

TECHNICAL MEMORANDUM

To: Rich McPhillips Trammell Crow Company

Jerry Ricciardi

From: Maria Ponton

Daniel Solomon, AICP

Daniel B. VanPelt, P.E., PTOE

Date: March 26, 2021

Subject: 7th and P NW Comprehensive Transportation Review (ZC Case No. 20-27)

Introduction

This memorandum presents the findings of a Comprehensive Transportation Review (CTR) in support of the 7th and P Street NW Consolidated Planned Unit Development (PUD) application. The proposed mixed-use development located at the northeast corner of 7th Street and P Street in Northwest Washington, DC. The Zoning Commission (ZC) Case Number is 20-27. Figure 1 identifies the regional site location within the District and Figure 2 identifies the location of the site in relation to the neighborhood. Figure 3 shows an aerial of the site. The property is currently occupied by a single-story retail structure, unimproved parcels, and a surface parking lot. The project site is generally bounded by 7th Street NW to the west, P Street NW to the south, an alley (Marion Court NW) to the north, and Marion Street NW to the east.

The proposed development consists of 223 dwelling units, 7,442 square feet of ground-floor retail, and 56 vehicular parking spaces in a below-grade parking garage. The proposed development will also provide one (1) 30-foot loading berth, one (1) 20-foot service/delivery space, 72 long-term bicycle parking spaces, and 14 short-term bicycle parking spaces, meeting ZR16 requirements. Figure 4 shows the proposed site plan.

The proposed development meets the criteria for the Low Impact Development Exemption for CTR and TIA, and therefore does not include a vehicular capacity analysis. The proposed development has a low parking supply, robust Transportation Demand Management (TDM) plan, and high-quality pedestrian realm design.

The purpose of this limited-scope CTR is to:

- Provide a review of the existing site conditions, details on the proposed redevelopment plans, and projected future site trip generation;
- Review the major transportation elements of the site plan, namely the project's vehicular and bicycle parking
 accommodations and loading facilities, to determine whether the project will have a detrimental impact on the
 surrounding transportation network and provide recommendations for mitigation as necessary; and
- Provide a TDM plan for all of the site's uses.

The findings of this study conclude that:

- The 7th and P NW site is surrounded by an existing network of transit, bicycle, and pedestrian facilities that creates an excellent environment for safe and effective non-vehicular transportation;
- The proposed project does not result in any significant increase in vehicular travel and will not have a significant impact on the local area's roadways;

- The project introduces bicycle facilities that meet or exceed zoning requirements with the addition of a secure bicycle storage room with 72 long-term parking spaces, and 14 short-term bicycle parking spaces along the property's frontage;
- The project includes 56 vehicle parking spaces in the below-grade garage, and introduces on-site bicycle facilities, including long-term bicycle parking and short-term bicycle parking that meet or exceed zoning requirements;
- The proposed loading facilities meet zoning requirements and the practical needs of the proposed development with one (1) 30-foot loading berth, and one (1) 20-foot service/delivery space;
- A robust Transportation Management Demand (TDM) plan that includes measures that will promote non-vehicular modes of travel.

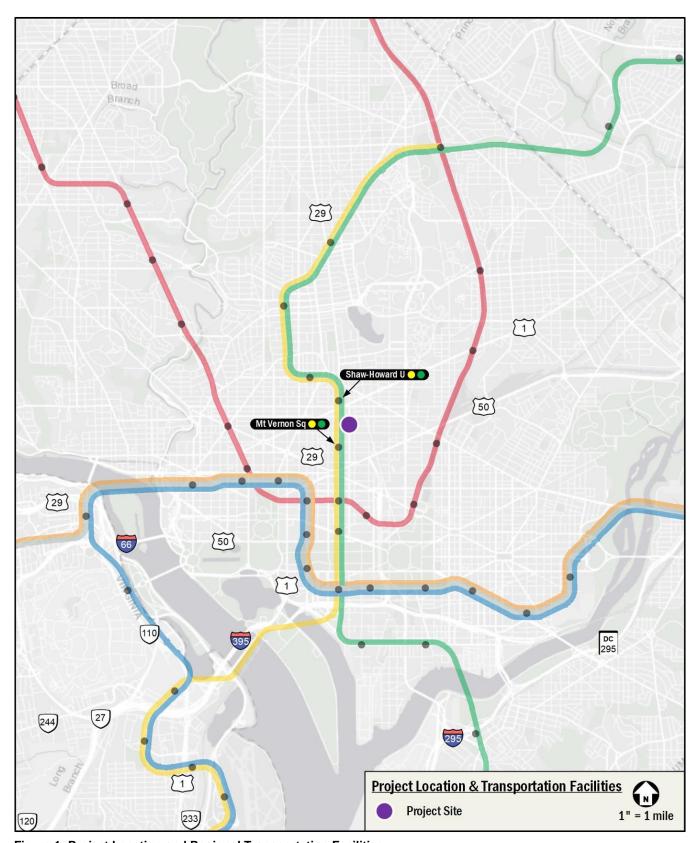


Figure 1: Project Location and Regional Transportation Facilities

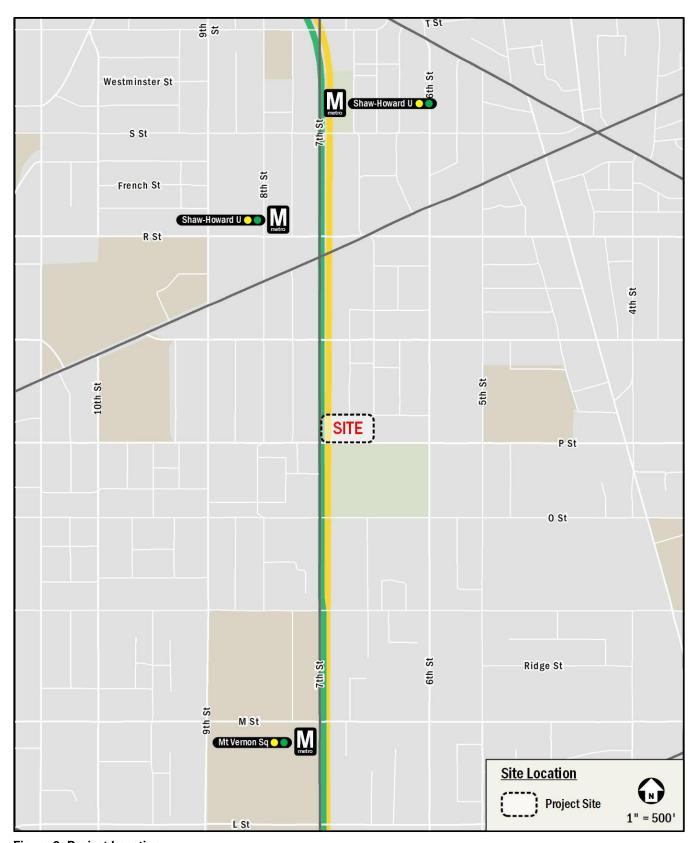


Figure 2: Project Location



Figure 3: Site Aerial

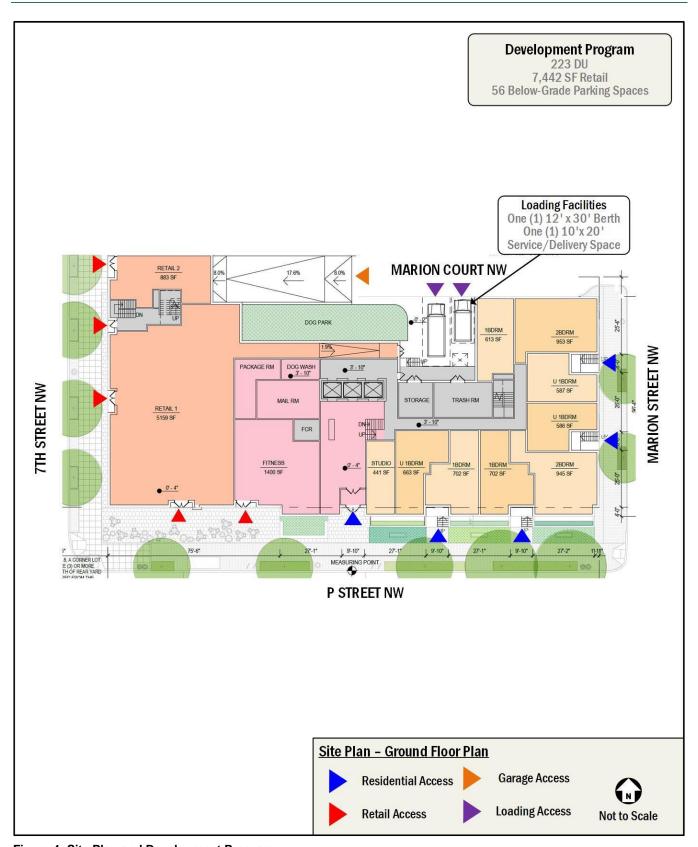


Figure 4: Site Plan and Development Program

Existing Transportation Network Review

This section reviews the existing vehicular, transit, and pedestrian facilities in the vicinity of the site.

The site is easily accessible by vehicles through a highly connected roadway network. The site is surrounded by a robust pedestrian and bicycle network that consists of well-connected sidewalks, crosswalks, and bicycle lanes along the roadways around the site. The site also has excellent access to transit and is served by four (4) Metrobus routes and two (2) Metrorail stations (Mt Vernon Square and Shaw-Howard U) that are located within an approximately 5-minute walk and serve the Green and Yellow Lines.

Vehicular

The site is accessible from several principal arterials such as 7th Street NW to the west, Rhode Island Avenue NW to the north, New York Avenue and Massachusetts Avenue NW to the south, and Florida Avenue NW and North Capitol Street NW to the east. These arterials provide connections to I-395/I-695, which provide access to the Capital Beltway (I-495), which surrounds Washington, DC and its inner suburbs, as well as providing connectivity to the District core. These principal arterials bring vehicular traffic within one half-mile of the site, at which point minor arterials, collector roads, including P Street NW where the site is located, and local roads can be used to access the site directly.

Pedestrian Facilities

Overall, the pedestrian facilities within the study area provide excellent connectivity to major local destinations. A summary of the pedestrian facilities within a 0.25-mile area, as well as along walking routes to the nearby Mt Vernon Square and Shaw-Howard U Metrorail stations, is shown in Figure 5, with a summary of sidewalk width and buffer requirements provided in Table 1.

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 (2) crosswalks are not desired. As shown in Figure 5, under existing conditions there are some intersections where curb ramps are missing, do not have a detectable warning, or with shared curb ramps that do not meet DDOT and/or ADA standards.

All roadways in the study area are located within low to moderate density residential, high density residential, or light commercial zones. The sidewalks that do not meet DDOT standards are typically along low-density residential streets that do not maintain the total minimum sidewalk width of 10 feet, or the minimum unobstructed width of 6 feet. While there are a few areas of concern within the study area that may impact the quality of the pedestrian environment, such as curb ramps or sidewalks that do not meet DDOT and/or ADA standards, there is a continuous network of sidewalks, crosswalks, and curb ramps in the vicinity of the site which provide a quality walking environment. Along major pedestrian routes near the site, most sidewalks, crosswalks, and curb ramps meet DDOT and/or ADA standards.

Table 1: 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

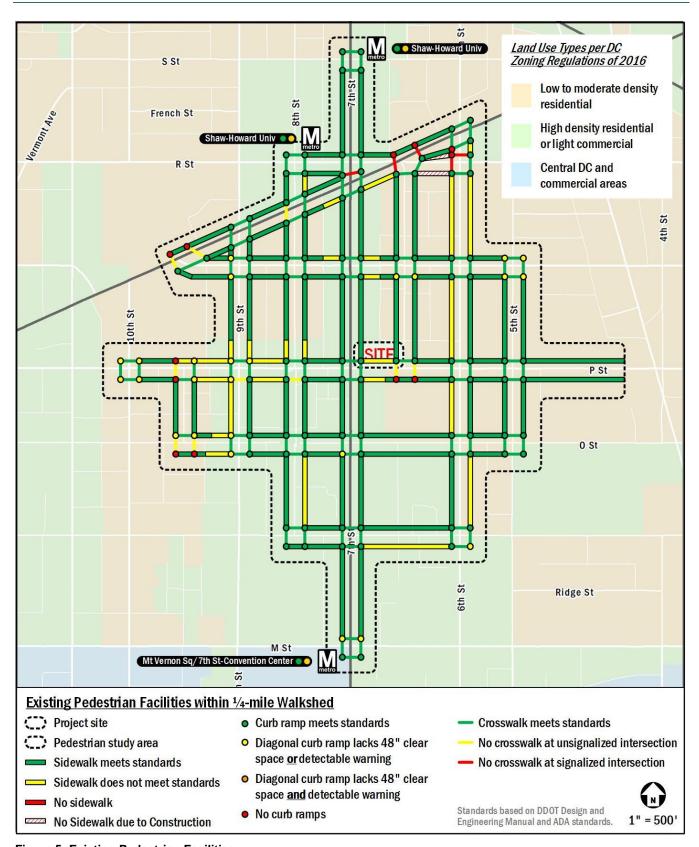


Figure 5: Existing Pedestrian Facilities

Bicycle Facilities

The project site is surrounded by a highly connected network of on-street bicycle facilities. Existing on-street facilities consist of cycle tracks southwest of the site along L Street NW. These facilities connect to the Rock Creek Trail to the west. The Rock Creek Trail provides cyclists with a continuous path between the Tidal Basin and Montgomery County, Maryland. Additional trail connections are available along the Georgetown Waterfront, connecting to the Capital Crescent Trail.

Bicycle lanes are also available adjacent to the site along 7th Street NW providing access to on-street facilities north of the site that include bicycle lanes on Q Street NW, R Street NW, and T Street NW. These facilities connect to the Metropolitan Branch Trail to the east. The Metropolitan Branch Trail provides cyclist with a continuous north-south path between Franklin Street NE and L Street NE. Bicycle lanes west of the site along 10th Street NW and 11th Street NW provide access to additional on-street facilities south of the site, including bicycle lanes on New York Avenue NW. Figure 6 illustrates the existing and planned bicycle facilities in the area.

As shown in Figure 6, further additions to the bicycle infrastructure are planned in the vicinity of the site that will significantly enhance the area's bicycle network. DDOT is currently evaluating a north-south, protected bicycle lane connecting central DC neighborhoods to Downtown DC as part of the Eastern Downtown Protected Bike Lanes Project. The project is currently in the design stage with two (2) alternatives being considered to provide a protected two-way bicycle lane between Florida Avenue NW and Pennsylvania Avenue NW. The alternative corridors are 6th Street NW, and 9th Street NW. At the end of the preliminary design stage, one (1) preferred route will be identified for final design. This planned facility will be located within two (2) blocks from the site providing residents, visitors, employees, and patrons of the project with additional access to protected bicycle facilities north and south of the site.

Capital Bikeshare

The Capital Bikeshare program provides additional cycle options for residents, patrons, and employees of the proposed development. The program has placed over 500 bikeshare stations across the Washington, DC metropolitan area with over 4,500 bicycles in the fleet. There are five (5) existing Capital Bikeshare stations with a total of 52 docks located within a quartermile of the site. The nearest station is located southwest of the site at the northwest corner of 8th and O Streets NW. Figure 6 shows the locations of Capital Bikeshare stations in the vicinity of the site.

E-Scooters and Dockless E-Bicycles

Five (5) electric-assist scooter (e-scooter) and electric-assist bicycle (e-bike) companies provide Shared Mobility Device (SMD) service in the District: JUMP, Lyft, Skip, Spin, and Helbiz. These SMDs are provided by private companies that give registered users access to a variety of e-scooter and e-bike options. These devices are used through each company-specific mobile phone application. Many SMDs do not have designated stations where pick-up/drop-off activities occur like with Capital Bikeshare; instead, many SMDs are parking in public space, most commonly in the "furniture zone" (the portion of the sidewalk between where people walk and the curb, often where you will find other street signs, street furniture, trees, parking meters, etc.). At this time, SMD pilot/demonstration programs are underway in Arlington County, the District, Fairfax County, the City of Alexandria, and Montgomery County.

In January 2020, DDOT announced plans to install 100 off-sidewalk parking corrals throughout the District, with a number of installations complete to date. The parking corrals are installed in the no-parking or no-standing zones approaching intersections in an effort to increase intersection visibility and provide infrastructure to dockless vehicles that reduces sidewalk and crosswalk obstructions. The parking corrals provide a parking area for SMDs and also provide bicycle racks for privately-owned bicycle parking. In areas where no off-sidewalk parking corrals are available, SMDs are to be parked in the "furniture zone" (the portion of sidewalk between where people walk and the curb, often where you'll find other street signs, street furniture, trees, parking meters, etc.). One (1) off-sidewalk parking corral is planned in the vicinity of the project, at the southwest corner of the intersection of 7th Street NW, and Q Street NW

In addition to the existing and planned bicycle facilities, the proposed development will provide additional accommodations to bicyclists with the addition of 14 short-term bicycle parking spaces for both residential and retail use along the frontage of the site, and a secure bicycle room with 72 long-term bicycle parking spaces for residential and retail employee use. These bicycle facilities will make bicycle travel a viable option for those traveling to and from the site.

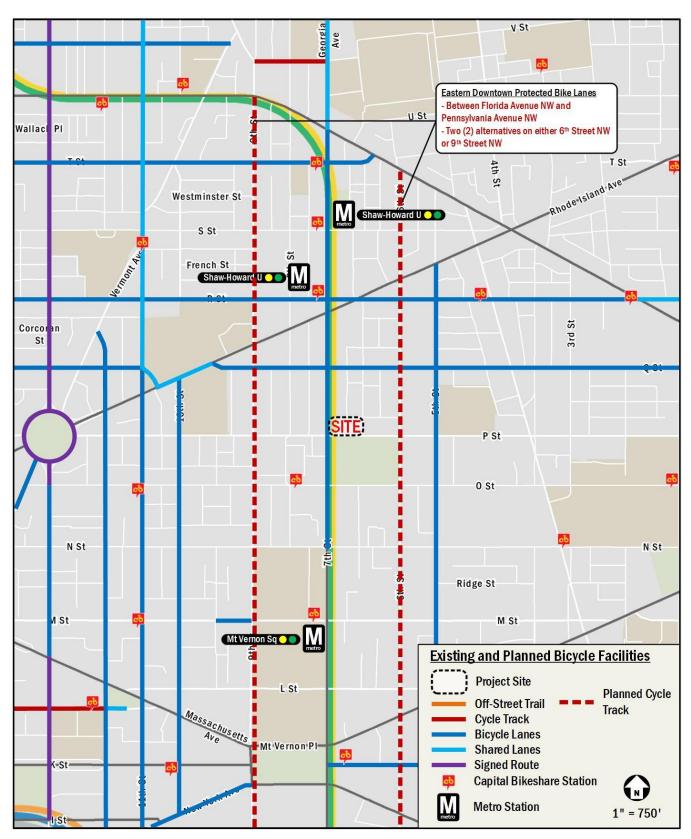


Figure 6: Existing Bicycle and Planned Bicycle Facilities

Transit Facilities

The site is serviced by several local bus routes along 7th Street NW, P Street NW, Rhode Island Avenue NW, 11th Street NW, R Street NW, and New Jersey Avenue NW. As shown in Figure 7, the project is directly served by four (4) Metrobus routes. Table 2 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. These bus lines connect the site to many areas of Washington, DC, and other Metrorail stations where transfers can be made to reach areas in the District, Virginia, and Maryland. There are 17 bus stops located within a quarter-mile of the site: eight (8) on 7th Street NW, six (6) on P Street NW, one (1) on R Street NW, one (1) on Rhode Island Avenue NW, and one (1) on 9th Street NW. A review of the existing bus stops, detailing individual bus stop amenities and conditions, is shown in Table 3.

The site is located within an approximately 5-minute walk from two (2) Metrorail stations. The site is located approximately 0.2 miles (a 5-minute walk) from the Shaw-Howard U station north of the site and approximately 0.3 miles (a 6-minute walk) from the Mt Vernon Square station south of the site.

Both the Shaw-Howard U and Mt Vernon Square stations serve the Green and Yellow Lines. The Green Line travels connects the Branch Avenue station in Maryland with Greenbelt, Maryland. The Yellow Line connects Huntington, Virginia with Greenbelt, Maryland. Both lines also provide access to the District core, the City of Alexandria, Virginia, and Arlington County, Virginia. Under normal operating conditions, both Green and Yellow Line trains run approximately every eight (8) minutes during the morning and afternoon peak periods. They run approximately every 12 minutes during weekday non-peak periods, every 15 to 20 minutes on weekday evenings, and every 12 to 20 minutes on the weekends. During the COVID-19 emergency, all Metrorail lines are running on a reduced schedule.

The proximity to nearby bus stops and Metrorail stations allows much of the DC metropolitan area to be accessible from the site. Existing transit facilities surrounding the site are shown on Figure 7.

Table 2: Bus Route Information

Route Number	Route Name	Service Hours	Headway	Walking Distance to Nearest Bus Stop
G2	P Street – Le Droit Park Line	Weekdays: 6:28 AM-12:30 AM	27-41 min	<0.1 miles, 1 minute
G8	Rhode Island Avenue Line	Weekdays: 4:40 AM-12:11 AM Saturdays: 5:15 AM-12:45 AM Sundays: 5:00 AM-12:08 AM	6-45 min	0.1 miles, 2 minutes
70	Georgia Avenue – 7 th Street Line	Weekdays: 4:00 AM-12:49 AM Saturdays: 4:00 AM-12:42 AM Sundays: 4:00 AM-12:35 AM	9-30 min	<0.1 miles, 1 minute
79	Georgia Avenue MetroExtra Line	Daily: 6:00 AM-7:00 PM	10-15 min	0.2 miles, 5 minutes

Table 3: Bus Stop Inventory

			Features							
Location	Bus Stop ID	Routes Served	Sign	ADA Landing Pad	Side walk	Street Lighting	Info Case	Seating	Shelter	Trash Recep.
7 th St & R St NW	1001568	70, 79	•	•	•	•	•	•	•	
7 th St & Rhode Island Ave NW	1001534	70, 79	•	•	•	•	•	•	•	
7 th St & Q St NW	1001498	70								
7 th St & P St NW (NB)	1001431	70	•	•	•	•	•			•
7 th St & P St NW (SB)	1001414	70	•	•	•	•		•	•	•

			Features Features							
Location	Bus Stop ID	Routes Served	Sign	ADA Landing Pad	Side walk	Street Lighting	Info Case	Seating	Shelter	Trash Recep.
7 th St & O St NW	1001396	70	•	•	•	•	•			
7 th St & N St NW (NB)	1001369	70	•		•	•				•
7 th St & N St NW (SB)	1001374	70	•	•	•	•		•	•	•
P St & 9 th St NW (EB)	1001442	G2	•	•	•		•			•
P St & 9 th St NW (WB)	1001454	G2	•	•	•		•			•
P St & 7 th St NW (EB)	1001445	G2	•	•	•	•				
P St & 7 th St NW (WB)	1001453	G2	•	•	•	•	•	•	•	
P St & 5 th St NW (EB)	1001444	G2	•		•	•	•			•
P St & 5 th St NW (WB)	1001441	G2	•	•	•	•				•
R St & 7 th St NW	1003654	G8	•		•	•				•
Rhode Island Ave & 7 th St NW	1001539	G8	•	•	•	•	•			•
9 th St & P St NW	1003845	G8	•	•	•	•	•			

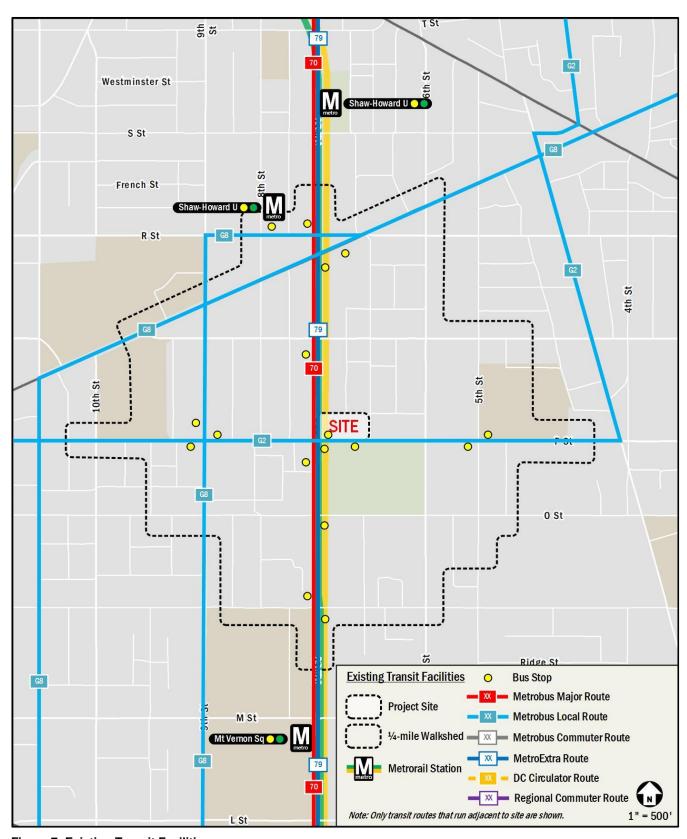


Figure 7: Existing Transit Facilities

Future Projects

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

MoveDC

MoveDC is an implementation-based 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 complete 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; and
- Water taxis.

In direct relation to the proposed development, the MoveDC plan recommends the following:

- Cycle tracks on 6th Street NW between Rhode Island Avenue NW and Pennsylvania Avenue NW;
- Cycle tracks on 5th Street NW between Indiana Avenue NW and Rhode Island Avenue NE;
- Cycle tracks on Rhode Island Avenue between Connecticut Avenue NW and the Metropolitan Branch Trail;
- Bicycle Lanes on New Jersey Avenue NW between Rhode Island Avenue NW and Massachusetts Avenue NW;
- Support for WMATA implementation of a new Potomac River Metrorail tunnel between Rosslyn and Georgetown and a new downtown Metrorail loop that separates the Orange/Blue/Silver lines and the Yellow/Green lines; and
- A North-South Corridor streetcar line connecting Buzzard Point and Takoma/Silver Spring, MD.

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 Comprehensive Plan's Near Northwest Element contains the following policy themes which are supported by the proposed development:

- "Generally direct growth within the Near Northwest Planning Area to the eastern side of the Planning Area
 (Logan Circle and Shaw), given the strong market demand and limited land available on the west side, and the
 need for reinvestment and renovation on the east side." The proposed development supports this goal by
 redeveloping vacant land into a mixed-use residential building in Shaw.
- "Sustain and enhance the neighborhood, community, and regional shopping areas of Near Northwest...
 Sustain these areas as diverse, unique, pedestrian-oriented shopping streets that meet the needs of area residents, workers, and visitors." The proposed development supports this goal with a project design that includes

neighborhood-serving ground-floor retail and modern frontages that enhance the adjacent public space with improvements, such as outdoor seating.

- "Improve the neighborhood shopping areas along 7th, 9th, and 11th Streets NW. The success of the
 established businesses on these streets should be strongly encouraged, and new businesses that provide
 needed goods and services to area residents should be attracted." The proposed development supports this goal
 with a project design that includes neighborhood-serving ground-floor retail primarily accessible from 7th Street NW.
- "Improve safety for pedestrians and bicycles, and the security of parked bicycles." The proposed development supports this goal by providing a robust TDM plan including, long-term bicycle parking facilities available to the users of the site and short-term bicycle parking facilities available on the public space.

In addition to the District-wide initiatives presented above, there are localized initiatives advancing MoveDC's and the DC Comprehensive Plan with projects in the vicinity of the site. These planned and proposed projects are summarized below.

Eastern Downtown Protected Bike Lane Study

The Eastern Downtown Protected Bike Lane Study will provide a safe, continuous, separated bicycle facility to connect central DC neighborhoods to downtown, as well as existing east-west bicycle facilities. DDOT is looking to implement a two-way bidirectional protected bicycle lane on either 6th Street NW or 9th Street NW between Florida Avenue NW and Pennsylvania Avenue NW. The two alternatives are currently in the 30% design phase, after which DDOT will identify one preferred route for final design. This project will fill-in a large downtown north-south gap in the protected bicycle facility network between the Metropolitan Branch Trail and 15th Street NW.

The planned protected bicycle lane will be located less than 0.25 miles from the project site, which will enhance the multimodal network in the vicinity of the site. Residents, patrons, and employees of the proposed development will benefit from additional north-south bicycle connectivity and increased access to east-west bicycle facilities.

Site Trip Generation

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 site (the Trip Generation Manual provides data for non-urban, low transit use site) and to generate trips for multiple modes, as vetted and approved by DDOT.

Trip generation was calculated based on ITE Land Use 221 (Mid-Rise Multifamily) and ITE Land Use 820 (Shopping Center) using the corresponding sizes for the existing site and the proposed development program.

The calculated office trips were split into different modes using assumptions derived from census data at the Traffic Analysis Zone (TAZ) level for commuters with origins in the TAZ in which the project is located. The mode splits applied to the retail trips are primarily based on the neighborhood-serving characteristic of this component of the project. The mode split assumptions applied to the analysis are presented in Table 4.

A summary of the multimodal trip generation for the proposed project is provided in Table 5. Detailed calculations are included in the Technical Attachments.

Table 4: Mode Split Assumptions

Land Use		M	ode	
Land USE	Drive	Transit	Bike	Walk
Residential	30%	45%	10%	15%
Retail	5%	5%	10%	80%

Table 5: Multimodal Trip Generation Summary

Mada		AM Peak Hour			PM Peak Hour	
Mode	In	Out	Total	ln	Out	Total
			Residential (223 l	Jnits)		
Auto	7 veh/hr	17 veh/hr	24 veh/hr	18 veh/hr	12 veh/hr	30 veh/hr
Transit	11 ppl/hr	31 ppl/hr	42 ppl/hr	32 ppl/hr	20 ppl/hr	52 ppl/hr
Bike	3 ppl/hr	6 ppl/hr	9 ppl/hr	7 ppl/hr	5 ppl/hr	12 ppl/hr
Walk	4 ppl/hr	10 ppl/hr	14 ppl/hr	11 ppl/hr	6 ppl/hr	17 ppl/hr
			Retail (7,442 S	iF)		
Auto	0 veh/hr	1 veh/hr	1 veh/hr	1 veh/hr	1 veh/hr	2 veh/hr
Transit	0 ppl/hr	1 ppl/hr	1 ppl/hr	1 ppl/hr	2 ppl/hr	3 ppl/hr
Bike	1 ppl/hr	0 ppl/hr	1 ppl/hr	2 ppl/hr	3 ppl/hr	5 ppl/hr
Walk	6 ppl/hr	4 ppl/hr	10 ppl/hr	19 ppl/hr	22 ppl/hr	41 ppl/hr
			Total			
Auto	7 veh/hr	18 veh/hr	25 veh/hr	19 veh/hr	13 veh/hr	32 veh/hr
Transit	11 ppl/hr	32 ppl/hr	43 ppl/hr	33 ppl/hr	22 ppl/hr	55 ppl/hr
Bike	4 ppl/hr	6 ppl/hr	10 ppl/hr	9 ppl/hr	8 ppl/hr	17 ppl/hr
Walk	10 ppl/hr	14 ppl/hr	24 ppl/hr	30 ppl/hr	28 ppl/hr	58 ppl/hr

As shown on Table 5, the proposed project is expected to generate 26 (7 inbound, 19 outbound) additional vehicle trips during the morning peak hour, and 33 (20 inbound, 13 outbound) vehicle trips during the afternoon peak hour. Per DDOT guidelines, and as vetted and approved by DDOT during the scoping process, the number of net new trips does not exceed the number of trips that would require a vehicular capacity analysis (25 trips in the peak direction).

Design Review

This section provides an overview of the transportation features of the proposed development, including the proposed site plan and access points. It includes descriptions of the project's pedestrian and bicycle accommodations, site access, and parking and loading facilities. The proposed development consists of approximately 223 dwelling units, 7,442 square feet of neighborhood-serving ground-floor retail, and 56 parking spaces. The project will provide secure bicycle storage, accessible to residential tenants, and retail staff, with 72 long-term bicycle parking spaces. The project will also provide 14 short-term bicycle parking spaces located along the perimeter of the site. A below-grade parking garage will provide 56 vehicle parking spaces. The loading area will include one (1) 30-foot loading berth, and one (1) 20-foot service/delivery space.

The project will activate the public space and enhance the pedestrian network along the property frontage. Improvements to the public space that facilitate placemaking activities such as outdoor seating will also be included. As part of the pedestrian improvements, the project will upgrade the sidewalk on the north side of 7th Street NW to comply with DC zoning regulations, and eliminate one (1) existing curb cut on P Street NW. Figure 4 shows the proposed site plan.

Site Access

Pedestrian access to the ground-floor retail space will be available from P Street and 17th Street NW. Residential access will be available from different access points along P Street, and Marion Street NW. Pedestrian access and circulation are shown in Figure 8.

Primary bicycle access to the bicycle storage room will be available via the garage entrance. Site bicycle access and circulation, and the locations of short-term bicycle parking racks are shown in Figure 8. Bicycle circulation within the garage is shown in Figure 9.

Vehicular access to the below-grade garage, and access to the loading area for the proposed development will be via Marion Court NW, an existing public alley to be improved and widened by the proposed development. Vehicle and loading access and circulation are also shown in Figure 8.

Parking Facilities

The below-grade garage will provide 56 vehicle parking spaces, meeting 2016 Zoning Regulations requirements, and DDOT's preferred parking rates. The parking facilities will be shared between the residential and retail uses, and include two (2) electric vehicle charging stations. Vehicular access to the below-grade garage is proposed to be from Marion Court NW.

Loading Facilities

The project will provide a loading area located on the ground floor, and accessible from Marion Court NW. One (1) 30-foot loading berth, and one (1) 20-foot service/delivery space are proposed within the loading area. Per the 2016 Zoning Regulations, the 7th and P NW development is required to provide one (1) 30-foot loading berth, and one (1) 20-foot service/delivery space. The proposed loading facilities satisfy the zoning requirement and the practical needs of the proposed development. Loading movements will utilize head-in, head-out maneuvers. Inbound and outbound turning maneuvers into the loading area are presented in Figure 10, and Figure 11.

Bicycle Facilities

The proposed development will meet or exceed 2016 Zoning Regulations requirements for long-term and short-term bicycle parking. Per the 2016 Zoning Regulations, the development is required to provide the following bicycle facilities:

- Long-Term Bicycle Parking Spaces (65 required)
 - Residential: One (1) space for every three (3) units, with one (1) for every six (6) units after the first 50 spaces; 63 spaces are required.
 - Retail: One (1) space for each 10,000 square feet, minimum two (2) spaces; two (2) spaces are required.
- Short-Term Bicycle Parking Spaces (14 required)
 - o Residential: One (1) space for every 20 units; 12 spaces are required.
 - Retail: One (1) space for each 3,500 square feet; two (2) spaces are required.
- Showers and Lockers
 - Residential: None required.
 - Retail: None required.

The 7th and P NW development will meet or exceed requirements by providing 72 long-term bicycle spaces in a secure bicycle room located on the garage level of the building, and 14 short-term bicycle parking spaces throughout the site in highly accessible areas.

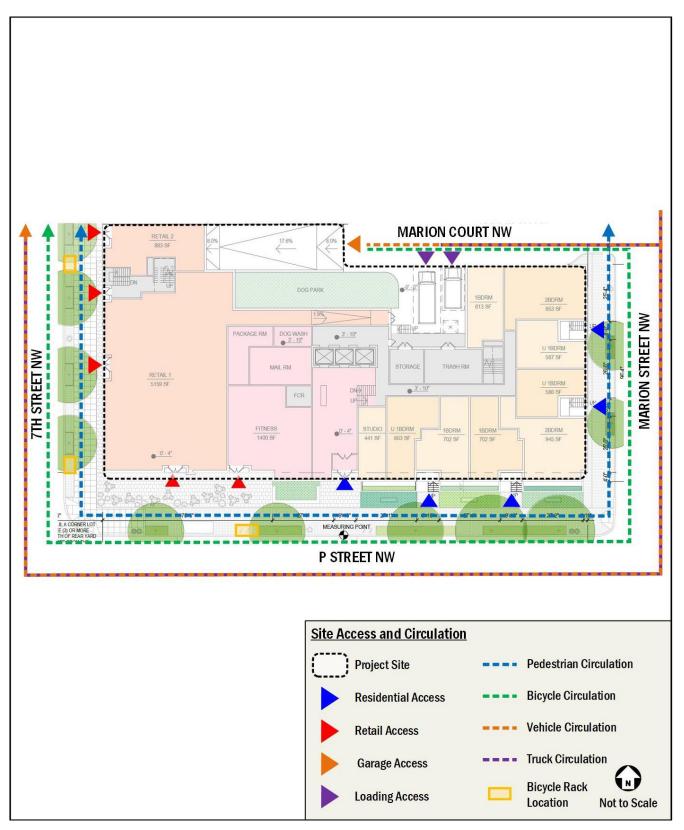


Figure 8: Site Access and Circulation

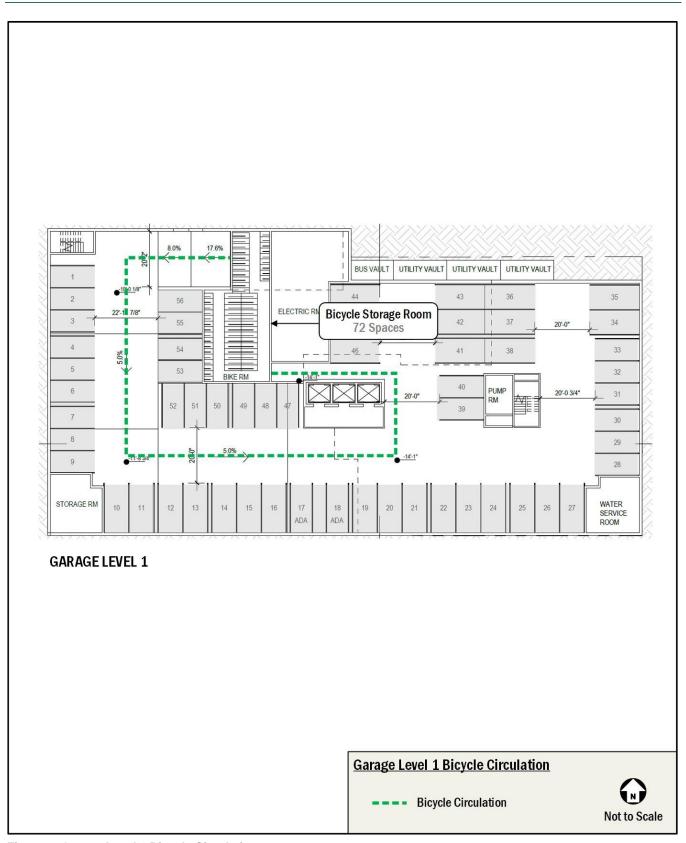


Figure 9: Garage Level 1 Bicycle Circulation

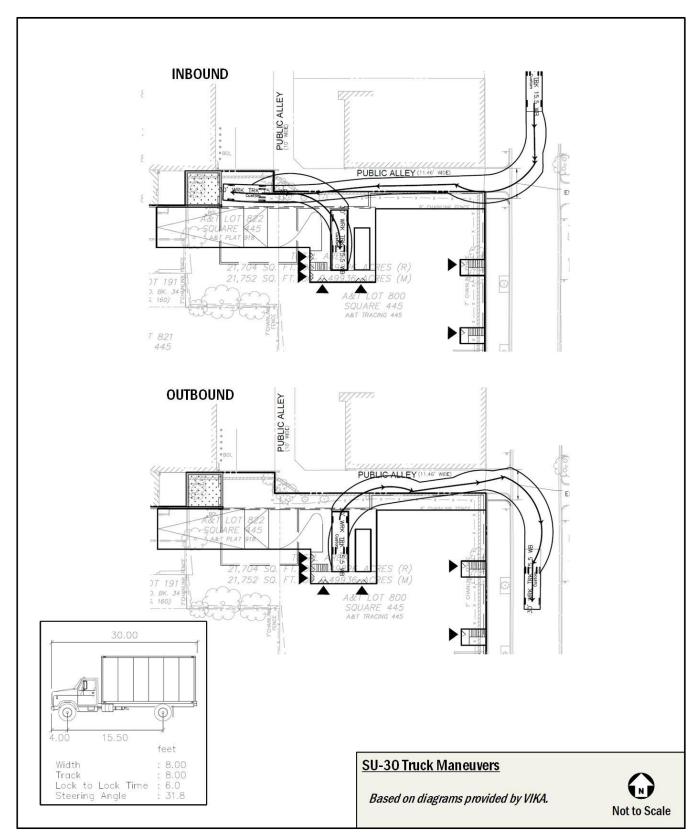


Figure 10: SU-30 Turning Maneuvers

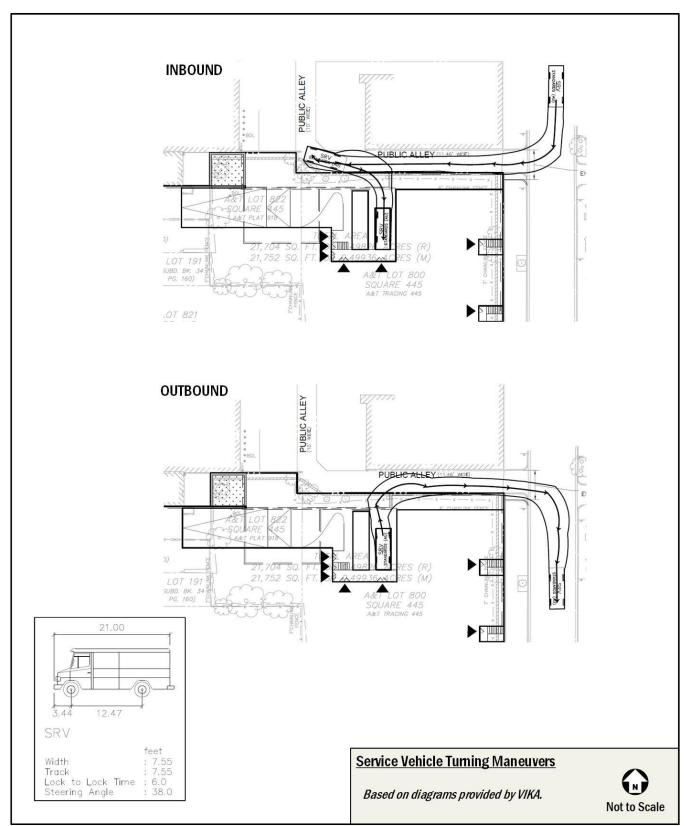


Figure 11: Service Vehicle Turning Maneuvers

Transportation Demand Management (TDM)

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

The TDM plan for the proposed project is based on DDOT expectations for TDM programs for developments of this type and size. As such, the Applicant proposes the following TDM measures for the project:

Site-Wide TDM Plan

- Unbundle the cost of vehicle parking from the lease or purchase agreement for each residential or retail unit and charge a minimum rate based on the average market rate within a quarter mile.
- Identify Transportation Coordinators for the planning, construction, and operations phases of development. The
 Transportation Coordinators will act as points of contact with DDOT, goDCgo, and Zoning Enforcement.
- Will provide Transportation Coordinators' contact information to goDCgo, conduct an annual commuter survey of employees on-site, and report TDM activities and data collection efforts to goDCgo once per year.
- Transportation Coordinators will develop, distribute, and market various transportation alternatives and options to
 residents and employees, including promoting transportation events (i.e., Bike to Work Day, National Walking Day, Car
 Free Day) on property website and in any internal building newsletters or communications.
- Transportation Coordinators will receive TDM training from goDCgo to learn about the TDM conditions for this project and available options for implementing the TDM Plan.
- Provide residents and retail employees who wish to carpool with detailed carpooling information and will be referred to
 other carpool matching services sponsored by the Metropolitan Washington Council of Governments (MWCOG) or
 other comparable service if MWCOG does not offer this in the future.
- Will not lease unused parking spaces to anyone aside from tenants of the building (e.g., will not lease to other nearby office employees, single-family home residents, or sporting events).
- Will meet or exceed ZR16 short- and long-term bicycle parking requirements. Long-term bicycle space will be provided free of charge to residents and employees. There are 65 long-term spaces required; 72 long-term spaces provided. Fourteen (14) short-term spaces required; 14 short-term spaces provided.
- Long-term bicycle storage room will accommodate non-traditional sized bikes including cargo, tandem, and kids bikes.
- Provide a bicycle repair station in each long-term bicycle parking storage room.
- Provide a FREE SmarTrip card or a complimentary Capital Bikeshare coupon good for one ride to every new resident and employee.
- Electrical outlets will be provided within the long-term bicycle storage room for the charging of electric bikes.
- Offer an annual CaBi membership to each resident and employee for the first year after the building opens.
- Following the issuance of a certificate of occupancy for the Project, the Project's Transportation Coordinator shall submit to the Office of Zoning for inclusion in the IZIS case record of the case documentation summarizing compliance with the transportation and following TDM conditions of this Order.
- Five years after the issuance of the final certificate of occupancy for the Project, if the Transportation Coordinator has
 not established a relationship with DDOT or goDCgo, the Transportation Coordinator will submit a letter to the Zoning
 Administrator, DDOT, and goDCgo summarizing continued substantial compliance with the transportation and following
 TDM conditions in the Order, unless no longer applicable as confirmed by DDOT; provided, that if such letter is not

submitted on a timely basis, the Applicant shall have sixty (60) days from date of notice from the Zoning Administrator, DDOT, or goDCgo to prepare and submit such letter.

Residential TDM Plan

- Provide welcome packets to all new residents that should, at a minimum, include the Metrorail pocket guide, brochures
 of local bus lines (Circulator and Metrobus), carpool and vanpool information, CaBi coupon or rack card, Guaranteed
 Ride Home (GRH) brochure, and the most recent DC Bike Map. Brochures can be ordered from DDOT's goDCgo
 program by emailing info@godcgo.com.
- Transportation Coordinator will subscribe to goDCgo's residential newsletter.
- Post all TDM commitments on website, publicize availability, and allow the public to see what commitments have been promised.
- Install a Transportation Information Center Display (electronic screen) within the lobby containing information related to
 local transportation alternatives. At a minimum, the display should include information about nearby Metrorail stations
 and schedules, Metrobus stops and schedules, car- sharing locations, and nearby Capital Bikeshare locations
 indicating the availability of bicycles.
- Provide one (1) collapsible shopping cart (utility cart) for every 50 residential units, for a total of four (4) to encourage residents to walk to the grocery shopping and run errands.

Retail TDM Plan

- Will post "getting here" information in a visible and prominent location on the website with a focus on non-automotive
 travel modes. Also, links will be provided to goDCgo.com, CommuterConnections.com, transit agencies around the
 metropolitan area, and instructions for patrons and employees discouraging parking on-street in Residential Permit
 Parking (RPP) zones.
- Transportation Coordinator will demonstrate to goDCgo that tenants with 20 or more employees who work on-site are in compliance with the DC Commuter Benefits Law and participate in one of the three transportation benefits outlined in the law (employee-paid pre-tax benefit, employer-paid direct benefit, or shuttle service), as well as any other commuter benefits related laws that may be implemented in the future.
- Ownership of building will offer discounted annual memberships to on-site retail employees via the Capital Bikeshare Corporate Membership program.

Summary and Conclusions

The findings of this study conclude the following:

- The proposed development meets the conditions for a Low Impact Development Exemption from CTR and TIA. It does
 not result in any significant increase in vehicular travel and will not have a significant impact on the local area's
 roadways;
- The 7th and P Street NW site is surrounded by an existing network of transit, bicycle, and pedestrian facilities that creates an excellent environment for safe and effective non-vehicular transportation;
- The project introduces bicycle facilities that exceed zoning requirements with the addition of a secure bicycle storage room with 72 long-term parking spaces, and 14 short-term bicycle parking spaces along the property's frontage;
- The project provides 56 vehicle parking spaces in the below-grade garage, including two (2) electric vehicle spaces.
- The proposed loading area will be accessed from the widened alley, Marion Court. One 30-foot loading berth, and one (1) 20-foot service/delivery space will be provided, meeting zoning requirements and the practical needs of the proposed development;

• The TDM measures that will be implemented at the 7th and P Street NW development adequately promote non-vehicular modes of travel for visitors.

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

- The project's proximity to bicycle facilities and transit access;
- The addition of both short-term and secure long-term bicycle parking at the site; and
- The implementation of enhanced TDM measures that reduce the demand of single-occupancy, private vehicles, and promotes non-vehicular modes of travel.