# **Multimodal Transportation Assessment**

# 2025 Fairfax Drive

Arlington, Virginia

August 2, 2022



# Prepared by:



4114 Legato Road 225 Reinekers Lane 1140 Connecticut Ave NW 4951 Lake Brook Drive Suite 650 Suite 750 Suite 600 Suite 250 Fairfax, VA 22033 Alexandria, VA 22314 Washington, DC 20036 Glen Allen, VA 23060 T 703.787.9595 T 703.721.3044 T 202.296.8625 T 804.362.0578

www.goroveslade.com

This document, together with the concepts and designs presented herein, as an instrument of services, is intended for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization by Gorove/Slade Associates, Inc., shall be without liability to Gorove/Slade Associates, Inc.

# **CONTENTS**

Executive Summary	1
Introduction	4
Purpose of Study	4
Study Tasks	4
Project Summary	4
Contents of Study	5
Study Area Overview	13
Major Transportation Features	13
Future Projects	18
Project Design	24
Adjacent Roadways	24
Site Access and Circulation	27
Loading	27
Parking	27
Curbside Management	28
Bicycle and Pedestrian Facilities	28
Transit	35
Metrorail Service	35
Bus Service	35
Planned Transit Facilities	36
Pedestrian Facilities	41
Pedestrian Study Area	41
Existing Pedestrian Facilities	41
Planned Pedestrian Facilities	41
Bicycle Facilities	48
Existing Bicycle Facilities	48
Planned Bicycle Facilities	49
Travel Demand Assumptions	52
Mode Split Methodology	52
Trip Generation Methodology	52
Trip Generation Comparison	53
Crash Data Review	56
VDOT Crash Data	56
Crash Characteristics	56

Crash Factors	57
Findings	57
Transportation Management Plan	59
Participation and Funding	59
Facilities and Improvements	59
Promotions, Services, Policies	59
Performance and Monitoring	60
Summary and Conclusions	61

# LIST OF APPENDICES

Appendix A – Signed Scoping Document

Appendix B – Detailed Trip Generation

# LIST OF FIGURES

Figure 1: Major Regional Transportation Facilities	6
Figure 2: Site Location	7
Figure 3: Parcel Map (Source: Arlington County Real Estate Map, January 2022)	8
Figure 4: Planned Land Uses (Source: Arlington General Land Use Plan (GLUP), April 2021)	9
Figure 5: Zoning Map (Source: Arlington County)	10
Figure 6: Ground Floor Site Plan	11
Figure 7: Pedestrian/Bike/Transit Study Area	12
Figure 8: Major Local Transportation Facilities	15
Figure 9: Walkscore and Bikescore Map	17
Figure 10: Street Typology (Source: Arlington Master Transportation Plan, 2011)	21
Figure 11: Existing and Planned Bike Facilities (Source: Arlington Master Transportation Plan, 2019)	22
Figure 12: Fort Myer Heights North Plan – Fairfax Drive Recommended Cross-Section	23
Figure 13: Proposed Fairfax Drive Cross-Section	25
Figure 14: Proposed N Troy Street Cross-Section	26
Figure 15: Site Access	29
Figure 16: Proposed Circulation Plan	30
Figure 17: County Guidelines on Minimum Parking Requirements	31
Figure 18: Existing Curbside Management	33
Figure 19: Proposed Curbside Management	34
Figure 20: Existing Transit Service	37
Figure 21: Approximate Transit Travel Times	38
Figure 22: Average Daily Metro Ridership by Year at Court House Metro Station (Source: WMATA)	39
Figure 23: Pedestrian Pathways	44
Figure 24: Approximate Pedestrian Travel Times	45
Figure 25: Existing Pedestrian Facilities	46
Figure 26: Planned and Proposed Pedestrian Improvements	47
Figure 27: Existing and Planned Bicycle Facilities	50
Figure 28: Approximate Bicycle Travel Times	51
Figure 29: Transportation Analysis District (TAD) in Study Area	54
Figure 30: Destinations of Driving Commuters with Origins in project TAD	55
Figure 31: Historical Crash Data	56
Figure 32: Historical Crash Data (2017-2021)	58
LIST OF TABLES	
Table 1: Carshare Locations	16
Table 2: Proposed Parking Allocation	32
Table 3: Bus Stop Inventory	39
Table 4: Bus Route Information	40

Table 5: Sidewalk Recommendations per Arlington County Master Transportation Plan	43
Table 6: Summary of Residential Mode Split Data	52
Table 7: Summary of Mode Split Assumptions by Land Use	52
Table 8: Multi-Modal Trip Generation, ITE 10 <sup>th</sup> Edition	53
Table 9: 2011 Site Plan Application Trip Generation, ITE 8 <sup>th</sup> Edition	53
Table 10: Vehicular Trip Generation Comparison – 2011 Site Plan vs. Proposed Plan	53
Table 11: Crash Count by Severity (2017-2021)	56
Table 12: Crash County by Collision Type	56
Table 13: Crash Count by Light Condition	57
Table 14: Crash Count by Driver Behavior Factors	57
Table 15: Crash Count by Vehicle Characteristics	57

# **Executive Summary**

The following report is a Multimodal Transportation Assessment (MMTA) for the 2025 Fairfax Drive development in the Radnor/Fort Myers Heights neighborhood in Arlington, Virginia.

The purpose of this report is to evaluate whether the proposed development will have a detrimental impact on the surrounding transportation network. This evaluation is based on a review of the existing and planned multimodal transportation network and the anticipated trip generation for the site.

# Site Location and Study Area

The development site currently consists of a 40-space surface parking lot and a single-family home at 2025 Fairfax Drive. The project site is bounded by existing residential buildings to the north and west, Fairfax Drive to the south, and N Troy Street to the east as shown in Figure 2. The general extents of the study area consist of the area within a quarter-mile radius from the project site. The transportation facilities on Fort Myer located to the south of the site were excluded from the study as they are not public.

The existing site consists of an existing 40-space surface parking lot which serves the existing residential buildings on the same block, as well as one single-family home. The site is currently zoned RA8-18 and is shown as a Medium Residential land use in the General Land Use Plan (GLUP).

#### **Proposed Project**

The proposed development will replace the existing uses with a 166-unit residential building. The building will include a partially below-grade parking garage with 120 spaces. Of these 120 spaces, 30 spaces will be allocated for the adjacent residential buildings which currently utilize the existing surface lot on-site. The remaining 90 spaces will be allocated to residents of the new building at a ratio of 0.54 spaces per dwelling unit. Sixteen (16) of the total spaces (approximately 13.3 percent) are compact parking spaces, which is within the 15 percent threshold established by § 14.3.3.F of the Zoning Ordinance. The proposed residential parking ratio accords with recent County policies supporting significant parking reductions for residential development in close proximity to transit.

Vehicular access to the parking garage will be provided at two (2) locations. One (1) driveway will be located on N Troy Street and will provide access to the Mezzanine level of the garage, which is not internally connected to the lower levels of the

garage, and one (1) driveway will be located on N Fairfax Drive and connect to the spaces on the Ground Floor, G2, and G3 levels of the garage.

One (1) loading space will be provided on the south side of the building, with access via a driveway on Fairfax Drive. The number of on-site loading facilities will accommodate the practical needs of the proposed development.

Existing sidewalks along the eastern and southern frontages of the site will be improved as part of the proposed development. Walkways will also be provided along the northern and western frontages of the proposed building. These walkways will connect the sidewalks on N Troy Street and Fairfax Drive with an existing internal walkway leading to N Courthouse Road.

These facilities will provide a more inviting pedestrian environment and comply with the improvements laid out in the Arlington Master Transportation Plan.

The proposed site plan is shown in Figure 6.

#### **Policies and Goals**

The Arlington County Master Transportation Plan (MTP), adopted in 2011 and updated in 2019, outlines goals to improve various modes of transportation throughout the County. The proposed development achieves several of the goals and policies of the MTP and other guiding documents for the County.

# **Multi-Modal Overview**

#### **Transit**

The site has access to the Metrorail's Orange and Silver lines via the Court House station, located 0.3 miles from the project site; however, the site has limited access to additional transit service within a quarter-mile of the site. The Court House station is located north of the development site and can be reached by walking north from the site on N Courthouse Road. There are sidewalks, curb ramps, and crosswalks along routes to the Metro station.

There are two (2) bus stops within a quarter-mile of the site which are served by Arlington Transit (ART). Three (3) additional ART routes, two (2) Metrobus routes, and two (2) OmniRide routes serve stops on the Wilson Boulevard/Clarendon Boulevard Corridor, just outside of the quarter-mile study area.

#### **Pedestrian**

The existing pedestrian infrastructure surrounding the site provides an adequate walking environment. There are sidewalks

along most primary routes to pedestrian destinations with some gaps in in the system.

A number of planned or approved projects will improve pedestrian infrastructure and connectivity in the vicinity of the proposed development:

- As part of the 2050 Wilson Boulevard (Courthouse Landmark Block) development, N Uhle Street will be converted to a pedestrian promenade between the Court House Metrorail station and the Landmark Block. The project would also provide streetscape and transportation improvements along 15th Street N, Clarendon & Wilson Boulevards, and N Courthouse Road, including upgraded sidewalks and pedestrian crossings, curb ramps, bulb-outs, and bus stop facilities.
- The recently-completed 1307 N Rolfe Street project provides an approximately 8,000 square-foot park at the corner of 14th Street N and N Rhodes Street, as well as sidewalk, streetscape, and pedestrian crossing improvements along the site frontages on Fairfax Drive, N Rolfe Street, 14th Street N, N Rhodes Street, and the Arlington Boulevard Trail.

As part of the proposed development, existing sidewalks along the eastern and southern frontages of the site will be improved to meet or exceed Arlington County and ADA standards. Walkways will also be provided along the northern and western frontages of the proposed building. These walkways will connect the sidewalks on N Troy Street and Fairfax Drive with an existing internal walkway leading to N Courthouse Road.

These facilities will provide a more inviting pedestrian environment and comply with the improvements laid out in the Arlington Master Transportation Plan.

#### **Bicycle**

The site has access to several on-street bicycle facilities, including bicycle lanes along N Courthouse Road, 15th Street N, N Barton Street, Wilson Boulevard, and Clarendon Boulevard. The Arlington Boulevard Trail runs along the south side of Fairfax Drive, immediately south of the project site. These facilities provide local and regional access to destinations within Virginia and the District.

Several new bike facilities have been recommended by the Arlington Master Transportation in the vicinity of the project site. These include adding bicycle lanes along N Fairfax Drive between N Barton Street and Arlington Boulevard, bicycle lanes on the Arlington Boulevard Frontage Road between N Rolfe

Street and N Meade Street, and bicycle lanes on 10<sup>th</sup> Street N west of N Barton Street. Portions of the Arlington Boulevard Trail between Rosslyn and Seven Corners are also proposed to be reconstructed.

#### Vehicular

The project site is accessible from several principal arterials located within a half-mile of the site; Clarendon Boulevard, Wilson Boulevard, and VA-50 (Arlington Boulevard). These arterials create connections to I-66, US-29 (Langston Boulevard), I-395 and ultimately the Capital Beltway (I-495) that surrounds Washington, DC and its inner suburbs as well as regional access to I-95. These principal arterials bring vehicular traffic within a half-mile of the site, at which point minor arterials, collectors and local roads can be used to access the site directly.

Vehicular access for residential parking will occur at two locations. One driveway will be located on N Troy Street and will provide access to the Mezzanine level of the garage, which is not internally connected to the lower levels of the garage and is for the exclusive use for the existing Wakefield residents. The second driveway, accessing the Ground Floor level of the garage, will be located on N Fairfax Drive and connect to 90 garage spaces on the Ground Floor, G2, and G3 levels of the building. Access to the loading bay will be provided via a driveway on N Fairfax Drive.

# **Travel Demand Assumptions**

Mode split (also called mode share) is the percentage of travelers using a particular type (or mode) of transportation when traveling. The main source of mode split information for this report was based on Census data using Transportation Analysis Districts (TADs) and data contained in the 2016 State of the Commute, the WMATA Ridership Survey, and the Arlington County Mode Share Assumptions for Clarendon/Court House. The following mode splits were assumed in the analysis, as vetted and approved by Arlington County:

- Residential
  - Auto 39%, Transit 52%, Bike 3%, Walk 6%

Weekday peak hour and daily trip generation is calculated based on the methodology outlined in the Institute of Transportation Engineers' (ITE) Trip Generation, 10<sup>th</sup> Edition.

Residential trip generation is based on the development program of 166 residential dwelling units. Residential trip generation was calculated based on ITE Land Use 222 (Multifamily Housing –

High-Rise), using the setting/location of General Urban/Suburban, splitting trips into different modes using assumptions outlined in the mode split section of this report. It should be noted that the vehicular trip generation numbers include truck and delivery related trips to and from the residential component of the project.

# **Trip Generation Comparison**

In 2011, the County Board approved the previous site plan for the project site, which consisted of a 12-story residential building with 104 residential dwelling units. The traffic impact study performed as part of the previous site plan application included proposed trip generation for the site based on ITE <u>Trip</u> <u>Generation</u>, 8th Edition, and assumed a development with 110 residential dwelling units.

The vehicular trip generation calculated for the currently-proposed development using the methodology noted above was compared to the vehicular trip generation assumed for the traffic impact study prepared as part of the previous site plan application, which was approved in 2011. Based on this comparison, the vehicular trip generation of the currently-proposed development is lower than what was studied as part of the 2011 site plan. Though the currently-proposed development includes a greater number of units than the 2011 site plan, the vehicular trip generation for the current proposal is lower because the 2011 study assumed a lower non-auto mode split and was based on trip generation rates from a previous version of the ITE Trip Generation manual.

The traffic impact study performed for the 2011 site plan application included a vehicular capacity analysis which concluded that all study intersections and site entrances would continue to operate at acceptable levels of service in the Future Conditions with Development scenario. As agreed upon with Arlington County staff, since the trip generation for the currently-proposed development is lower than what was analyzed as part of the previous capacity analysis for the site and it was found to have no detrimental impact to vehicular operations, no capacity analysis is included in this MMTA. It is assumed that the currently-proposed development will have no detrimental impact to vehicular operations, consistent with the conclusions of the previous study.

# **Future Improvements**

A number of planned transportation improvements in the vicinity of the proposed 2025 Fairfax Drive development are expected to

be complete by 2025. The improvements are further detailed in the report, but include:

- 2050 Wilson Boulevard (Courthouse Landmark Block)
   Development
- 1307 N Rolfe Street (Gables) Development

# **Transportation Management Plan**

A Transportation Management Plan (TMP) will be provided for the project based on the County's requirements, and a framework for a TMP is included in this report. This TMP will include typical components such as the establishment of a TMP coordinator, the distribution of transit literature, the establishment of ride-sharing programs, and the on-site sale of discounted fare media. Management measures taken by the 2025 Fairfax Drive development will be monitored and adjusted as needed to continually create opportunities to reduce the amount of vehicular traffic generated by the site.

# **Summary and Recommendations**

This report concludes that the proposed development will not have a detrimental impact to the surrounding transportation and roadway network, assuming that all planned site design elements are implemented.

The development has many positive elements contained within its design that minimize potential transportation impacts, including:

- The proposed development's proximity to the Court House Metro Station.
- The proposed development's location within an existing, well-connected pedestrian environment and proximity to a high-quality bicycle facility (Arlington Boulevard Trail).
- Improvements to the pedestrian facilities adjacent to the site that meet or exceed Arlington County and ADA requirements.
- The inclusion of secure-long-term bicycle parking that meets zoning requirements.
- The installation of short-term bicycle parking spaces around the perimeter of the site that meet zoning requirements.
- A Transportation Management Plan (TMP) that aims to reduce the demand of single-occupancy, private vehicles to/from the proposed development during peak period travel times or shifts single-occupancy vehicular demand to off-peak periods.

# Introduction

This report presents the findings of a Multimodal Transportation Assessment (MMTA) conducted for the proposed development at 2025 Fairfax Drive in the Radnor/Fort Myer Heights neighborhood in Arlington, VA.

The development site currently consists of a 40-space surface parking lot and a single-family home. The proposed development will replace the existing uses with a 166-unit residential building. The proposed project build-out year is 2025.

The site is currently zoned RA8-18 and is shown as a Medium Residential land use in the General Land Use Plan (GLUP).

# **Purpose of Study**

The purpose of this study is to evaluate the transportation network in the vicinity of the site and identify any potential transportation impacts that may result from the proposed redevelopment. Elements of this report include a description of the proposed development, an evaluation of the existing multimodal transportation network, and evaluation of the anticipated trip generation for the site.

In 2011, a proposal to build a 104-unit development at the project site was approved by Arlington County; the site plan application included a traffic study, which found that all study intersections and site entrances operated under acceptable levels of service under future conditions with development. The Applicant is applying for an amendment to the site plan. As part of the scoping process, it was determined that the trip generation of the project (as depicted in the amended site plan) would be less than what was studied for the original proposal. As a result, it was determined in the scoping process that a vehicular capacity analysis shall not be included in this MMTA.

#### Study Tasks

The following tasks were completed as part of this study:

- A scoping form dated February 15, 2022, was submitted by Gorove Slade to Arlington County and accepted on April 6, 2022. This scope includes discussions about the parameters of the study and relevant background information. A copy of the signed scoping document is included in the Technical Appendix.
- Proposed site traffic volumes were generated based on the methodology outlined in <u>Trip Generation</u>, 10<sup>th</sup>

<u>Edition</u> published by the Institute of Transportation Engineers (ITE).

- As agreed upon in the scoping process, a vehicular capacity analysis was not conducted for this study. Instead, this study includes a comparison of the trip generation developed as part of the 2011 application and the currently-proposed project. The comparison shows that the proposed project generates fewer trips than what was studied for the 2011 application.
- A Transportation Management Plan framework was developed as a TMP will be necessary to meet County requirements.

# **Project Summary**

## **Site Location**

The project site is located in the Radnor/Fort Myer Heights neighborhood in Arlington, Virginia. Figure 1 shows the regional location of the project. The project site is bounded by existing residential buildings to the north and west, Fairfax Drive to the south, and N Troy Street to the east. The site location is shown in Figure 2.

#### **Parcel Information**

The existing site is currently occupied by a 40-space surface parking lot and a single-family home. A parcel map showing the location of the property is presented in Figure 3.

## **General Land Use Plan Recommendations**

According to Arlington County's General Land Use Plan (GLUP), this site is listed as a medium residential land use. The GLUP map for the site is shown in Figure 4. The site is currently zoned RA8-18, Multiple-family Dwelling District. The zoning map is shown in Figure 5.

## **Proposed Site Plan**

The proposed development will replace the existing uses with a 166-unit residential building. The building will include a partially below-grade parking garage with 120 spaces. Of these 120 spaces, 30 spaces will be allocated for the adjacent residential buildings which currently utilize the existing surface lot on-site. The remaining 90 spaces will be allocated to residents of the new building at a ratio of 0.54 spaces per dwelling unit. Sixteen of the residential spaces (approximately 13.3 percent) are compact parking spaces, which is within the 15 percent threshold established by § 14.3.3.F of the Zoning Ordinance. The proposed residential parking ratio accords with recent County

policies supporting significant parking reductions for residential development in close proximity to transit.

Vehicular access for residential parking will occur at two (2) locations. One (1) driveway will be located on N Troy Street and will provide access to the Mezzanine level of the garage, which is not internally connected to the lower levels of the garage and is for the exclusive use for the existing Wakefield residents, and one (1) driveway will be located on N Fairfax Drive and connect to the spaces on the Ground Floor, G2, and G3 levels of the garage. One (1) loading space will be provided on the south side of the building, with access via a driveway on Fairfax Drive.

Existing sidewalks along the eastern and southern frontages of the site will be improved as part of the project. Walkways will also be provided along the northern and western frontages of the proposed building. These walkways will connect the sidewalks on N Troy Street and Fairfax Drive with an existing internal walkway leading to N Courthouse Road.

The proposed site plan is shown in Figure 6.

# Scope and Limits of the Study Area

The study area generally consists of the area within a quarter mile of the project site. The transportation facilities on Fort Myer located to the south of the site were excluded from the study as they are not public. The study area is shown in Figure 7.

# **Data Sources**

Sources of data for this study include Arlington County, the Virginia Department of Transportation (VDOT), the Institute of Transportation Engineers (ITE) <u>Trip Generation, 10<sup>th</sup> Edition,</u> Census Transportation Planning Products (CTPP), Fortis, VIKA, KGD Architecture, and the office files and field reconnaissance efforts of Gorove Slade.

# Contents of Study

This report contains nine (9) chapters as follows:

#### Study Area Overview

This chapter reviews the area near and adjacent to the project and includes an overview of the site location.

# • Transit

This chapter summarizes the existing and future transit service adjacent to the site, reviews how the project's transit demand will be accommodated, outlines impacts, and presents recommendations as needed.

#### Pedestrian Facilities

This chapter summarizes existing and future pedestrian access to the site, reviews walking routes to and from the project site, outlines impacts, and presents recommendations as needed.

# Bicycle Facilities

This chapter summarizes existing and future bicycle access to the site, reviews the quality of cycling routes to and from the project site, outlines impacts, and presents recommendations as needed.

#### • Project Design

This chapter reviews the transportation components of the project, including the site plan and access.

#### Travel Demand Assumptions

This chapter outlines the travel demand of the proposed project. It summarizes the expected mode splits and multimodal trip generation of the currently-proposed project and provides a comparison to the trip generation of the original site plan.

# • Transportation Management Plan

This chapter outlines the components of the proposed development's Transportation Management Plan (TMP).

#### • Crash Data Review

This chapter reviews the findings of a crash data review of adjacent intersections and frontage of the proposed project.

# Summary and Conclusions

This chapter presents a summary of the recommended mitigation measures by mode and presents overall findings and conclusions.

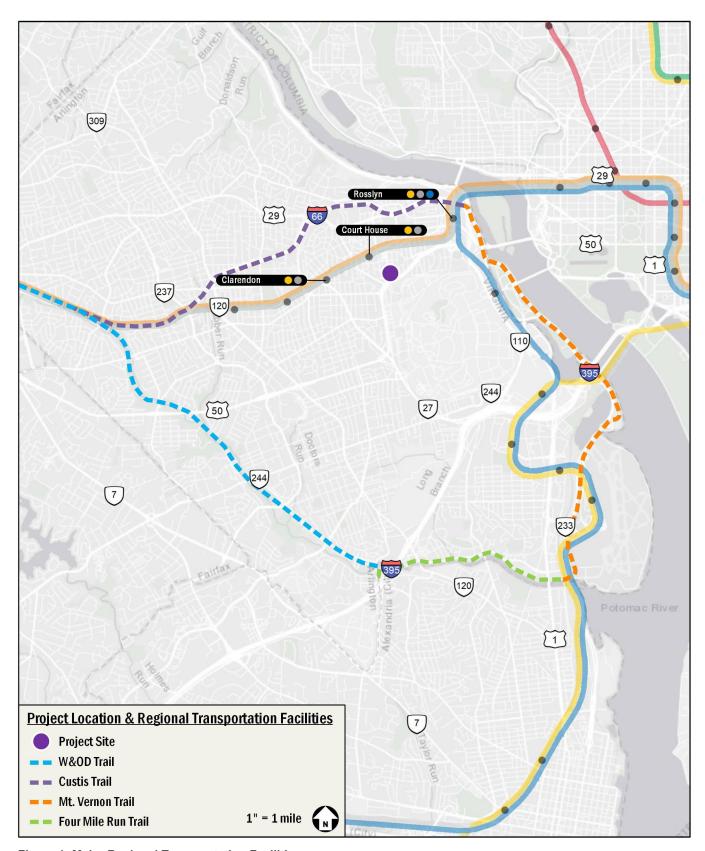


Figure 1: Major Regional Transportation Facilities

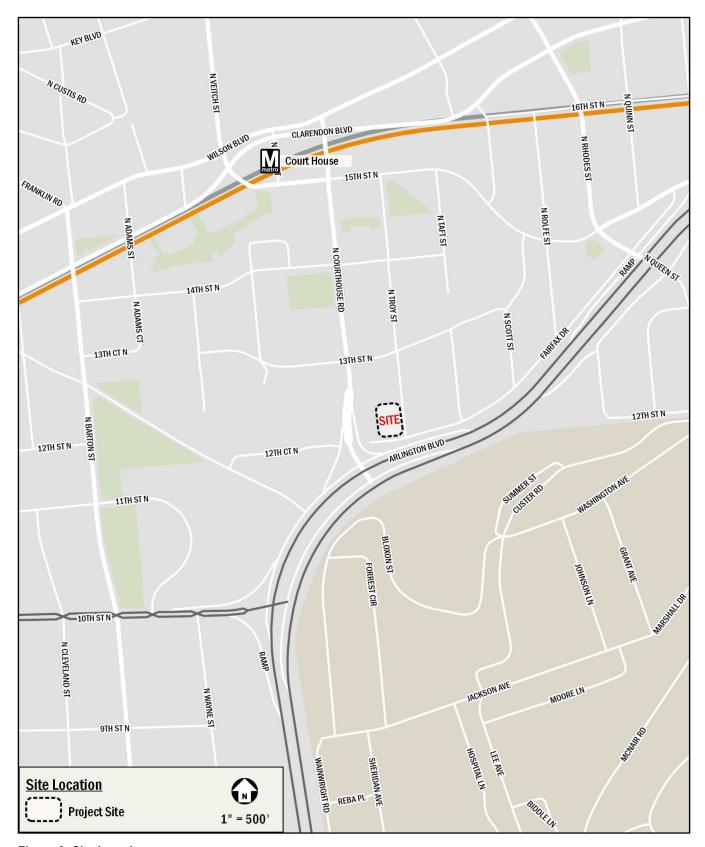


Figure 2: Site Location



Figure 3: Parcel Map (Source: Arlington County Real Estate Map, January 2022)

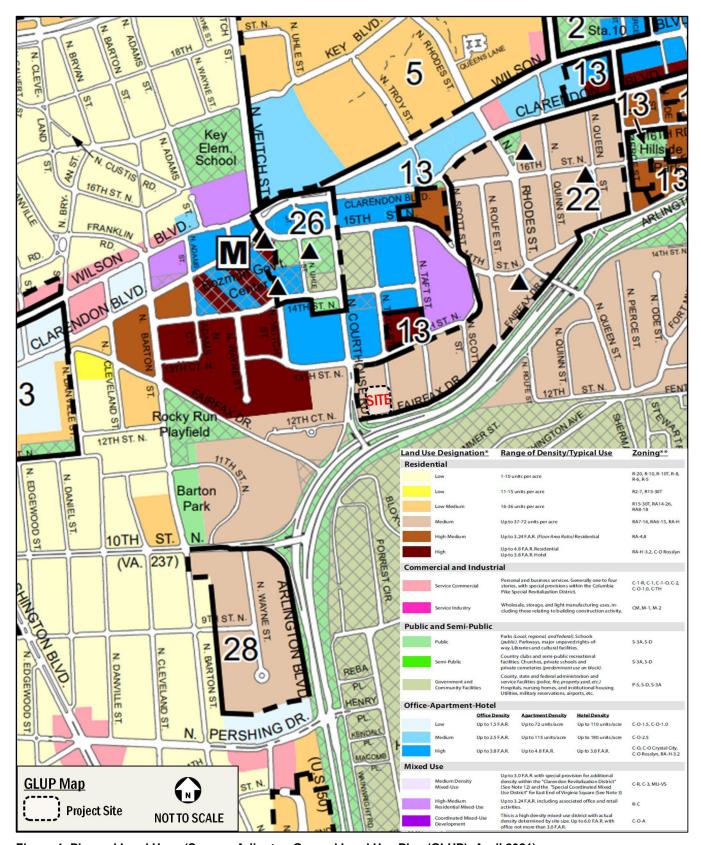


Figure 4: Planned Land Uses (Source: Arlington General Land Use Plan (GLUP), April 2021)

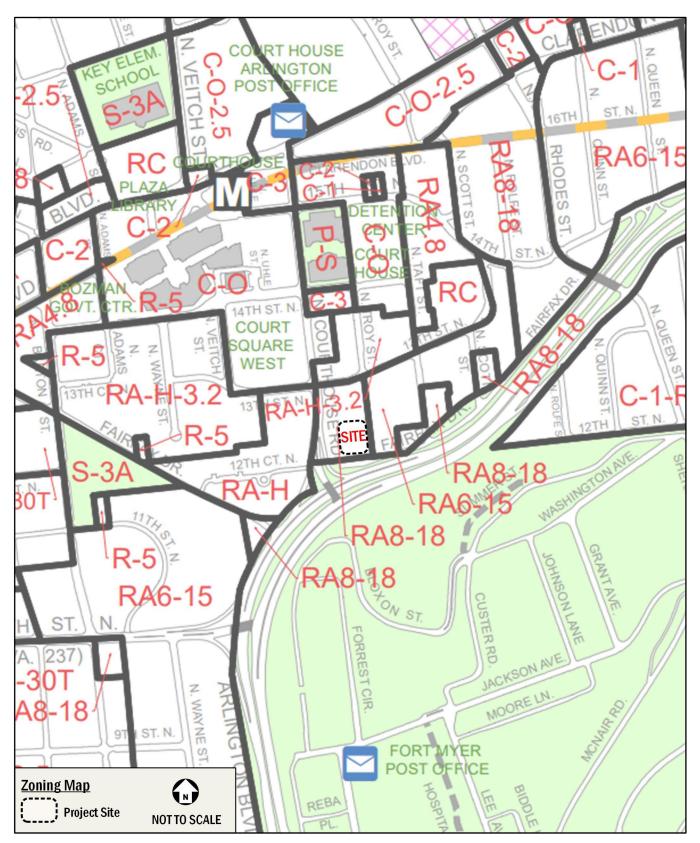


Figure 5: Zoning Map (Source: Arlington County)

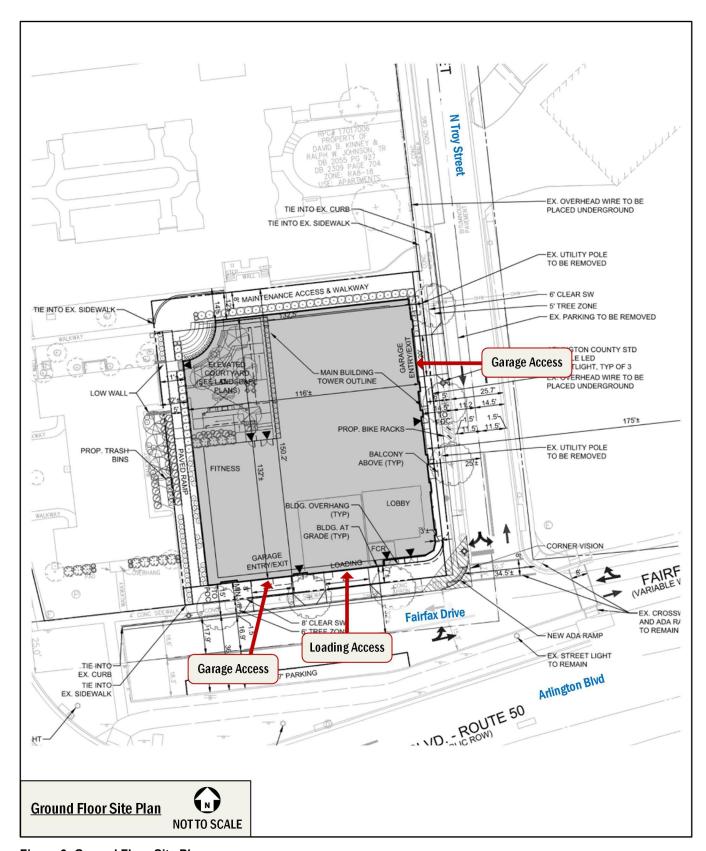


Figure 6: Ground Floor Site Plan

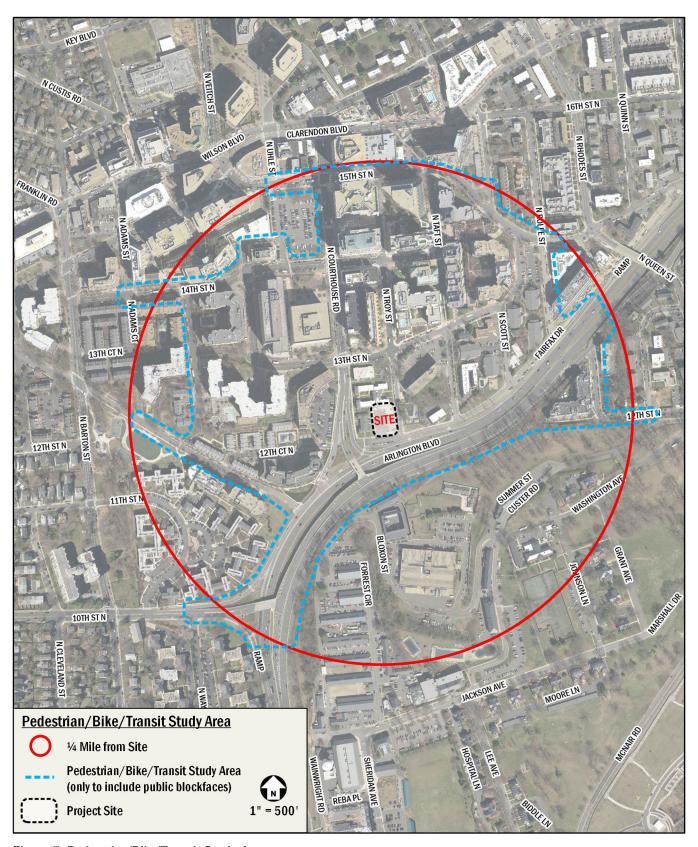


Figure 7: Pedestrian/Bike/Transit Study Area

# Study Area Overview

This chapter reviews the existing conditions of the surrounding transportation network and includes an overview of the site location, including a summary of the major transportation characteristics of the area and of future regional projects. Detailed characteristics of each mode and their subsequent study areas will be defined in the following chapters.

The following conclusions are reached within this chapter:

- The site is surrounded by an extensive regional and local transportation system that will accommodate the residents and employees of the proposed development.
- The site is well-served by public transportation with access to the Metrorail's Orange and Silver Lines and several local and regional bus lines.
- The site is surrounded by a well-connected pedestrian environment. In the vicinity of the site, sidewalks generally meet standards recommended by the Arlington County Master Transportation Plan with some gaps in the system.
- The site has access to several on- and off-street bicycle facilities, including the Arlington Boulevard Trail and bicycle lanes along N Courthouse Road, 15<sup>th</sup> Street N, Fairfax Drive, and N Barton Street.

# Major Transportation Features

# **Overview of Regional Access**

Under existing conditions, the proposed development site has ample access to regional vehicular and transit-based transportation options, as shown in Figure 1, that connect the site to destinations within Virginia, the District, and Maryland.

On a regional level, the site is primarily accessible from several principal arterials located within a half-mile of the site; Clarendon Boulevard, Wilson Boulevard, and VA-50 (Arlington Boulevard). These arterials create connections to I-66, US-29 (Langston Boulevard), I-395 and ultimately the Capital Beltway (I-495) that surrounds Washington, DC and its inner suburbs as well as regional access to I-95. These principal arterials bring vehicular traffic within a half-mile of the site, at which point minor arterials, collectors and local roads can be used to access the site directly.

The site has access to the Orange and Silver Lines via the Court House Metro station, which provide connections to areas in Virginia, the District, and Maryland. The Orange Line connects

Fairfax, VA with New Carrolton, MD and the Silver Line connects Reston, VA with Largo, MD. Both lines provide connections to the Red Line, which provides a direct connection to Union Station, a hub for commuter rail – such as Amtrak, MARC, and VRE – in addition to all additional Metrorail lines, allowing for access to much of the DC Metropolitan area. Overall, the site has access to several regional roadways and transit options, making it convenient to travel between the site and destinations in the District, Virginia, and Maryland.

The proposed development is located directly adjacent to the Arlington Boulevard Trail, an approximately 2.2-mile long shared-use path that travels along Arlington Boulevard. To the east, the trail connects to on-street bicycle facilities in the Rosslyn neighborhood, which can be used to access the District, Mount Vernon Trail, and the Custis Trail. To the west, the trail parallels Arlington Boulevard and connects to on-street bicycle facilities at the intersection of Arlington Boulevard and Glebe Road, which can be used to connect to the W&OD Trail. A detailed review of existing bicycle infrastructure is provided in a later chapter of this report.

Overall, the site has access to several regional roadways, transit, and bicycle options, making it convenient to travel between the site and destinations in the Virginia, the District, and Maryland.

#### **Overview of Local Access**

There are several local transportation options near the site that serve vehicular, transit, walking, and cycling trips under existing conditions, as shown on Figure 8.

In addition to three (3) principal arterials, Wilson Boulevard, Clarendon Boulevard, and VA-50 (Arlington Boulevard), the site is served by a local vehicular network that includes several minor arterials and collectors such as N Courthouse Road, 14<sup>th</sup> Street N, N Barton Street, and N Rhodes Street. In addition, there is an existing network of local roadways that provide direct access to the site.

Several bus routes provide local transit service in the vicinity of the site, including connections to several neighborhoods within Virginia, the District, and additional Metrorail stations. These routes are primarily located along the Wilson Boulevard/Clarendon Boulevard corridor, approximately a quarter mile from the site. A detailed review of existing proposed transit facilities is provided in a later section of this report.

There are existing bicycle facilities that connect the site to areas within Arlington, Virginia, and the District, most notably the Arlington Boulevard Trail which travels along VA-50 (Arlington Boulevard) Custis Memorial Parkway and provides connections to Rosslyn and the District to the east and to the W&OD Trail and City of Falls Church to the west. There are bicycle lanes on N Courthouse Road, 15<sup>th</sup> Street N, N Barton Street, Wilson Boulevard, and Clarendon Boulevard in the vicinity of the site. A detailed review of existing and proposed bicycle facilities and connectivity is provided in a later section of this report.

In the vicinity of the site, most sidewalks meet Americans with Disabilities Act (ADA) standards and standards recommended by

the Arlington Master Transportation Plan, with some gaps in the local network. Anticipated pedestrian routes, such as those to public transportation stops, retail zones, nearby residential areas, and community amenities, provide well-connected pedestrian facilities. A detailed review of existing and proposed pedestrian access and infrastructure is provided in a later chapter of this report.

Overall, the site is surrounded by an extensive local transportation network that allows for efficient transportation options via transit, bicycle, walking, or vehicular modes.

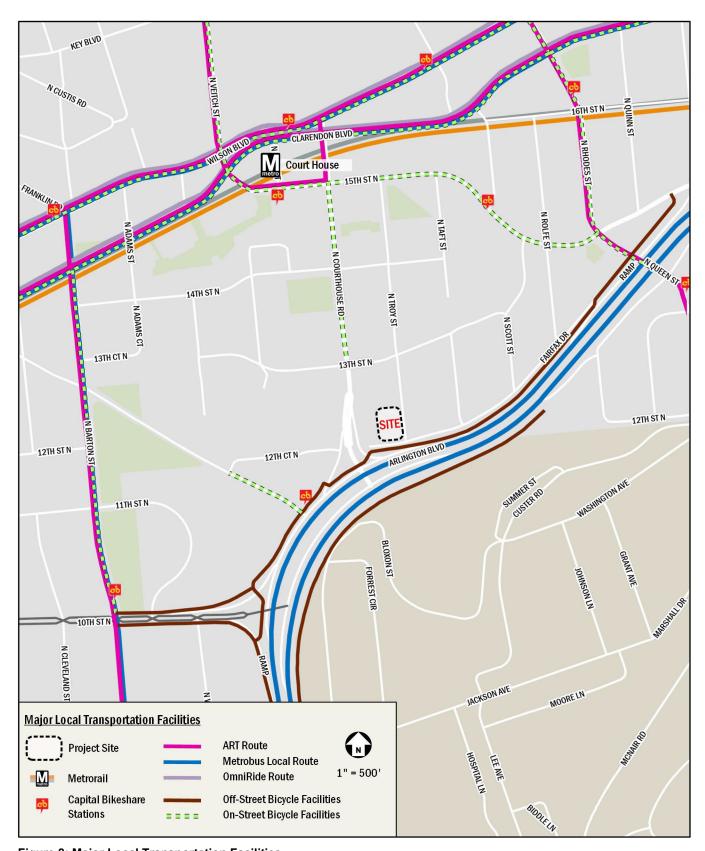


Figure 8: Major Local Transportation Facilities

# Car-sharing

Car-sharing service in Arlington is provided by Zipcar. This is a private company that provides registered users access to a variety of automobiles. Zipcar has designated spaces for their vehicles, and two (2) Zipcar locations are located within a quarter-mile of the site. These locations and the number of available vehicles are listed in Table 1.

**Table 1: Carshare Locations** 

Zipcar Carshare Location	Number of Vehicles
N Veitch Street & 14th Street N	2 vehicles
N Courthouse Road & 14 <sup>th</sup> Street N	1 vehicle
Total	3 vehicles

#### E-Scooters and Dockless E-Bicycles

Five (5) electric-assist scooter (e-scooter) and electric-assist bicycle (e-bike) companies provide Shared Mobility Device (SMD) service in Arlington County: Bird, Helbiz, Lime, Link, and Spin. These SMDs 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 SMDs do not have designated stations where pick-up/drop-off activities occur like with Capital Bikeshare; instead, many SMDs are parked in public space, most commonly in the "furniture zone" (the portion of sidewalk between where people walk and the curb, often where you'll find other street signs, street furniture, trees, parking meters, etc.). At this time, SMD pilot/demonstration programs are underway in Arlington County, the District, Fairfax County, the City of Alexandria, and Montgomery County.

#### Walk Score and Bike Score

Walkscore.com is a website that provides scores and rankings for the walking, biking, and transit conditions for an area. This project location has a walk score of 88 (or "Very Walkable"), transit score of 70 (or "Excellent Transit"), and a bike score of 66 (or "Bikeable"). Figure 9 displays a heat map for walkability and bikeability.

The site is situated in an area with a "Very Walkable" walk score because of the abundance of neighborhood serving retail locations, where daily errands can be completed by walking.

The proposed development is located in an area with an "Excellent Transit" transit score because of its proximity to the Court House station, and the rail and bus lines that serve it.

The site is situated in an area with a "Bikeable" bike score due to its proximity to bike infrastructure, including the Arlington Boulevard Trail and nearby on-street bicycle facilities.



Figure 9: Walkscore and Bikescore Map

# **Future Projects**

There are several County-wide initiatives, local initiatives, and planned improvements located in the vicinity of the site. These planned projects are summarized below.

# **County-Wide Initiatives**

# **Arlington Master Transportation Plan (2019)**

The Arlington County Master Transportation Plan (MTP), adopted in 2011 and updated in 2019, outlines goals to improve various modes of transportation throughout the County. The MTP identifies goals and objectives for each mode to improve safety and access for all users, particularly for pedestrians, bicyclists, and transit users. The Arlington Master Transportation Plan's recommended policies for transportation in the County that apply to the 2025 Fairfax Drive development are outlined as follows:

- Streets (2016) The County will address the street system and enhance the transportation network by: (1) Utilizing the plan's street typology to guide street planning and ensure each street type supports the general policies of complete streets and adjacent land uses; (2) Including appropriate facilities to meet and balance the needs of all modes; (3) Constructing/converting some local streets to a pedestrian priority or a shared street; (4) Accommodating travel growth through shifts to non-auto modes; (5) Designing streets to favor lower vehicular speeds; and (6) Maintaining a grid-style network to enhance connectivity. The planned improvements included in the MTP in the vicinity of the site are shown in Figure 10.
- Transit (2016) The County will address the transit system by: (1) Developing a Premium Transit Network of high-frequency service connecting major destinations; (2)
   Operating a Secondary Transit Network of fixed route services that improves access to destinations across Arlington; (3) Making transit more accessible and convenient to all through enhanced facilities and transit-oriented land use policies; (4) Improving Metrorail services and stations; and (5) Expanding pedestrian access to transit facilities.
- Pedestrian (2011) The County will address the pedestrian system by: (1) Completing the walkway network with appropriate facilities on both sides of arterial streets and at least one side of neighborhood streets; (2) Upgrading existing pedestrian facilities to comply with current standards; (3) Implementing measures aimed at changing motorist behavior to manage vehicular speed and minimize

- vehicle/pedestrian conflicts; and (4) Developing strategies to encourage more people to walk.
- Bicycle (2019) The County will address the bicycle system by: (1) Making existing streets safer and more comfortable for bicycling by all users; (2) Expanding travel safety education programs; (3) Providing a network of low-traffic-stress bicycle routes that connect all land uses; (4) Accommodating bicycle infrastructure as part of all street improvement projects; (5) Establishing bicycles as a mainstream travel mode; and (6) Encouraging bicycle facilities, including parking, showers, and lockers. The improvements planned for the bicycle facilities surrounding the site as part of the Plan are shown in Figure 11.
- Parking and Curb Space (2009) The County will address
  the parking system by: (1) Prioritizing the use of curb space,
  matching the various types of uses to the most appropriate
  locations; (2) Promoting on-street parking within residential
  neighborhoods and on commercial streets to calm traffic; (3)
  Ensuring the minimum parking needs are met and limit
  excessive parking; (4) Discouraging off-street surface
  parking; and (5) Allowing reduced parking space
  requirements for new developments in close proximity to
  frequent transit service and requiring enhanced TDM
  measures.
- Transportation Demand Management (2008) The County will address transportation demand management by: (1) Incorporating comprehensive TDM plans for all site plans to minimize vehicular trips and maximize the use of other modes; (2) Exploring strategies and incentives to achieve TDM measures in existing private buildings; and (3) Applying TDM programs to non-work travel, as well as commuting, through marketing strategies.

A number of elements in the proposed development are consistent with these policies:

- Pedestrian:
  - Improvements to the adjacent sidewalks.
- Bicycle:
  - Short-term bicycle parking will be provided along the perimeter of the site.
  - Secure, long-term bike parking will be provided in the below-grade parking garage on-site.
- Parking and Curb Space:
  - On-site parking will be located off-street in the parking garage.

- Transportation Demand Management:
  - A TMP will be implemented for the development to discourage auto travel and encourage the travel by other modes.

The MTP also identifies the following recommendations in the vicinity of the 2025 Fairfax Drive development:

- Transit:
  - Additional elevators at the Court House Metrorail station
- Bicycle:
  - Develop a Bicycle Boulevard route along Fairfax Drive between N Barton Street and the trail along the north side of Arlington Blvd.
  - Reconstruct portions of the Arlington Boulevard Trail, between Rosslyn and the Seven Corners area, to enhance user safety and usability. Reconstruction should include resurfacing to achieve a minimum 10foot paved width, enhancing the crossings of highway ramps and providing contra-flow facilities for those sections of one-way service road that constitute parts of the trail. Evaluate installation of trail lighting.
  - Provide an enhanced bicycle facility on Fairfax Drive, along the south side of Arlington Boulevard, to connect the Arlington Boulevard Trail to N Meade Street bicycle lanes and trails near the Iwo Jima Memorial. The new facility could be a widened sidewalk for shared bicycle and pedestrian use, or an on-street bike lane.

In direct relation to the 2025 Fairfax Drive development, these recommendations would create additional multi-modal capacity and connectivity to/from the site.

#### Local Initiatives

### Fort Myer Heights North Plan (2008)

The Fort Myer Heights North Plan, adopted in 2008, seeks to create a strategic balance of preservation and redevelopment with an emphasis on affordable housing, historic buildings, open space, significant trees and neighborhood scale. The Plan includes the following goals and objectives:

- Preservation of existing affordable units and the construction of new affordable units;
- Preservation of neighborhood character and historic buildings;
- Preservation of tree cover and significant trees and the enhancement of streetscapes with shade trees;

- Provision of public and private open space;
- Enhanced pedestrian corridors along North Rhodes Street and 16th Street North;
- An improved neighborhood edge and pedestrian-oriented streetscape along Fairfax Drive and Clarendon Boulevard;
- The provision of adequate parking using creative strategies.

The 2025 Fairfax Drive development is consistent with the outlined goals. The development includes plans for a pedestrian-oriented streetscape along the Fairfax Drive frontage and provides adequate parking on site.

The Plan also includes design guidelines for streetspaces and bicycle/pedestrian facilities in the Plan area. These guidelines call for enhanced streetscape treatments along the neighborhood's principal streets, which include Fairfax Drive near the project site. Streetscape improvements could possibly include wide sidewalks, additional lighting, provisions for bus stops and crosswalk nubs.

In relation to the proposed development, the Plan provides guidance on recommended street cross-sections for Fairfax Drive near the project site; the relevant cross-section for the site is shown in Figure 12. Along the frontage of the project site, the cross-section recommends sidewalks with an 8-foot clear width and a 5-foot planting strip. The proposed development provides an 8-foot clear width sidewalk and a 6-foot planting strip along Fairfax Drive, and is thus is consistent with the Plan's proposed cross-section.

# Radnor-Fort Myer Heights Neighborhood Conservation Program (2007)

The Neighborhood Conservation Program, established in 1964, was created to improve and enhance Arlington neighborhoods. The goal of the program is to encourage residents to discuss and share ideas for improving the neighborhoods in which they reside. The program also provides funding for a variety of improvements, such as the installation of sidewalks, curbs and gutters, streetlights, and signs. Each neighborhood decides to develop a plan and when it is ready to initiate the update process; each plan typically serves a community for 10 years. The Radnor-Fort Myer Heights Neighborhood Conservation Plan was developed in 2007 and includes the project site and areas to the north and east.

#### **Planned Improvements**

# 2050 Wilson Boulevard (Courthouse Landmark Block)

Approved in March 2021, this project proposes the redevelopment of the Landmark Block, located at 2050 Wilson Boulevard. This site is comprised of seven parcels in the Court House neighborhood, with a 20-story residential apartment building with ground-floor retail, rooftop amenities and open space, and a below-grade parking structure. As part of the redevelopment of the site, the project will convert N Uhle Street to a pedestrian promenade between the Court House Metrorail station and the Landmark Block. It would also provide streetscape and transportation improvements along 15<sup>th</sup> Street N, Clarendon & Wilson Boulevards, and N Courthouse Road, including upgraded sidewalks and pedestrian crossings, curb ramps, bulb-outs, and bus stop facilities.

In direct relation to the 2025 Fairfax Drive development, the multi-modal improvements proposed for the 2050 Wilson Boulevard project will improve multi-modal connectivity to the site with upgrades to pedestrian and bus facilities. They will also

improve connectivity between Court House station and the proposed development.

## 1307 N Rolfe Street (Gables)

This project proposed to redevelop the project site with three buildings: two residential buildings that provide 395 housing units, and a County transitional living facility with 14 housing units. It also proposed an approximately 8,000 square-foot park at the corner of 14<sup>th</sup> Street N and N Rhodes Street, and sidewalk, streetscape, and pedestrian crossing improvements along the site frontages on Fairfax Drive, N Rolfe Street, 14<sup>th</sup> Street N, N Rhodes Street, and the Arlington Boulevard Trail. The project was completed in 2019.

In direct relation to the 2025 Fairfax Drive development, the completed upgrades to pedestrian facilities around the 1307 N Rolfe Street site have improved pedestrian connectivity to the project site.

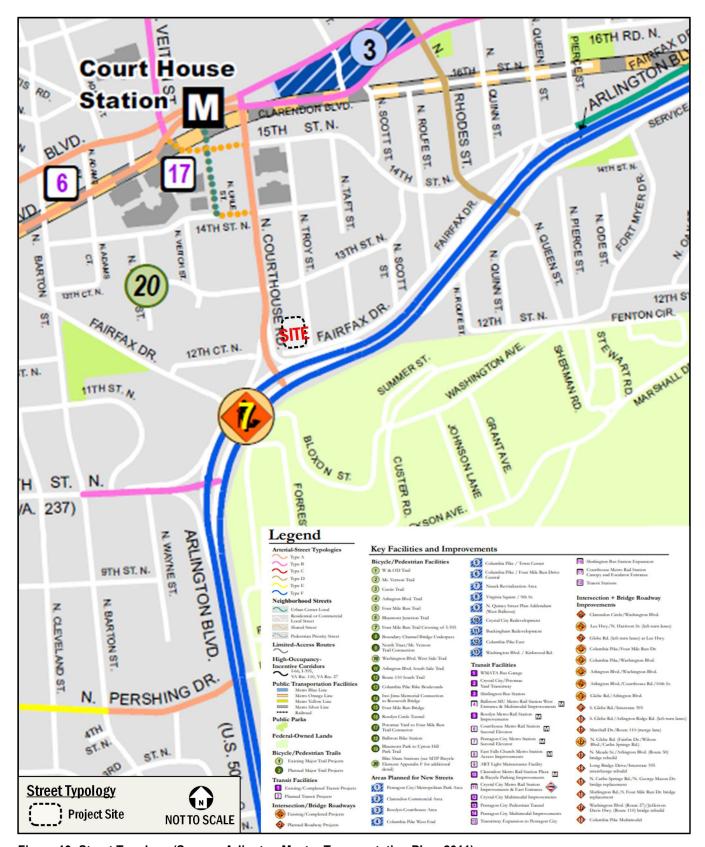


Figure 10: Street Typology (Source: Arlington Master Transportation Plan, 2011)

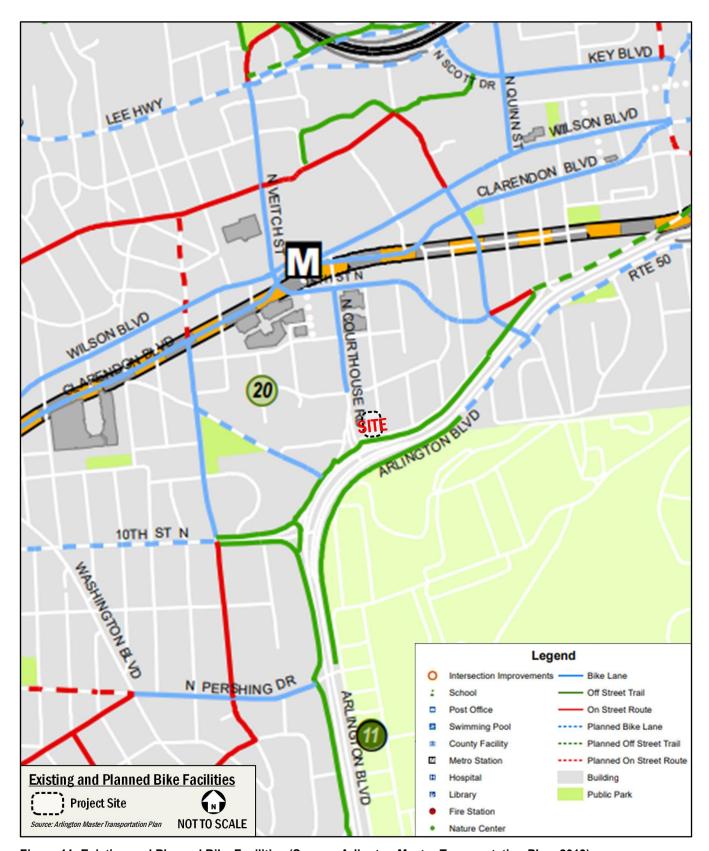


Figure 11: Existing and Planned Bike Facilities (Source: Arlington Master Transportation Plan, 2019)

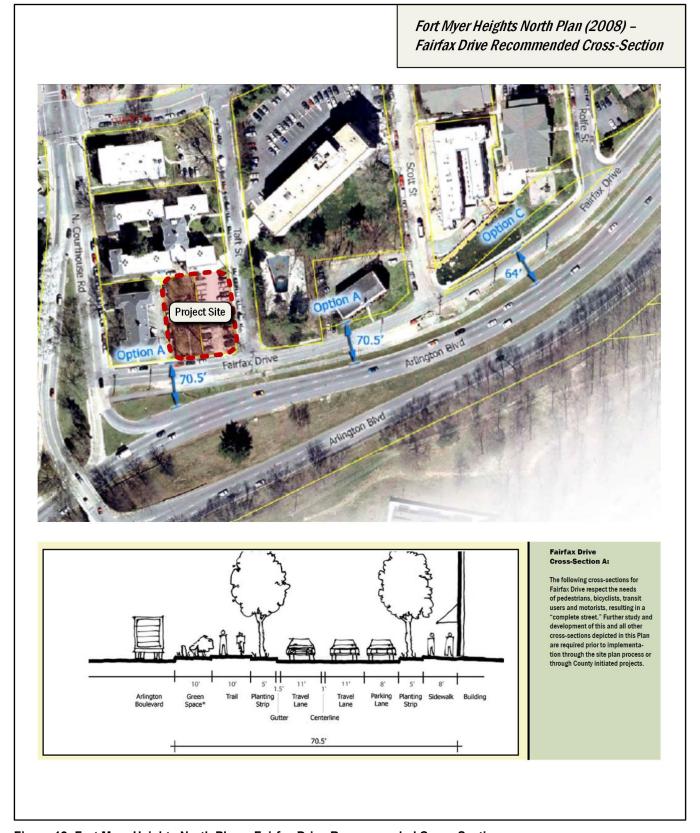


Figure 12: Fort Myer Heights North Plan – Fairfax Drive Recommended Cross-Section

# **Project Design**

This chapter reviews the transportation components of the 2025 Fairfax Drive development, including the proposed site plan and access points. It includes descriptions of the site's vehicular access, loading, parking, bicycle, and pedestrian facilities.

The proposed development site is located in the Radnor/Fort Myer Heights neighborhood in Arlington, Virginia and is bounded by existing residential buildings to the north and west, Fairfax Drive to the south, and N Troy Street to the east. The site location is shown in Figure 2. The proposed site plan for the redevelopment is shown in Figure 6.

The existing site currently consists of a 40-space surface parking lot and a single-family home. The proposed development will replace the existing uses with a 166-unit residential building.

The project will provide 120 parking spaces in a partially below-grade garage. The Mezzanine level of the garage will be accessed via a driveway on N Troy Street, providing access to the 30 spaces allocated for the adjacent residential buildings which currently utilize the surface parking lot on-site. The remaining 90 spaces will be allocated to residents of the new building and will be accessed separately from a driveway on Fairfax Drive, with spaces on the Ground Floor and two (2) additional below-grade levels of the garage. Secure bicycle storage will be provided in the parking garage, providing 68 long-term bicycle spaces across two levels. A total of at least four (4) short-term bicycle parking spaces for residential use will be located around the perimeter of the site.

# Adjacent Roadways

Consistent with the Fort Myer Heights North Plan, the proposed development will provide safe and attractive multimodal infrastructure along the adjacent roadways.

#### **Fairfax Drive**

Fairfax Drive is a local, low volume, two-lane roadway that runs east-west along the south end of the site and provides local multimodal connectivity. As part of the Fort Myer Heights North Plan, the cross-section of Fairfax Drive is designed to respect the needs of pedestrians, bicyclists, transit users and motorists, resulting in a "complete street." As part of the proposed development, the sidewalk along the property frontage will be improved to provide ample circulation to and around the

property, including sidewalk and planting strip widths consistent with the Fort Myer Heights North Plan (as shown in Figure 12). Figure 13 shows the typical cross-section and design elements that can be expected along Fairfax Drive as part of the proposed development.

# **N Troy Street**

N Troy Street is a local, low volume, two-lane roadway that runs north-south adjacent to the east end of the site and provides local multimodal connectivity. As part of the proposed development, the sidewalk along the property frontage of N Troy Street will be improved to provide ample circulation to and around the property. Figure 14 shows the typical cross-section and design elements that can be expected along N Troy Street as part of the proposed development.

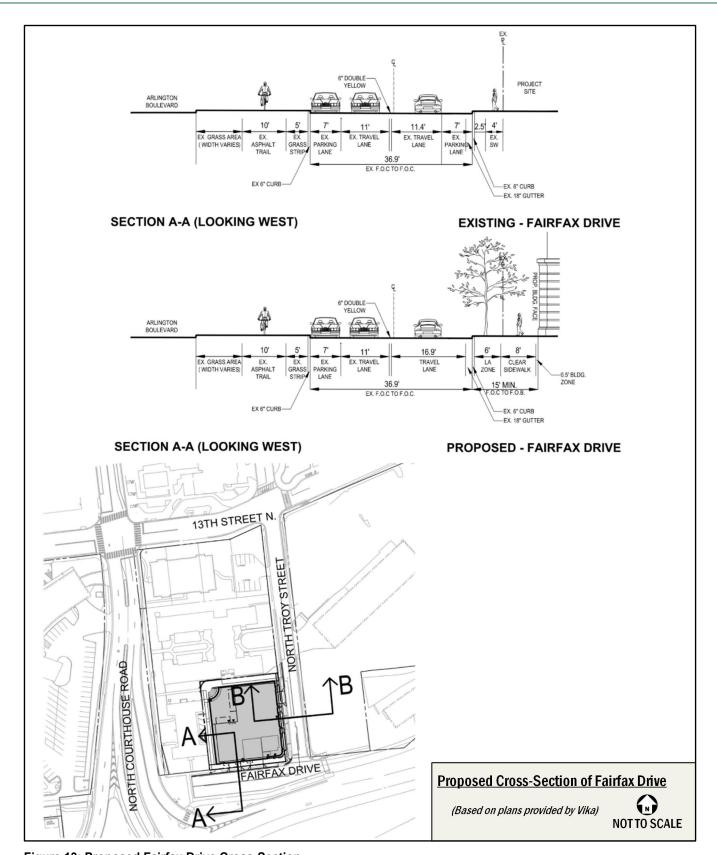


Figure 13: Proposed Fairfax Drive Cross-Section

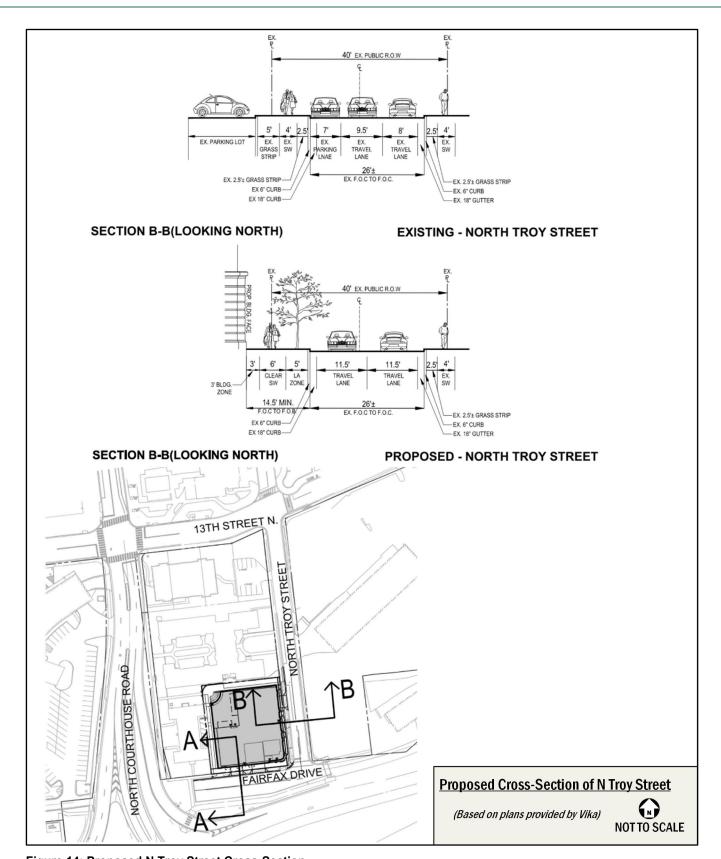


Figure 14: Proposed N Troy Street Cross-Section

#### Site Access and Circulation

#### **Pedestrian Access**

The primary pedestrian access to the proposed development is shown in Figure 15. Pedestrians will access the building through entrances fronting the sidewalks along Fairfax Drive and N Troy Street, as well as an entrance on the west side of the building. The proposed development also includes walkways along the north and west sides of the building, which will connect to an existing walkway accessing N Courthouse Road at the northeast corner of the site. A circulation plan showing expected pedestrian routes is shown in Figure 16.

# **Bicycle Access**

Bicycle access to the secure long-term bicycle parking on the G2 and G3 levels of the garage will be provided via elevators in the building lobby (accessed through doors on Fairfax Drive). Alternatively, bicycles will access the secure parking through the parking garage entrance on Fairfax Drive and the internal garage ramps.

Short-term bicycle parking spaces will be placed along the perimeter of the site on N Troy Street. Bicycle access to the site is primarily expected to occur via the Arlington Boulevard Trail (directly south of the site across Fairfax Drive) or via N Troy Street to/from the north. A circulation plan showing expected bicycle routes is shown in Figure 16.

#### **Vehicular Access**

Vehicular access to the parking garage will be provided at two (2) locations. One (1) driveway will be located on N Troy Street and will provide access to the Mezzanine level of the garage, which is not internally connected to the lower levels of the garage and is for the exclusive use for the existing Wakefield residents, and one (1) driveway will be located on N Fairfax Drive and connect to the spaces on the Ground Floor, G2, and G3 levels of the garage.

Access to the loading area will be provided along N Fairfax Drive. A circulation plan showing expected vehicular routes is shown in Figure 16.

## Loading

Per the Zoning Ordinance, the following outlines the loading facility requirements for land uses of the development:

Residential

Multifamily uses with more than 50 dwelling units are required to provide one (1) loading space for each 200 units.

Per these requirements, the proposed development is required to provide one (1) loading space. The proposed development will provide one (1) 25-foot loading berth to support the residential uses of the building. The number of on-site loading facilities will accommodate the practical needs of the development.

Figure 6 shows the location of the area within the building.

# Parking

Based on the Arlington County Zoning Ordinance, the following outlines the vehicular parking requirements for the proposed development under RA8-18, Multiple-family Dwelling District requirements:

#### Residential

One and one-eighth (1.125) spaces for the first 200 dwelling units and one (1) space for each additional dwelling unit.

Per the Zoning Ordinance, the proposed development is required to provide 187 parking spaces for residential use. However, the County Board adopted the Off-Street Parking Guidelines for Multi-Family Residential Projects in November 2017 which provide justification for reducing this parking requirement. These guidelines recognize that a lower on-site parking ratio may be appropriate for a project, among other considerations, and may range from 0.2 to 0.6 spaces per unit depending on a project site's distance to Metro. Figure 17 shows the County's guidance on minimum parking requirements. Based on the site location and per these guidelines, a minimum of 0.3 spaces per unit are required for the proposed development. These guidelines also require 0.05 visitor parking spaces per unit for the first 200 dwelling units. Per these guidelines, the proposed development is required to provide 50 parking spaces for residential use and 9 parking spaces for residential visitor use, for a total of 59 parking spaces.

The proposed development will provide 120 parking spaces in a partially below-grade garage on-site. Consistent with the County Off-Street Parking Guidelines, a parking ratio of 0.54 spaces per unit is proposed for the proposed development, providing a total of 90 parking spaces. The remaining 30 spaces in the garage will be provided to serve the existing adjacent residential buildings (the Courthouse Manor and Wakefield Annex complexes), which were previously served by the 40 surface parking spaces that will be removed as part of the proposed development. The adjacent

residential buildings are also served by 10 parking spaces in a separate lot at the southwest corner of N Troy Street and 13<sup>th</sup> Street N which would not be affected by the project. Sixteen (16) of the total spaces (approximately 13.3 percent) are compact parking spaces, which is within the 15 percent threshold established by § 14.3.3.F of the Zoning Ordinance. The proposed residential parking ratio accords with recent County policies supporting significant parking reductions for residential development in close proximity to transit.

A summary of the proposed parking allocation is shown in Table 2.

# **Curbside Management**

A review of the existing curbside management was conducted and is shown on Figure 18. Currently, on-street parking is provided along Fairfax Drive and N Troy Street adjacent to the project site. The on-street parking along the south side of Fairfax Drive will remain, and the on-street parking along the Fairfax Drive and N Troy Street frontages of the site will be removed as part of the proposed development. The proposed on-street parking is shown on Figure 19.

# Bicycle and Pedestrian Facilities

## **Bicycle Facilities**

# **Bicycle Parking**

Per the Standard Site Plan Conditions, the following outlines the bicycle parking requirements for land uses of the development:

# Residential

Provide one (1) long-term space for every 2.5 residential dwelling units; and one (1) short-term space for every 50 residential dwelling units.

# Long-Term Bicycle Parking

Per these requirements, the proposed development is required to provide 67 long-term spaces and 4 short-term spaces for residential use.

The proposed development will provide 68 long-term bicycle parking spaces for residential use, meeting zoning requirements. Secure long-term bicycle parking for the development will be located in the bicycle rooms on the G2 and G3 levels of the garage.

# Short-Term Bicycle Parking

Per these requirements, the proposed development is required to provide four (4) short-term spaces for residential use. The proposed development will provide at least four (4) short-term bicycle parking spaces for residential use, meeting zoning requirements. Short-term bicycle parking spaces will be placed along the perimeter of the site.

# **Bicycle Showers and Lockers**

No showers or lockers are required for the proposed development.

#### **Pedestrian Facilities**

The existing pedestrian facilities around the site provide a quality walking environment. Pedestrian facilities directly surrounding the site will be improved along the eastern and southern frontages of the project. These facilities will provide a more inviting pedestrian environment and comply with the improvements laid out in the Arlington Master Transportation Plan.

New pedestrian facilities are expected to meet or exceed Arlington County requirements with an emphasis on pedestrian safety and comfort. This includes sidewalks that meet or exceed the width requirements, crosswalks at all necessary locations, and curb ramps with detectable warnings.

As part of the proposed development, walkways will also be provided along the northern and western frontages of the proposed building. These walkways will connect the sidewalks on N Troy Street and Fairfax Drive with an existing internal walkway which leads to N Courthouse Road.

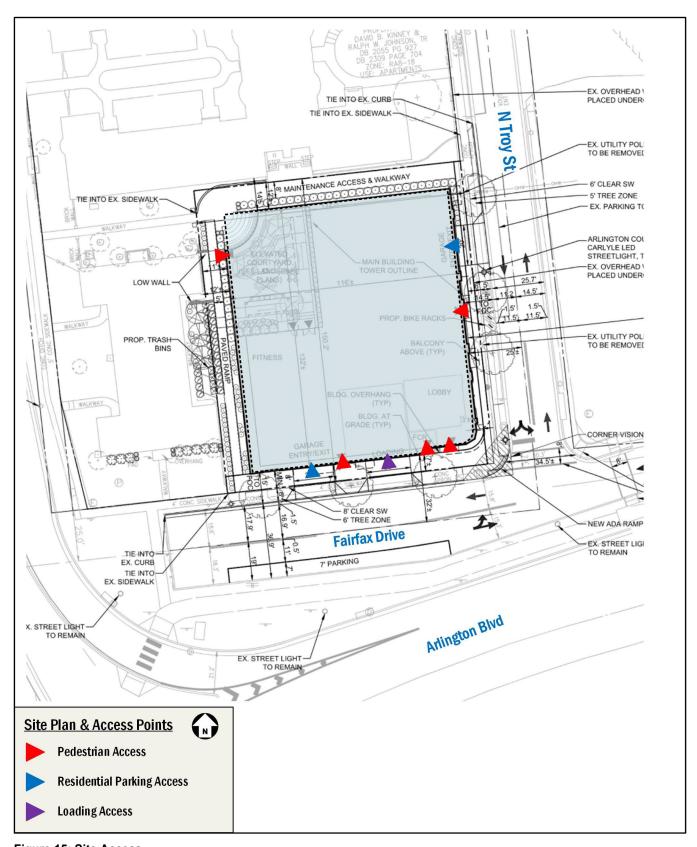


Figure 15: Site Access

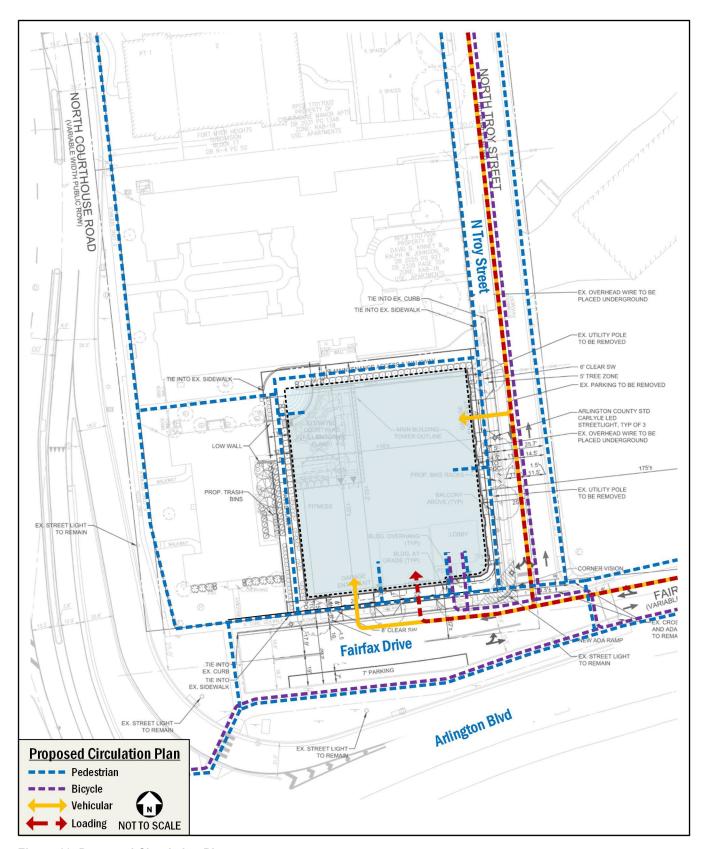


Figure 16: Proposed Circulation Plan

# **County Guidelines on Minimum Parking Requirements**



Project Site

Source: Off-Street Parking Guidelines for Multi-Family Residential Projects (2017)



Figure 1.4 Minimum Parking Requirements for Market-Rate Units within Areas where Multi-Family Buildings are Permitted by Site Plan in the Rosslyn-Ballston Corridor

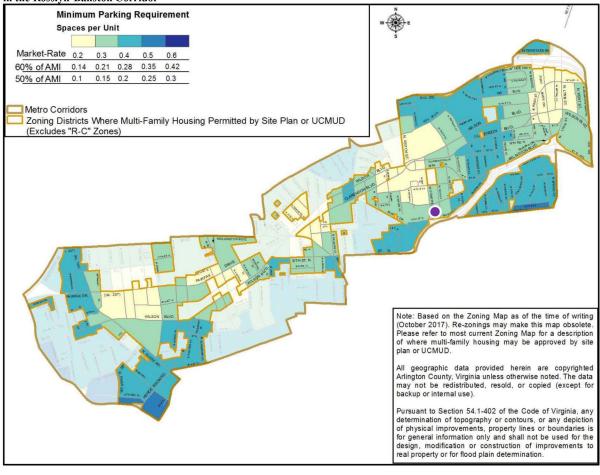


Figure 17: County Guidelines on Minimum Parking Requirements

**Table 2: Proposed Parking Allocation** 

	l l	Existing	Proposed		
	Number of Number of Spaces Number of Units Number of Units			Number of Spaces	
Courthouse Manor (Existing Garden Apartments)	18	10 <sup>2</sup>	18	10 <sup>2</sup>	
Wakefield Annex (Existing Garden Apartments)	66	40 <sup>1</sup>	66	30 <sup>3</sup>	
Proposed 2025 Fairfax Drive Development	-	-	166	90 <sup>3</sup>	

<sup>1.</sup> Located in existing surface lot (to be redeveloped) located on 2025 Fairfax Drive site

<sup>2.</sup> Located in existing surface lot (to remain) at southwest corner of N Troy Street and  $13^{\text{th}}$  Street N

<sup>3.</sup> Located in garage of proposed development

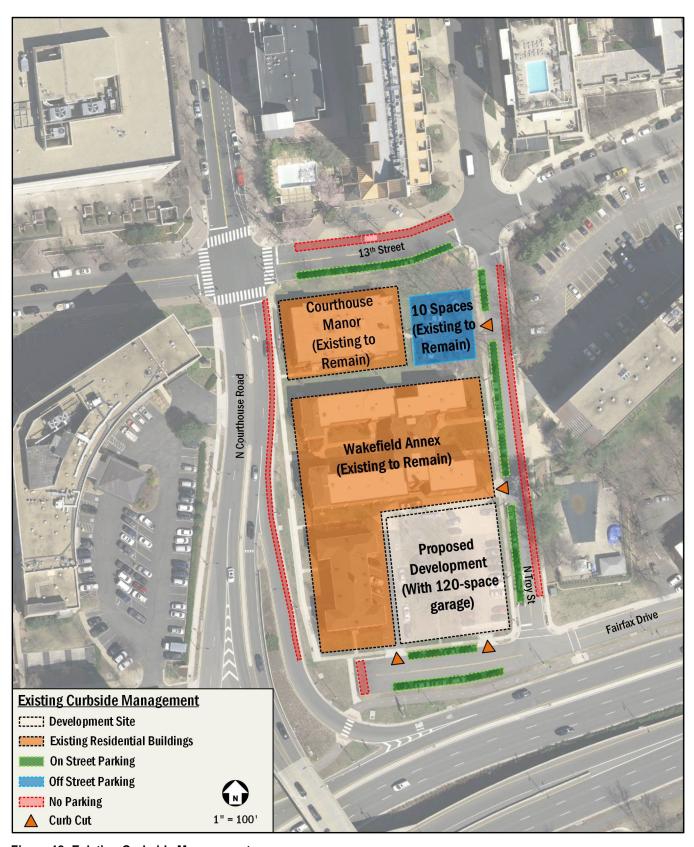


Figure 18: Existing Curbside Management

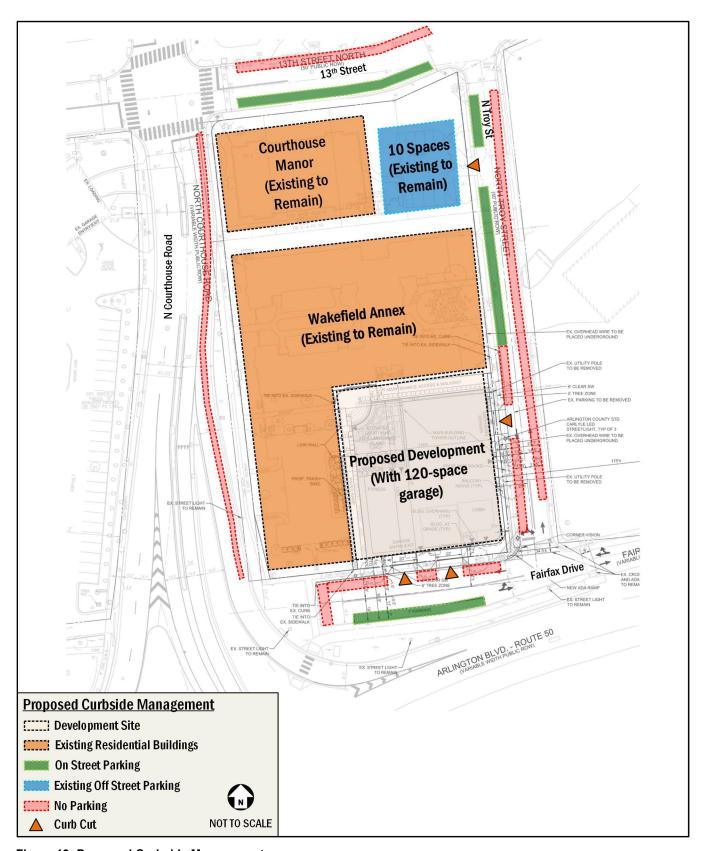


Figure 19: Proposed Curbside Management

## **Transit**

This chapter discusses the existing and planned transit facilities in the vicinity of the site, accessibility to transit, and evaluates the overall transit impacts of the project.

The following conclusions are reached within this chapter:

- The site has access to the Metrorail's Orange and Silver lines via the Court House station, located 0.3 miles from the project site.
- The site has limited access to additional public transportation within a quarter-mile of the project site. There are two (2) bus stops within a quarter-mile of the site which are directly served by Arlington Transit (ART).
- Three (3) additional ART routes, two (2) Metrobus routes, and two (2) OmniRide routes serve stops just outside of the quarter-mile study area.
- The site is surrounded by a well-connected pedestrian environment which connects to the site to transit facilities in the area.

Under existing conditions, there is limited transit service within a quarter-mile of the project site; however, several rail, local bus, and regional bus lines provide service just outside a quarter-mile radius from the site. Combined, these transit services provide local, citywide, and regional transit connections and link the site with major cultural, residential, employment, and commercial destinations throughout the region. Figure 20 identifies the major transit routes, stations, and stops in the study area.

Figure 21 shows the 10-minute, 20-minute, and 30-minute transit travel shed to and from the proposed development. As shown in the transit travel shed, much of northern Arlington and Downtown DC are accessible via transit within 30 minutes from the proposed development, as is Tysons, VA and Crystal City. Several destinations in Arlington and the District are accessible within a 20-minute transit trip from the proposed development, including Downtown DC and the Rosslyn-Ballston corridor in Arlington.

#### Metrorail Service

The site is located approximately 0.3 miles from the Court House Metro Station. The Court House Station is located north of the development site between N Veitch Street and N Uhle Street on Clarendon Boulevard. It can be reached by walking north from the site on N Courthouse Road. There are sidewalks, curb ramps, and crosswalks along routes to the Metro station.

The Court House station serves the Orange and Silver lines. The average daily ridership at the station in 2021 was approximately 1,300 boardings on weekdays, according to the WMATA Ridership Data Portal. The Orange Line travels from Fairfax, VA to the District core and continues east to New Carrolton, MD. As of March 2022, trains run approximately every 20 minutes on weekdays and every 24 minutes on weekends. The Silver Line travels east from Reston, VA to the District core and continues east to Largo, MD. As of March 2022, trains run approximately every 20 minutes on weekdays and every 24 minutes on weekends. Both lines provide connections to the Red Line, which provides a direct connection to Union Station, a hub for commuter rail – such as Amtrak, MARC, and VRE – in addition to all additional Metrorail lines, allowing for access to much of the DC Metropolitan area.

Figure 22 shows the average annual weekday passenger boardings for the Court House station. In 2019, Metrorail ridership at the station was down approximately 12 percent from its peak in 2013. Ridership throughout the entire system was down 11 percent from 2013 at that point. WMATA has initiated the Back2Good plan to improve safety, reduce delays, and build rider confidence in Metrorail. The decline in boardings at the stations near the development site indicates there is available capacity at these stations.

#### **Bus Service**

A review of the existing Metrobus stops within a quarter-mile radius of the site, detailing individual bus stop amenities and conditions, is shown in Table 3. There are two (2) bus stops within a quarter-mile of the site, both located on 15<sup>th</sup> Street N. These stops are served by three (3) Arlington Transit (ART) routes. Three (3) additional ART routes, two (2) Metrobus routes, and two (2) OmniRide routes serve stops at the Court House Metro station just outside of the quarter-mile study area. These stops can be accessed by walking north from the project site, which is surrounded by a well-connected pedestrian environment.

The site has access to several major bus lines as a result of its proximity to the Wilson Boulevard/Clarendon Boulevard Corridor and the Court House Metro station, where several major routes provide service. These bus lines connect the site to many areas of Virginia and the District, including several Metrorail stations serving all of the six (6) Metrorail lines.

Table 4 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.

#### Planned Transit Facilities

### **Arlington Master Transportation Plan (2019)**

The Arlington County Master Transportation Plan (MTP), adopted in 2011 and updated in 2019, outlines goals to improve various modes of transportation throughout the County. The MTP Transit Element identifies policies, implementation actions, and performance measures to:

- Increase transit service options;
- Improve access to transit services for all;
- Improving transit facilities;
- Creating multi-modal centers for convenient transfers;
- Expanding transit information distribution and marketing outreach; and
- Employing environmentally-sensitive technologies.

The MTP identifies the need for station enhancements and access improvements to Metrorail stations in the County. Near the project site, the MTP calls for additional elevators at the Court House Metrorail station. This will benefit the proposed development by improving transit accessibility to and from the project site.

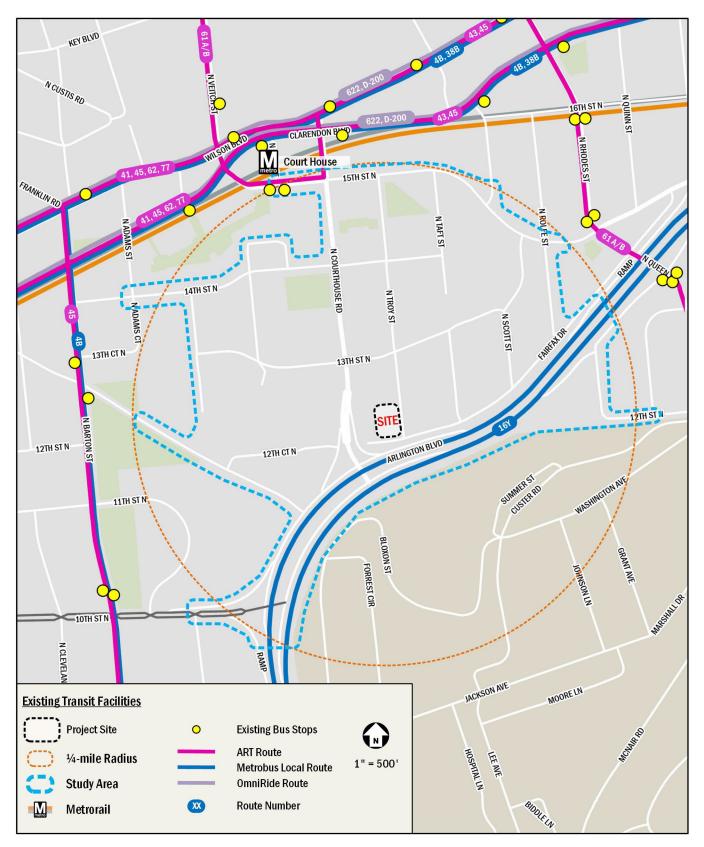


Figure 20: Existing Transit Service

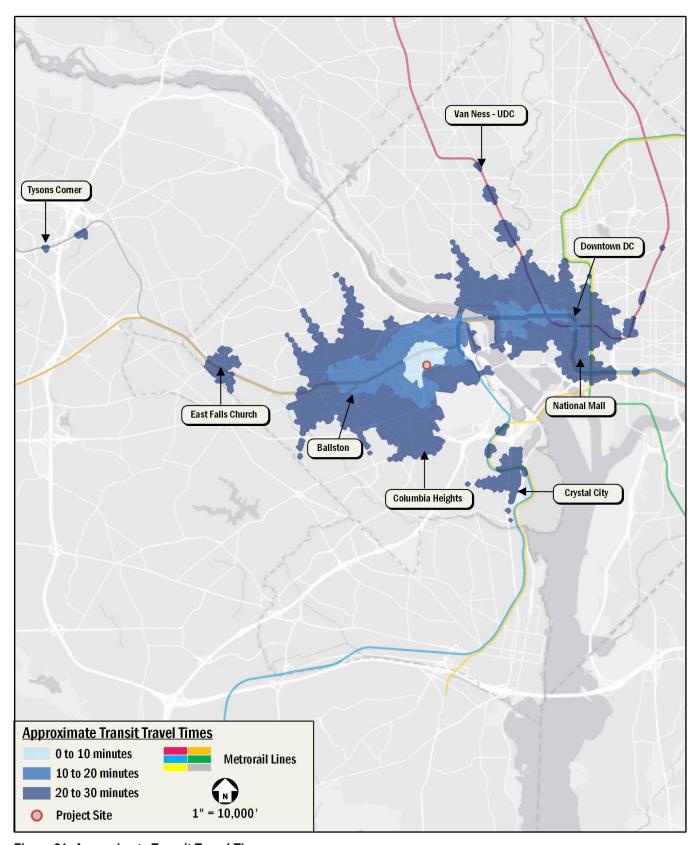


Figure 21: Approximate Transit Travel Times

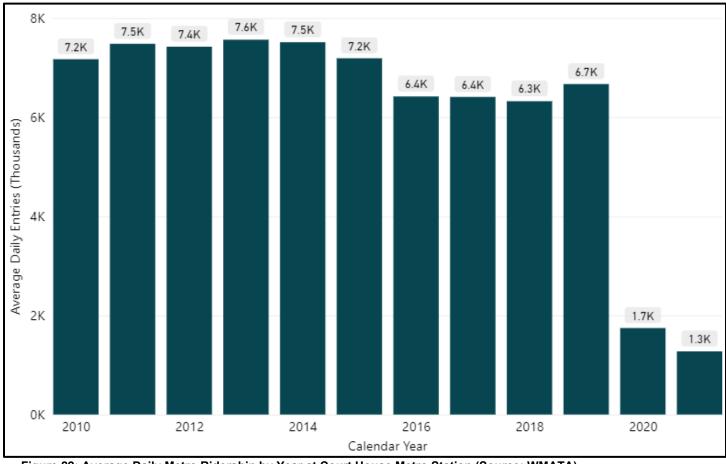


Figure 22: Average Daily Metro Ridership by Year at Court House Metro Station (Source: WMATA)

**Table 3: Bus Stop Inventory** 

Location	Stop ID	Buses Served	Stop Condition
Court House Metro, 15 <sup>th</sup> St N, EB at N Uhle St	6001280	62	Sign, ADA clearance, acceptable sidewalk clearance, street lighting, information case, seating, shelter, trash receptacle
Court House Metro, Arlington Co. Offices	6001166	41, 62, 77	Sign, ADA clearance, acceptable sidewalk clearance, street lighting, information case, seating, shelter, trash receptacle

Table 4: Bus Route Information

Route Number	Route Name	Service Hours	Headway	Walking Distance to Nearest Bus Stop	
		Weekdays: 5:05AM-12:01AM	_		
4B	Wilson Blvd	Saturday: 6:20AM-11:31AM	30-60 min	0.4 miles, 10 minutes	
		Sunday: 6:35AM-9:44AM			
		Weekdays: 5:30AM-2:31AM			
38B	Ballston-Farragut Square	Saturday: 5:30AM-2:28AM	15-30 min	0.4 miles, 10 minutes	
		Sunday: 5:30AM-2:24AM			
	Columbia Pike-Ballston-	Weekdays: 5:30AM-1:10AM	_		
ART 41	Courthouse	Saturday: 6:10AM-1:57AM	_ 15-23 min	0.3 miles, 7 minutes	
	Courtilouse	Sunday: 6:55AM-12:33AM			
ART 43	Court House – Rosslyn – Crystal City	Weekdays: 6:05AM-11:51PM	10-20 min	0.4 miles, 10 minutes	
	O-lumbia Bila - BUIGIOi-	Weekdays: 5:45AM-11:40PM			
ART 45	Columbia Pike – DHS/Sequoia –	Saturday: 7:30AM-12:21AM	20-30 min	0.4 miles, 10 minutes	
	Rosslyn	Sunday: 6:50AM-11:41PM	=		
ART 61A/B	Court House - Rosslyn	Weekdays: 6:15AM-9:41AM, 3:03PM-7:06PM	25 min	0.4 miles, 10 minutes	
ART 62	Court House Metro – Lorcom Lane – Ballston Metro	Weekdays: 6:22AM-9:36AM, 3:10PM-7:35PM	27-33 min	0.3 miles, 7 minutes	
ART 77	Shirlington – Lyon Park – Court	Weekdays: 6:00AM-11:25PM	25-30 min	0.2 miles. 7 minutes	
ARIII	House	Saturday: 7:00AM-11:56PM		0.3 miles, 7 minutes	
D-200	OmniRide Dale City- Pentagon/Rosslyn/Ballston Express	Weekdays: 4:15AM-9:27AM, 12:40PM-8:38PM	15-40 min	0.4 miles, 10 minutes	
622	Haymarket-Rosslyn/Ballston	Weekdays: 5:24AM-8:02AM (3 Trips), 2:30PM-5:15PM (4 Trips)	N/A	0.4 miles, 10 minutes	

## **Pedestrian Facilities**

This chapter summarizes the existing and future pedestrian access to the site and reviews walking routes to and from the site.

The following conclusions are reached within this chapter:

- The existing pedestrian infrastructure surrounding the site provides an adequate walking environment. There are sidewalks along most primary routes to pedestrian destinations, with some curb ramp and sidewalk width deficiencies in the system.
- Planned improvements to the pedestrian infrastructure surrounding the site will improve pedestrian comfort and connectivity.

### Pedestrian Study Area

Pedestrian facilities within a quarter-mile of the site were evaluated as well as routes to nearby transit facilities, including routes to Court House Metro Station between 15<sup>th</sup> Street N and Clarendon Boulevard. In general, existing pedestrian facilities surrounding the site provide comfortable walking routes to and from nearby transit options. However, there are some areas within the study area that negatively impact the quality and attractiveness of the walking environment. This includes curb ramp and sidewalk width deficiencies.

Figure 23 shows expected pedestrian pathways, walking time and distances, and barriers. Arlington Boulevard, located south of the site presents challenges for pedestrians by limiting north-south connection points.

Figure 25 shows the 10-minute, 20-minute, and 30-minute walk travel shed for the proposed development. Within a 10-minute walk, the proposed development has access to several destinations including bus stops, the Court House Metro station served by the Orange and Silver lines, Rocky Run Park, retail zones, nearby residential neighborhoods, and community amenities. Within a 20-minute walk, the proposed development has access to destinations such as residential neighborhoods, retail zones, grocery stores, and the Custis Trail. Within a 30-minute walk, the proposed development has access to destinations including additional residential neighborhoods, Arlington Cemetery, Gateway Park, and Georgetown via the Key Bridge.

## **Existing Pedestrian Facilities**

A review of pedestrian facilities surrounding the proposed development shows that many facilities provide an adequate walking environment. Figure 25 shows a detailed inventory of the existing pedestrian infrastructure surrounding the site.

Sidewalks, crosswalks, and curb ramps are evaluated based on the guidelines set forth by the Arlington County, and ADA standards. Sidewalk and buffer widths and recommendations are shown in Table 5. It should be noted that the sidewalk widths shown in Figure 25 reflect the total sidewalk widths based on aerial images and field observations.

ADA standards require that curb ramps be provided wherever an accessible route crosses a curb and must have a detectable warning. Additionally, curb ramps shared between two crosswalks is not desired. As shown in Figure 25, under existing conditions the majority of curb ramps meet ADA standards.

Within the study area, the majority of roadways have existing sidewalks on both sides, with some deficiencies. However, there are portions of the residential areas surrounding the project site that are missing sidewalks. Notably, no sidewalk is present on the south side of 13<sup>th</sup> Street N between N Courthouse Road and N Troy Street, and no crosswalk is provided across the west leg of 13<sup>th</sup> Street N and N Troy Street. Despite some deficiencies, all primary pedestrian destinations are accessible via routes with sidewalks, most of which meet Arlington County and ADA standards.

Overall, the site is situated within an urban transportation network with adequate pedestrian access.

#### Planned Pedestrian Facilities

As part of the proposed development, the existing sidewalks along the site frontage on Fairfax Drive and N Troy Street will be improved. The sidewalk on Fairfax Drive will be widened to an 8-foot clear width and a 6-foot buffer zone and the sidewalk on N Troy Street will be widened to a 6-foot clear width and will include a 5-foot buffer zone. These sidewalks will meet Arlington County and ADA standards and will improve pedestrian comfort and connectivity in the area.

A number of pedestrian infrastructure improvements are planned or were recently completed as part of other development projects:

 As part of the 2050 Wilson Boulevard (Courthouse Landmark Block) N Uhle Street will be converted to a pedestrian promenade between the Court House Metrorail station and the Landmark Block. The project would also upgrade sidewalks and provide pedestrian crossings, curb ramps, bulb-outs, and bus stops facilities along 15<sup>th</sup> Street N, Clarendon & Wilson Boulevards, and N Courthouse Road.

 As part of the recently-completed 1307 N Rolfe Street (Gables) project, an approximately 8,000 square-foot park was constructed at the corner of 14<sup>th</sup> Street N and N Rhodes Street. The project also provided sidewalk, streetscape, and pedestrian crossing improvements along the site frontages on Fairfax Drive, N Rolfe Street, 14<sup>th</sup> Street N, N Rhodes Street, and the Arlington Boulevard Trail.

Planned and proposed pedestrian improvements are shown in Figure 26.

Table 5: Sidewalk Recommendations per Arlington County Master Transportation Plan

Street Name	Section	Minimum Sidewalk Width	Minimum Sidewalk Width Met	Sidewalk Width*	Minimum Buffer Width	Minimum Buffer Width Met	Buffer Width*
Fairfax Drive	N Barton Street to Rhodes Street	4-6 ft	N	None	2-4 feet	N	None
N Courthouse Road	15 <sup>th</sup> Street N to Arlington Boulevard	10-16 ft	N	8 ft	6 feet	N	None
N Troy Street	15 <sup>th</sup> Street N to Fairfax Drive	4-6 ft	Υ	5 ft	2-4 feet	N	None
15 <sup>th</sup> Street N	N Uhle Street to 14 <sup>th</sup> Street N	4-6 ft	Υ	5 ft	2-4 feet	N	None
14 <sup>th</sup> Street N	N Adam Street to N Rolfe Street	4-6 ft	Υ	5 ft	2-4 feet	N	None
13 <sup>th</sup> Street N	N Wayne Street to N Scott Street	4-6 ft	N	None	2-4 feet	N	None
N Wayne Street	14 <sup>th</sup> Street N to 13 <sup>th</sup> Street N	4-6 ft	Υ	4 ft	2-4 feet	N	None
N Veitch Street	N Uhle Street to 13 <sup>th</sup> Street N	4-6 ft	Υ	6 ft	2-4 feet	N	None
N Taft Street	15 <sup>th</sup> Street N to Fairfax Drive	4-6 ft	N	None	2-4 feet	N	None
N Scott Street	14 <sup>th</sup> Street N to Fairfax Drive	4-6 ft	Υ	4 ft	2-4 feet	N	None
N Rolfe Street	14 <sup>th</sup> Street N to Fairfax Drive	4-6 ft	Υ	6 ft	2-4 feet	Υ	5 ft
12 <sup>th</sup> Street N	N Rolfe Street to N Quinn Street	4-6 ft	N	None	2-4 feet	N	None
N Quinn Street	12 <sup>th</sup> Street N to N Queen Street	4-6 ft	N	None	2-4 feet	N	None
10 <sup>th</sup> Street N	N Wayne Street to Arlington Boulevard	6-12 ft	Υ	6 ft	6 feet	N	5 ft

<sup>\*</sup> Widths based on most narrow measurement along either side of roadway section

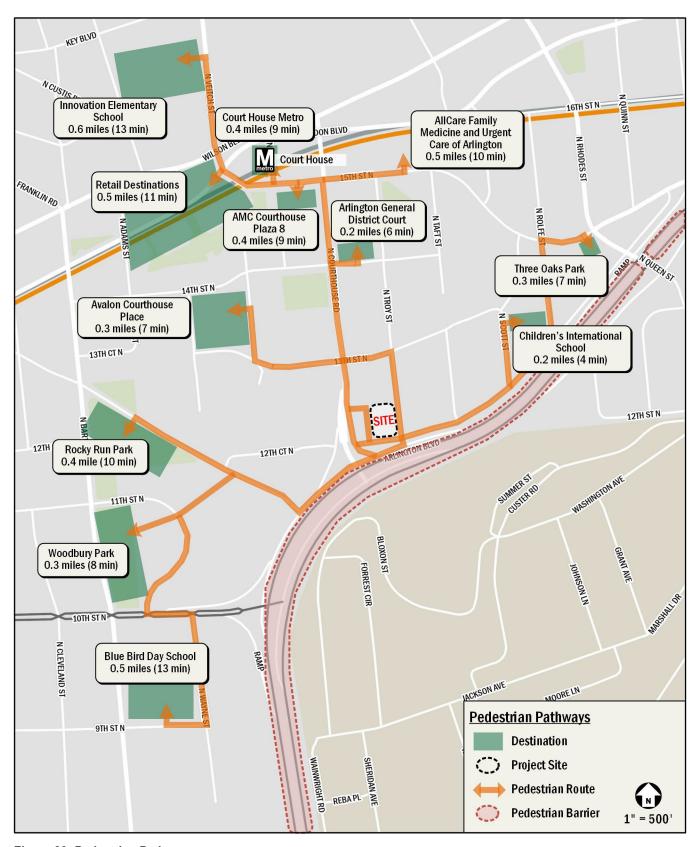


Figure 23: Pedestrian Pathways

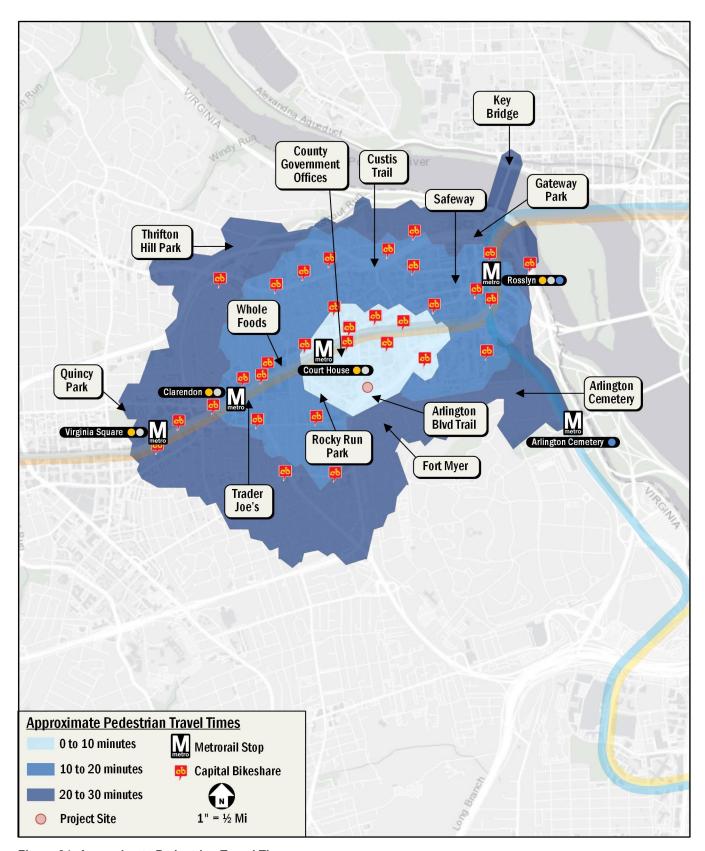


Figure 24: Approximate Pedestrian Travel Times

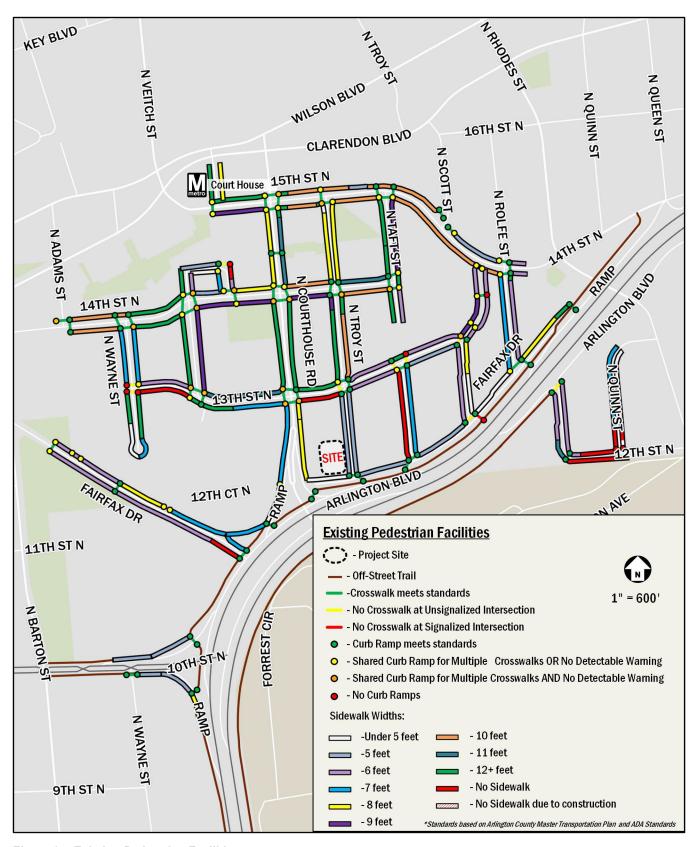


Figure 25: Existing Pedestrian Facilities

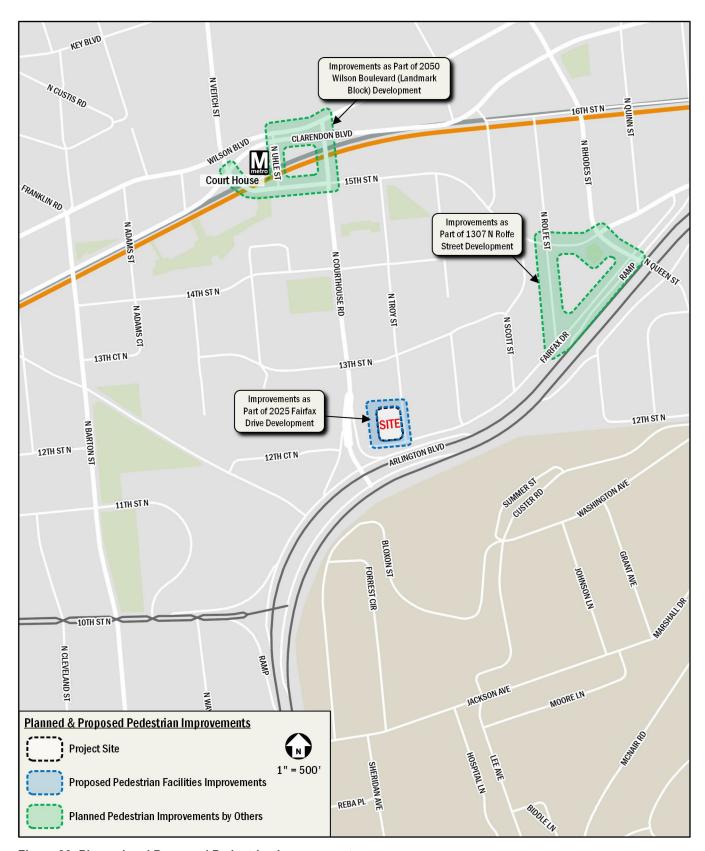


Figure 26: Planned and Proposed Pedestrian Improvements

# **Bicycle Facilities**

This chapter summarizes existing and future bicycle access and reviews the quality of cycling routes to and from the site.

The following conclusions are reached within this chapter:

- The site has access to several on- and off-street bicycle facilities, including the Arlington Boulevard Trail and bicycle lanes along N Courthouse Road, 15<sup>th</sup> Street N, N Barton Street, Clarendon Boulevard, and Wilson Boulevard.
- Future planned projects in the vicinity of the site include adding bicycle lanes along N Fairfax Drive between N Barton Street and Arlington Boulevard, bicycle lanes on the Arlington Boulevard Frontage Road between N Rolfe Street and N Meade Street, and bicycle lanes on 10<sup>th</sup> Street N west of N Barton Street. Portions of the Arlington Boulevard Trail between Rosslyn and Seven Corners are also proposed to be reconstructed.
- The proposed development will provide short-term and longterm bicycle parking that meets zoning requirements.

## Existing Bicycle Facilities

The site has access to several on-street bicycle facilities, including bicycle lanes along N Courthouse Road, 15<sup>th</sup> Street N, N Barton Street, Clarendon Boulevard, and Wilson Boulevard. The Arlington Boulevard Trail runs along the south side of Fairfax Drive, directly south of the project site. The trail is an off-street, multi-use path which parallels Arlington Boulevard between N Rhodes Street and N Glebe Road. Near the project site, a bicycle lane is provided along N Courthouse Road between 13<sup>th</sup> Street N and 14<sup>th</sup> Street N in the northbound direction with a shared lane marking ("sharrow") in the southbound direction. Figure 27 shows the existing facilities within the study area.

Arlington County publishes an annual Bicycle Comfort Level Map highlighting the most comfortable bicycle routes throughout Arlington County. The map uses a rating system of "perception of comfort" to show which routes are most comfortable. Routes are rated as 'Easy', 'Medium', 'Challenging', 'Expert Level', or 'Prohibited'. The most recent publication of the map (2020) shows most on-street bicycle routes in the vicinity of the site rated as 'Medium'. The Arlington Boulevard Trail, which is off-street, serves as an accessible bicycle route to and from the site that provides an enhanced level of comfort for cyclists.

'U' shaped bicycle racks are available at locations along N Courthouse Road and 14<sup>th</sup> Street N near the project site. The proposed development will provide at least the required short-term bicycle parking.

Figure 28 shows the 10-minute, 20-minute, and 30-minute bicycle travel shed for the proposed development. Within a 10-minute bicycle ride, the proposed development has access to several destinations including the Custis Trail trailhead, Mount Vernon Trail, public transportation stops, Metro stations served by the Orange and Silver lines, retail zones, residential neighborhoods, and community amenities. Within a 20-minute bicycle ride, the proposed development has access to destinations in Arlington such as the W&OD Trail, Pentagon City, Downtown DC, residential neighborhoods, and retail zones. Within a 30-minute bicycle ride, the proposed development is accessible to most of Arlington County, as well as several locations in the District, Alexandria, and Fairfax County.

#### **Capital Bikeshare**

In addition to personal bicycles, the Capital Bikeshare program provides additional cycling options for residents and patrons of the proposed development. The Bikeshare program has placed over 550 Bikeshare stations across Washington, DC, Arlington County, VA, City of Alexandria, VA, Montgomery County, MD, Fairfax County, VA, Prince George's County MD, and most recently the City of Falls Church, VA, with over 4,500 bicycles provided. There are three (3) existing Capital Bikeshare stations that house 39 docks within a quarter mile of the site, located at 15th Street N & N Scott Street, Court House Metro/15th Street N & N Uhle Street, and Arlington Boulevard & Fairfax Drive. There are nine (9) additional stations located within one half-mile of the site.

#### E-Scooters and Dockless E-Bicycles

Five (5) electric-assist scooter (e-scooter) and electric-assist bicycle (e-bike) companies provide Shared Mobility Device (SMD) service in Arlington County: Bird, Helbiz, Lime, Link, and Spin. These SMDs 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 SMDs do not have designated stations where pick-up/drop-off activities occur like with Capital Bikeshare; instead, many SMDs are parked in public space, most commonly in the "furniture zone" (the portion of sidewalk between where people walk and the curb, often where you'll find other street signs, street furniture, trees, parking meters, etc.). At

this time, SMD pilot/demonstration programs are underway in Arlington County, the District, Fairfax County, the City of Alexandria, and Montgomery County.

## Planned Bicycle Facilities

Existing bike facilities have been recommended by the Arlington Master Transportation Plan to be upgraded in the future, as shown on Figure 27, including adding bicycle lanes along N Fairfax Drive between N Barton Street and 12<sup>th</sup> Court N, along the Arlington Boulevard Frontage Road between N Rolfe Street and N Meade Street, and along 10<sup>th</sup> Street west of N Barton Street.

The MTP also recommends reconstruction of portions of the Arlington Boulevard Trail between Rosslyn and the Seven Corners area to enhance user safety and usability. Reconstruction would include resurfacing to achieve a minimum 10-foot paved width, enhancing the crossings of highway ramps and providing contra-flow facilities for those sections of one-way service road that constitute parts of the trail.

The proposed development will include both short- and long-term bicycle parking spaces, consistent with the Standard Site Plan

Conditions. The proposed development will provide 68 long-term bicycle parking spaces for residential use. Secure long-term bicycle parking for the development will be located in the bicycle rooms on the G2 and G3 levels of the garage. At least four (4) short-term bicycle parking spaces for residential use will be placed along the perimeter of the site.

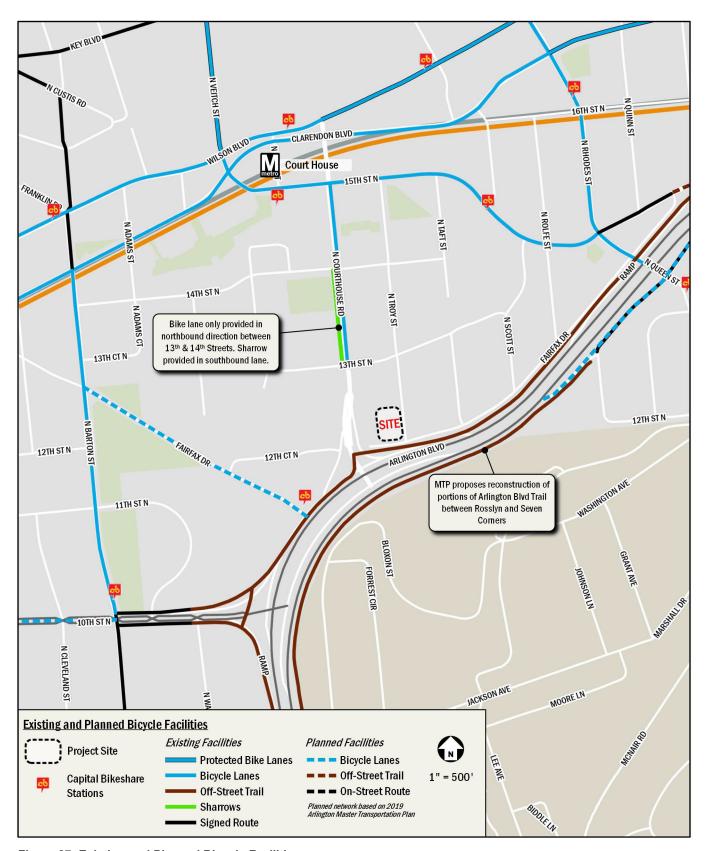


Figure 27: Existing and Planned Bicycle Facilities

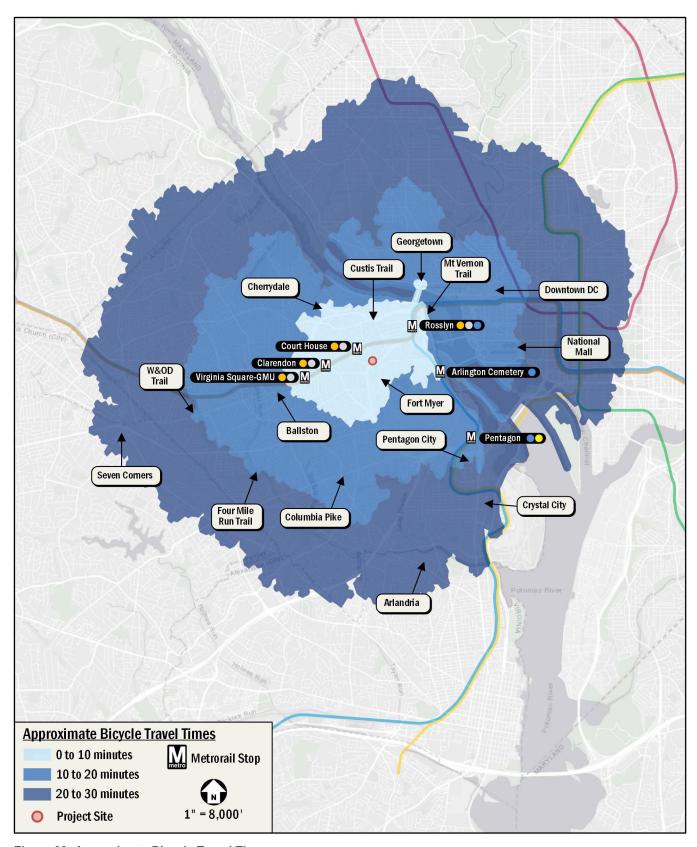


Figure 28: Approximate Bicycle Travel Times

# **Travel Demand Assumptions**

This chapter outlines the transportation demand of the proposed 2025 Fairfax Drive development. It reviews the expected mode splits and multimodal trip generation for the proposed development. These assumptions were vetted and approved by Arlington County during the scoping process. This chapter also provides a comparison between the trip generation of the currently-proposed development and the previously-proposed development for the site as part of the previous 2011 site plan.

# Mode Split Methodology

Mode split (also called mode share) is the percentage of travelers using a particular type (or mode) of transportation when traveling. The main source of mode split information for this report was based on Census data using Transportation Analysis Districts (TADs) and data contained in the 2016 State of the Commute, the WMATA Ridership Survey, and the Arlington County Mode Share Assumptions for Clarendon/Court House.

#### **Residential Mode Splits**

Residential mode splits were primarily based on the County's guidance on mode share assumptions for residential trip productions; census data at the TAD level was also considered for commuters with origins in the TAD. Figure 29 shows the TAD used in the analysis in relation to the proposed development and Figure 30 shows the destinations of driving commuters with origins in the project TAD. Table 6 summarizes the data that was used to establish the residential mode split assumptions for this report.

Table 6: Summary of Residential Mode Split Data

·	Mode							
Information Source	sov	Carpool	Transit	Bike/ Walk	Telecommute/ Other			
Census Transportation Planning Products (TAD 1014)	43% 4%		36%	11%	6%			
Census Data 2019 (Tract 1017.01)	39%	4%	45%	9%	3%			
WMATA Ridership Survey (average for Court House Station Area)	;	34%	52%	14%	-			
WMATA Ridership Survey (average for Suburban- Inside the Beltway)	·	39%	49%	12%	-			
Arlington Resident Study 2015	44% 3%		42%	11%	1%			
Arlington County Mode Share Assumptions for Productions (Clarendon/Courthouse)	;	39%	52%	9%				

The site has multiple bus stops and one (1) Metro station in the vicinity of the site. It is expected that a significant portion of trips will be by Metrorail, bus, bicycle, or on foot during the morning and afternoon peak hours, rather than by personal vehicle. Based on this, the auto mode split for the proposed development was determined to be 39%. The proposed mode splits were vetted and approved by Arlington County during the scoping process. Table 7 shows the mode split for the development.

Table 7: Summary of Mode Split Assumptions by Land Use

I and I las		Mc	de	
Land Use	Auto	Transit	Bike	Walk
Residential	39%	52%	3%	6%

# Trip Generation Methodology

## **Proposed Trip Generation**

Weekday peak hour trip generation is calculated based on the methodology outlined in the Institute of Transportation Engineers' (ITE) <u>Trip Generation</u>, 10<sup>th</sup> Edition.

Residential trip generation is based on the development program of 166 residential dwelling units. Residential trip generation was calculated based on ITE Land Use 222 (Multifamily Housing – High-Rise), using the setting/location of General Urban/Suburban, splitting trips into different modes using assumptions outlined in the mode split section of this report. It should be noted that the vehicular trip generation numbers include truck and delivery related trips to and from the residential component of the project.

A summary of the multi-modal trip generation for the proposed development is shown in Table 8 for the weekday morning and weekday afternoon peak hours, as well as daily weekday trips. Detailed trip generation calculations are included in the Technical Appendix.

## 2011 Site Plan Trip Generation

In 2011, the County Board approved the previous site plan for the project site, which consisted of a 12-story residential building with 104 residential dwelling units. The traffic impact study performed as part of the previous site plan application included proposed trip generation for the site based on ITE <u>Trip</u> <u>Generation</u>, 8th Edition, and assumed a development with 110 residential dwelling units.

A non-auto mode reduction of 40% for residential use was assumed for the site to account for non- single-occupancy vehicle (SOV) use, non-peak hour SOV trips and non-automobile

trips to/from the site. The mode split assumptions for the previous study were based on the 2005 Development-Related Ridership Survey by Washington Metropolitan Area Transit Authority (WMATA) and various other studies conducted in the vicinity of the site at the time. Table 9 shows the vehicular trip generation for the weekday morning peak hour, weekday afternoon peak hour, and daily weekday trips for the previously-proposed site plan.

## **Trip Generation Comparison**

A comparison between the vehicular trip generation for the currently-proposed and the previously-proposed programs for the site is shown in Table 10. The vehicular trip generation of the currently-proposed development is 12 fewer trips in the morning peak hour, 22 fewer trips in the afternoon peak hour, and 137 fewer daily trips than what was studied as part of the 2011 site plan. Though the currently-proposed development includes a greater number of units than the 2011 site plan, the vehicular trip generation for the current proposal is lower because the 2011 study assumed a lower non-auto mode split and was based on trip generation rates from a previous version of the ITE Trip Generation manual.

The traffic impact study performed for the 2011 site plan application included a vehicular capacity analysis which concluded that all study intersections and site entrances would continue to operate at acceptable levels of service in the Future Conditions with Development scenario. As agreed upon with Arlington County staff, since the trip generation for the currently-proposed development is lower than what was analyzed as part of the previous capacity analysis for the site and it was found to have no detrimental impact to vehicular operations, no capacity analysis is included in this MMTA. It is assumed that the currently-proposed development will have no detrimental impact to vehicular operations, consistent with the conclusions of the previous study.

Table 8: Multi-Modal Trip Generation, ITE 10th Edition

Land Use	ITE	Quantity	Mode	Mode Mode		AM Peak Ho	ur	Р	M Peak Ho	ur	Daily		
Lana 030	Code	Quantity	Mode	Split	In	Out	Total	In	Out	Total	Total		
			Auto	39%	6 veh/hr	17 veh/hr	23 veh/hr	15 veh/hr	10 veh/hr	25 veh/hr	338 veh/hr		
Desidential	000 400 5	000 4	222	166 DU	Transit	52%	9 ppl/hr	27 ppl/hr	36 ppl/hr	24 ppl/hr	16 ppl/hr	40 ppl/hr	531 ppl/hr
Residential	222	166 DU	Bike	3%	1 ppl/hr	1 ppl/hr	2 ppl/hr	1 ppl/hr	1 ppl/hr	2 ppl/hr	31 ppl/hr		
			Walk	6%	1 ppl/hr	3 ppl/hr	4 ppl/hr	3 ppl/hr	2 ppl/hr	5 ppl/hr	61 ppl/hr		

Table 9: 2011 Site Plan Application Trip Generation, ITE 8th Edition

Land Use ITE Quantity		Mode	А	AM Peak Hour			PM Peak Hour			
Lanu USE	Code	Quantity	Split	In	Out	Total	In	Out	Total	Total
Residential	220	110 DU								
Baseline Vehicle	Trip Genera	ation	100%	12 veh/hr	46 veh/hr	58 veh/hr	51 veh/hr	28 veh/hr	79 veh/hr	791 veh/hr
Non-Auto Trip R	eduction		40%	-5 veh/hr	-19 veh/hr	-23 veh/hr	-21 veh/hr	-11 veh/hr	-32 veh/hr	-316 veh/hr
Total Vehicle Tr	rips		60%	7 veh/hr	28 veh/hr	35 veh/hr	31 veh/hr	17 veh/hr	47 veh/hr	475 veh/hr

Table 10: Vehicular Trip Generation Comparison - 2011 Site Plan vs. Proposed Plan

Land Use	nd Use Size		AM	Peak Ho	ır (veh/hr)	PM P	eak Hour	(veh/hr)	Daily (veh)
Land Use	Size	Size Units -		Out	Total	ln	Out	Total	Total
2011 Site Plan	110	DU	7	28	35	31	17	47	475
Currently Proposed Plan	166	DU	6	17	23	15	10	25	338
Difference in Trips			-1	-11	-12	-16	-7	-22	-137

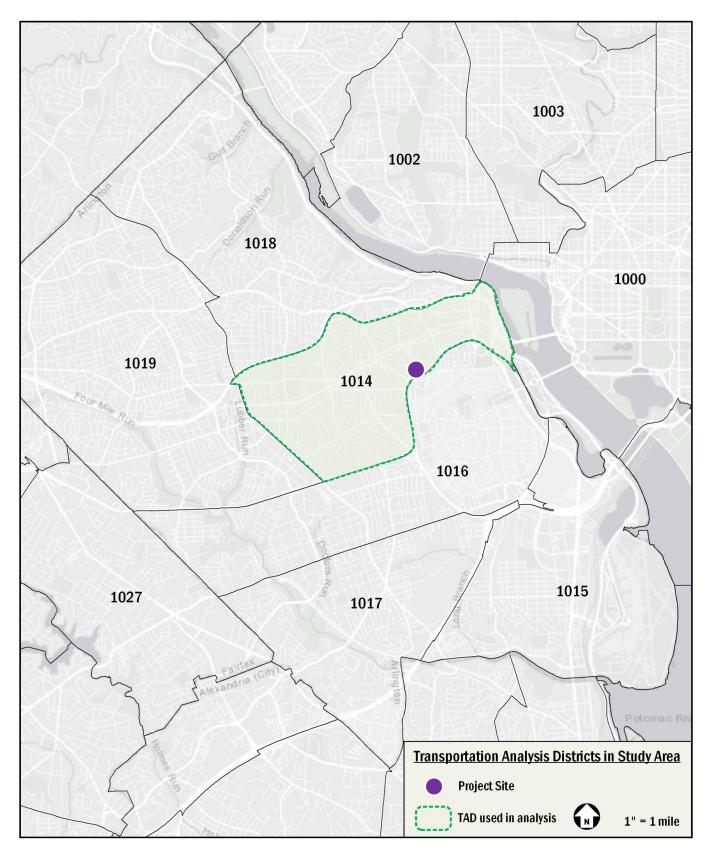


Figure 29: Transportation Analysis District (TAD) in Study Area

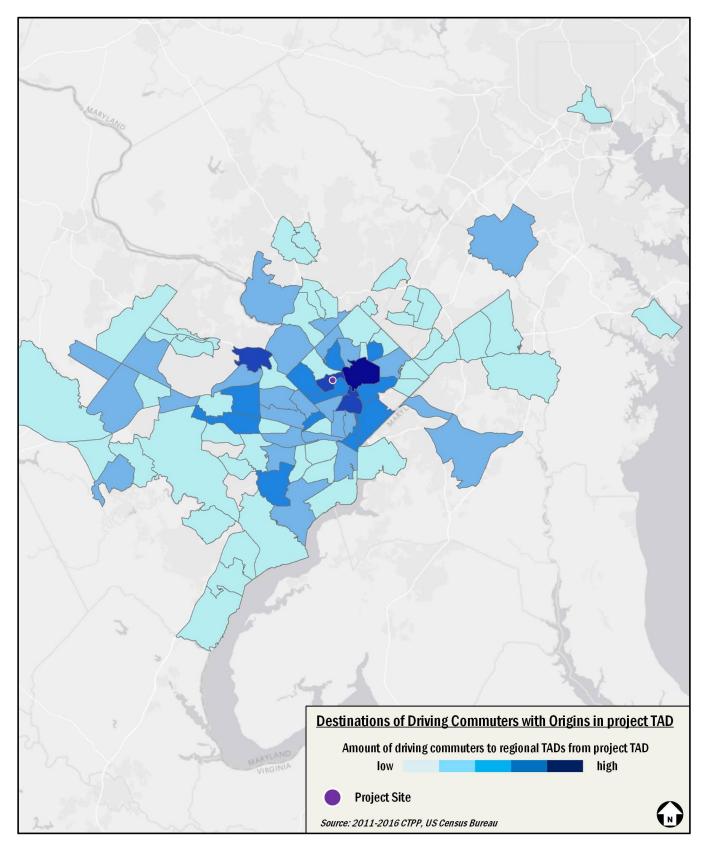


Figure 30: Destinations of Driving Commuters with Origins in project TAD

## Crash Data Review

This chapter reviews available crash data within the study area, reviews potential impacts of the proposed development on crash rates and informs future transportation improvements that work toward the County's goals outlined in the Vision Zero Action Plan.

#### VDOT Crash Data

Based on guidelines contained in the Safety Analysis Guidance (May 2021) provided by Arlington County DES, crash data from 2017 to 2021 was obtained from the VDOT Crash Analysis Tool for crashes occurring in the vicinity of the site. This data was used to conduct a review of the following intersections adjacent to the project site:

- 13<sup>th</sup> Street N & N Courthouse Road
- 13th Street N & N Troy Street
- N Troy Street & N Fairfax Drive
- N Courthouse Road & Arlington Boulevard

The crash data used in the analysis is included in the Technical Appendix.

Based on the historical crash data, a total of 16 crashes were reported in the vicinity of the site from 2017 to 2021. The year with the highest number of crashes was 2017 with 7 crashes, while the year with the lowest number of crashes was 2020 with no crashes. Figure 31 shows the number of crashes per year in in the study area over the last five years. The data obtained from VDOT shows a general downward trend in the number of reported crashes.

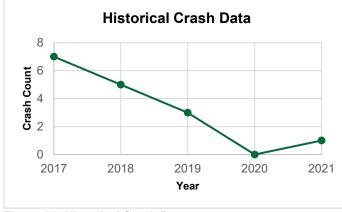


Figure 31: Historical Crash Data

#### Crash Characteristics

#### **Crash Severity**

According to the 2017 VDOT Crash Data Manual, crash severity is measured using the KABCO scale as per the Model Minimum Uniform Crash Criteria (MMUCC) based on the most severe injury to any person involved in the crash. The KABCO scale definitions are as follows:

- K: Fatal Injury
- A: Suspected Serious Injury
- B: Suspected Minor Injury
- C: Possible Injury
- O: Property Damage Only (No Apparent Injury)

From 2017 to 2021, 68% were classified as O (Property Damage Only), and 19% were classified as B (Suspected Minor Injury). Two (2) crashes involved suspected serious injuries. Table 11 shows the number of crashes according to its severity.

Table 11: Crash Count by Severity (2017-2021)

Crash Severity	Count	%
K	-	-
Α	2	13%
В	3	19%
С	-	-
O	11	68%
Total	16	100%

#### **Collision Type**

The most common type of collisions found in the study area are Angle Collision and Rear End Collision with 31% of crashes each occurring in this manner, followed by Sideswipe – same direction of travel with 13% of crashes. Table 12 summarizes the collision type for all analyzed crashes.

**Table 12: Crash County by Collision Type** 

Collision Type	Count	%
Angle	5	31%
Backed Into	1	6%
Pedestrian	1	6%
Rear end	5	31%
Sideswipe - same direction of travel	2	13%
Miscellaneous or other	1	6%
Non-Collision	1	6%
Total	16	100%

#### Crash Factors

Several factors that contribute to crashes were reviewed as part of this analysis. These factors include environmental factors, driver behavior, and vehicle characteristics.

#### **Environmental Factors**

Light conditions at the moment of the crash can contribute to the quantity and severity of crashes. For the data analyzed, more than 90% of the crashes occurred during daylight (75%) or during darkness in a lighted road (19%). This information suggests that, in the majority of crashes, light condition might not have been the primary cause for the crash. Table 13 summarizes the light conditions for crashes in the vicinity of the development site.

**Table 13: Crash Count by Light Condition** 

Light Condition	Count	%
Daylight	12	75%
Darkness - road lighted	3	19%
Dawn	1	6%
Darkness - road not lighted	-	-
Dusk	-	-
Total	16	100%

#### **Driver Behavior**

The intentional or unintentional characteristics and actions that a driver performs while operating a vehicle also contribute to crashes. As shown in Table 14, a distracted driver was reported in 19% of the analyzed crashes, while alcohol and speeding were involved in 13% of the crashes. This information suggests that, in the majority of cases, driver behavior might not have been the primary cause of the crash but is a contributing cause.

Table 14: Crash Count by Driver Behavior Factors

Table 14. Grash Count by Driver Behavior Factors			
Driver Behavior Factors	Count	%	
Distracted Driver?			
Yes	3	19%	
No	13	81%	
Speeding?			
Yes	2	13%	
No	14	88%	
Alcohol Involved?			
Yes	2	13%	
No	14	88%	

#### **Vehicle Characteristics**

Vehicle characteristics including type of vehicle and vehicle size were analyzed to determine their contribution to crashes in the vicinity of the development site. As shown in Table 15, no crashes involving bicyclist have been reported in the past five (5) years while a single crash has been reported to involve a motorcyclist. In addition, 19% of the crashes reported a large truck being involved in the crash.

**Table 15: Crash Count by Vehicle Characteristics** 

Vehicle Characteristics Factors	Count	%
Large Truck Involved		
Yes	3	19%
No	13	81%
Motorcycle Involved		
Yes	1	6%
No	15	94%
Bike Involved		
Yes	0	0%
No	16	100%
Pedestrian Involved		
Yes	1	6%
No	15	94%
Total	16	100%

# **Findings**

According to the VDOT historical crash data for the study area, 44% (7 crashes) of all crashes surrounding the site for the past five years occurred on N Courthouse Road as shown in Figure 32. These crashes also include the only two (2) serious injury crashes, classified as A. The single pedestrian crash classified as B (Minor injury) occurred in 2019 at the intersection of 13<sup>th</sup> Street N and N Troy Street. There were no fatal crashes in the vicinity of the site.

As part of the proposed development, new pedestrian facilities that meet or exceed Arlington County requirements will be provided along the street frontages of the site. These improvements are consistent with several County-wide and national guidelines which prioritize shifting trips to non-auto modes, complete streets principles, and safety for all users, including the Arlington Master Transportation Plan, Vision Zero Action Plan, and NACTO Urban Streets Design Guide. The project does not propose changes to nearby intersections or the roadway network. No changes to the transportation network are proposed except for pedestrian improvements along the site frontage. As such, no change is anticipated to the crash rates in the vicinity of the site.

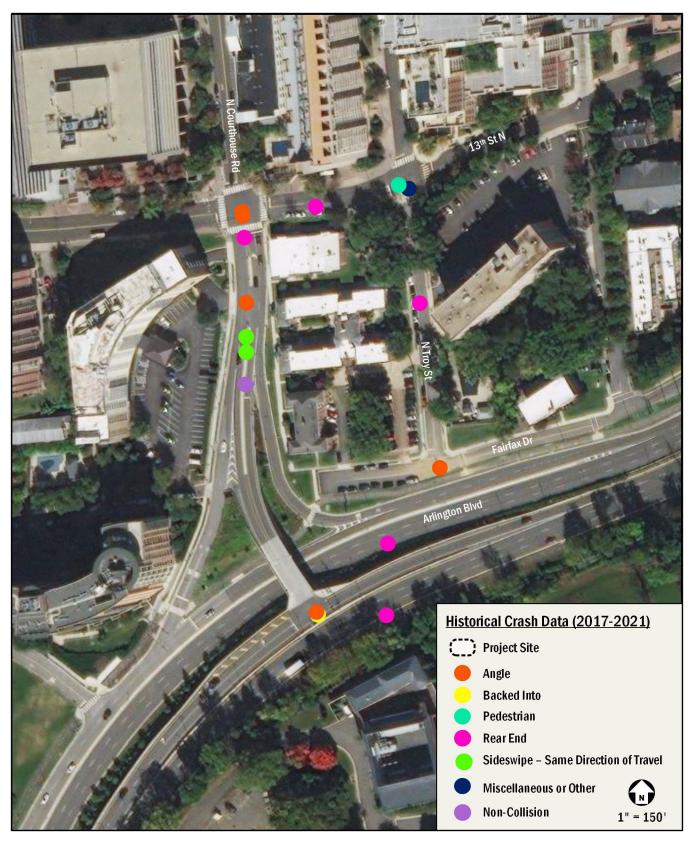


Figure 32: Historical Crash Data (2017-2021)

# **Transportation Management Plan**

A Transportation Management Plan (TMP) has many components that are tailored to accommodate a given facility with the goal being the reduction of automobile trips by encouraging alternative forms of transportation. A few of the typical TMP components include the establishment of a TMP coordinator, the distribution of transit literature, the establishment of ride-sharing programs, and the on-site sale of discounted fare media. Management measures taken by the proposed 2025 Fairfax Drive development can be monitored and adjusted as needed to continually create opportunities to reduce the amount of vehicular traffic generated by the site.

The TMP will include a schedule and details of implementation and continued operation of the elements in the plan. The location of the site near the Court House Station allows for a TMP that may include, but not be limited to, the following:

## Participation and Funding

- (1) Establish and maintain an active, ongoing relationship with Arlington Transportation Partners (ATP), or successor entity, at no cost to the developer, on behalf of the property owner.
- (2) Designate and keep current a member of building management as Property Transportation Coordinator (PTC) to be primary point of contact with the County and undertake the responsibility for coordinating and completing all Transportation Management Plan (TMP) obligations. The PTC shall be trained, to the satisfaction of Arlington County Commuter Services (ACCS), to provide, transit, bike, walk, rideshare and other information provided by Arlington County intended to assist with transportation to and from the site.
- (3) Contribute annually to ACCS, or successor, to sustain direct and indirect on-site and off-site services in support of TMP activities. Payment on this commitment shall begin as a condition of issuance of the First Partial Certificate of Occupancy for Tenant Occupancy for each respective building or phase of construction. Subsequent payments shall be made annually.

## Facilities and Improvements

- (1) Provide in the lobby or lobbies, a transportation information display(s), the number/content/design/location of which will be approved by ACCS. The developer agrees that the required transportation information displays shall meet the Arlington County Neighborhood Transportation Information Display Standards in effect on the date of the site plan approval, or equivalent as approved by the County Manager.
- (2) Comply with requirements of the Site Plan conditions to provide bicycle parking/storage facilities, a Parking Management Plan (PMP), a Bicycle Facilities Management Plan, and construction worker parking.

### Promotions, Services, Policies

- (1) Prepare, reproduce and distribute, in digital or hard copy, materials provided by Arlington County, which includes site-specific transit, bike, walk, and rideshare related information, to each new residential lessee and retail, property management, or maintenance employee, from initial occupancy through the life of the site plan. These materials shall be distributed as a part of prospective tenant marketing materials, as well as communications associated with lease signing, on-boarding, or similar activities.
- (2) Provide one time, per person, to each new residential lessee and each new retail, property management, or maintenance employee, whether employed part-time or full-time, directly employed or contracted, who begins employment in the building throughout initial occupancy, the choice of one of the following:
  - Metro fare on a SmarTrip card or successor fare medium (amount to be determined)
  - b. A one year bikeshare membership
  - c. A one year carshare membership

The County Manager may approve additions to, or substitution of one or more of these choices with a comparable transportation program incentive, as technology and service options change, if he/she finds that an incentive shall be designed to provide the individual with an option

other than driving alone in a personal vehicle, either by removing a barrier to program entry, such as a membership cost, or by providing a similar level of subsidized access to a public or shared transportation system, program or service.

- (3) Provide, administer, or cause the provision of a sustainable commute benefit program for each on-site property management and maintenance employee, whether employed part-time or full-time, directly employed or contracted. This commute benefit program shall offer, at a minimum, a monthly pre-tax transit benefit or a monthly subsidized/direct transit benefit.
- (4) Provide, under a "transportation information" heading on the Developer and property manager's websites regarding this development:
  - a. Links to the most appropriate Arlington County
     Commuter Services and/or external transportation related web page(s). Confirmation of most appropriate
     link will be obtained from ACCS.
  - A description of key transportation benefits and services provided at the building, pursuant to the TMP.

## Performance and Monitoring

- (1) During the first year of start-up of the TMP and on an annual basis thereafter, the Developer shall submit an annual report, which may be of an online, or e-mail variety, to the County Manager, describing completely and correctly, the TDM related activities of the site and changes in commercial tenants during each year.
- (2) The Developer agrees to conduct and/or participate in, a transportation and parking performance monitoring study at two years, five years, and each subsequent five years (at the County's option), after issuance of the First Certificate of Occupancy for Tenant Occupancy. The County may conduct the study or ask the owner to conduct the study (in the latter case, no reimbursement payment shall be required). As part of the study, a report shall be produced as specified below by the County. The study may include building occupancy rates, average vehicle occupancy, average garage occupancy for various day of the week and times of day, parking availability by time of day, average duration of stay

for short term parkers on various days of the week and times of day, pedestrian traffic, a seven-day count of site-generated vehicle traffic, a voluntary mode-split survey, and hourly, monthly, and special event parking rates.

The building owner and/or operator shall notify, assist, and encourage building occupants and visitors on site to participate in mode-split surveys which may be of an on-line or email variety.

# **Summary and Conclusions**

This report concludes that the proposed development at 2025 Fairfax Drive will not have a detrimental impact to the surrounding transportation and roadway network assuming that all planned site design elements are implemented.

The site has access to the Metrorail's Orange and Silver lines via the Court House station, located 0.3 miles from the project site; however, the site has limited access to additional transit service within a quarter-mile of the site. The project site is surrounded by a well-connected pedestrian and bicycle network. The site is located near several principal arterials such as Clarendon Boulevard, Wilson Boulevard, and VA-50 (Arlington Boulevard). These arterials create connections to I-66, US-29 (Langston Boulevard), I-395 and ultimately the Capital Beltway (I-495).

The proposed project will replace the existing site with a 166-unit residential building. As part of the proposed development, existing sidewalks along the eastern and southern frontages of the site will be improved. Walkways will also be provided along the northern and western frontages of the proposed building. These walkways will connect the sidewalks on N Troy Street and Fairfax Drive with an existing internal walkway at the northeast corner of the site which leads to N Courthouse Road.

Vehicular access for residential parking will occur at two locations. One driveway will be located on N Troy Street and will provide access to the Mezzanine level of the garage, which is not internally connected to the lower levels of the garage and is for the exclusive use for the existing Wakefield residents. The second driveway will be located on N Fairfax Drive and connect to the spaces on the Ground Floor, G2, and G3 levels of the garage. One loading bay will be provided on the south side of the building, with access via a driveway on Fairfax Drive.

The building will include a partially below-grade parking garage with 120 spaces. 30 of these spaces will be assigned for the use of the adjacent residential buildings which utilize the existing surface lot. The remaining 90 spaces will be assigned to residents of the new building at a ratio of 0.54 spaces per dwelling unit. Sixteen of the residential spaces (approximately 13.3 percent) are compact parking spaces, which is within the 15 percent threshold established by § 14.3.3.F of the Zoning Ordinance. The proposed residential parking ratio accords with recent County policies supporting significant parking reductions for residential development in close proximity to transit.

A number of planned transportation improvements in the vicinity of the proposed 2025 Fairfax Drive are expected to be complete by 2025. The full list of improvements is detailed in earlier sections of this report, but projects include:

- 2050 Wilson Boulevard (Courthouse Landmark Block)
   Development
- 1307 N Rolfe Street (Gables) Development

A multi-modal trip generation was prepared to compare the vehicular trip generation of the currently-proposed project to the trip generation that was developed for the traffic impact study prepared as part of the original site plan application approved in 2011. The vehicular trip generation of the current project is less than what was studied for the original proposal. Though the currently-proposed development includes a greater number of units than the 2011 site plan, the vehicular trip generation for the current proposal is lower because the 2011 study assumed a lower non-auto mode split and was based on trip generation rates from a previous version of the ITE Trip Generation manual.

The traffic study for the 2011 site plan application included a vehicular operations analysis which concluded that all study intersections and site entrances would continue to operate at acceptable levels of service in the Future Conditions with Development scenario. As a result, it is concluded that because the trip generation of the currently-proposed site plan is less than that of the original site plan, and because the original site plan was found to have no detrimental impact to vehicular operations, the currently-proposed project would also have no detrimental impact to vehicular operations.

The development has many positive elements contained within its design that minimize potential transportation impacts, including:

- The proposed development's proximity to the Court House Metro Station.
- The proposed development's location within an existing, well-connected pedestrian environment and proximity to a high-quality bicycle facility (Arlington Boulevard Trail).
- Improvements to the pedestrian facilities adjacent to the site that meet or exceed Arlington County and ADA requirements.
- The inclusion of secure-long-term bicycle parking that meets zoning requirements.

- The installation of short-term bicycle parking spaces around the perimeter of the site that meet zoning requirements.
- A Transportation Management Plan (TMP) that aims to reduce the demand of single-occupancy, private vehicles to/from the proposed development during peak period travel times or shifts single-occupancy vehicular demand to offpeak periods.

As noted above, this report concludes that the proposed development will not have a detrimental impact to the surrounding transportation and roadway network assuming that all planned site design elements are implemented.