

Tab A

TECHNICAL MEMORANDUM

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Date: April 1, 2022
Subject: 4401-4435 Benning Road NE Comprehensive Transportation Review (ZC No. 22-08)

DDOT – PSD
The NRP Group

Introduction

This memorandum presents the findings of a Comprehensive Transportation Review (CTR) in support of a voluntary Design Review application (ZC No. 22-08) for the proposed development at 4401-4435 Benning Road NE in the Benning neighborhood of Washington, DC. Figure 1 identifies the regional site location within the District, and Figure 2 identifies the location of the site in relation to the local neighborhood. Figure 3 provides an aerial view of the site. The proposed development is bordered by Benning Road to the north, the East Capital Gardens apartment complex to the south, a 7-Eleven to the east, and the Fort Chaplin Park Apartments complex to the west.

The existing site consists of an undeveloped plot at 4401 Benning Road NE and a vacant building at 4435 Benning Road NE (formerly a single-story dental office totaling 1,658 sf). The proposed development includes the following:

- 109 all-affordable residential units, of which 22 units will be affordable to income levels at or below 30% average median income (AMI), 65 units will be affordable at 50% AMI, and 22 units will be affordable at 80% AMI;
- Approximately 1,692 square feet of residential amenity space including a fitness center and training and education space as well as an open green space along the site's frontage;
- 45 long-term and six (6) short-term bicycle parking spaces, exceeding the 36 long-term and five (5) short-term spaces required by the District's Zoning Regulations of 2016 (ZR16);
- One (1) 12' x 30' loading berth and one (1) 10' x 20' service/delivery space in the building's internal garage, accessible from a single 20-foot curb cut along Benning Road; and
- 13 vehicle parking spaces, including one (1) ADA-compliant van parking space and two (2) time-restricted pick-up/drop-off spaces.

The Applicant is requesting special exception relief from the vehicular parking requirements which necessitate 18 spaces. This relief is being requested to avoid the reduction of usable square footage for all-affordable housing. The site's close proximity to the Benning Road Metrorail station, the future Benning Road Streetcar extension, the future Deanwood – Union Station DC Circulator route, and numerous bus stops will provide residents with easy access to non-vehicular means of transportation.

The Applicant is also working with the Office of Planning to evaluate special exception relief for the provision of two (2) time-restricted pick-up/drop-off spaces along the site's frontage which is not permitted by ZR16, as zoning prohibits parking between the front façade of a building, as extended for the full width of the front of the lot, and the front lot line. These short-term spaces, while technically designed like parking spaces, are designed to minimize the disturbance of green and open space by taking advantage of the proposed driveway which a more typical design like a port-cochere (i.e., driveway/layby loop) would. It also would minimize curbside conflicts between short-term delivery vehicles (e.g., Uber, Lyft, food/grocery deliveries, etc.) and

vehicular traffic along Benning Road NE as well as the future Benning Road Streetcar extension. These spaces will be designed to include appropriate signage and be screened from the sidewalk.

The purpose of this CTR is to:

- Review existing site conditions and details of the proposed development plans;
- Review the major transportation elements of the site plan, namely pedestrian, bicycle, and transit facilities in the vicinity of the site;
- Provide a Transportation Demand Management (TDM) plan for the project; and
- Review the transportation elements of the project to determine whether the project will have a detrimental impact on the surrounding transportation network.

The findings of this study conclude that:

- The 4401-4435 Benning Road NE site is surrounded by an existing network of transit and pedestrian facilities with anticipated improvements to bicycle facilities that result in an environment for enjoyable and effective non-vehicular transportation;
- On-street parking occupancy data collected on a typical weekday in March 2022 shows there is sufficient on-street parking available surrounding the site to accommodate any additional parking demand that may be generated by the proposed development providing five (5) fewer vehicular parking spaces than is required by zoning;
- The proposed project will provide short- and long-term bicycle parking in excess of zoning requirements, while limiting the amount of new vehicle parking;
- The proposed project will provide loading facilities accessed from the proposed private drive, limiting the impacts of loading activity in public space;
- The proposed project will include TDM measures that adequately promote non-vehicular modes of travel; and
- The proposed project will not have a detrimental impact on the surrounding transportation network.

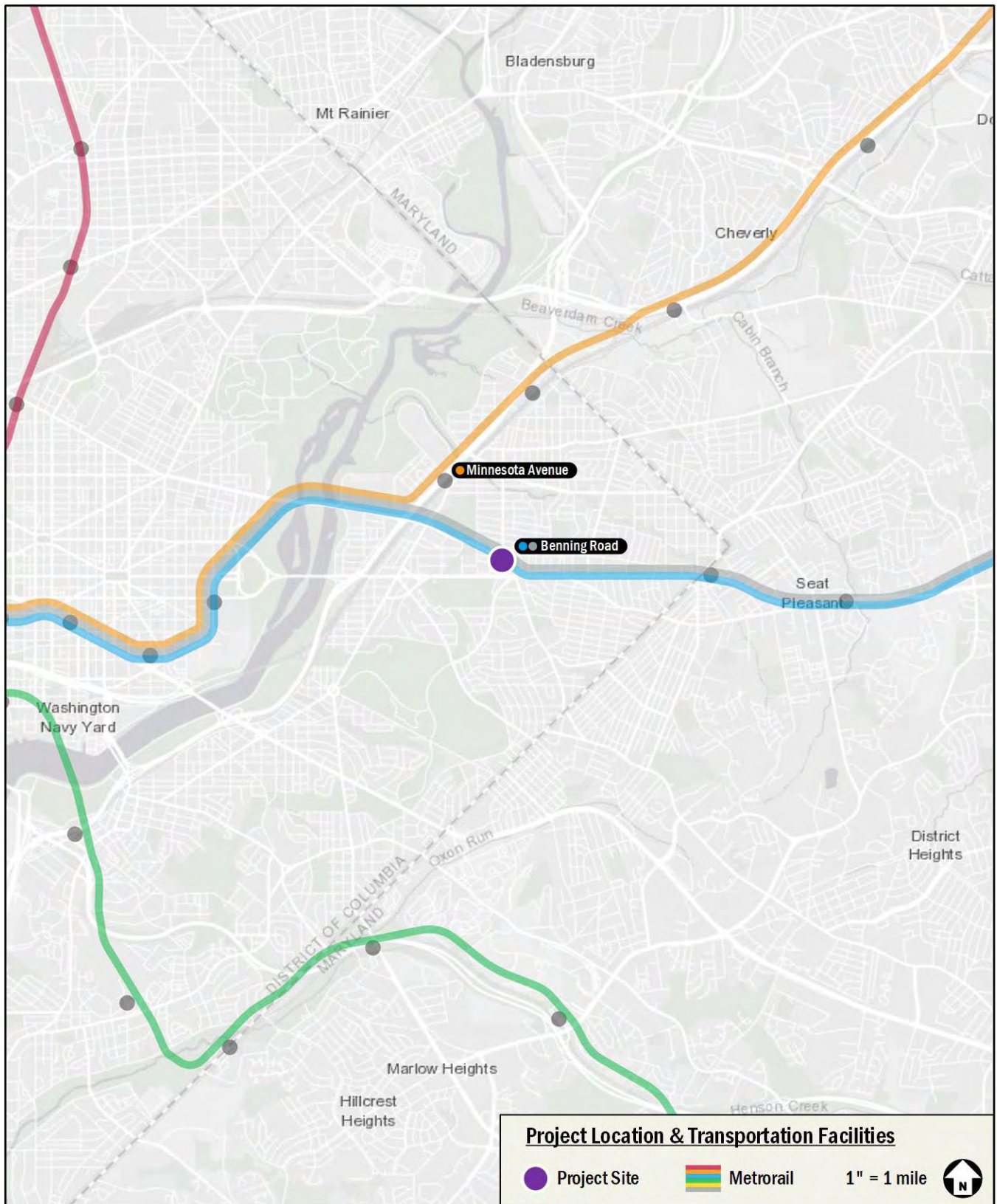


Figure 1: Project Location & Transportation Facilities

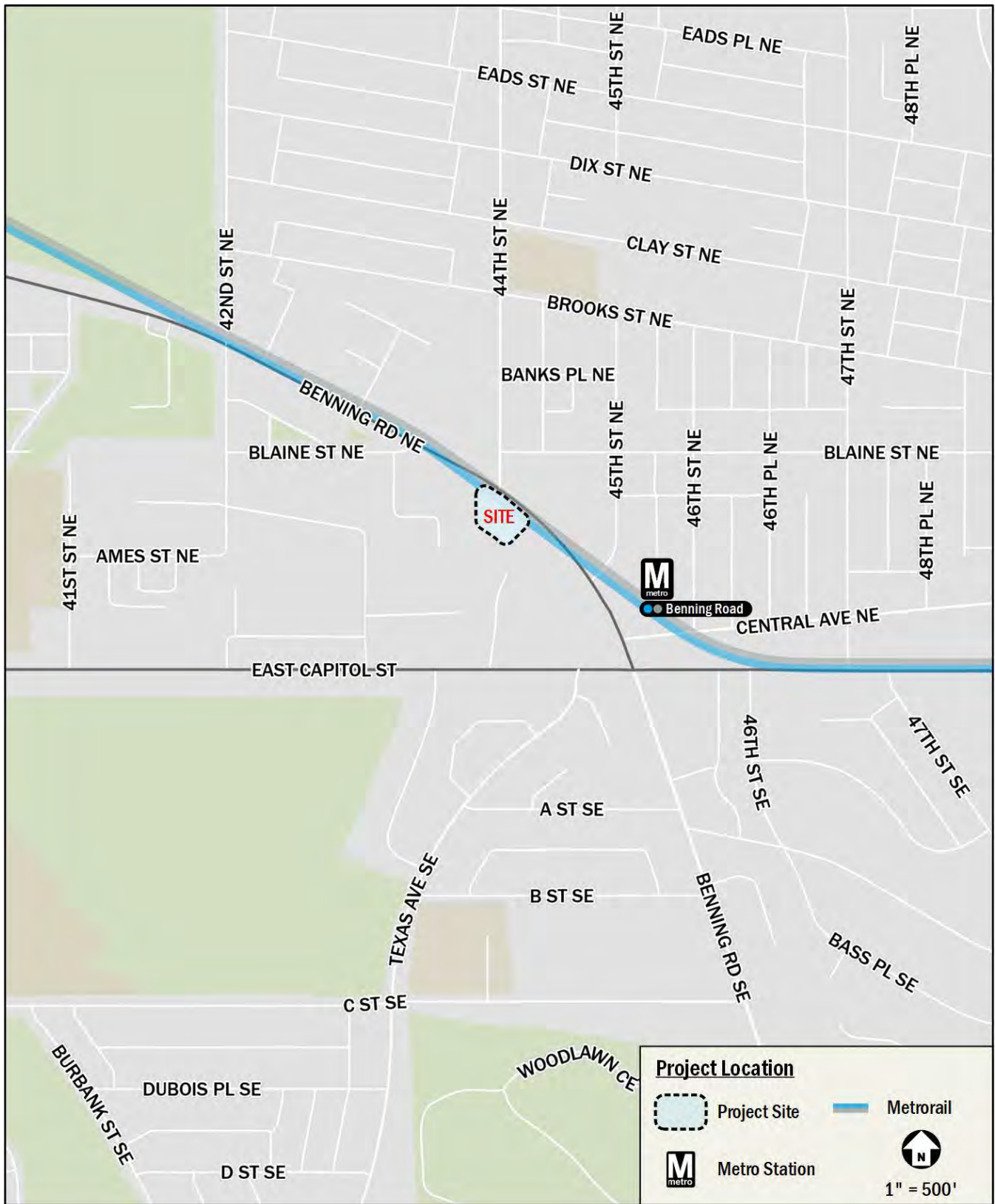


Figure 2: Project Location

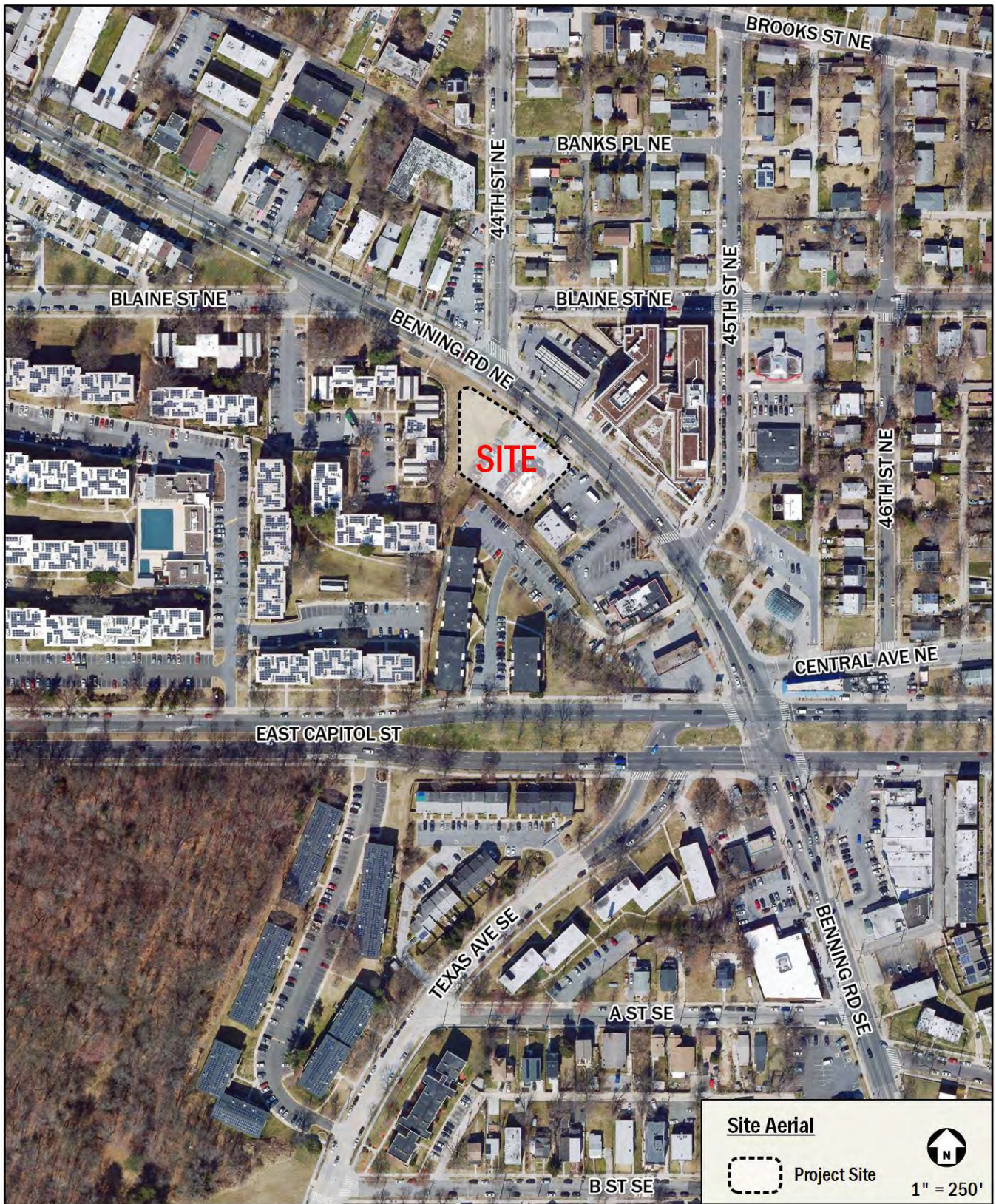


Figure 3: Site Aerial

Existing Transportation Conditions

This section reviews the existing vehicular, transit, bicycle, and pedestrian facilities as well as curbside management and available parking in the vicinity of the site. The 4401-4435 Benning Road NE site is easily accessible by vehicles. It is served by six (6) Metrobus routes and is within a quarter mile of the Benning Road Metrorail station served by the Blue and Silver Lines. The site is also surrounded by a robust pedestrian network that consists of well-connected sidewalks and crosswalks.

Vehicular Facilities

The site is accessible from Benning Road NE, which is classified as *Principal Arterial* by DDOT. This arterial roadway provides direct connections to DC-295 and the principal arterial East Capitol Street. These roadways provide further connections to I-695 and ultimately the Capital Beltway (I-495) that surrounds Washington, DC, and its inner suburbs as well as regional access via I-95. Nearby collectors such as 44th Street NE, Central Avenue NE, and Texas Avenue SE as well as numerous local roadways provide additional vehicular access.

Vehicular access to the site will be via the eastern-most existing curb cut on Benning Road which will be narrowed from its current 25 feet to 20 feet as part of the proposed project. This single curb cut will accommodate the private driveway to the site's parking and loading area in an internal garage. The western-most existing curb cut on Benning Road will be eliminated, reducing the total curb cuts from two (2) to one (1).

Transit Facilities

Existing Transit Service

The 4401-4435 Benning Road NE site is served by four (4) Metrobus lines carrying six (6) unique routes as shown in Figure 4. The W4 runs approximately every 12 minutes or better from 7:00 AM to 9:00 PM every day of the week near the site, providing connections to Deanwood to the north and Anacostia to the south as well as the Metrorail Blue, Green, Orange, and Silver Lines. The U5 and U6 have combined service near the site and run approximately every 20 minutes or better from 7:00 AM to 9:00 PM every day of the week, providing connections to the Greenway, Benning Heights, Lincoln Heights, Capitol View, and Marshall Heights neighborhoods as well as the Orange Line at the Minnesota Avenue Metrorail station. The 96, V7, and V8 provide less frequent service with the V7 providing limited, peak-only service. The 96 connects the site to neighborhoods throughout the District of Columbia including Capitol Hill, U Street, and Tenleytown to the west and Capitol Heights to the east. The V7 and V8 provide local service along Alabama Avenue SE and Southern Avenue SE to Congress Heights. Table 1 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.

The closest Metrorail station to the site is the Benning Road Metrorail station, which is served by the Blue and Silver Lines and is located approximately 0.1 miles or a three-minute walk southeast of the site. From east to west, the Blue and Silver Lines run concurrently from Largo in Prince George's County, MD to Fairfax County, VA via Downtown DC. The lines separate after the Rosslyn Metrorail station in Arlington County, VA with the Blue Line running south to Franconia-Springfield via Crystal City and Alexandria and the Silver Line running west to Reston via Falls Church and Tysons. As of March 2022, Blue and Silver Line trains run every 20 minutes on weekdays and every 24 minutes on weekends. At the nearby Benning Road Metrorail station, this results in effective average headways of 10 minutes and 12 minutes on weekdays and weekends, respectively. Metrorail service currently begins at 5:00 AM and 7:00 AM on weekdays and weekends, respectively. Service ends at 12:00 AM on Sunday through Thursday and 1:00 AM on Friday and Saturday.

Prior to the COVID-19 public health emergency Blue and Silver Line trains each ran approximately every eight (8) minutes during weekday morning and evening peak hours (5:00-9:30am and 3:00-7:00pm, respectively), every 12 minutes during weekday off-peak hours (mid-day and late-night), and every 12 to 20 minutes on weekends. At the nearby Benning Road Metrorail station,

this resulted in pre-COVID effective average headways of four (4) minutes, six (6) minutes, and six (6) to 10 minutes during weekday peak hours, weekday off-peak hours, and weekends, respectively.

Existing transit facilities surrounding the site are shown in Figure 4. Table 3 provides local bus stop information based on WMATA bus stop amenity guidance shown in Table 2.

Planned Transit Service

The Transit Priority Network in the approved *moveDC* 2021 update, the District’s multimodal long-range transportation plan, proposes transit priority infrastructure such as dedicated transit lanes, better transit stops, and/or special treatments for buses at intersections along designated corridors. Specific treatments along given streets or route paths are not proposed but rather prioritized as part of the long-range plan. One (1) transit priority corridor is proposed near the site:

- Benning Road from H Street NE to Southern Avenue SE

The Metrobus V7, V8, and W4 routes are covered by the Benning Road transit priority corridor with all routes serving the site being covered by at least one transit priority corridor in the broader District-wide transit priority network laid out in the *moveDC* 2021 update. Any bus route that uses a street included in one of these transit priority corridors would benefit from potential transit infrastructure improvements that may improve bus speeds and transit service to the site in the future.

Additionally, the *DC Circulator Transit Development Plan* and the *Benning Road Bridges and Transportation Improvements Project* call for new transit service via a new Ward 7 route and the Benning Road Streetcar extension, respectively. These planned additions to transit service alongside existing transit service are shown in Figure 5.

Table 1: Bus Route Information

Route Number	Line Name	Service Hours at Nearest Bus Stop ¹			Headway (min)	Walking Distance to Nearest Bus Stop ²
		Weekday	Saturday	Sunday		
WMATA Routes						
96	East Capitol Street-Cardozo Line	4:20am-1:08am	4:55am-1:14am	4:55am-1:03am	20-35	0.2 miles (3 minutes)
U5	Marshall Heights Line	4:20am-2:23am	5:06am- 3:09am	6:00am- 2:26am	30-45	0.2 miles (5 minutes)
U6	Marshall Heights Line	4:49am-10:38pm	5:35am- 10:23pm	5:36am- 10:19pm	40-50	0.2 miles (5 minutes)
V7	Benning Heights-Alabama Avenue Line	5:51am-9:20am; 2:20pm-7:01pm	-	-	18-20	<0.1 miles (2 minutes)
V8	Benning Heights-Alabama Avenue Line	4:30am- 12:01 am	4:40am- 12:03am	4:40am- 12:02am	25-30	<0.1 miles (2 minutes)
W4	Deanwood-Alabama Avenue Line	4:30am- 2:42am	6:00am- 2:41am	6:00am- 2:39am	4-35	0.2 miles (4 minutes)

¹ Service hours are based on the most recent effective schedules available on WMATA’s website.

² Only bus stops within the transit review area shown in Figure 4 are included.

Table 2: WMATA Bus Stop Amenity Guidance

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

Table 3: Local Bus Stop Information

Location	Stop ID	Routes Served	Amenities									
			Bus stop flag	Route map & schedule	Landing pad	Sidewalk	Bench	Shelter	Dynamic info sign	Lighting	Trash Receptacle	
Benning Rd & 40 th St NE (SB)	1000936	V7, V8	●	●		●					●	●
Benning Rd & 40 th St NE (NB)	1000935	V7, V8	●			●					●	●
Benning Rd & 41 st St NE (NB)	1000912	V7, V8	●		●	●					●	
Benning Rd & 41 st St NE (SB)	1000902	V7, V8	●		●	●					●	●
Benning Rd & 42 nd St NE (NB)	1000890	V7, V8	●			●					●	●
Benning Rd & 42 nd St NE (SB)	1000888	V7, V8	●		●	●					●	
Benning Rd & 44 th St NE (SB)	1000843	V7, V8	●			●						●
Benning Rd & 44 th St NE (NB)	1000840	V7, V8	●	●	●	●	●	●			●	●
Benning Rd & 45 th St NE (NB)	1000827	V7, V8	●	●	●	●	●	●	●		●	●
Benning Rd & 45 th St NE (SB)	1000825	V7, V8	●	●	●	●	●	●	●	●	●	●
Benning Rd SE & E Capitol St SE	1000759	V7, V8, W4	●	●	●	●	●	●			●	●
Benning Rd & A St SE	1000766	V7, V8, W4	●	●	●	●	●	●			●	●

Location	Stop ID	Routes Served	Amenities									
			Bus stop flag	Route map & schedule	Landing pad	Sidewalk	Bench	Shelter	Dynamic info sign	Lighting	Trash Receptacle	
East Capitol St NE & #4250	1000805	96	●		●	●						●
E Capitol St SE & #4250	1000774	96	●		●	●						●
E Capitol St NE & Ft Chaplin Pk Apts	1000802	96	●	●	●	●						●
E Capitol St SE & Ft Chaplin Pk Apts	1000775	96	●	●	●	●						●
E Capitol St NE & Benning Rd NE	1000818	96	●	●	●	●	●	●				●
E Capitol St SE & Texas Ave SE	1003195	96	●	●	●	●					●	●
Texas Ave SE & E Capitol St SE (SB)	1003031	U5, U6	●		●	●					●	●
Texas Ave SE & E Capitol St SE (NB)	1003030	U5, U6	●	●		●						●
East Capitol St NE & Benning Rd Station	1000820	96	●	●	●	●	●	●			●	●
E Capitol St SE & 46 th St SE	1000769	96, U5, U6	●	●	●	●	●	●	●			●
East Capitol St NE & 47 th St NE	1000801	96, U5, U6, W4	●	●	●	●	●	●	●			●



Figure 4: Existing Transit Service



Figure 5: Planned Transit Service

Bicycle Facilities

Existing Bicycle Facilities

The 4401-4435 Benning Road NE site will have access to limited existing on- and off-street bicycle facilities. The site is located near a signed bicycle route along Benning Road to the west, which connects to additional signed bicycle routes along Minnesota Avenue NE and Grant Street NE. Approximately 0.4 miles east of the site, shared lanes along 49th Street NE (i.e., vehicular lanes with “sharrow” pavement markings) become bicycle lanes before connecting to the Marvin Gaye Trail south of Nannie Helen Burroughs Avenue NE. The Marvin Gaye Trail is a paved, shared-use pedestrian and bicycle trail connecting the neighborhoods of Deanwood, Burville, Lincoln Heights, and Hillbrook. Figure 6 shows the existing bicycle facilities near the site.

Planned Bicycle Facilities

The 2021 update to *moveDC*, the District of Columbia’s long-range multimodal transportation plan includes one (1) funded improvement and four (4) future planned improvements to the Bicycle Priority Network within a half mile of the 4401-4435 Benning Road NE site along Benning Road, East Capitol Street, 49th Street NE, and Texas Avenue SE. Along the site’s boundary on the south side of Benning Road, the “Benning Road Trail” will be an off-street, shared-use path and is funded as part of the Benning Road Bridges and Transportation Improvements Project which has an anticipated construction completion in 2026. The facility along East Capitol Street will be fully protected based on the roadway’s functional classification as a principal arterial and is included in the East Capitol Street Safety and Mobility Project with construction start information forthcoming in 2022. Along Benning Road SE, the facility will be fully protected based on the roadway’s functional classification as a minor arterial. Along Texas Avenue SE, the facility may be a protected or standard bicycle lane or other facility type (e.g., advisory, buffered, contra-flow, neighborhood bikeway) given roadway conditions and its functional classification as a collector.

It should be noted that the three (3) facilities along East Capitol Street, 49th Street, and Texas Avenue are included in the Bicycle Priority Network as future planned improvements which means funding had not been committed at the time the 2021 update to *moveDC* was drafted. Figure 7 shows future bicycle facilities near the site.

Capital Bikeshare

In addition to personal bicycles, the Capital Bikeshare program provides additional bicycle options for residents of 4401-4435 Benning Road NE. The program has placed over 600 bikeshare stations across the greater Washington region with over 5,000 bicycles and electric-assist bicycles (e-bikes) in the fleet. One (1) Capital Bikeshare station is within a quarter mile of the site:

- An existing 18-dock Capital Bikeshare station is available within a three-minute walk on the northern side of East Capitol Street outside the Shrimp Boat Plaza restaurant.

A second 11-dock station is also available within a 10-minute walk west of the site on the southern side of the Benning (Dorothy I. Height) Neighborhood Library. Additionally, residents may park Capital Bikeshare e-bikes at any public bicycle rack for an additional fee. The Capital Bikeshare Development Plan, published in 2016 and updated in 2019, does not include any DDOT-planned Capital Bikeshare station installations within a half mile of the site.

Carsharing and Micromobility

Two (2) companies provide carsharing service in the District of Columbia: Free2Move and Zipcar. Both services are private companies that provide registered users access to a variety of automobiles. Free2Move operates a point-to-point model that allows customers to pick up a vehicle at a location and drop it off at any non-restricted metered curbside parking space or Residential Parking Permit (RPP) location in the defined “Home Area” which includes 4401-4435 Benning Road NE. Zipcar operates a reserved-space model where customers are required to borrow from and return vehicles to the same reserved carsharing space. Currently, there are two (2) Zipcar locations within a quarter mile of the site:

-
- One (1) vehicle is located at the Exxon gas station on the northwest corner of Benning Road NE and East Capitol Street.
 - Three (3) vehicles are located in on-street parking spaces on the north side of Central Avenue NE between 46th Street NE and the exit-only driveway at the Benning Road Metrorail station.

As of March 2022, micromobility service in the District is provided by eight (8) private dockless companies operating e-bikes and electric scooters (e-scooters). These include two (2) companies operating e-bikes (HelBiz and Jump) and six (6) companies operating e-scooters (Bird, Lime, Lyft, Razor, Skip, and Spin). These dockless vehicles are provided by private companies that give registered users access to a variety of e-bike and e-scooter options. These devices are used through each company-specific mobile phone application. Many dockless vehicles do not have designated stations where pick-up/drop-off activities occur like with Capital Bikeshare; rather, they are parked in public space, most commonly in the “furniture zone” or the portion of sidewalk between where people walk and the curb, often where other street signs, street furniture, trees, and parking meters are found. In addition to DDOT’s program, dockless pilots and demonstration programs are underway in Arlington County, Fairfax County, the City of Fairfax, the City of Alexandria, and Montgomery County. The project’s proposed short-term and long-term bicycle parking spaces on-site will make bicycle and scooter travel a more attractive option for those traveling to and from the site.

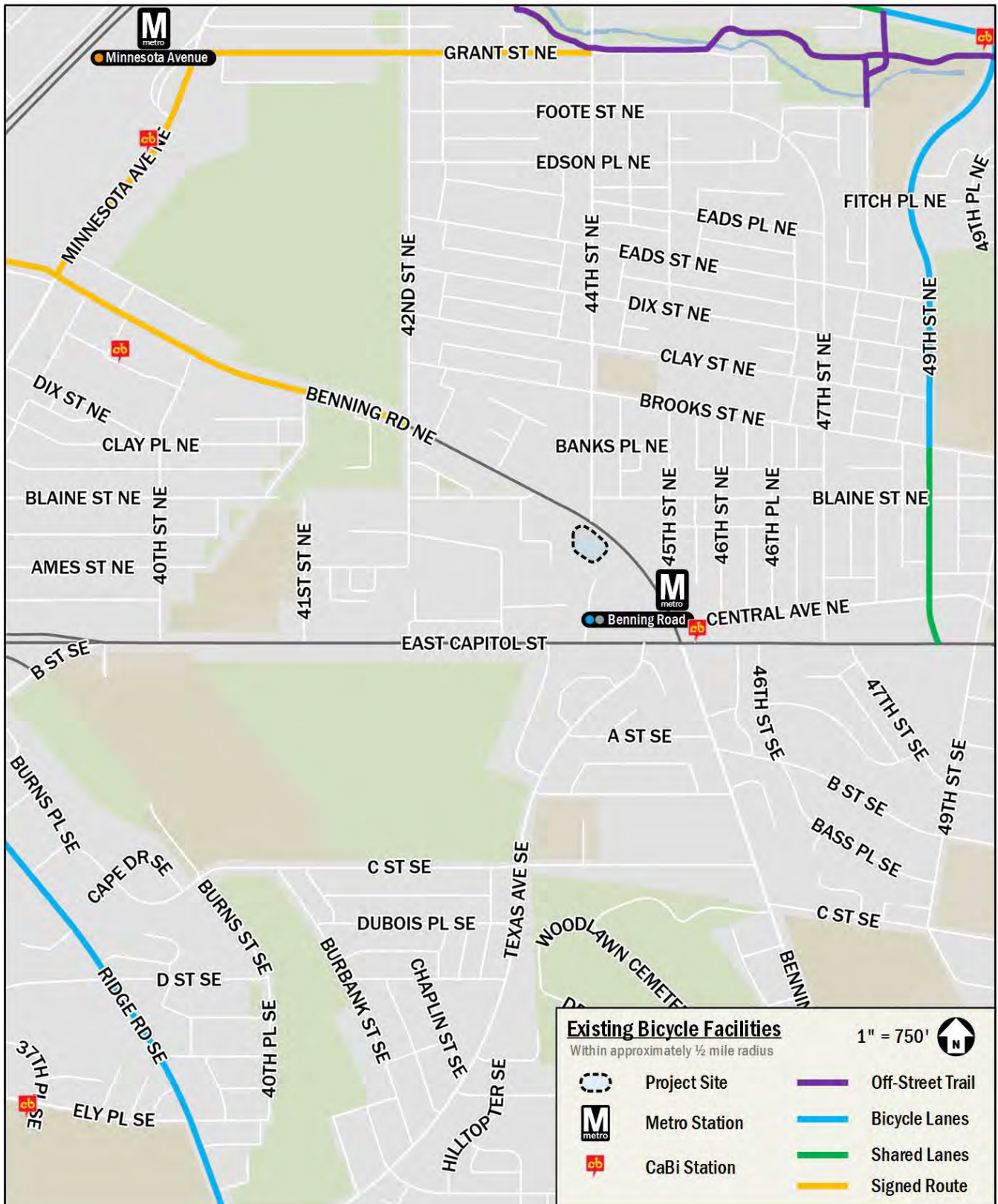


Figure 6: Existing Bicycle Facilities

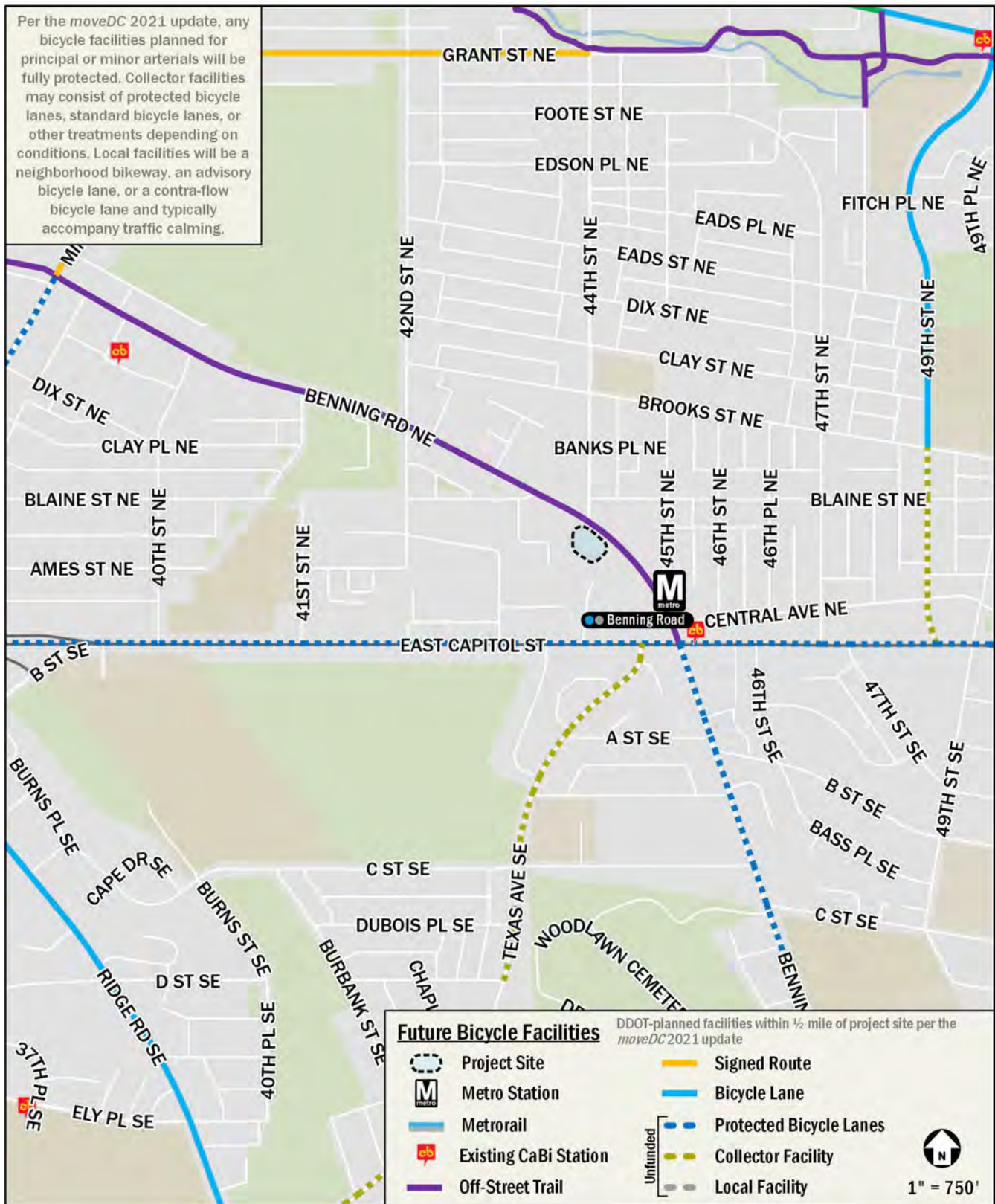


Figure 7: Future Bicycle Facilities

Pedestrian Facilities

Overall, the pedestrian facilities within the study area provide sufficient connectivity to major local destinations. A summary of pedestrian facilities within approximately a quarter-mile radius as well as to the nearby Northeast Heights redevelopment site is shown in Figure 8, with a summary of sidewalk width requirements shown in Table 4. The 10-, 20-, and 30-minute walksheds to major destinations from the site are shown in Figure 9.

There are minor areas of concern within the study area that may impact the quality and attractiveness of walking, such as missing sidewalks along segments of 42nd Street NE, 45th Street NE, 46th Street NE, Blaine Street NE, Brooks Street NE, Clay Place NE, and Clay Street NE. as well as some streets with sidewalks that do not meet DDOT’s minimum width requirements. Nevertheless, sidewalks in the study area are generally in good condition and provide sufficient connectivity.

Within the study area, most sidewalks along and adjacent to Benning Road fall within a high-density residential area as defined by the Zoning Regulations of 2016 (ZR16). Sidewalks in this area require a minimum buffer width of four (4) to eight (8) feet and a minimum sidewalk unobstructed width of eight (8) feet for a total minimum sidewalk width of 13 feet as shown in Table 4. Some sidewalks within residential areas further from Benning Road fall within a low-to-moderate residential area as defined by ZR16 and require a minimum buffer width of four (4) to six (6) feet and a minimum sidewalk unobstructed width of six (6) feet for a total minimum sidewalk width of 10 feet. The sidewalks in the study area that do not meet DDOT standards typically do not maintain the total minimum sidewalk width or provide sufficient buffer width but do provide an unobstructed clear width of at least four (4) to six (6) feet.

ADA standards require that all curb ramps be provided wherever an accessible route crosses a curb and must have a detectable warning. Additionally, curb ramps shared between two crosswalks are not desired. As shown in Figure 8, under existing conditions, there are some crosswalks and curb ramps within the study area that do not meet DDOT and/or ADA standards; however, most crosswalks and curb ramps nearest the project site and along the path to the Benning Road Metrorail station do meet standards and provide a quality walking environment.

Table 4: Sidewalk Requirements

Street Type	Minimum Buffer Width	Minimum Sidewalk Unobstructed Width	Total Minimum Sidewalk Width
Residential (Low to Moderate Density)	4-6 feet	6 feet	10 feet
Residential (High Density)	4-8 feet	8 feet	13 feet
Central DC and Commercial Areas	4-10 feet	10 feet	16 feet

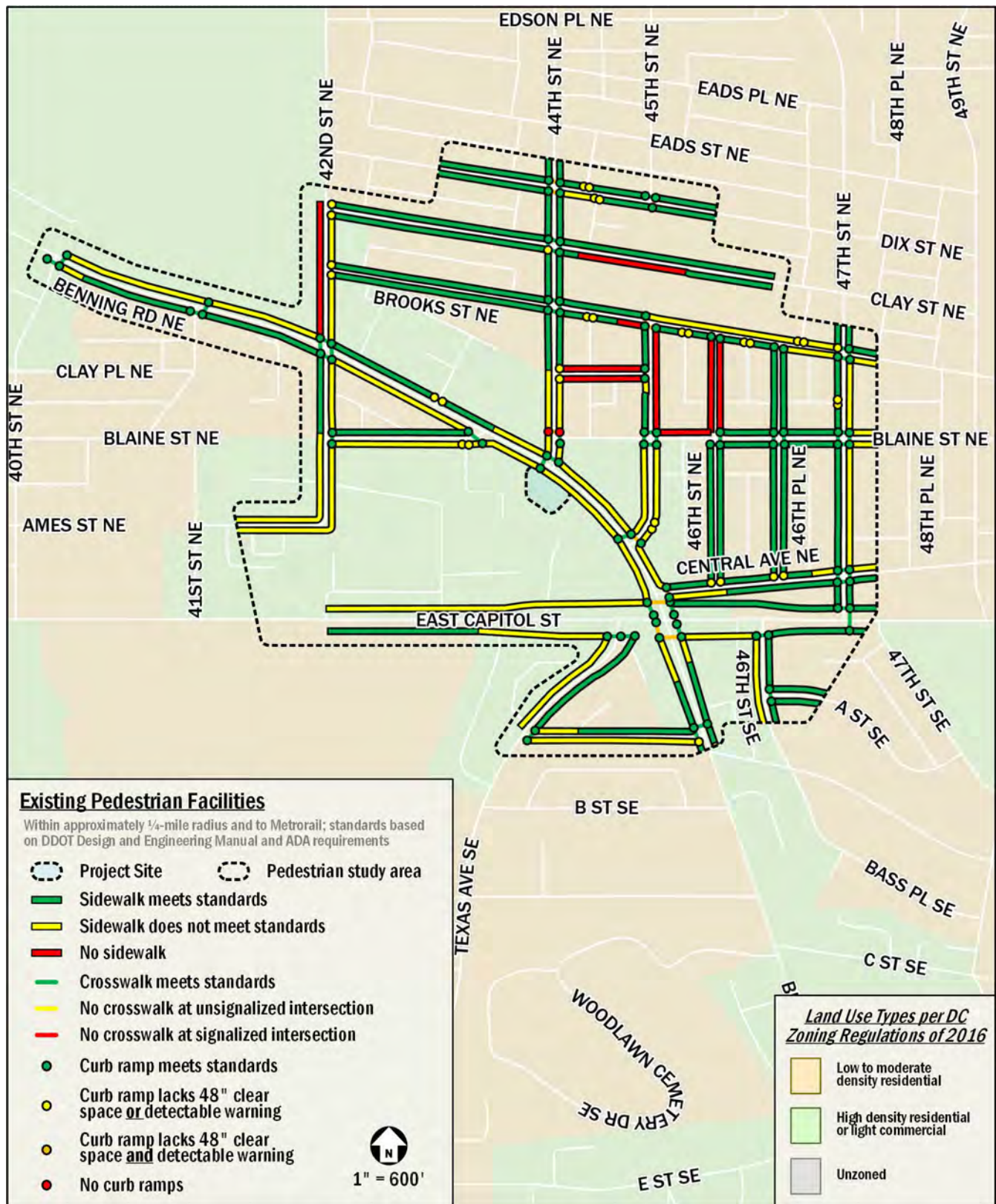


Figure 8: Existing Pedestrian Facilities

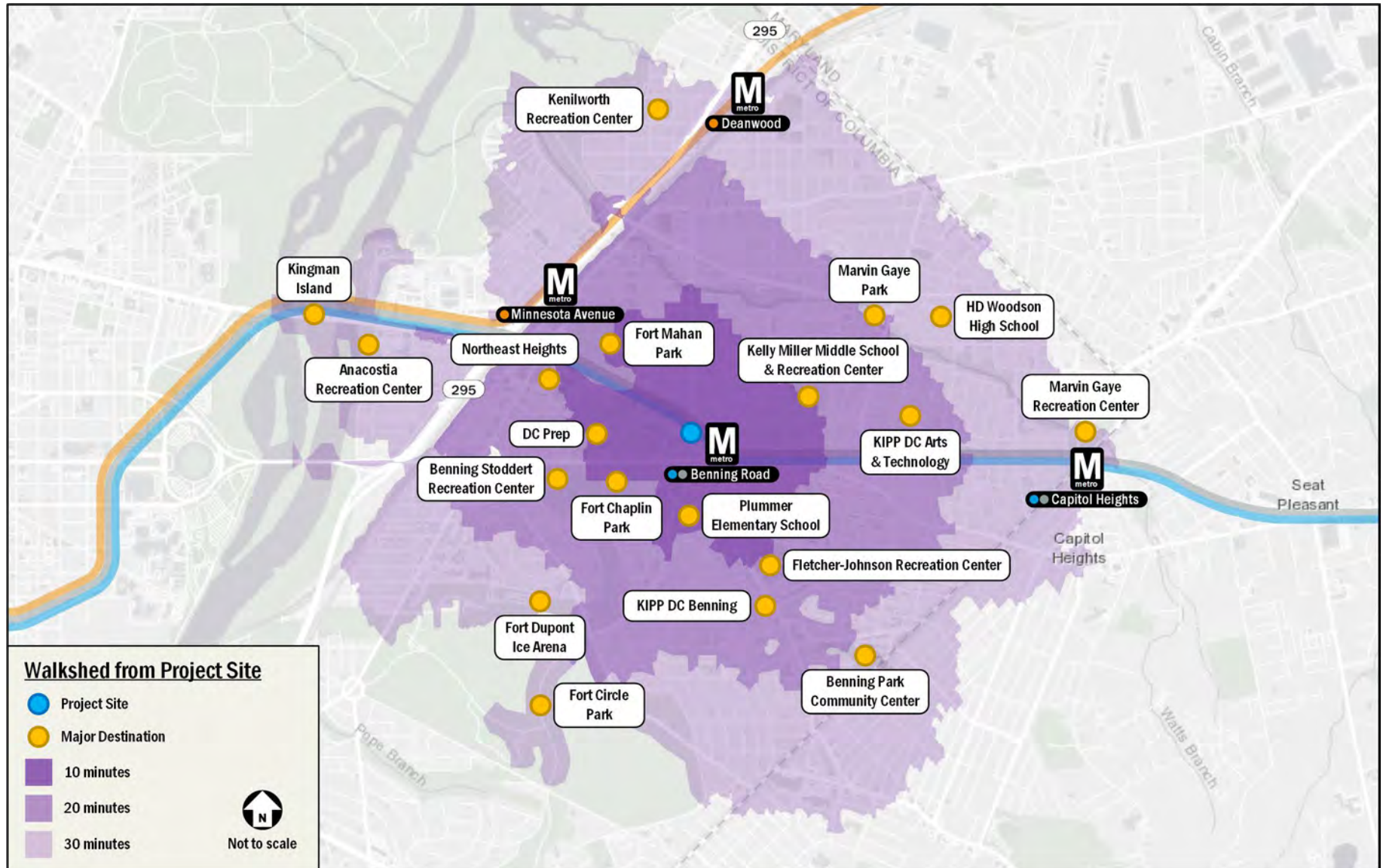


Figure 9: Walkshed from Project Site

Curbside Management and Parking

As part of this transportation report, detailed counts of parking supply and demand were conducted surrounding the 4401-4435 Benning Road NE site. The purpose of these counts was to determine the amount of parking supply and demand on streets within walking distance of the site and to identify trends or patterns associated with parking demand.

The area surveyed during this study, shown in Figure 10, represents the largely residential area within a reasonable walking distance of the site and with a notable supply of on-street parking. Each block face in the study area was surveyed to determine whether parking is allowed and the approximate number of spaces on the block face.

The time and date of the parking data collection were selected based on the purpose of the counts. As the proposed development is an all-affordable residential development which will be providing five (5) fewer parking space than is required by zoning, the date of the count was selected to represent a “typical weekday,” as residential parking demand is highest during a weekday in the evening or early morning when residents are not at work. Additionally, since the impacts of COVID-19 on residential parking patterns are unclear, it was important to include mid-day hours. As such, parking data were collected in the study area on Thursday, March 3, 2022, from 7:00 AM to 10:00 PM. The parking demand sweeps were conducted every 30 minutes.

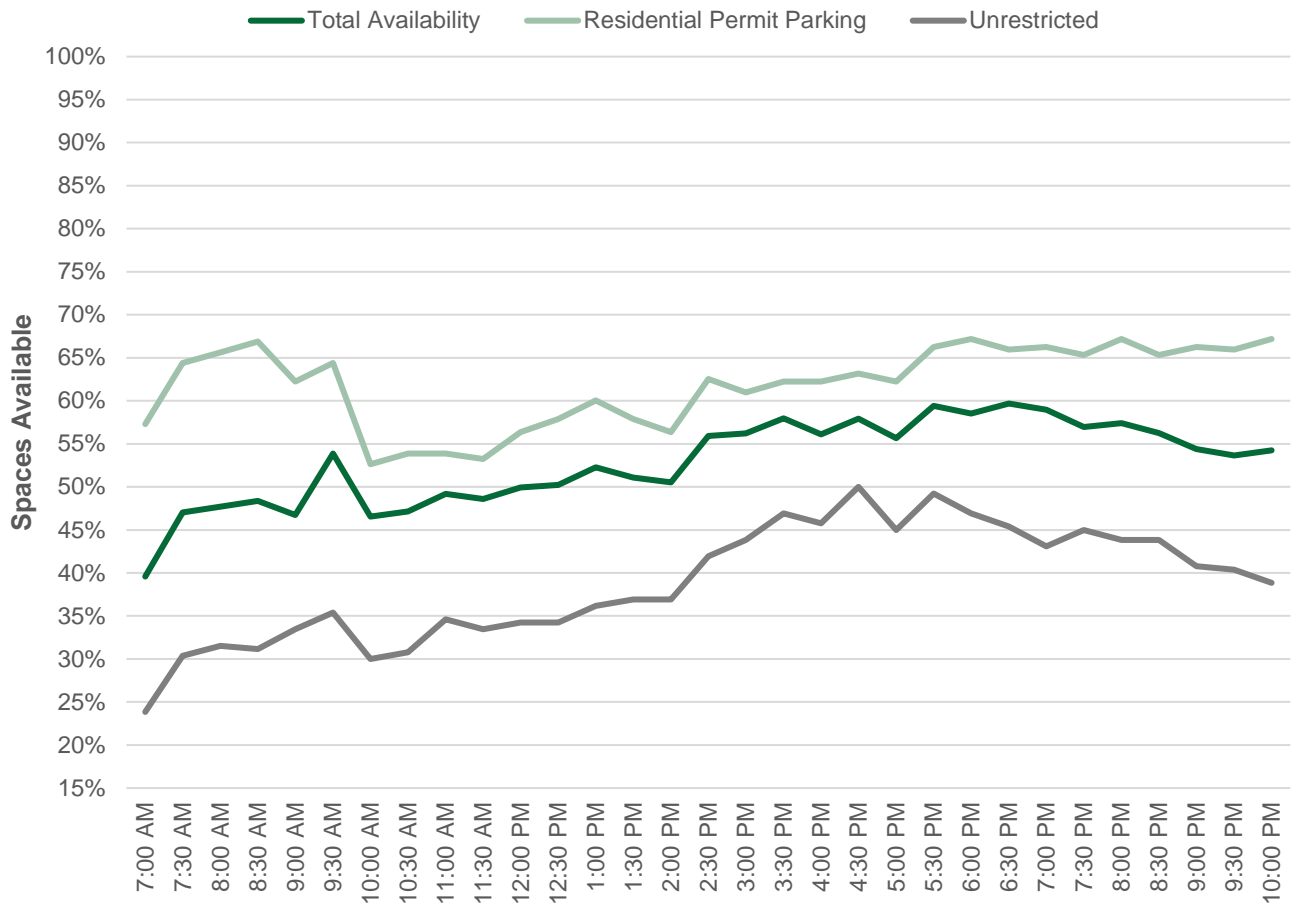
The parking data found a total of 714 parking spaces in the study area, a plurality of which are restricted to residential permit parking (RPP) between the hours of 7:00 AM and 8:30 PM. Permitted Ward 7 community members can park in RPP spaces without restriction, while those without an RPP permit are subject to a two-hour time restriction. Due to the prevalence of time-restricted parking zones as shown by the existing curbside restrictions within the parking study area in Figure 11, such as rush-hour restricted parking along Benning Road, the actual supply of parking spaces varies throughout the day. The lowest total supply occurs during peak morning commuting and school arrival hours between 8:00 AM and 9:30 AM with a total of 612 spaces, while the study area total supply of 714 parking spaces would only truly be available on weekends. RPP spaces are largely found along Clay Street NE west of 44th Street NE as well as along Banks Place NE and portions of Brook Street NE, 46th Street NE, and Blaine Street NE east of 44th Street. Unrestricted parking is concentrated along 42nd Street NE and Blaine Street west and south of Benning Road as well as Clay Street east of 44th Street and portions of 45th Street NE and Blaine Street east of Benning Road.

Traditionally, an 15% availability rate (or 85% occupancy rate) is considered an ideal level of parking utilization. At this rate, a block face is considered “full” while having space to accommodate demand from incoming vehicles. As shown in Table 5, the parking data found that the lowest parking availability (i.e., the peak parking occupancy) for the entire study area occurred during morning commute hours at 7:00 AM with an overall parking availability of 40 percent (245 available of 619 total spaces in supply). The lowest availability occurred in the unrestricted parking zones which had an overall parking availability of 24 percent (62 available out of 260 total spaces in supply) during the same peak occupancy period at 7:00 AM. Overall parking availability of RPP zones never fell below 50 percent with the lowest overall availability at 53 percent (172 available out of 323 total spaces in supply) at 10:00 AM. Figure 12 shows the parking availability of each block face during the peak parking period between 7:00 AM and 7:30 AM, while Figure 13 shows the parking availability during evening commute hours between 5:00 PM and 5:30 PM.

The results of the analysis of on-street parking facilities for the area in the vicinity of the site indicate that there is the ability to absorb any additional parking demand that may be generated by the proposed development providing five (5) fewer vehicular parking spaces than is required by zoning.

Tables and figures with parking availability for each period of data collection are contained in this report’s Technical Attachments.

Table 5: On-Street Parking Availability



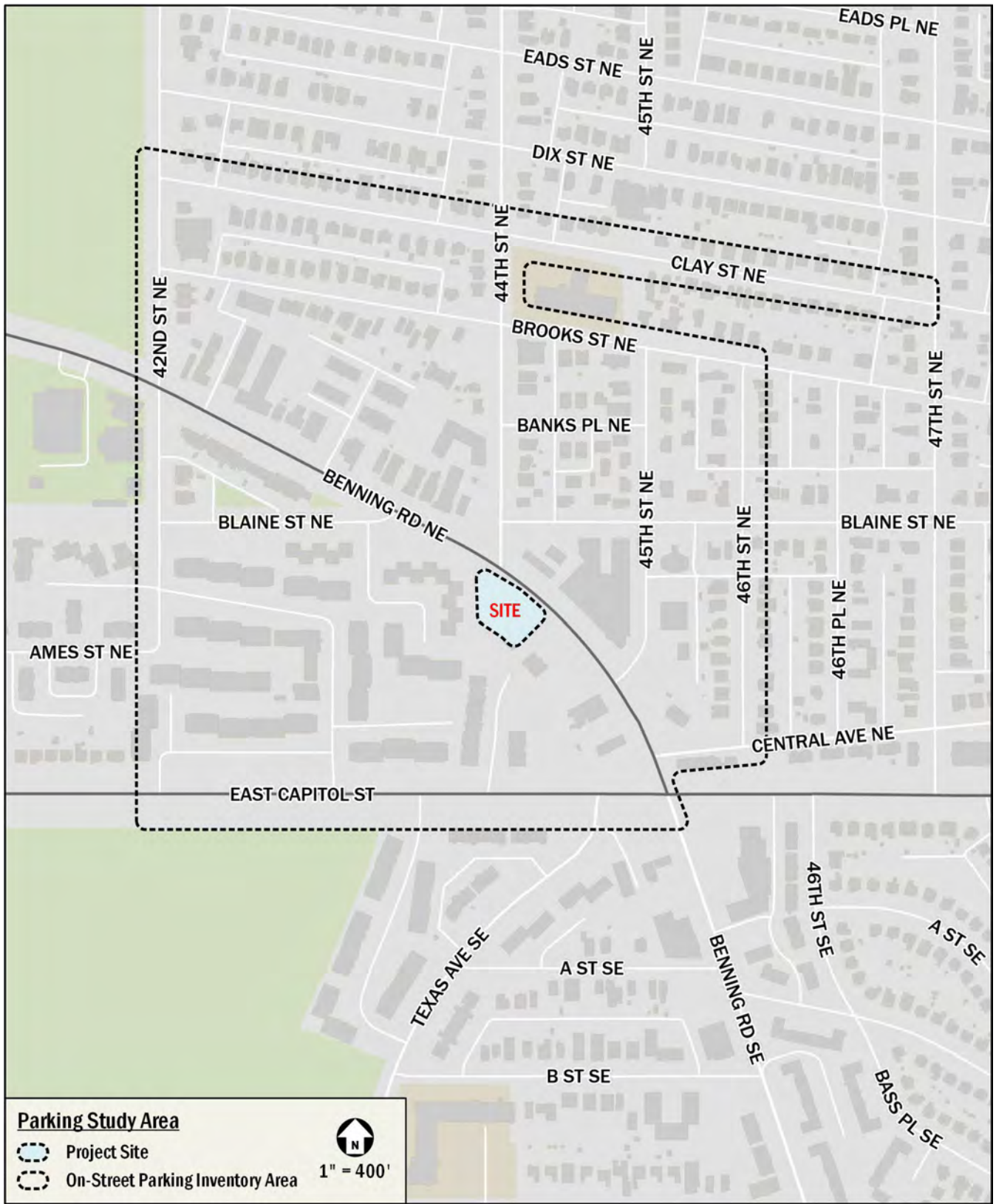


Figure 10: Parking Study Area

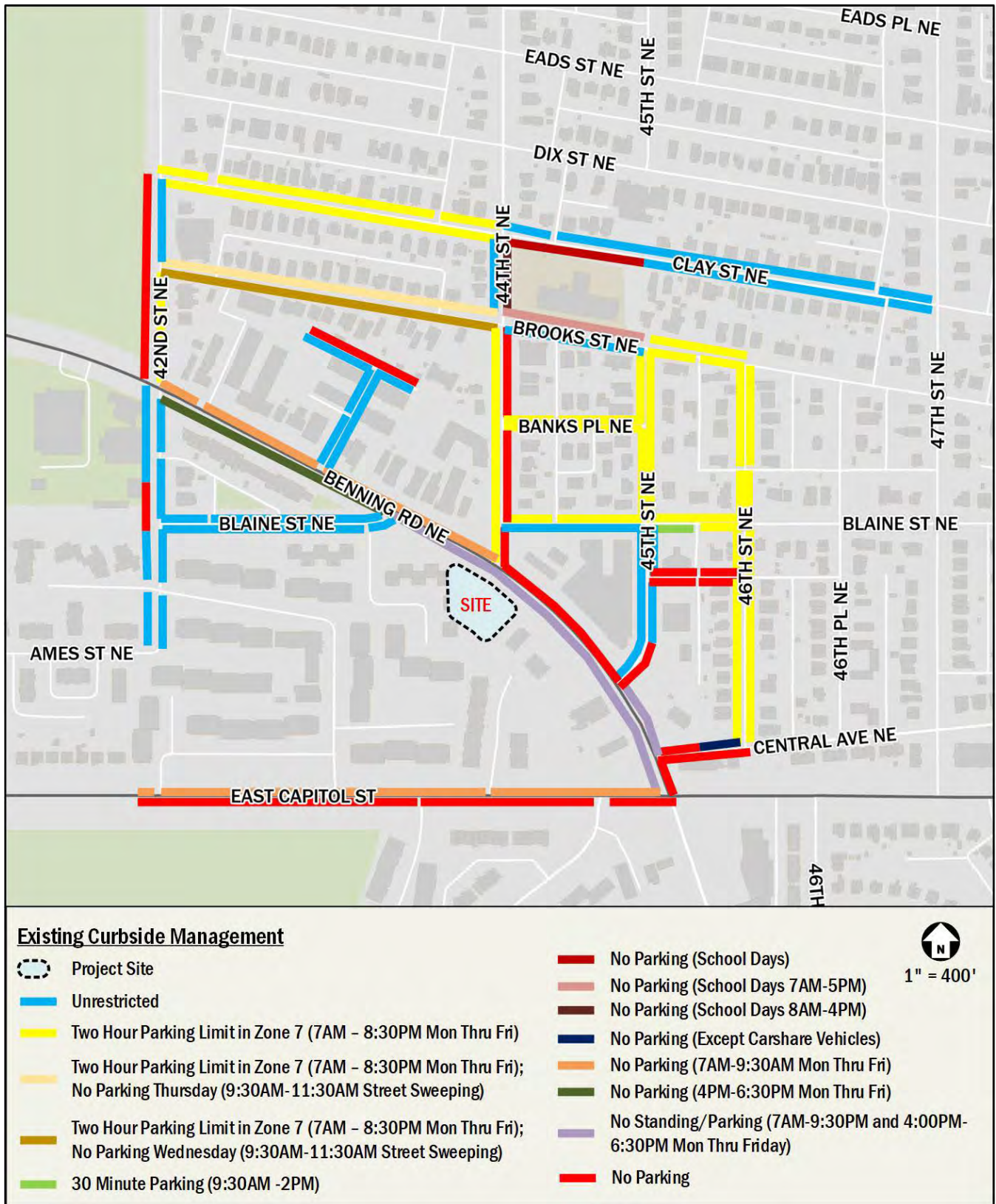


Figure 11: Existing Curbside Management

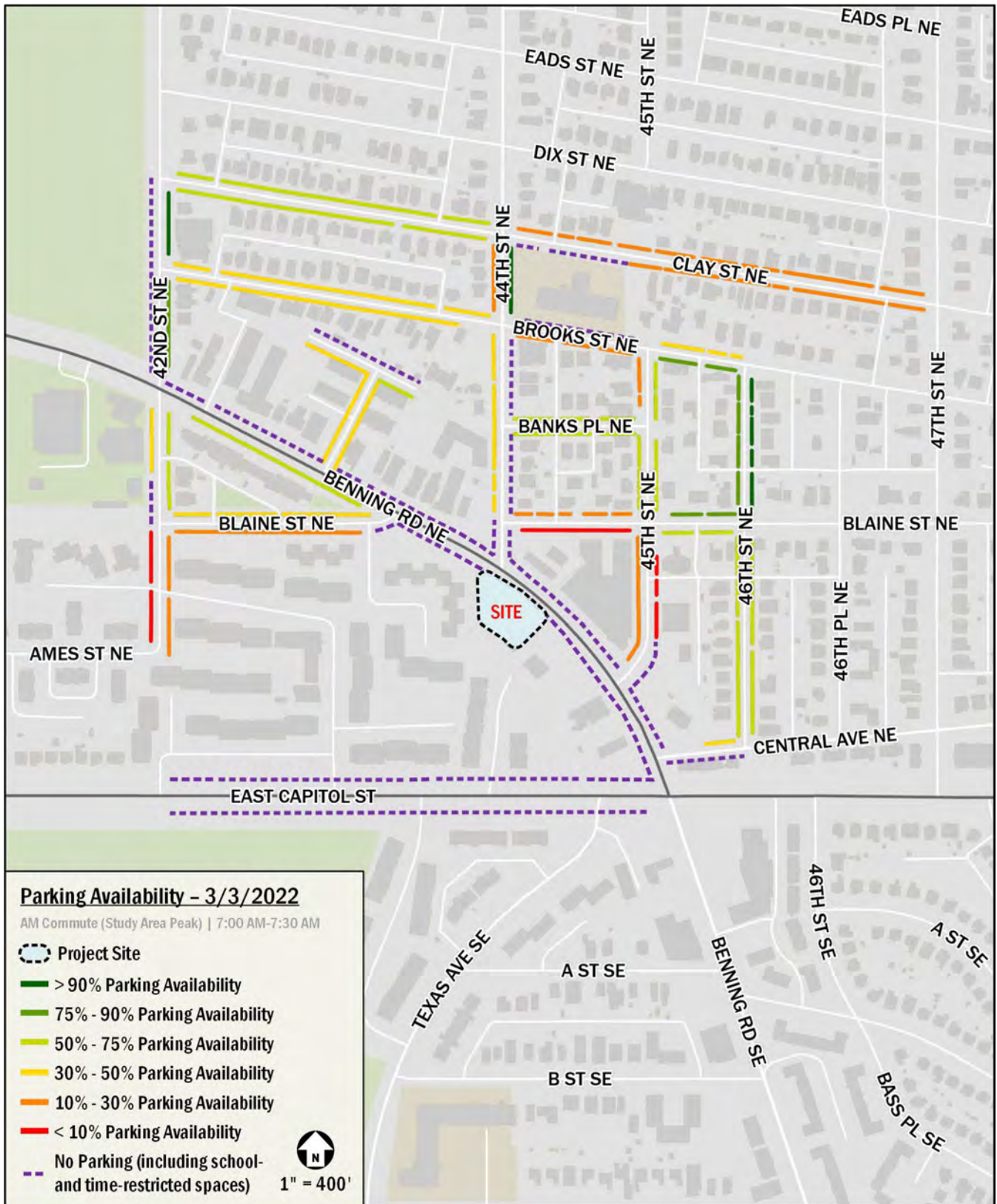


Figure 12: Parking Availability – AM Commute (Study Area Peak)

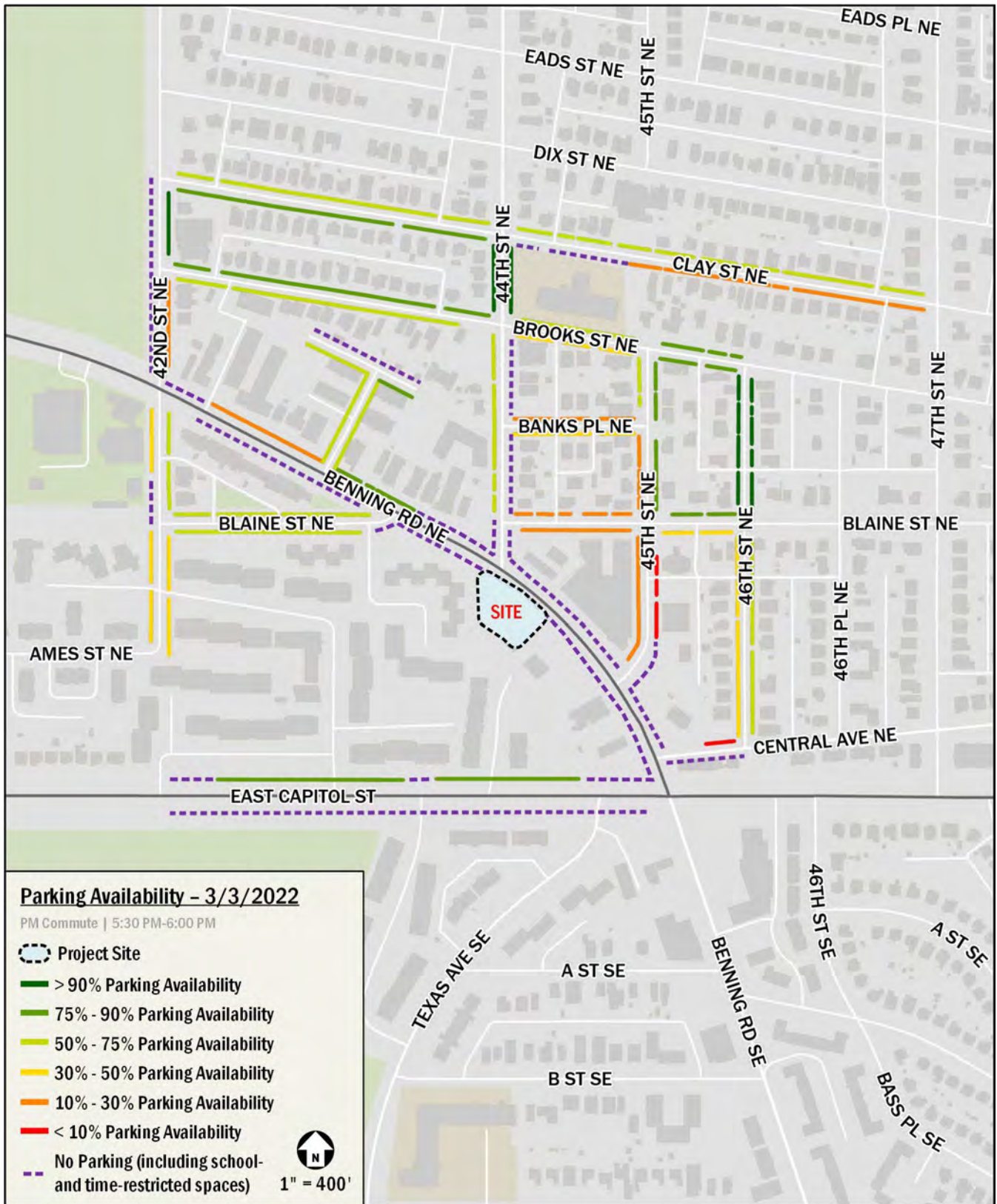


Figure 13: Parking Availability – PM Commute

Future Projects

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

Transportation and Infrastructure Initiatives

moveDC

As the District of Columbia grows, so must the transportation system, specifically in a way that expands transportation choices while improving the reliability of all transportation modes. In order to meet this challenge and capitalize on future opportunities, DDOT maintains and regularly updates its long-range transportation plan, *moveDC*, to identify transit challenges and opportunities and to recommend investments.

The *moveDC* 2014 update outlined recommendations by mode with the goal of having them complete by 2040, including improvements to the District's transportation system such as:

- 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; and
- Water taxis.

As part of the *moveDC* 2021 update, Mobility Priority Networks were created to show where investments in safety and mobility improvements will take place for specific modes of transportation. The Transit Priority Network highlights streets where infrastructure improvements such as dedicated transit lanes, better transit stops, and/or special intersection treatments for buses will be prioritized to improve transit travel times and reliability. The Bicycle Priority Network includes bicycle priority routes from the *moveDC* 2014 update and additions from recent planning and public engagement efforts. From the final *moveDC* 2021 update published in December 2021, the Transit and Bicycle Priority Networks near the site include:

- A transit priority corridor along Benning Road from H Street NE to Southern Avenue SE, covering at least a segment of three (3) existing Metrobus routes as well as the future Benning Road Streetcar extension near the project site;
- An off-street, shared-use path along the south side of Benning Road between Oklahoma Avenue NE and East Capitol Street with a short segment that will be two-way protected bicycle lanes (i.e., "cycle track") between Kingman Island and 34th Street NE to be funded as part of the Benning Road Bridges and Transportation Improvements Project; and
- Future planned on-street bicycle facilities without committed funding along East Capitol Street, 49th Street NE, and Texas Avenue SE.

DC Circulator Transit Development Plan

The DC Circulator is a bus system operated by the District Department of Transportation (DDOT) with service in the District of Columbia and a connection to the Rosslyn Metrorail station in Arlington, VA. Every three years, DDOT regularly updates its Transit Development Plan (TDP) to support its mission to deliver affordable, comfortable, and efficient bus service that connects people to business, culture, and entertainment throughout the District. The draft version of the most recent version of the TDP was published on April 12, 2021 and included a new Ward 7 route. As shown in Figure 5, the planned Deanwood – Union Station

(DW-US) route will use East Capitol Street as a main east/west connection between Wards 6 and 7, providing a one-seat ride from Union Station and the Capitol to the Benning Road Metrorail station near the site.

Benning Road Bridges and Transportation Improvements Project

The Benning Road Bridges and Transportation Improvements Project is a major transportation infrastructure project currently in its final design phase with a study area along Benning Road NE from approximately Oklahoma Avenue NE to East Capitol Street near the 4401-4435 Benning Road NE site. The project will improve pedestrian and traffic safety, address infrastructure deficiencies, and provide zero-fare transit through the two-mile extension of the DC Streetcar along Benning Road from its existing eastern terminus near Oklahoma Avenue NE to the Benning Road Metrorail station. Major elements of the project include:

- Enhancing safety and operations along the corridor and at key intersections;
- Improving transportation infrastructure conditions;
- Rehabilitating roadways and bridges that cross the Anacostia River, DC-295, and CSX freight rail tracks;
- Enhancing and installing pedestrian and bicycle facilities; and
- Extending streetcar transit service to the Benning Road Metrorail station on a center-running alignment.

Near the site, key project elements include a shared-use path along the south side of Benning Road on the site's northern boundary and the streetcar extension's future eastern terminus approximately a three (3) minute walk from the site at the Benning Road Metrorail station. The future streetcar specifically will provide residents of 4401-4435 Benning Road NE a free one-seat ride through the H Street NE corridor to Union Station for connections to the Metrorail Red Line and regional rail.

East Capitol Street Safety and Mobility Project

The East Capitol Street Safety and Mobility Project a DDOT-led project building on the work of the *2011 Far Northeast Livability Study* and the *2013 East Capitol Street's Pedestrian Safety Study*. The project will implement intersection and street upgrades to improve safety and access for all users of East Capitol Street, including at its intersection at Benning Road near the 4401-4435 Benning Road NE site. The segment of East Capitol Street from its western terminus near the Benning Stoddert Recreation Center to its eastern terminus at the Maryland-District border accounted for the fifth highest pedestrian and bicyclist fatality rate of all arterial roads from 2020 to 2014, and as a result, was prioritized in Mayor Muriel Bowser's *2015 Vision Zero Action Plan*. Key safety improvements at the intersection of East Capitol Street and Benning Road near the site include:

- Adding protected bicycle lanes;
- Adding a left turn lane from northbound Texas Avenue SE to westbound East Capitol Street;
- Optimizing signal timing for safety and efficiency for all users;
- Adding a left turn lane from westbound East Capitol Street to southbound Benning Road;
- Adding high-visibility crosswalks; and
- Adding floating bus stops.

Land Use and Sustainability Initiatives

DC Comprehensive Plan

The *DC Comprehensive Plan* is a high-level guiding document that sets a positive, long-term vision for the District through the lens of its physical growth and change. The existing Comprehensive Plan was enacted in 2006 and updated in 2011 and again in 2021 with the DC Council passing the updated plan in May 2021. The new plan officially became law on August 21, 2021.

The Comprehensive Plan's Transportation Element contains the following policies which are supported by the proposed development:

- *"Policy T-1.1.4: Transit-Oriented Development.* Support transit-oriented development by investing in pedestrian-oriented transportation improvements at or around transit stations, major bus corridors, and transfer points. Encourage development projects to build or upgrade the pedestrian and bicycle infrastructure leading to the nearest transit stop to create last-mile connections. Pedestrian movements and safety should be prioritized around transit stations."
- *"Policy T-1.1.8: Minimize Off-Street Parking.* An increase in vehicle parking has been shown to add vehicle trips to the transportation network. In light of this, excessive off-street vehicle parking should be discouraged."
- *"Policy T-1.2.3: Discouraging Auto-Oriented Uses.* Discourage certain uses, like "drive-through" businesses or stores with large surface parking lots, along key boulevards and pedestrian streets, and minimize the number of curb cuts in new developments. Curb cuts and multiple vehicle access points break-up the sidewalk, reduce pedestrian safety, and detract from pedestrian-oriented retail and residential areas."
 - The proposed project's location provides excellent access to public transportation options. In particular, the is within a three-minute walk of the Benning Road Metrorail station. The proposed project is designed to encourage alternative transportation methods by limiting the number of on-site vehicular parking spaces and providing more long-term bicycle parking than required by zoning. Additionally, the number of curb cuts is being reduced from two (2) to one (1), and the remaining curb cut will be reduced from 25 feet to 20 feet. These changes will improve pedestrian safety and make the surrounding public space more attractive.

Sustainable DC 2.0 Plan

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

The 2019 iteration of the plan, the *Sustainable DC 2.0 Plan*, includes the following proposed action which is supported by the 4401-4435 Benning Road NE development:

- "BE2.3 Locate affordable, high-density housing close to commercial zones and high capacity transit."
 - The proposed development supports this action by being located near the Benning Road Metrorail station, a future DC Circulator route, and the future Benning Road Streetcar extension.

Site Trip Generation

Weekday peak hour trip generation was calculated based on the methodology outlined in ITE *Trip Generation*, 11th Edition. This methodology was supplemented to account for the urban nature of the site (ITE *Trip Generation* provides data for non-urban, low transit use sites) and to generate trips for multiple modes, as vetted and approved by DDOT as part of the CTR scoping process. The finalized DDOT CTR scoping form can be found in the Technical Attachments.

Trip generation for the proposed development was calculated based on ITE land use 223 (Affordable Housing – Income Limits in a General Urban/Suburban setting). Table 6 shows mode split assumptions based on census (Traffic Analysis Zone and Tract) data for people who live and work near the site, as well as survey data from the National Capital Region Transportation Planning Board's (TPB) State of the Commute survey and the WMATA Ridership Survey. Detailed mode split information is provided in the Technical Attachments.

Table 7 shows a multimodal trip generation summary for the proposed development. Detailed trip generation information is provided in the Technical Attachments. As seen in Table 7, the project will generate fewer than 25 net new peak hour vehicle

trips in the peak direction in any study period. Based on this, per DDOT's CTR Guidelines, a vehicular capacity analysis is not required.

Table 6: Mode Split

Land Use	Mode			
	Drive	Transit	Bike	Walk
Affordable Housing	15%	70%	5%	10%

Table 7: Multimodal Trip Generation Summary

Mode	Land Use	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Auto (veh/hr)	Affordable Housing	2	4	6	4	4	8
Transit (ppl/hr)	Affordable Housing	10	23	33	25	16	41
Bike (ppl/hr)	Affordable Housing	1	1	2	2	1	3
Walk (ppl/hr)	Affordable Housing	1	4	5	3	3	6

Project Design

Site Access and Circulation

This section provides an overview of the on-site transportation features of the proposed development, including an overview of site access by pedestrians, bicycles, private vehicles, and loading vehicles.

The proposed development is located at 4401-4435 Benning Road NE in the Benning neighborhood of Washington, DC. The site is bordered by Benning Road to the north, the East Capital Gardens apartment complex to the south, a 7-Eleven to the east, and the Fort Chaplin Park Apartments complex to the west.

The existing site consists of an undeveloped plot at 4401 Benning Road NE and a vacant building at 4435 Benning Road NE (formerly a single-story dental office totaling 1,658 sf). The proposed development includes the following:

- 109 all-affordable residential units, of which 22 units will be affordable to income levels at or below 30% average median income (AMI), 65 units will be affordable at 50% AMI, and 22 units will be affordable at 80% AMI;
- Approximately 1,692 square feet of residential amenity space including a fitness center and training and education space as well as a green roof and an open green space along the site's frontage;
- 45 long-term and six (6) short-term bicycle parking spaces, exceeding the 36 long-term and five (5) short-term spaces required by the District's Zoning Regulations of 2016 (ZR16);
- One (1) 12' x 30' loading berth and one (1) 10' x 20' service/delivery space in the building's internal garage, accessible from a single 20-foot curb cut along Benning Road; and
- 13 vehicle parking spaces, including one (1) ADA-compliant van parking space and two (2) time-restricted pick-up/drop-off spaces.

The Applicant is requesting special exception relief from the vehicular parking requirements which necessitate 18 spaces. This relief is being requested to avoid the reduction of usable square footage for all-affordable housing. The site's close proximity to the Benning Road Metrorail station, the future Benning Road Streetcar extension, the future Deanwood – Union Station DC Circulator route, and numerous bus stops will provide residents with easy access to non-vehicular means of transportation.

The Applicant is working with the Office of Planning to evaluate special exception relief for the provision of two (2) time-restricted pick-up/drop-off spaces along the site's frontage which is not permitted by ZR16, as zoning prohibits parking between the front façade of a building, as extended for the full width of the front of the lot, and the front lot line. These short-term spaces, while

technically designed like parking spaces, are designed to minimize the disturbance of green and open space by taking advantage of the proposed driveway which a more typical design like a port-cochere (i.e., driveway/layby loop) would. It also would minimize curbside conflicts between short-term delivery vehicles (e.g., Uber, Lyft, food/grocery deliveries, etc.) and vehicular traffic along Benning Road NE as well as the future Benning Road Streetcar extension. These spaces will be designed to include appropriate signage and be screened from the sidewalk.

A site plan is presented in Figure 14.

Pedestrian Access

Pedestrian access to the site is proposed along Benning Road through an open green space along the site's frontage that will include extensive landscaping and provide a comfortable setback from the high-volume Benning Road. A circulation plan including expected pedestrian routes to the building is shown in Figure 15.

Bicycle Access

Bicycle access will be provided via Benning Road to short- and long-term bicycle parking facilities at the front of the proposed building. Three (3) bicycle racks (six short-term spaces) will be located outside facing the main residential access. The secure bicycle storage room will have 45 long-term spaces and be located directly east of the main residential access. The ground-floor storage room will have an external entrance from the front of the building as well as an internal access from the lobby.

A circulation plan including expected bicycle routes to the proposed short- and long-term bicycle parking facilities is shown in Figure 15, and a detailed view of the secure bicycle storage room is shown in Figure 16.

Vehicle Access

Vehicular access will be via the eastern-most existing curb cut on Benning Road to accommodate the driveway to the building's internal garage and loading area on the ground level as shown in Figure 14. This curb cut will be narrowed to 20 feet from its existing 25-foot width, and the existing western-most curb cut will be eliminated.

Vehicle parking will be accommodated via 13 parking spaces, including 10 standard vehicle parking spaces and one (1) ADA-compliant van parking space in the building's ground-level garage as well as two (2) time-restricted pick-up/drop-off spaces along the site's frontage. The zoning requirement for off-street parking for a residential land use with multiple dwelling units is one (1) space for every three (3) units in excess of four (4) units, totaling 35 off-street parking spaces for the proposed 109 units. In addition, the project site lies within a half mile of the Benning Road Metrorail station, reducing the minimum required parking by 50%. Thus, the minimum vehicle parking requirement for the development is reduced to 18 parking spaces. As previously noted, the Applicant is requesting special exception relief from the vehicular parking requirements to avoid the reduction of usable square footage for this affordable housing development. The site's close proximity to the Benning Road Metrorail station, the future Benning Road Streetcar extension, the future Deanwood – Union Station DC Circulator route, and numerous bus stops will provide residents with easy access to non-vehicular means of transportation.

The Applicant's additional request for special exception relief to allow for the provision of two (2) time-restricted pick-up/drop-off spaces along the site's frontage is being requested to minimize the disturbance of green and open space by taking advantage of the proposed driveway which a more typical design like a port-cochere (i.e. driveway/layby loop) would and to minimize curbside conflicts between short-term delivery vehicles (e.g., Uber, Lyft, food/grocery deliveries, etc.) and vehicular traffic along Benning Road NE as well as the future Benning Road Streetcar extension. These spaces will be designed to include appropriate signage and be screened from the sidewalk.

A circulation plan including expected vehicle routes to the ground-level garage is shown in Figure 15.

Electric Vehicle (EV) Parking

Section 1.6 of the DDOT CTR guidelines recommends that a minimum of one (1) out of every 50 spaces be served by an EV charging station. Additionally, per the Electric Vehicle Readiness Amendment Act of 2020, for building permits issued after January 1, 2022, all new construction or substantial improvement of commercial buildings and multi-unit buildings that have three (3) or more automobile off-road parking spaces are required to include EV make-ready infrastructure to accommodate the future installation of EV charging for at least 20% of parking spaces. As of March 2022, the law has not gone into effect because it not been funded. As such, the Applicant proposes providing a minimum of one (1) electric vehicle space out the 13 total parking spaces to be provided in the building's ground-level garage, in alignment with DDOT recommendations.

Loading Access

Loading and deliveries will occur within the garage's loading and delivery areas. One is a 12' x 30' loading berth in the building's ground-level garage, accessible from the private drive. The other is a 10' x 20' service/delivery space directly adjacent to the loading berth. All loading vehicle maneuvers will take place outside of public space.

The 12' x 30' loading berth will be used for moving trucks and other larger delivery vehicles. The 10' x 20' surface loading area will be used for smaller delivery vehicles.

Loading and trash removal routing paths are shown in Figure 15.

Head-in/head-out maneuvers between Benning Road, the private drive, and the internal loading area for a 30-foot truck (SU-30) to the loading berth and for a 20-foot delivery van to the service/delivery space are shown in Figure 17 and Figure 18, respectively. To-scale loading vehicle turning diagrams are available in the Technical Attachments.

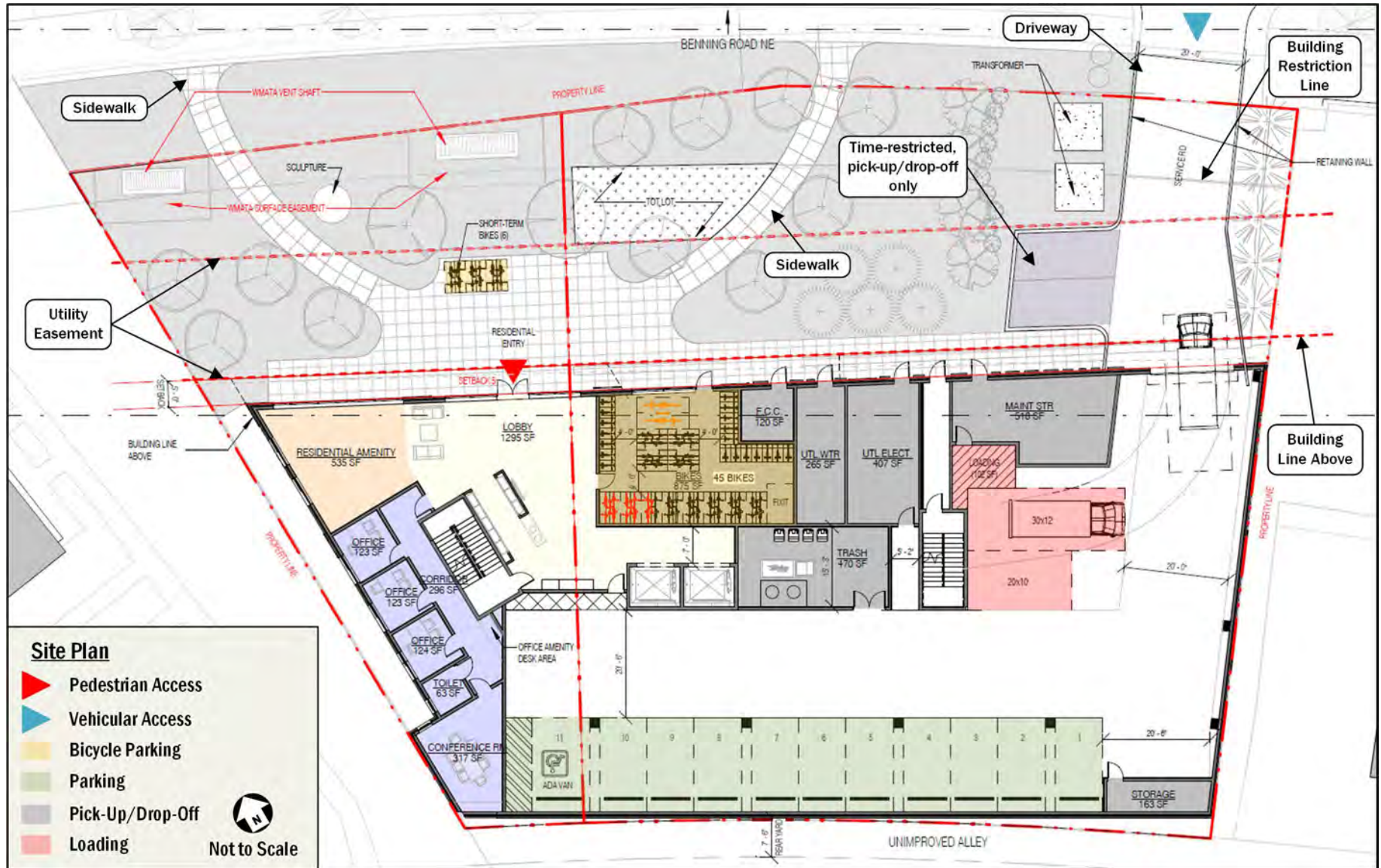


Figure 14: Site Plan

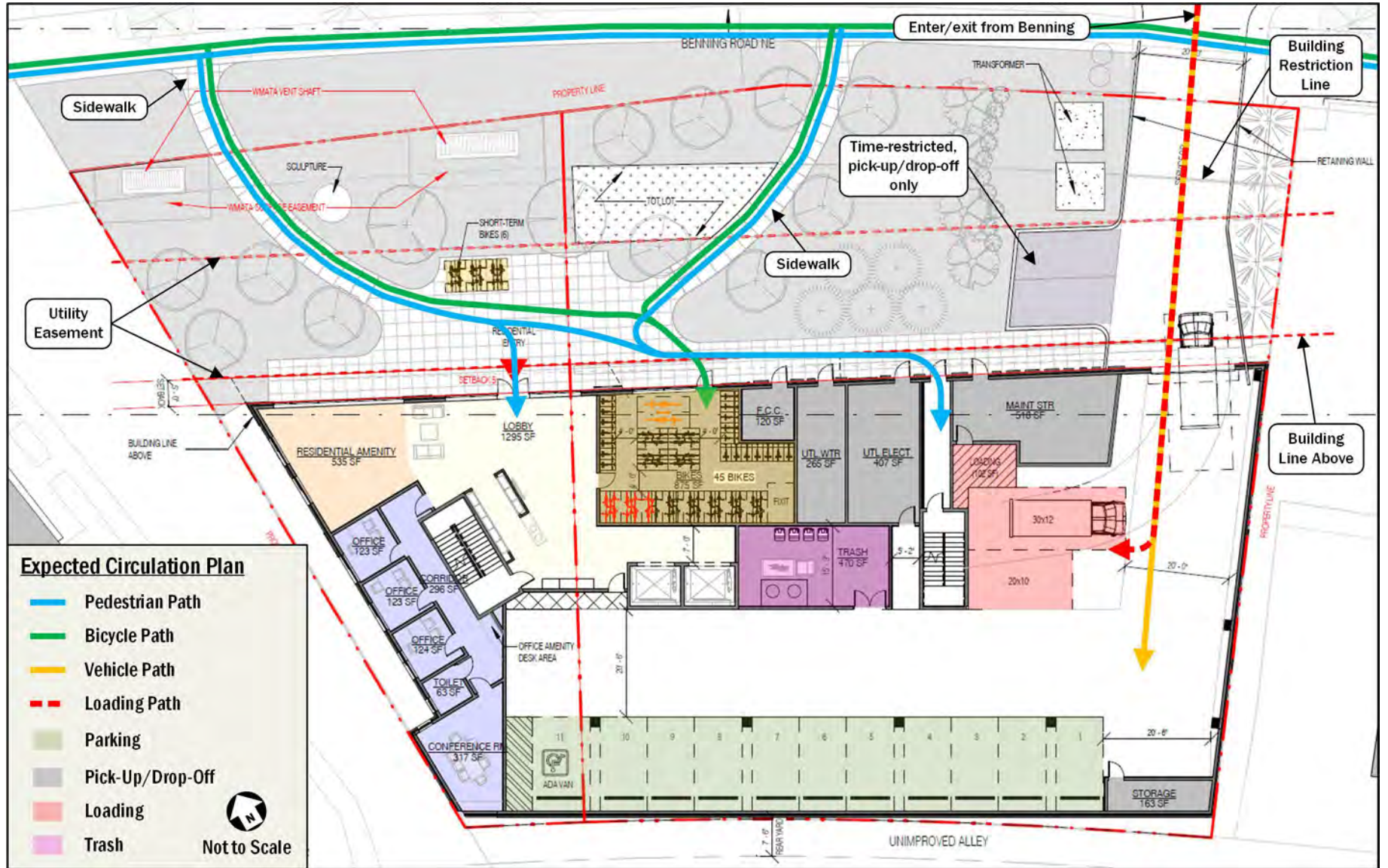


Figure 15: Expected Circulation Plan

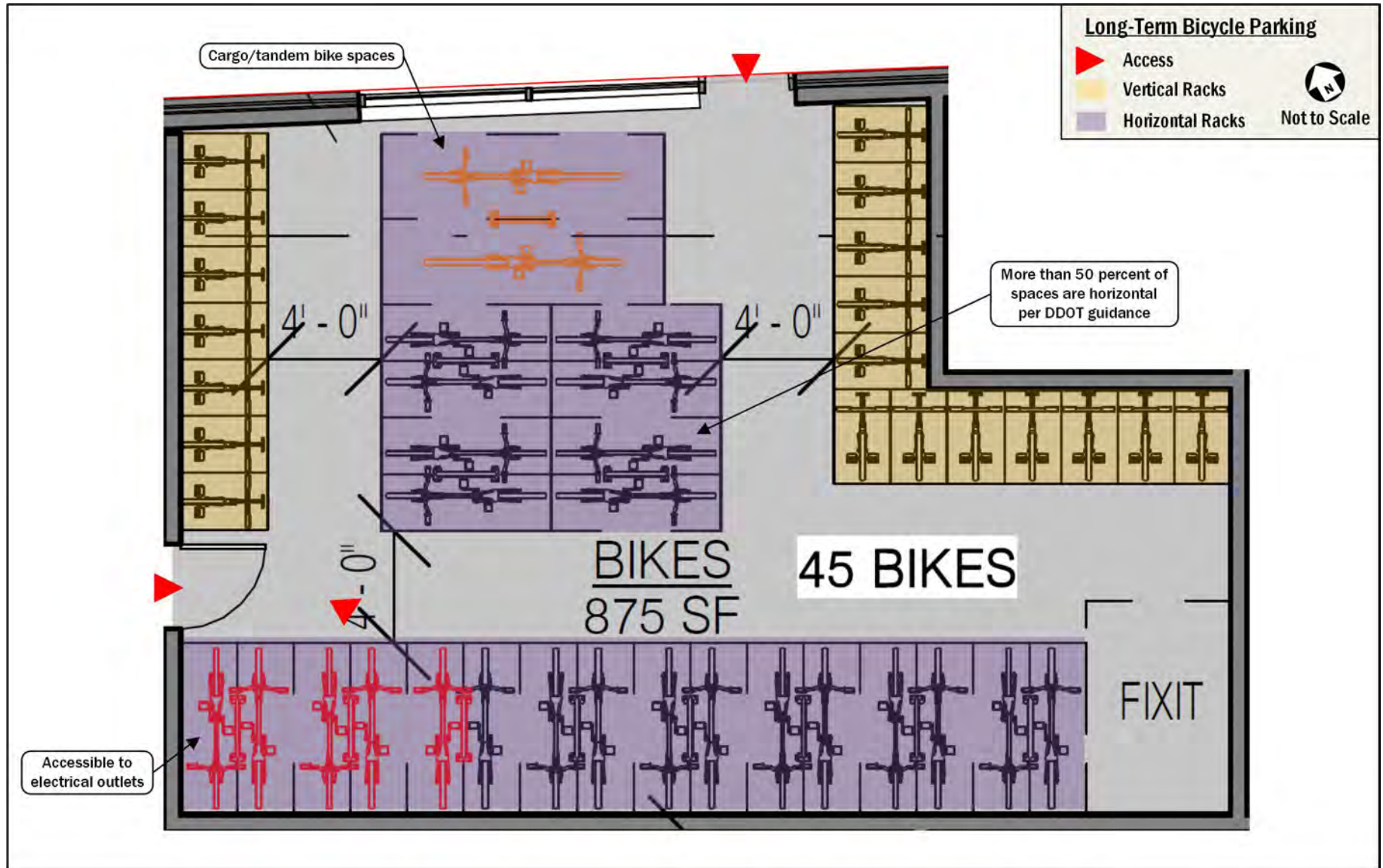


Figure 16: Long-Term Bicycle Parking



Figure 17: Trash Truck Maneuvers



Figure 18: Cargo Van Maneuvers

Transportation Demand Management (TDM)

Transportation Demand Management (TDM) is the application of policies and strategies used to reduce travel demand or redistribute demand to other times or spaces. TDM 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 following is a list of TDM strategies the Applicant proposes for the 4401-4435 Benning Road NE development. As part of the site's TDM plan, the Applicant will:

- Identify a Transportation Coordinator for the planning, construction, and operations phases of development;
 - The Transportation Coordinator will act as the point of contact with DDOT, goDCgo, and Zoning Enforcement and will provide their contact information to goDCgo.
- Develop, distribute, and market various transportation alternatives and options to residents, including promoting transportation events (e.g., Bike to Work Day, National Walking Day, Car Free Day) on the property website and in any internal building newsletters or communications;
- Direct the Transportation Coordinator to subscribe to goDCgo's residential newsletter and receive TDM training from goDCgo to learn about the transportation conditions for this project and available options for implementing the TDM Plan;
- Provide welcome packets to all new residents that will, at a minimum, include the Metrorail pocket guide, brochures of local bus lines (Circulator and Metrobus), carpool and vanpool information, CaBi coupon or rack card, Guaranteed Ride Home (GRH) brochure, and the most recent DC Bike Map;
 - Brochures can be ordered from DDOT's goDCgo program by emailing info@godcgo.com.
- Post all transportation and TDM commitments on the building website, publicize availability, and allow the public to see what has been promised;
- Offer a SmarTrip card and one (1) complimentary Capital Bikeshare coupon good for a free ride to every new resident;
- Provide at least six (6) short- and 45 long-term bicycle parking spaces, exceeding ZR16 minimum requirements for at least five (5) short- and 36 long-term bicycle parking space;
- Accommodate non-traditional sized bikes including cargo, tandem, and kids bikes in the long-term bicycle storage room, with a minimum 5% of spaces (two spaces) that will be designed for longer cargo/tandem bikes, and a minimum of 10% of spaces (five spaces) that will be designed with electrical outlets for the charging of electric bikes and scooters; and
 - There will be no fee to building employees or residents for usage of the bicycle storage room.
- Install a minimum of one (1) electric vehicle (EV) charging station, per DDOT recommendations of a minimum of one (1) out of every 50 vehicle parking spaces being served by an EV charging station;

Summary and Conclusions

The findings of this study conclude that:

- The 4401-4435 Benning Road NE site is surrounded by an existing network of transit and pedestrian facilities with anticipated improvements to bicycle facilities that result in an environment for safe and effective non-vehicular transportation;
- On-street parking occupancy data collected on a typical weekday in March 2022 shows there is sufficient on-street parking available surrounding the site to accommodate any additional parking demand that may be generated by the proposed development providing five (5) fewer vehicular parking spaces than is required by zoning;
- The proposed project will provide short- and long-term bicycle parking in excess of zoning requirements, while limiting the amount of new vehicle parking;
- The proposed project will provide loading facilities accessed from the proposed private drive, limiting the impacts of loading activity in public space;
- The proposed project will include TDM measures that adequately promote non-vehicular modes of travel; and
- The proposed project will not have a detrimental impact on the surrounding transportation network.