Analysis Period (min)	15		

Lane Group	EBT	WBT	NBT	NBR	SBT
Lane Group Flow (vph)	1164	1249	93	111	54
v/c Ratio	0.61	0.67	0.51	0.47	0.27
Control Delay	8.3	11.8	55.6	15.0	33.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	8.3	11.8	55.6	15.0	33.0
Queue Length 50th (ft)	112	250	66	0	22
Queue Length 95th (ft)	126	311	122	54	61
Internal Link Dist (ft)	571	391	281		141
Turn Bay Length (ft)					
Base Capacity (vph)	1921	1876	184	236	198
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.61	0.67	0.51	0.47	0.27

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	974	54	31	1059	21	76	7	99	21	8	19
Future Volume (vph)	8	974	54	31	1059	21	76	7	99	21	8	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	10	10	10	10	10	10	10	10	10	10	10
Grade (%)		4%			-4%			-1%			5%	
Total Lost time (s)		4.0			4.0			4.0	4.0		4.0	
Lane Util. Factor		0.95			0.95			1.00	1.00		1.00	
Frpb, ped/bikes		0.99			1.00			1.00	0.66		0.96	
Flpb, ped/bikes		1.00			1.00			0.92	1.00		0.87	
Frt		0.99			1.00			1.00	0.85		0.95	
Flt Protected		1.00			1.00			0.96	1.00		0.98	
Satd. Flow (prot)		2874			3015			1386	829		1184	
Flt Permitted		0.94			0.88			0.73	1.00		0.86	
Satd. Flow (perm)		2709			2647			1055	829		1037	
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	9	1094	61	35	1190	24	85	8	111	24	9	21
RTOR Reduction (vph)	0	3	0	0	1	0	0	0	92	0	17	0
Lane Group Flow (vph)	0	1161	0	0	1248	0	0	93	19	0	37	0
Confl. Peds. (#/hr)	10		19	19		10	39		190	190		39
Confl. Bikes (#/hr)			2			5			1			
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	8%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	2	0	0	0	0	0	0
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		6			2			8			4	
Permitted Phases	6			2			8		8	4		
Actuated Green, G (s)		83.0			83.0			19.0	19.0		19.0	
Effective Green, g (s)		85.0			85.0			21.0	21.0		21.0	
Actuated g/C Ratio		0.71			0.71			0.18	0.18		0.18	
Clearance Time (s)		6.0			6.0			6.0	6.0		6.0	
Lane Grp Cap (vph)		1918			1874			184	145		181	
v/s Ratio Prot												
v/s Ratio Perm		0.43			c0.47			c0.09	0.02		0.04	
v/c Ratio		0.61			0.67			0.51	0.13		0.20	
Uniform Delay, d1		8.9			9.7			44.8	41.8		42.3	
Progression Factor		0.77			1.00			1.00	1.00		1.00	
Incremental Delay, d2		1.3			1.9			9.6	1.9		2.5	
Delay (s)		8.2			11.6			54.4	43.7		44.8	
Level of Service		A			B			D	D		D	
Approach Delay (s)		8.2			11.6			48.6			44.8	
Approach LOS		A			B			D			D	

Intersection Summary			
HCM 2000 Control Delay	13.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	76.5%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			