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May 21, 2019

D.C. Zoning Commission
Office of Zoning
441 4th Street, N.W., Suite 200-S
Washington, DC 20001

Re: **Z.C. Application No. 19-09 – Kenilworth Avenue Northbridge LLC (the “Applicant”) – Voluntary Design Review and Special Exception Approval for Lot 806 and Parcel 185/38 in Square 5113 (the “Property”) – Comprehensive Transportation Review**

Dear Members of the Commission:

One behalf of the Applicant, pursuant to Subtitle Z § 401.8, enclosed as Exhibit A is a Comprehensive Transportation Review prepared by Gorove/Slade regarding the project at the property.

If you have any questions regarding the enclosed, please feel free to contact Cary at (202) 721-1113 or Lawrence at (202) 721-1135. We look forward to presenting the project to the Commission at the June 20, 2019 public hearing. Thank you for your attention to this application.

Sincerely,

CARY R. KADLECEK (WLF)

Cary R. Kadlecek

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Enclosures

Certificate of Service

The undersigned hereby certifies that copies of the foregoing document was delivered by first-class mail or hand delivery to the following addresses on May 22, 2019.

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Exhibit A

COMPREHENSIVE TRANSPORTATION REVIEW

**KENILWORTH AFFORDABLE ASSISTED
LIVING COMMUNITY**

WASHINGTON, DC

May 21, 2019



GOROVE / SLADE

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EXECUTIVE SUMMARY

The following report is a Comprehensive Transportation Review (CTR) for the Kenilworth Affordable Assisted Living Community (AALC). This report reviews the transportation aspects of the project's application for Design Review by the Zoning Commission (Zoning Commission Case Number is 19-09).

The purpose of this study is to evaluate whether the project will generate a detrimental impact to the surrounding transportation network. This evaluation is based on a technical comparison of the existing conditions, background conditions, and total future conditions. This report concludes that **the project will not have a detrimental impact** to the surrounding transportation network assuming all planned site design elements are implemented.

Proposed Project

The property is located at 1630 Kenilworth Avenue NE, on the northwest side of Kenilworth Avenue, at the intersection of Eastern Avenue and Kenilworth Avenue, near the DC-Maryland line. The site for the proposed development is currently vacant.

The project will develop the site into an affordable assisted living community. The development consists of:

- One (1) affordable assisted living community building containing approximately 155 units.
- 25 vehicle parking spaces in covered ground-level parking.
- One (1) 30-foot loading berth per building and one (1) 20-foot service/delivery space.
- 51 secure long-term and 8 short-term bicycle parking spaces.

Although this CTR is primarily based on the April 25, 2019 submittal, the site plans are expected to change prior to the Zoning Commission Hearing, and this CTR accounts for those changes. The main transportation related impact of these changes will be a reduced parking space count. Site access, pedestrian facilities, and bicycle facilities will remain unchanged.

Primary access/egress to the covered parking area will be from the new curb cut and driveway at the intersection of Eastern Avenue and Kenilworth Avenue. Secondary access/egress will be from the planned Shaw Drive to the west, which is currently a public alley and is proposed to be converted to a private

street as part of the Kenilworth Courts PUD. Access to the loading facilities will also utilize the new driveway from Kenilworth Avenue and will occur on the north side of the Site. All truck turning maneuvers will occur on the Site, allowing for front-in, front-out access for trucks to the public street.

The development will meet the zoning requirements for bicycle parking by including 8 short-term bicycle parking spaces and 51 long-term bicycle parking spaces. The development will supply long-term bicycle parking within the ground-floor of the development and short-term bicycle parking along the perimeter of the Site that meet zoning requirements. The bicycle parking will meet the practical needs of the development.

Multi-Modal Impacts and Recommendations

Transit

The Site is served by regional and local transit services via Metrobus and Metrorail. The Site is 0.4 miles from the Deanwood Metrorail Station, with Metrobus stops located within walking distance of the Site along Kenilworth Avenue.

Although the development will be generating new transit trips, existing facilities have enough capacity to accommodate the new trips.

Pedestrian

The Site is surrounded by a pedestrian network with a quality pedestrian network. Most roadways within a quarter-mile radius provide sidewalks and acceptable crosswalks and curb ramps, particularly along the primary walking routes and to the Deanwood Metro station.

As a result of the development, pedestrian facilities around the western perimeters of the Site will be improved to meet DDOT and ADA standards. New sidewalks will be installed along the west side of the Site along the new site driveway and Shaw Drive, that will meet or exceed the width requirements, as well as curb ramps with detectable warnings and crosswalks at the new site entrance.

The development will also include a pedestrian boardwalk that will meander westward across the Site, providing direct access to the green space at the rear of the Site and the Kenilworth Park & Aquatic Gardens. Additionally, a walking path will be provided on-site for residents from the building front along the west side and connecting to the boardwalk.



The development will generate minimal pedestrian trips and the improved facilities will be able to handle the new trips.

Bicycle

The Site has some connectivity to existing on and off-street bicycle facilities. Residential low volume streets surrounding the Site provide connectivity to existing bicycle facilities near the Site. Shared lanes are available two (2) blocks away from the Site along 49th Street. Access to the Anacostia Riverwalk Trail is available from Anacostia Avenue, northwest of the Site. A capital bikeshare location is located 0.4 miles away from the Site along Minnesota Avenue between Quarles Street and 48th Street.

The development will provide short-term bicycle parking along the perimeter of the Site for staff and visitors. On-site secure long-term bicycle parking will be provided on the ground floor of the building for residents and staff of the development. The amount of bicycle parking provided meets zoning requirements.

The development will generate minimal bicycle trips and the existing facilities will be able to handle these new trips.

Vehicular

The Site is accessible from regional roadways, such as the Anacostia Freeway (DC Route 295) and New York Avenue (Route 50) and several principal and minor arterials such as Eastern Avenue NE and Minnesota Avenue NE. These roadways create connectivity to the Capital Beltway (I-495) that surrounds Washington, DC and its inner suburbs, as well as provides connectivity to the District core.

In order to determine impacts that the proposed development will have on the transportation network, this report projects future conditions with and without the proposed development and performs analyses of intersection delays and queues.

These are compared to the acceptable levels of delay set by DDOT standards as well as existing queues to determine if the Site will negatively impact the study area. The analysis concluded that no mitigations need to be made as a result of the proposed development.

The proposed development will include a site driveway as a new eastbound leg to the intersection of Eastern Avenue and Kenilworth Avenue (Southbound). The Applicant is prepared to fund this geometric change as well as the associated signal modifications and signal equipment. The analysis concluded

that the addition of the site driveway as an eastbound leg of the intersection has minimal impact on the overall intersection. Phasing for this new leg was incorporated into the existing signal phasing and timings during a currently dedicated pedestrian phase.

Summary and Recommendations

This report concludes that the proposed development will not have a detrimental impact on the surrounding transportation network assuming the proposed site design elements and proposed mitigation measures are implemented.

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

- The Site's close proximity to transit.
- The inclusion of secure long-term bicycle parking.
- The installation of short-term bicycle parking spaces along the frontage of the Site that meet or exceed zoning requirements.
- The creation of new pedestrian sidewalks that meet or exceed DDOT and ADA requirements, providing pedestrian porosity across the Site between Kenilworth Avenue and Kenilworth Park & Aquatic Gardens.
- A Transportation Demand Management (TDM) plan that reduces the demand of single-occupancy, private vehicles during peak period travel times or shifts single-occupancy vehicular demand to off-peak periods.



INTRODUCTION

This report is a Comprehensive Transportation Review (CTR) of the Kenilworth Affordable Assisted Living Community project (the “Site”). This report reviews the transportation aspects of the project’s application for Design Review by the Zoning Commission (Zoning Commission Case Number is 19-09). The Site, shown in Figure 1 and

Figure 2, is located at Square 5113, Lot 806 and Parcel 185/38 in the Kenilworth neighborhood in Northeast, Washington, DC. The Site is currently zoned RA-1.

PURPOSE OF STUDY

The purpose of this report is to:

1. Review the transportation elements of the development site plan and demonstrate that the site conforms to DDOT’s general policies of promoting non-automobile modes of travel and sustainability.
2. Provide information to DDOT and other agencies on how the development of the site will influence the local transportation network. This report accomplishes this by identifying the potential trips generated by the site on all major modes of travel and where these trips will be distributed on the network.
3. Determine if development of the site will lead to adverse impacts on the local transportation network.

PROJECT SUMMARY

The site is currently vacant. The site is located in the northeast quadrant of Washington, DC. The site is bounded by undeveloped land to the east, Kenilworth Avenue to the south, and a large multi-family residential complex to the west.

The development plans call for a five-story affordable assisted living community with approximately 155 dwelling units. Twenty-five (25) parking spaces will be provided in a covered parking area. Parking spaces will be accessed primarily from a new driveway at the intersection of Eastern Avenue and Kenilworth Avenue. Secondary access will be from the planned Shaw Drive to the west, which is currently a public alley and is proposed to be converted to a private street as part of the Kenilworth Courts PUD.

The loading area consists of one (1) 30-foot loading berth and one (1) 20-foot service/delivery space providing connection to

the residential uses through a loading corridor accessed from an entrance on the east side of the building. A residential development of this size is required to provide one 30-foot loading berth and one 20-foot service space. The loading facilities will be sufficient to accommodate the practical needs of the development.

Pedestrian access to the Site will primarily utilize the planned driveway at the intersection of Eastern Avenue and Kenilworth Avenue. The primary pedestrian entrance for the building will be at the front of the building.

As part of the development, pedestrian facilities around the western perimeter of the Site will be improved to meet DDOT and ADA standards. New sidewalks will be installed along the west side of the Site along the new site driveway and Shaw Drive, that will meet or exceed the width requirements, as well as curb ramps with detectable warnings and crosswalks at the new site entrance.

The development will also include a pedestrian boardwalk that will meander westward across the Site, providing direct access to the green space at the rear of the Site and the Kenilworth Park & Aquatic Gardens. Additionally, a walking path will be provided on-site for residents from the building front along the west side and connecting to the boardwalk.

There are some existing bicycle facilities near the site, including shared lanes on 49th Street and the Anacostia Riverwalk Trail to the northwest. Thus, the site will include 51 long-term bicycle parking spaces within the residential building and 8 short-term bicycle parking spaces will be provided along the perimeter of the Site. The nearest Capital Bikeshare station is located south of the Site along Minnesota Avenue.

CONTENTS OF STUDY

This report contains eight (8) chapters as follows:

- Study Area Overview
This chapter reviews the area near and adjacent to the proposed project and includes an overview of the site location.
- Project Design
This chapter reviews the transportation components of the project, including the site plan and access. This chapter



also contains the proposed Transportation Demand Management (TDM) plan for the site.

- *Trip Generation*
This chapter outlines the travel demand of the proposed project. It summarizes the proposed trip generation of the project.
- *Traffic Operations*
This chapter provides a summary of the existing roadway facilities and an analysis of the existing and future roadway capacity in the study area. This section highlights the vehicular impacts of the project, including presenting mitigation measures for minimizing impacts as needed.
- *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.
- *Summary and Conclusions*
This chapter presents a summary of the recommended mitigation measures by mode and presents overall report findings and conclusions.

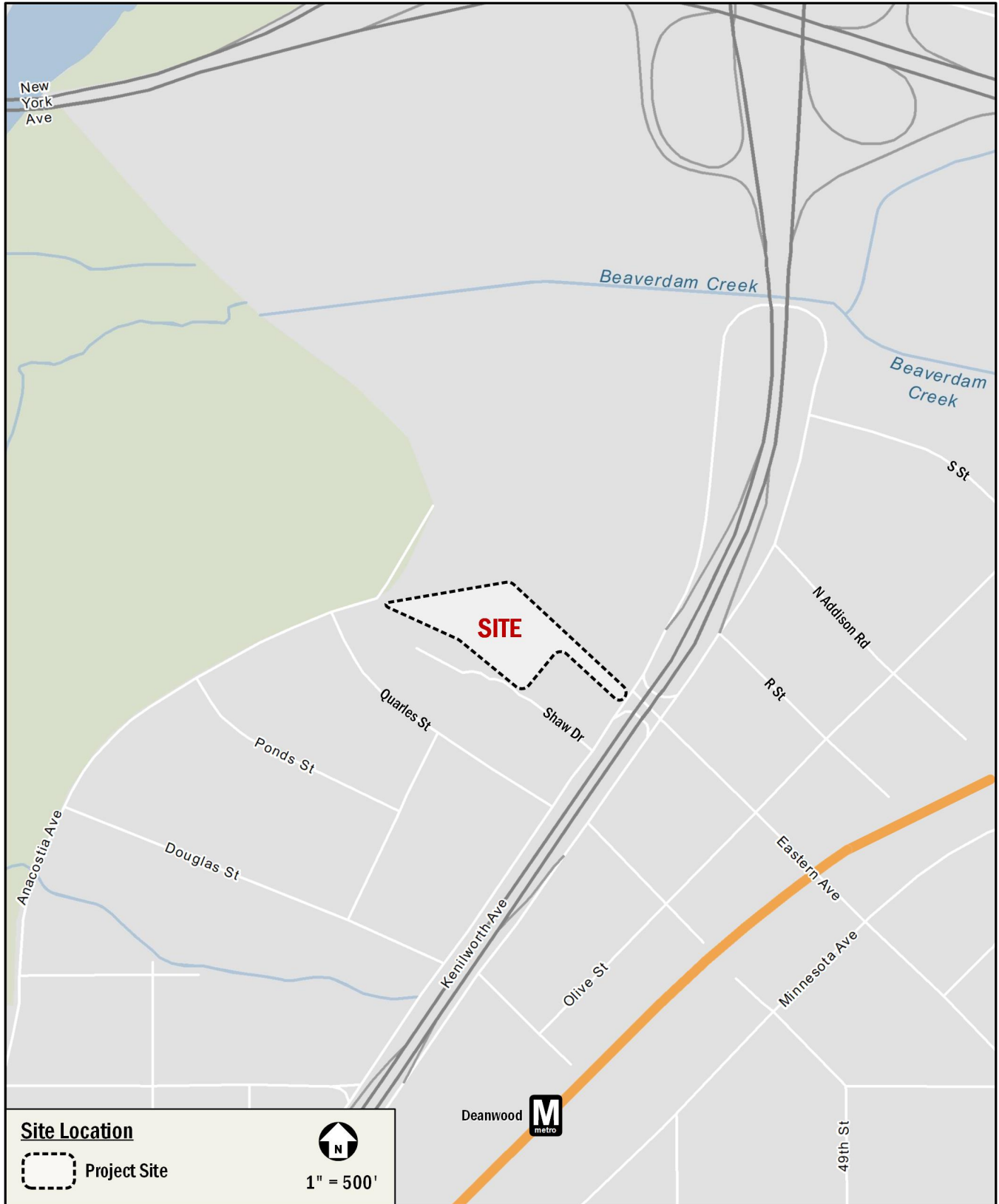


Figure 1: Site Location



Figure 2: Site Aerial



STUDY AREA OVERVIEW

This chapter reviews the study area and includes an overview of the Site location, including a summary of the major transportation characteristics of the area and of future regional projects.

The following conclusions are reached within this chapter:

- The Site is surrounded by an extensive regional and local transportation system that will connect the residents of the proposed development to the rest of the District and surrounding areas.
- The Site is served by public transportation with access to local Metrobus lines and Metrorail.
- There is bicycle infrastructure in the vicinity of the Site, with connectivity to the Anacostia Riverwalk Trail.
- Pedestrian conditions are generally good, particularly along anticipated major walking routes; however, a barrier exists north of the site due to I-295 and Route 50 and to the east due to Metrorail tracks.

MAJOR TRANSPORTATION FEATURES

Overview of Regional Access

As shown in Figure 5, the Kenilworth Affordable Assisted Living Community has ample access to regional, vehicular, and transit-based transportation options that connect the Site to destinations within the District, Virginia, and Maryland.

The Site is accessible from regional roadways, such as the Anacostia Freeway (DC Route 295) and New York Avenue (Route 50) and several principal and minor arterials such as Eastern Avenue NE and Minnesota Avenue NE. These roadways create connectivity to the Capital Beltway (I-495) that surrounds Washington, DC and its inner suburbs, as well as providing connectivity to the District core.

The Site is located 0.4 miles from the Deanwood Metrorail station (served by the Orange line). The Orange Line connects Fairfax, VA with New Carrollton, MD. The Orange Line provides 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.

Overview of Local Access

There are a variety of local transportation options near the Site that serve vehicular, transit, walking, and cycling trips, as shown on Figure 6. The Site is directly served by a local vehicular network that includes regional roadways, such as the Anacostia Freeway (DC Route 295) and several principal and minor arterials such as Eastern Avenue NE and Minnesota Avenue NE.

The Metrobus system provides local transit service in the vicinity of the Site, including connections to several neighborhoods within the District and additional Metrorail stations. As shown in Figure 6, there are four (4) bus routes that service the Site. Near the site, there are two (2) bus stops along Kenilworth Avenue. These bus routes connect the Site to many areas of the District and Maryland, most notably the Deanwood Metrorail station. A detailed review of transit stops within a quarter-mile walk of the Site is provided in a later chapter of this report.

There are several existing bicycle facilities near the Site that connect to areas within the District. Shared lanes are available south of the Site along 49th Street, providing connectivity to areas to the south and the Marvin Gaye Trail. The Anacostia Riverwalk Trail is accessible from Anacostia Avenue just north of the Site. A detailed review of existing and proposed bicycle facilities and connectivity is provided in a later chapter of the report.

Anticipated pedestrian routes, such as those to public transportation stops, schools, and community amenities, provide adequate pedestrian facilities; however, there are some sidewalks that do not meet DDOT standards due to narrow or missing buffer widths. Barriers exist north and east of the site due to I-295, Route 50, and Metrorail tracks. A detailed review of existing and proposed pedestrian access and infrastructure is provided in a later chapter of this report.

Overall, the proposed Kenilworth Affordable Assisted Living Community is surrounded by a good local transportation network that allows for efficient transportation options via transit, bicycle, walking, or vehicular modes.



Carsharing

Four (4) carsharing companies provide service in the District: Zipcar, Maven, Free2Move and Car2Go. All four services are private companies that provide registered users access to a variety of automobiles. Of these, Zipcar and Maven have designated spaces for their vehicles. There are no carshare locations within a quarter-mile of the Site.

Carsharing is also provided by Car2Go and Free2Move, which provide point-to-point carsharing. Car2Go currently has a fleet of vehicles located throughout the District and Arlington, with Free2Go located within select areas of the District. Car2Go and Free2Move vehicles may park in any non-restricted metered curbside parking space or Residential Parking Permit (RPP) location in any zone throughout the defined “Home Area”. Members do not have to pay the meters or pay stations. Car2Go and Free2Move do not have permanent designated spaces for their vehicles; however, availability is tracked through their website and mobile phone application, which provides an additional option for car-sharing patrons.

Bikeshare and Scooter Share

The Capital Bikeshare program provides an additional cycling option for residents, employees, and visitors throughout the District. The Bikeshare program has placed over 500 bicycle-share stations across Washington, DC, Arlington and Alexandria, VA, and most recently Montgomery County, MD with over 4,300 bicycles provided. A capital bikeshare location is located 0.4 miles away from the Site along south of Minnesota Avenue between Quarles Street and 48th Street.

In addition to Capital Bikeshare, DDOT has engaged in pilot programs with several dockless bikeshare and scooter share companies, allowing an additional option for point-to-point transportation. Bicycle and scooter availability are tracked through mobile phone applications for each company individually.

Walkscore

Walkscore.com is a website that provides scores and rankings for the walking, biking, and transit conditions within neighborhoods of the District. Based on this website the project is located in the Deanwood neighborhood. The site has a walk score of 51 (or “Somewhat Walkable”), a transit score of 69 (or “Good Transit”), and a bike score of 50 (or “Bikeable”). Figure 3 shows the neighborhood borders in relation to the site and displays a heat map for walkability and bikeability.

The site is situated in an area with decent walk scores because some errands are not within walking distance.

The site is situated in an area with high transit scores due to its proximity to multiple bus lines and a Metro station.

The site is situated in an area with decent bike scores due to its proximity to several bike facilities.

Overall, the Deanwood neighborhood has decent walk, good transit, and decent bike scores. Additionally, other planned developments and roadway improvements will help increase the walk, transit, and bike scores in the Deanwood neighborhood.

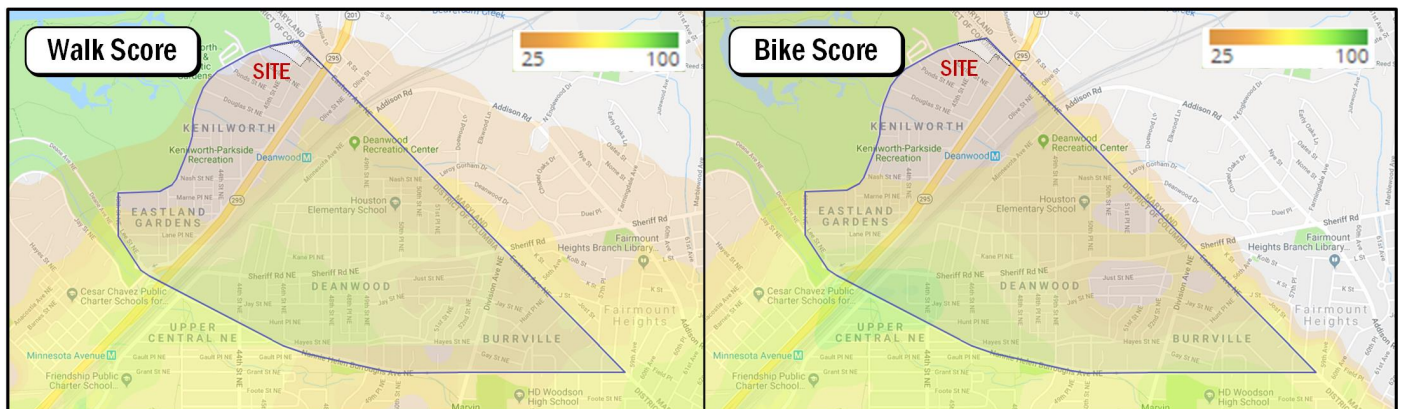


Figure 3: Summary of Walk and Bikescore



FUTURE PROJECTS

There are a few District initiatives and approved developments located in the vicinity of the Site. These planned and proposed projects are summarized below.

Local Initiatives

MoveDC: Multimodal Long-Range Transportation Plan

MoveDC is a long-range plan that provides a vision for the future of DC's transportation system. As the District grows, so must the transportation system, specifically in a way that expands transportation choices while improving the reliability of all transportation modes.

The MoveDC report outlines recommendations by mode with the goal of having them completed by 2040. The plan hopes to achieve a transportation system for the District that includes:

- 70 miles of high-capacity transit (streetcar or bus)
- 200 miles of on-street bicycle facilities or trails
- Sidewalks on at least one side of every street
- New street connections
- Road management/pricing in key corridors and the Central Employment Area
- A new downtown Metrorail loop
- Expanded commuter rail
- Water taxis

Adjacent to the proposed development, Eastern Avenue NE may be extended between Bladensburg Road NE and Kenilworth Avenue NE. This extension would impact the proposed access point at the intersection of Eastern Avenue and Kenilworth Avenue. While this extension is not assumed to be designed, funded, or complete prior to development, the project design will be able to accommodate this project.

SustainableDC: Sustainable DC Plan

SustainableDC is a planning effort initiated by the Department of Energy & Environment and the Office of Planning that provides the District with a framework of leading Washington DC to become the most sustainable city in the nation. The 2012 report proposes a 20-year timeframe to answer challenges in areas of: (1) Jobs & the economy; (2) Health & Wellness; (3) Equity & Diversity; (4) Climate & Environment; (5) Built Environment; (5) Energy; (6) Food; (7) Nature; (8) Transportation; (9) Waste; and (10) Water. With respect to

transportation, the sustainability goals targeted in 20 years include:

- Improving connectivity and accessibility through efficient, integrated, and affordable transit systems
- Expanding provision of safe, secure infrastructure for cyclists and pedestrians
- Reducing traffic congestion to improve mobility
- Improving air quality along major transportation routes

A combination of increasing public transit and decreasing vehicular mode shares has been suggested to meet the transportation targets. The transportation demand management (TDM) measures proposed in this CTR will help curtail vehicular mode share.

Kenilworth Avenue Corridor Transportation Study

The Kenilworth Avenue Corridor Study is a major transportation study conducted by the DDOT to examine improvements in the Anacostia Waterfront Initiative (AWI) area. The intent of the study is to improve the safety and accessibility of Kenilworth Avenue for its surrounding communities, with the goal to develop it into a pedestrian friendly, urban roadway. Improvements related to the proposed development include replacing the pedestrian bridge at Douglas Street/Deanwood Metrorail Station to improve connectivity and pedestrian safety.

Deanwood Strategic Development Plan

The Deanwood Strategic Development Plan is a planning effort initiated by the District of Columbia Office of Planning that was created to develop guidance for key opportunity sites and recommendations to improve economic and community growth within the area. This vision includes improved transportation options. Providing easy access to parks, retail, schools, and housing options within Deanwood.

Planned Developments

There is one potential development project in the vicinity of the Kenilworth Affordable Assisted Living Community site. For the purpose of this analysis and consistent with DDOT and industry standards, only approved developments expected to be completed prior to the planned development with an origin/destination within the study area were included. Of the background developments considered, one (1) was ultimately included and is described below. Figure 7 shows the location of this development in relation to the proposed development.

Kenilworth Courts PUD

Located immediately southwest of the Site, the Kenilworth Courts PUD calls for the redevelopment of the site bounded by Kenilworth Avenue to the east, Douglas Street to the south, Anacostia Avenue to north and west, a portion of Quarles Street to the north, and a residential building and retail to the north. The site is currently developed with 290 residential dwelling units. The PUD consists of approximately 530 residential dwelling units. A site plan for Kenilworth Courts PUD is shown in Figure 4.

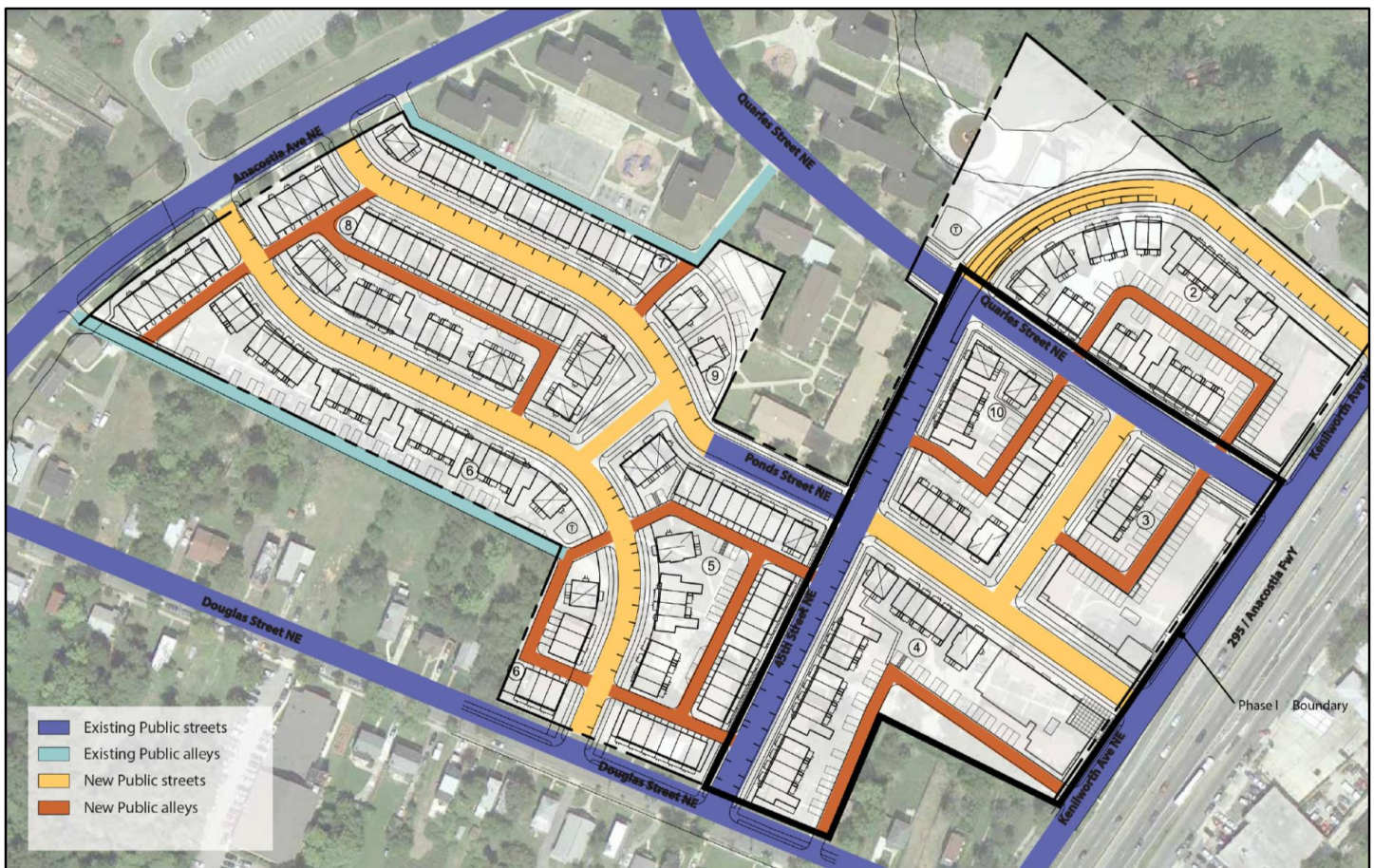


Figure 4: Kenilworth Courts PUD Site Plan

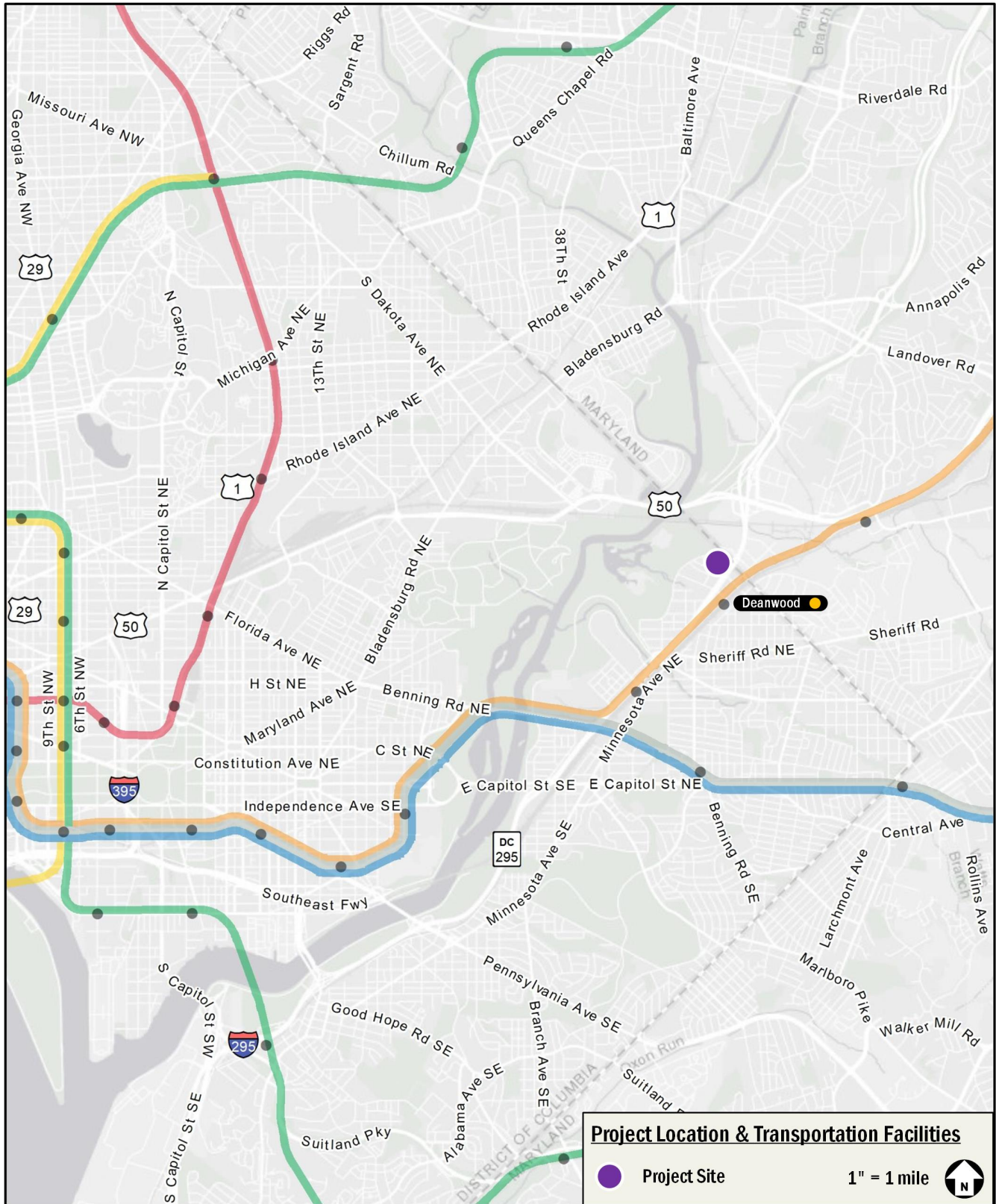


Figure 5: Major Regional Transportation Facilities



Figure 6: Major Local Transportation Facilities

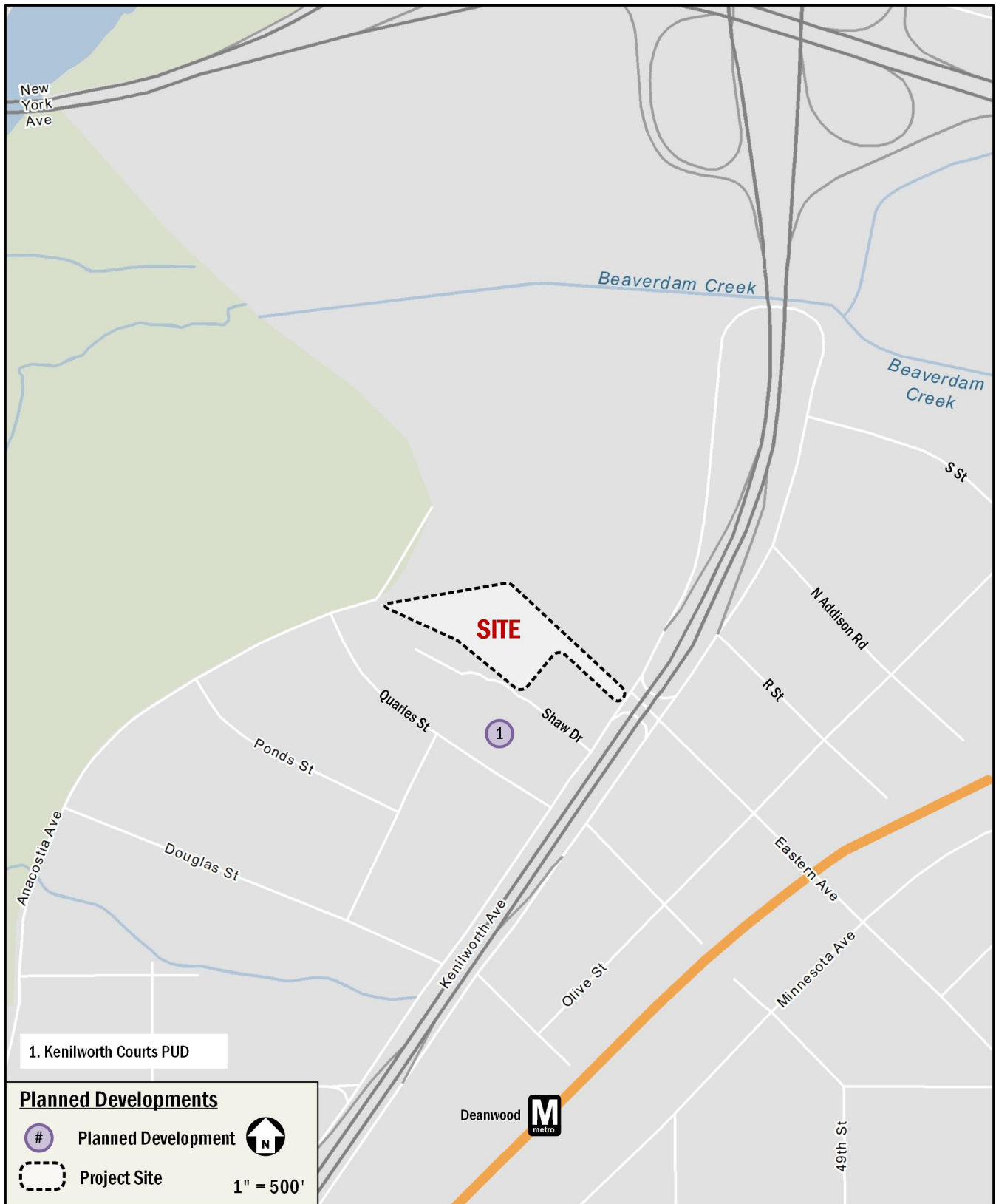


Figure 7: Planned Developments



PROJECT DESIGN

This chapter reviews the transportation components of the Kenilworth Affordable Assisted Living Community development, including the proposed Site plan and access points. It includes descriptions of the proposed development's vehicular access, loading, parking, bicycle and pedestrian facilities, and Transportation Demand Management (TDM) plan.

The site is currently vacant. The Applicant will develop the vacant lot with an affordable age-restricted assisted living facility consisting of one (1) five-story building containing approximately 155 dwelling units. The development will provide covered parking interior to the structure at the ground level of the building with 25 parking spaces. Parking will be accessible from both driveways to the Site, off Kenilworth Avenue and future Shaw Drive.

Although this CTR is primarily based on the April 25, 2019 submittal, the site plans are expected to change prior to the Zoning Commission Hearing, and this CTR accounts for those changes. The main transportation related impact of these changes will be a reduced parking space count. Site access, pedestrian facilities, and bicycle facilities will remain unchanged.

Figure 8 shows an overview of the development program and site plan elements.

SITE ACCESS AND CIRCULATION

Pedestrian Access

Pedestrian access to the Site will primarily utilize the planned driveway at the intersection of Eastern Avenue and Kenilworth Avenue. The primary pedestrian entrance for the building will be at the front of the building. The development will also include a pedestrian boardwalk that will meander westward across the Site, providing direct access to the green space at the rear of the Site, Anacostia Avenue, and the Kenilworth Park & Aquatic Gardens.

Bicycle Access

Bicycle access to the secure long-term bicycle parking on the ground floor level will primarily utilize the planned driveway on Kenilworth Avenue. The 51 long-term secure bicycle spaces will be provided in a dedicated storage room. The eight (8) short-

term spaces in the form of bicycle racks will be provided at the rear of the building on the north side of the Site.

Figure 9 shows a circulation plan with pedestrian and bicycle routes.

Vehicular Access

Primary vehicular access to the development will be provided by a proposed new curb cut and driveway at the intersection of Eastern Avenue and Kenilworth Avenue. Secondary vehicular access will be from the proposed driveway off the planned Shaw Drive, which is currently a public alley and is proposed to be converted to a private street as part of the Kenilworth Courts PUD. Both access/egress points will provide access to parking spaces provided on-site.

The Site will include a circular pick-up/drop-off area at the front of the building, accessed from the Kenilworth Avenue driveway, as shown in Figure 8. This area will be utilized by a comprehensive shuttle service provided to residents to cover all transportation needs, including regular doctor's visits, grocery and other shopping, and other off-site activities.

Access to the loading facilities, consisting of one (1) 12-foot wide, 30-foot long loading berth and one (1) 20-foot service/delivery space will be provided adjacent to the building on the east side, utilizing the planned driveway at the intersection of Eastern Avenue and Kenilworth Avenue. Access to the building for loading activities will be provided via an entrance on the east side of the building.

Truck routing to and from the Site will be focused on designated primary truck routes, such as Kenilworth Avenue.

A circulation plan with vehicular and loading routes is shown on Figure 9.

A curbside management plan detailing the parking restrictions in the vicinity of the Site is provided in Figure 10.

LOADING AND TRASH

Loading

The proposed loading facilities will accommodate all delivery demand without detrimental impacts. As required by zoning, the development is planned to be served by one (1) 12-foot wide, 30-foot long loading berth and one (1) 20-foot service/delivery space.



The proposed development is expected to generate approximately five (5) loading trips per day, consisting of general deliveries. These trips will utilize the entry circle at the front of the building or the dedicated loading area. Figure 8 shows the location of the entry circle, loading zone, and trash removal services. The loading facilities provided by the development will be sufficient to accommodate this demand.

DDOT standards stipulate that truck movements for a site should be accommodated without back-in movements through public space. The proposed development has been designed to accommodate all truck turning maneuvers on-site, allowing for front-in, front-out access for trucks to the public street for the 50-foot trucks.

Trash

Trash for the development will be accommodated using trash receptacles next to the loading area of the building. No trash will be stored in public space.

PARKING

The parking provided by the Site should accommodate all parking needs on-site. Based on ZR16 requirements for the proposed RA-1 zone, the building is required to provide one (1) space per three (3) dwelling units in excess of four (4) units, for a total of 50 spaces. As allowable by 11 DCMR Subtitle C § 702.1(b), a 50% reduction in required parking is warranted as the Site is within 0.5 miles of a Metrorail station, in this case the Deanwood Metro station. With the applicable reduction, the development is required to provide 25 parking spaces. The proposed development will include 25 parking spaces, meeting zoning requirements.

BICYCLE AND PEDESTRIAN FACILITIES

Bicycle Facilities

Per zoning regulations, the development is required to supply one (1) short-term bicycle parking space for every 20 dwelling units; therefore, the development is required to supply eight (8) short-term bicycle spaces. These short-term spaces will include inverted U-racks placed along rear of the Site frontage near the covered vehicle parking area.

Per zoning regulations, the development is required to supply one (1) long-term bicycle parking space for every three (3) dwelling units up to 150 units and one (1) space for every six (6) dwelling units in excess of 150 units, resulting in a total of 51 long-term bicycle parking spaces. The project will meet the

required number of secure long-term spaces for residents and staff in the ground-floor.

Pedestrian Facilities

As part of the development, pedestrian facilities around the western perimeters of the Site will be improved to meet DDOT and ADA standards. New sidewalks will be installed along the west side of the Site along the new site driveway and Shaw Drive, that will meet or exceed the width requirements, as well as curb ramps with detectable warnings and crosswalks at the new site entrance.

The development will also include a pedestrian boardwalk that will meander westward across the Site, providing direct access to the green space at the rear of the Site, Anacostia Avenue, and the Kenilworth Park & Aquatic Gardens. Additionally, a walking path will be provided on-site for residents from the building front along the west side and connecting to the boardwalk.

TRANSPORTATION DEMAND MANAGEMENT (TDM)

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

The TDM plan for the Kenilworth Affordable Assisted Living Community development is based on the DDOT expectations for developments of this type and size. The Applicant proposes the following TDM measures:

- The Applicant will identify a TDM Leader (for planning, construction, and operations) at the building, who will act as a point of contact with DDOT/Zoning Enforcement with annual updates. The TDM Leader will work with residents to distribute and market various transportation alternatives and options.
- The Applicant will provide TDM materials to new residents in the Residential Welcome Package materials.
- The Applicant will unbundle the cost of residential parking from the cost of lease or purchase of each unit.
- The Applicant will meet Zoning requirements to provide bicycle parking facilities at the proposed development. This includes secure parking located on-site and 8 short-term bicycle parking spaces along the perimeter of the Site.



- The Applicant will meet Zoning requirements by providing 51 long-term bicycle parking spaces in the development garage, meeting Zoning Requirements.

EASTERN AVENUE EXTENSION

The District has previously envisioned a potential extension of Eastern Avenue across Kenilworth Avenue NE towards Bladensburg Road NE, but there are no immediate plans to construct it, the extension is not anticipated in the immediately foreseeable future, and it is not currently designed, funded or included in DDOT's Transportation Improvement Plan. For purposes of the analysis contained in this CTR, it was not assumed to be constructed.

However, per discussions with DDOT, the project will be constructed in a manner that would not block a future extension of Eastern Avenue, if ever pursued by the District. The Applicant is not proposing or advocating for the extension, but, at DDOT's request, the proposed project is being planned in a way that it will work both with and without an extension. The potential extension would require some room from the Applicant's site, and the adjacent parcel to the north (between this site and the D.C.-Maryland boundary).

The proposed site driveway is tied into the intersection of Eastern Avenue and Kenilworth Avenue where the extension would potentially be located if ever created. While the current site plan, shown in Figure 8, does not assume the Eastern Avenue Extension as complete prior to development, the project accommodates a potential extension in the event that the extension is fully designed and funded, allowing for an 80' right-of-way Eastern Avenue adjacent to the project shown in Figure 11, using some of the site property and the adjacent parcel between the site and the Maryland boundary. Detailed right-of-way diagrams for the Eastern Avenue NE Extension are included in the Technical Attachments.

If DDOT decides to extend Eastern Avenue in the future, after the extension is fully designed and funded for construction, the Applicant agrees to:

1. Accommodate the extension or transfer the necessary land to the District, as deemed appropriate at the time the right-of-way extension is constructed.
2. Relocate the trash facilities (dumpsters) to another location on the property. The likely spot for this will be within one of the parking spaces off of the private

roadway, but the final location would be decided at the time based on building needs, applicable regulations, and other factors.

3. Relocate the spaces where loading activity would occur. The current loading plan is for trucks to park on the private drive north of the building, and cart packages into the building from a set of doors on the north face of the building. With an Eastern Avenue extension, trucks could move to loading/unloading from the private drive around the corner and use the same internal building facilities, just via a different set of doors, but the final location would be decided at the time based on building needs, applicable regulations, and other factors.

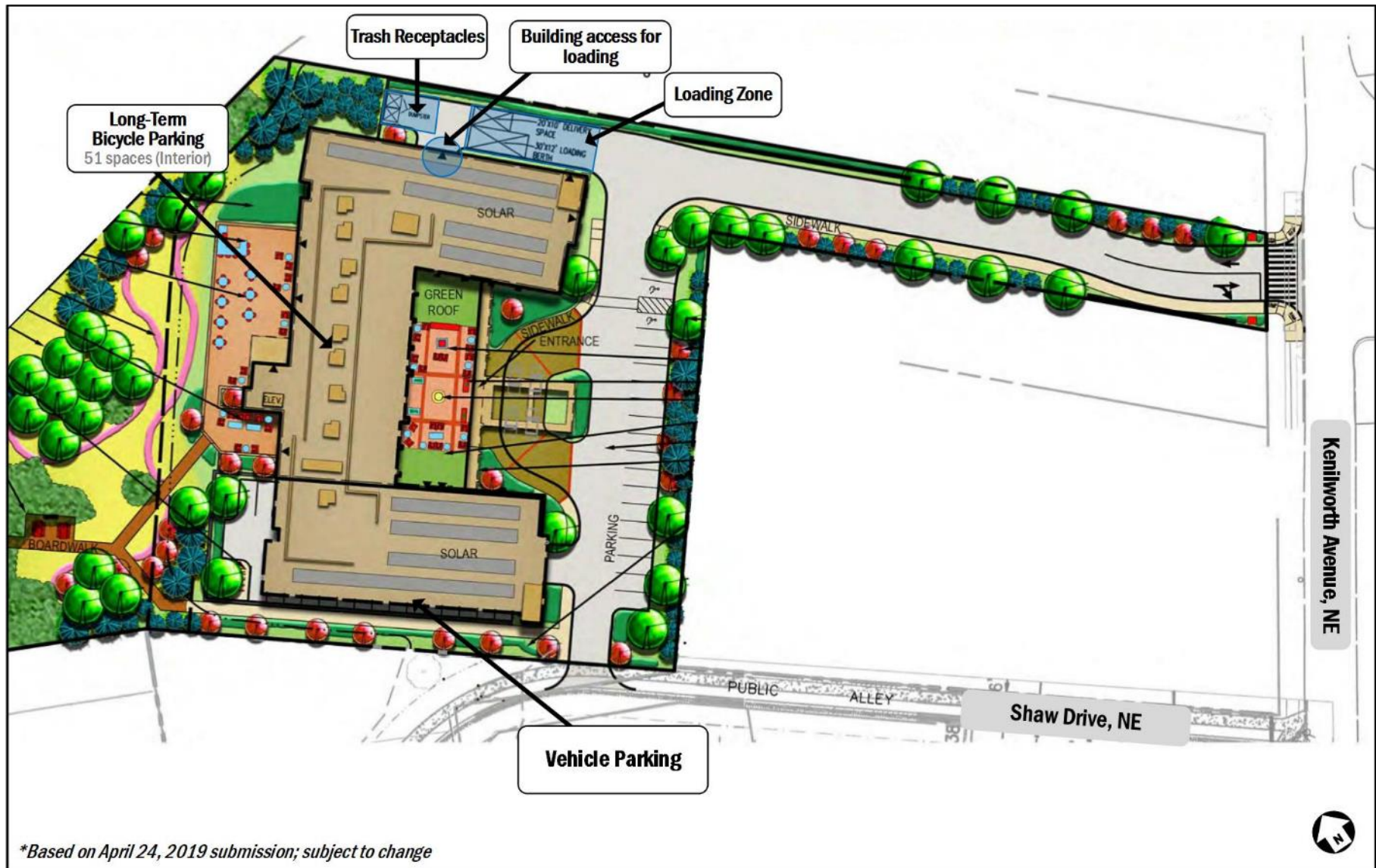


Figure 8: Site Plan

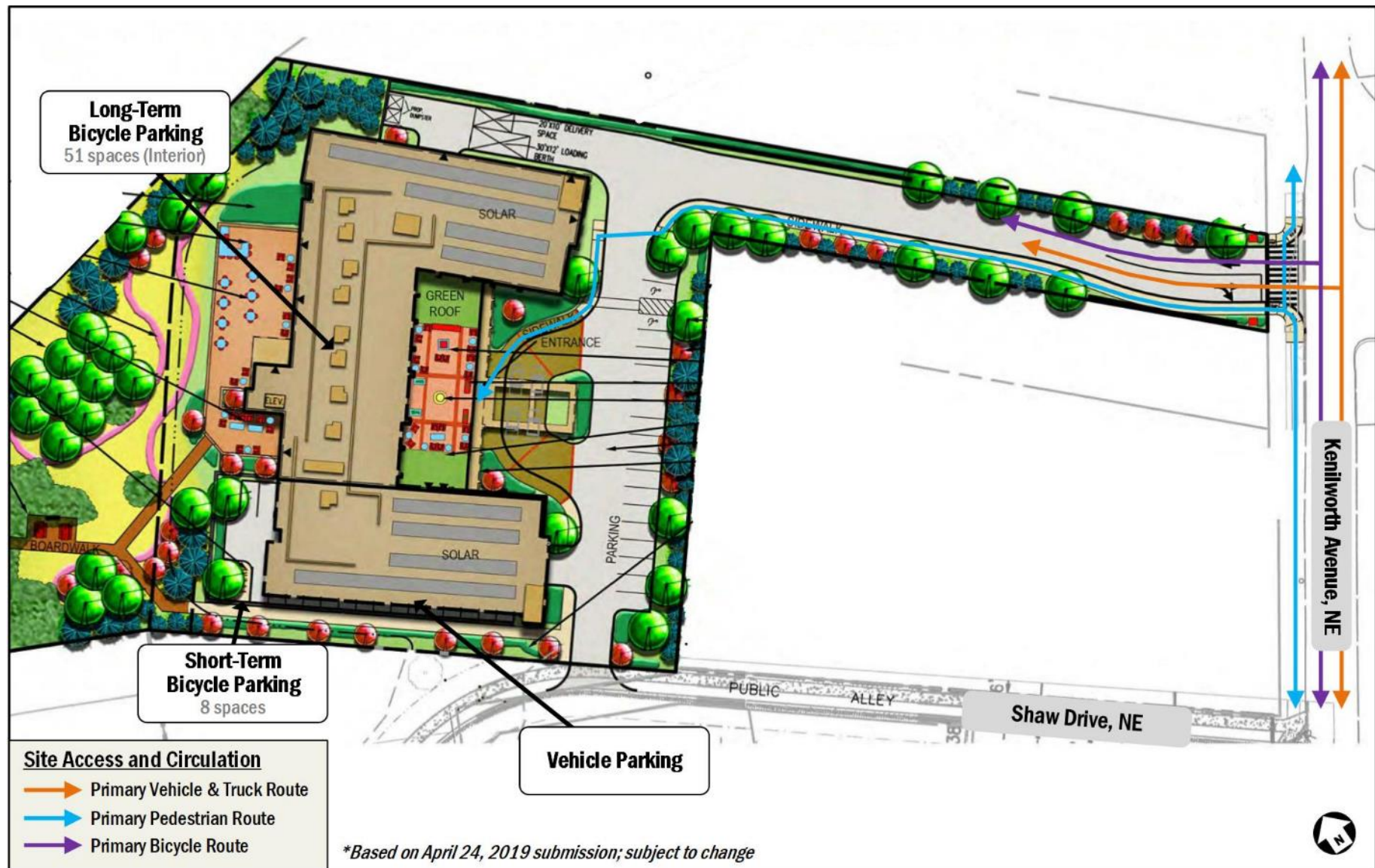


Figure 9: Site Access and Circulation



Figure 10: Curbside Management Plan

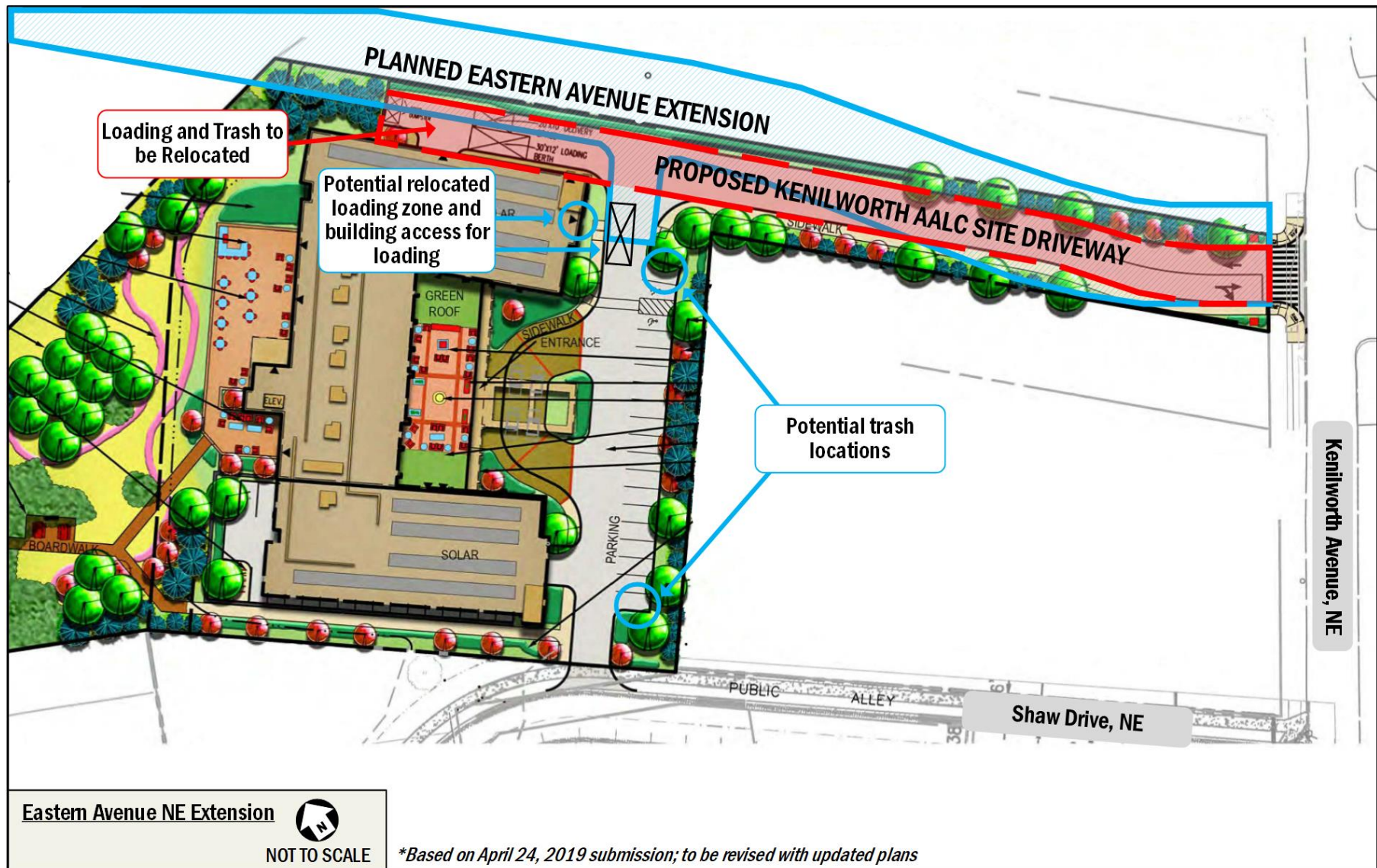


Figure 11: Eastern Avenue NE Extension



TRIP GENERATION

This chapter outlines the transportation demand of the proposed Kenilworth Affordable Assisted Living Community development. It summarizes the projected trip generation of the development by mode, which forms the basis for the chapters that follow. These assumptions were vetted and approved by DDOT as a part of the scoping process for the study. While there are traditional ITE rates that calculate trip generation for developments of this type, affordable assisted living facilities are unique in nature and difficult to capture. As such, this analysis uses a combination of trip generation methodologies: traditional ITE Trip Generation for the development and the anticipated resident, staffing, service, and visitor vehicular use for the Site.

Traditionally, weekday peak hour trip generation is calculated based on the methodology outlined in the Institute of Transportation Engineers' (ITE) *Trip Generation Manual*, 10th Edition. This methodology was supplemented to account for the urban nature of the proposed development (the *Trip Generation Manual* provides data for non-urban, low transit use Sites) and to generate trips for multiple modes, as vetted and approved by DDOT.

Residential trip generation was calculated based on ITE land use 252, Senior Adult Housing-Attached, splitting trips into different modes using assumptions derived from census data for the residents that currently live near the site. A summary of the multimodal trip generation for the proposed development, based on ITE, is provided in Table 1 for both peak hours. Detailed calculations are included in the Technical Attachments.

Table 1: ITE Multi-Modal Trip Generation Summary

Mode	AM Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total
Auto	4 veh/hr	7 veh/hr	11 veh/hr	8 veh/hr	6 veh/hr	14 veh/hr
Transit	5 ppl/hr	11 ppl/hr	16 ppl/hr	11 ppl/hr	9 ppl/hr	20 ppl/hr
Bike	1 ppl/hr	1 ppl/hr	2 ppl/hr	1 ppl/hr	1 ppl/hr	2 ppl/hr
Walk	2 ppl/hr	3 ppl/hr	5 ppl/hr	4 ppl/hr	3 ppl/hr	7 ppl/hr

Table 2: Multi-Modal Trip Generation Assumed for Analysis

Mode	AM Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total
Auto	9 veh/hr	8 veh/hr	17 veh/hr	12 veh/hr	7 veh/hr	19 veh/hr
Transit	9 ppl/hr	11 ppl/hr	20 ppl/hr	11 ppl/hr	10 ppl/hr	21 ppl/hr
Bike	1 ppl/hr	1 ppl/hr	2 ppl/hr	1 ppl/hr	1 ppl/hr	2 ppl/hr
Walk	2 ppl/hr	3 ppl/hr	5 ppl/hr	4 ppl/hr	3 ppl/hr	7 ppl/hr

The vehicular mode split was adjusted based on details provided by the facility operators. The anticipated traffic generators and projected demands are as follows:

- Maximum staffing of 40 associates, with several shifts
- Approximately 10% of residents owning a vehicle and driving during off-peak
- Up to 8 to 12 professional services daily
- Up to 5 deliveries
- Up to 15 to 20 visitors, off-peak daily
- Transport via community, up to twice daily
- Public transport (e.g. cab, rideshare, van), up to three times daily
- Emergency Medical, up to twice daily

The facility operator expects that approximately half of staff will travel to the Site using either public transportation or ridesharing. Staffing shifts are projected to be from 6:45AM to 3:00PM. The busiest periods are expected to be from 7:00AM to 9:00AM and 3:00PM to 6:00PM. The parking provided by the Site will meet zoning requirements.

The analysis in this report utilizes an adjusted trip generation, shown in Table 2, which assumes a more conservative vehicular trip generation based on a combination of ITE rates and details from the facility operator. As such, the development is expected to generate 17 vehicular trips (9 in, 8 out) during the morning peak hour and 19 vehicular trips (12 in, 7 out) during the afternoon peak hour. These estimates do not meet DDOT thresholds for a vehicular capacity analysis. However, the geometric changes to the Eastern Avenue and Kenilworth Avenue intersection justify a limited capacity analysis to demonstrate how the intersection and the nearby I-295 ramps will be impacted.



TRAFFIC OPERATIONS

This chapter provides a summary of an analysis of the existing and future roadway capacity surrounding the Site. Included is an analysis of potential vehicular impacts of the Flats at South Capitol development and a discussion of potential improvements.

The purpose of the capacity analysis is to:

- Determine the existing capacity of the study area roadways;
- Determine the overall impact of the proposed development on the study area roadways; and
- Discuss potential improvements and mitigation measures to accommodate the additional vehicular trips.

This analysis was accomplished by determining the traffic volumes and roadway capacity for Existing Conditions, Background Conditions, and Total Future Conditions.

The capacity analysis focuses on the weekday morning and afternoon commuter peak hours, as determined by the existing traffic volumes in the study area.

The following conclusions are reached within this chapter:

- Under Existing Conditions, one (1) study intersection operates at unacceptable levels of service.
- The addition of trips generated by background developments and inherent growth do not affect the delays or queuing at the study area intersections.
- The Project will not have a detrimental impact to the surrounding vehicular network.
- The addition of site generated trips does not affect the delays or queuing at any intersections.
- The addition of the site driveway as an eastbound intersection leg does not affect the queuing at the I-295 ramps. Phasing for this new leg was incorporated into the existing signal phasing and timings, resulting in minimal impacts.

STUDY AREA, SCOPE, & METHODOLOGY

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

The scope of the analysis contained within this report was extensively discussed with and agreed to with DDOT. The general methodology of the analysis follows national and DDOT guidelines on the preparation of transportation impact evaluations of site development.

Capacity Analysis Scenarios

The vehicular capacity analyses were performed to determine whether the proposed development will lead to adverse impacts on traffic operations. A review of impacts to each of the other modes is outlined later in this report. This is accomplished by comparing future scenarios: (1) without the proposed development (referred to as the Background condition) and (2) with the development approved and constructed (referred to as the Total Future condition).

Specifically, the roadway capacity analysis examined the following scenarios:

1. 2019 Existing Conditions (Existing Conditions);
2. 2021 Future Conditions without the development (2021 Background Conditions); and
3. 2021 Future Conditions with the development (2021 Total Future)

Study Area

The study area of the analysis is a set of intersections where detailed capacity analyses were performed for the scenarios listed above. The set of intersections decided upon during the study scoping process with DDOT are those intersections most likely to have potential impacts or require changes to traffic operations to accommodate the proposed development. Although it is possible that impacts will occur outside of the study area, those impacts are not significant enough to be considered a detrimental impact nor worthy of mitigation measures.

Based on the projected future trip generation and the location of the Site access points, the following intersections were chosen and agreed upon by DDOT for analysis:

1. Eastern Avenue NE & Kenilworth Avenue NE (Southbound)
2. Eastern Avenue NE & Kenilworth Avenue NE (Northbound)

Figure 12 shows a map of the study area intersections.



Traffic Volume Assumptions

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

Existing Traffic Volumes

The existing traffic volumes are comprised of turning movement count data, which was collected on: Wednesday, May 1, 2019 from 6:30 to 9:30 AM and 4:00 to 7:00 PM. The results of the traffic counts are included in the Technical Attachments. For all intersections, the system morning and afternoon peak hours were used. The existing peak hour traffic volumes are shown Figure 14. The morning peak hour was from 7:45 am to 8:45 am and the PM peak hour was from 4:45 to 5:45 pm.

2021 Background Traffic Volumes (without the project)

The traffic projections for the 2021 Background Conditions consist of the existing volumes with two additions:

- Traffic generated by developments within the vicinity of the Site and expected to be completed prior, or close to 2021 (known as background developments); and
- Inherent growth on the roadway (representing regional traffic growth).

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

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

Based on these criteria, and as discussed with and agreed to with DDOT, one (1) development was included in the 2021 Background scenario: Kenilworth Courts PUD.

An existing study was available for the background development. Trip generation and distribution assumptions for the development was based on its respective study and altered where necessary based on updated travel patterns. Vehicular trip generation assumptions for the background developments are shown in Table 3.

While the background developments represent local traffic changes, regional traffic growth is typically accounted for using growth rates. The growth rates used in this analysis are derived using the Metropolitan Washington Council of Government's (MWCOG) currently adopted regional transportation model, comparing the difference between the year 2019 and 2021 model scenarios as vetted and agreed to by DDOT. The growth rates observed in this model served as a basis for analysis assumptions. The applied growth rates are shown Table 4. The background growth volumes are shown in Figure 15.

The traffic volumes generated by background developments and by the inherent growth along the network were added to the existing traffic volumes in order to establish the 2021 Background traffic volumes. The traffic volumes for the 2021 Background conditions are shown on Figure 17.

2021 Total Future Traffic Volumes (with the project)

The 2021 Total Future traffic volumes consist of the 2021 Background volumes with the addition of the traffic volumes generated by the proposed development (site-generated trips). Thus, the 2021 Total Future traffic volumes include traffic generated by: the existing volumes, background developments, the inherent growth on the study area roadways, and the proposed project.

Trip distribution for the site-generated trips was determined based on: (1) CTPP TAZ data, (2) existing and future travel patterns in the study area, and (3) the location of the parking access.

Based on this review and the Site access locations, the site-generated trips were distributed through the study area intersections. A summary of trip distribution assumptions and specific routing is provided on Figure 18 for outbound trips and on Figure 19 inbound trips.

The traffic volumes for the 2021 Total Future conditions were calculated by adding the development-generated traffic volumes to the 2021 Background traffic volumes. Thus, the future condition with the proposed development scenario includes traffic generated by: existing volumes, background developments through the year 2021, inherent growth on the network, and the proposed development. The proposed development generated traffic volumes are shown on Figure 21. The 2021 Total Future traffic volumes are shown on Figure 22.