

TECHNICAL MEMORANDUM

To: Jon Lastuvka
From: Seth Fisher
Jim Watson, PTP
Erwin N. Andres, P.E.
Date: January 26, 2015
Subject: 646-654 H Street NE Revised Parking and Loading Statement

Rock Creek – 650 H LLC.

INTRODUCTION

This memorandum reviews the loading, parking, and sufficiency of alternative modes of transportation of a mixed-use development comprising 646-654 H Street in the H Street corridor neighborhood of Northeast Washington, DC. Figure 1 identifies the site location within the District. The site will be redeveloped into a mixed-use project with 26 residential units and 8,878 street level square feet (sf) of neighborhood serving retail space. Five (5) angled compact parking spaces will be provided behind the building off the private alley that connects to 7th Street NE, which is 12 fewer than the requirement under the zoning regulations. Zoning requires that the retail space provide eight (8) parking spaces and the residential space provides nine (9) parking spaces. The development plans to provide five (5) compact parking spaces that will be primarily reserved for retail tenant uses. A 30-foot loading bay is also required for the retail component under zoning regulations, but the size of the site does not allow for loading to be provided on-site. Thus, loading is proposed to occur from the existing shared loading zone to be provided along 7th Street at H Street. The alley only serves the site and a small restaurant located adjacent the site to the west, resulting in minimal vehicular traffic along the alley.

The following conclusions have been made regarding the 646-654 H Street NE development:

- The site is surrounded by an existing network of transit, bicycle, and pedestrian facilities that result in an adequate environment for safe and effective non-auto transportation;
- Based on the site location near ample transit services in addition to an analysis of comparable residential sites, and coupled with a TDM plan, it was determined that the parking supplied by the development will be adequate to serve the needs of residents.
- Based on an analysis of comparable residential units and an estimation of loading and trash activity for the development, it was determined that the amount of loading and trash activity expected to take place at the site will be adequately served by the on-street loading area along 7th Street.
- A TDM plan for the development will include the implementation of a TDM coordinator, on-site services, a marketing program, transportation incentives, bicycle amenities, and ride-matching/ridesharing programs.

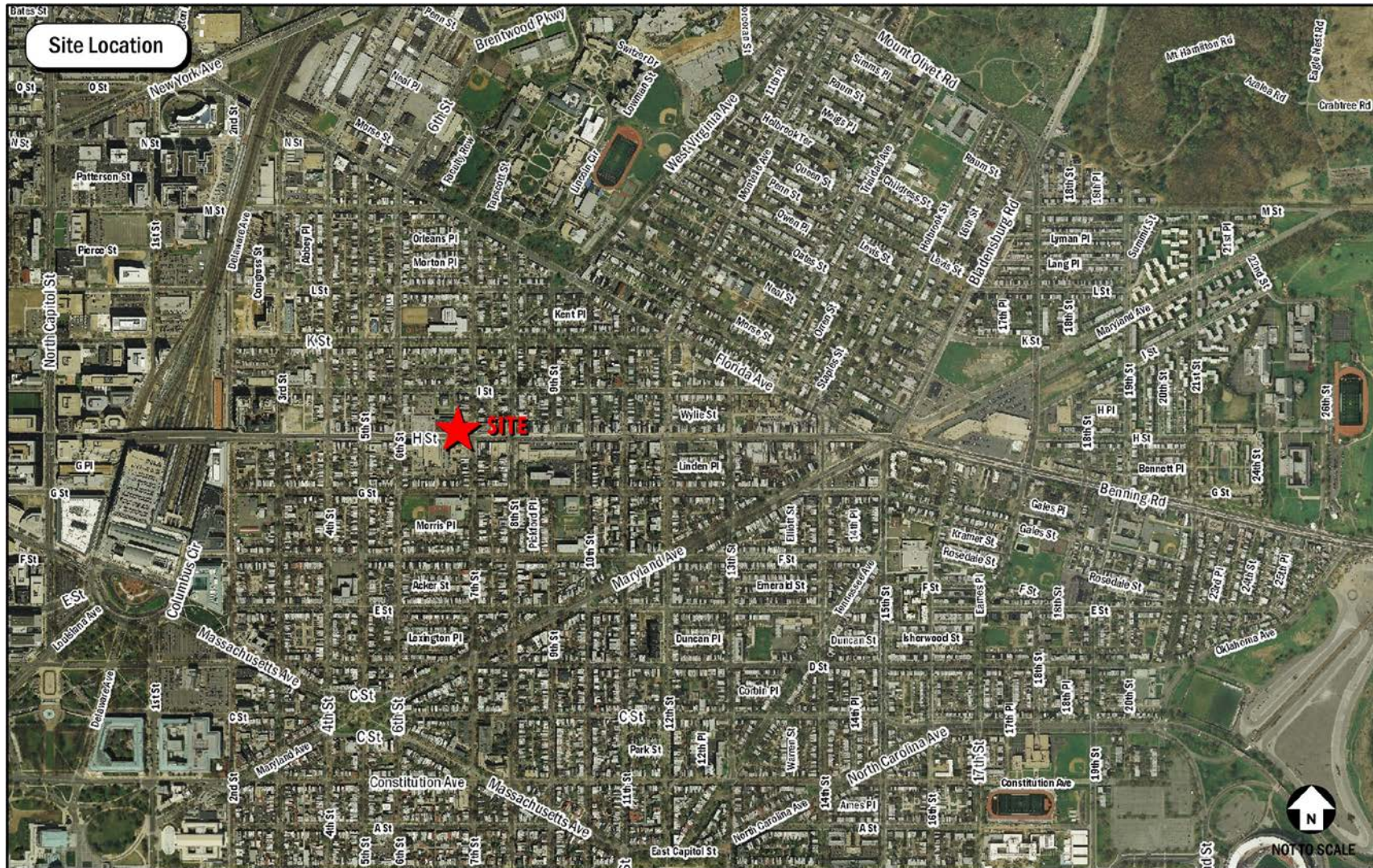


Figure 1: Site Location

EXISTING CONDITIONS

This section provides a review of the existing transit, bicycle, and pedestrian facilities in the site vicinity. The site is served by several public transportation sources, including Metrorail, the H Street streetcar, and Metrobus. The project site is also served by a pedestrian network consisting of sidewalks and crosswalks along the streets surrounding the project site. Additionally, the site is served by an on-street bicycle network, consisting of bike lanes, cycle tracks, and signed bicycle routes.

Transit

Local transit services that provide access to and from the 646-652 H Street NE development site primarily include Metrobus and MetroExpress routes. Metrobus service is operated by the Washington Metropolitan Area Transit Authority (WMATA) and is currently the fifth largest bus network in the nation. Figure 2 illustrates the existing Metrobus and MetroExpress routes.

Numerous Metrobus and MetroExpress routes operate along H Street, K Street, 8th Street, and 6th Street NE within walking distance of the site. Table 1 shows a summary of the bus route information for the lines that serve the study area, including service hours and the headways. The closest Metrobus stop to the site is located just east of the site at the H Street and 6th Street intersection and serves the X1 and X2 line. A second Metrobus stop is located on 8th Street NE near its intersection with H Street and serves the 90, 92, 93, X1, X2, X3, and X9 lines. Additionally, there is at least one stop within 1,000 feet of the site for every bus route listed below.

Table 1: Bus Route Information

Route Number	Route Name	Service Hours	Headway
90, 92, 93	U Street – Garfield Line	24-Hour Service	10-30 minutes for each route
D3	Ivy City-Dupont Circle Line	Weekdays: WB 6:05 am – 9:15 am EB 3:00 pm – 5:50 pm Saturdays: WB 6:25 am – 8:30 am EB 4:00 pm – 5:50 pm	20-30 minutes
D4	Ivy City-Franklin Square Line	Weekdays: 4:15 am – 1:05 am Saturdays: 4:45 am – 1:05 am Sundays: 5:15 am – 1:05 am	Peak Hours: 15-20 minutes Off-Peak Hours: 30 minutes Weekends: 30 minutes
D8	Hospital Center Line	Weekdays: 5:15 am – 1:00 am Weekends: 6:15 am – 1:05 am	Peak Hours: 10-15 minutes Off-Peak Hours: 15-30 minutes Weekends: 15-30 minutes
X1/X3	Benning Road Line	Weekdays: WB 6:00 am – 8:40 am EB 3:40 pm – 6:10 pm	AM Peak Hour: 7-15 minutes PM Peak Hour: 20-30 minutes
X2	Benning Road-H Street Line	Monday - Saturday: 4:05 am – 3:00 am Sundays: 4:10 am – 2:00 am	Peak Hours: 6-10 minutes Off-Peak Hours: 10-20 minutes Weekends: 10-20 minutes
X9	Benning Road-H Street Limited	Weekdays: 6:15 am – 9:00 am 3:30 pm – 6:30 pm	15 minutes

Due to growth of population, jobs, and retail in several neighborhoods in the District and the potential for growth in other neighborhoods, the District's transportation infrastructure is planned for augmentation by the reestablishment of streetcar service in the District and the implementation of limited-stop bus service along major corridors in the proposed development vicinity. This includes the H Street corridor as is outlined in the *DC's Transit Future System Plan* report published by DDOT in April 2010.

The streetcar system element includes one route that travels near the project site and is currently undergoing test operations along the H Street corridor. The streetcar system will consist of modern low-floor vehicles that operate on surface tracks embedded in the roadways, which will mostly operate in travel lanes that are shared with automobiles. Stops will generally be located every ¼- to ½-mile along the routes, including a stop at the intersection of 8th and H Streets NE, approximately 400 feet from the site. The future planned route serving the study area will initially connect the site with Union Station prior to the completion of the development, and eventually travel between the Benning Road Metro Station and Georgetown.

Bicycle Facilities

An inventory of the bicycle facilities found throughout the study area and the adequacy of each such facility is provided in Figure 3. Although there are some roadways with poor conditions such as H Street/Benning Road, there are several existing bike facilities, planned bike facilities, and local streets with safe conditions surrounding the site. Safe north-south connectivity is provided by the one-way bike lanes along 4th Street and 6th Street NE. Further from the site, there is also the one-way pair of bike lanes along 14th and 15th Street NE and the Metropolitan Branch Trail that travels adjacent to the Red Line tracks. East-west connectivity is best served along I Street and G Street. These roadways are low-speed, low-volume, one-way roadways that currently provide safe cycling conditions. Additionally, plans call for contraflow bike lanes to allow for two-way bicycle traffic along both roadways in the future.

In addition, the Capital Bikeshare program has placed over 200 bike share stations across Washington, DC, Arlington, and Alexandria, VA, and most recently, Montgomery County, MD with more than 1,800 bicycles provided. Capitol Bikeshare has plans to expand the system and potential new station locations have been identified throughout the study area. Figure 3 identifies existing station locations in the study area. Capitol Bikeshare currently has four existing bike share locations within an approximately quarter-mile walk of the site. The nearest station is located at the northeast corner of H Street and 6th Street NE about 600 feet from the site. The three other stations are located at the intersection of H and 3rd Street NE, at the intersection of F and 8th Street, NE and at the intersection of H and 11th Street NE.

Pedestrian Facilities

The roadways in the immediate vicinity of the proposed development provide satisfactory pedestrian facilities and connectivity throughout the area. Wide, continuous sidewalks line all of the study area's roadways with crosswalks linking segments at intersections within the area. Moreover, the presence of on-street parking along both sides of many roadways in the site vicinity act as a barrier between the sidewalk and the travel way.

Adequate crosswalks with ladder striping and pedestrian countdown signals are present at signalized intersections near the site for all crossing movements.

Car Sharing

Three car-sharing companies serve the District: Zipcar, Enterprise CarShare, and Car2Go. All three services are private companies that provide registered users access to a variety of automobiles. Both Zipcar and Enterprise CarShare have locations near the project site. Table 2 lists the car-sharing locations near the project and shows that 10 carsharing vehicles are available within a short walk of the site with many others within an additional reasonable walking distance. Carshare locations are also shown on Figure 2.

Table 2: Car Share Locations and Vehicles

Carshare Location	Number of Vehicles
Zipcar	
3 rd Street & I Street NE	2 Vehicles
Behind 406 F Street NE	1 Vehicle
Capitol East Apartments at 816 E Street NE	5 Vehicles
Enterprise CarShare	
822 12 th Street NE, Back Alley	3 Vehicles
Total Number of Car Share Vehicles in Study Area	11 Vehicles

Car sharing is also provided by Car2Go, which provides point-to-point car sharing. Unlike Zipcar and Enterprise CarShare, which require two-way trips, Car2Go can be used for one-way rentals. Car2Go currently has a fleet of vehicles located throughout the District. Car2Go vehicles may park in any non-restricted metered curbside parking space or Residential Parking Permit location in any zone throughout the defined “Home Area.” Members do not have to pay the meter or pay stations. Car2Go does not have permanent designated spaces for their vehicles; however, availability is tracked through their website, which provides an additional option for car-sharing patrons.

DESIGN REVIEW

This section provides an overview of the transportation features of the proposed development. The development program consists of 8,878 above grade sf of retail space and 26 residential units. As such, under the Zoning Regulations, eight (8) parking spaces are required for the retail uses and nine (9) spaces are required for the residential units. Five (5) spaces will be provided along the alley on the north side of the building, accessible from 7th Street. Loading will be provided via the on-street commercial loading zone adjacent to the property on 7th Street. Figure 4 displays the site access strategies, including pedestrian and vehicular access.

Site Access and Internal Circulation

Site Access

Primary pedestrian access will be located along H Street and 7th Street. Vehicles accessing the on-site parking spaces will use the existing alley from 7th Street. There will be five (5) compact parking spaces for the development, thus there is expected to be minimal vehicular traffic to the site. Loading accommodation is planned from the on-street loading zone adjacent to the property along 7th Street.

January 26, 2015

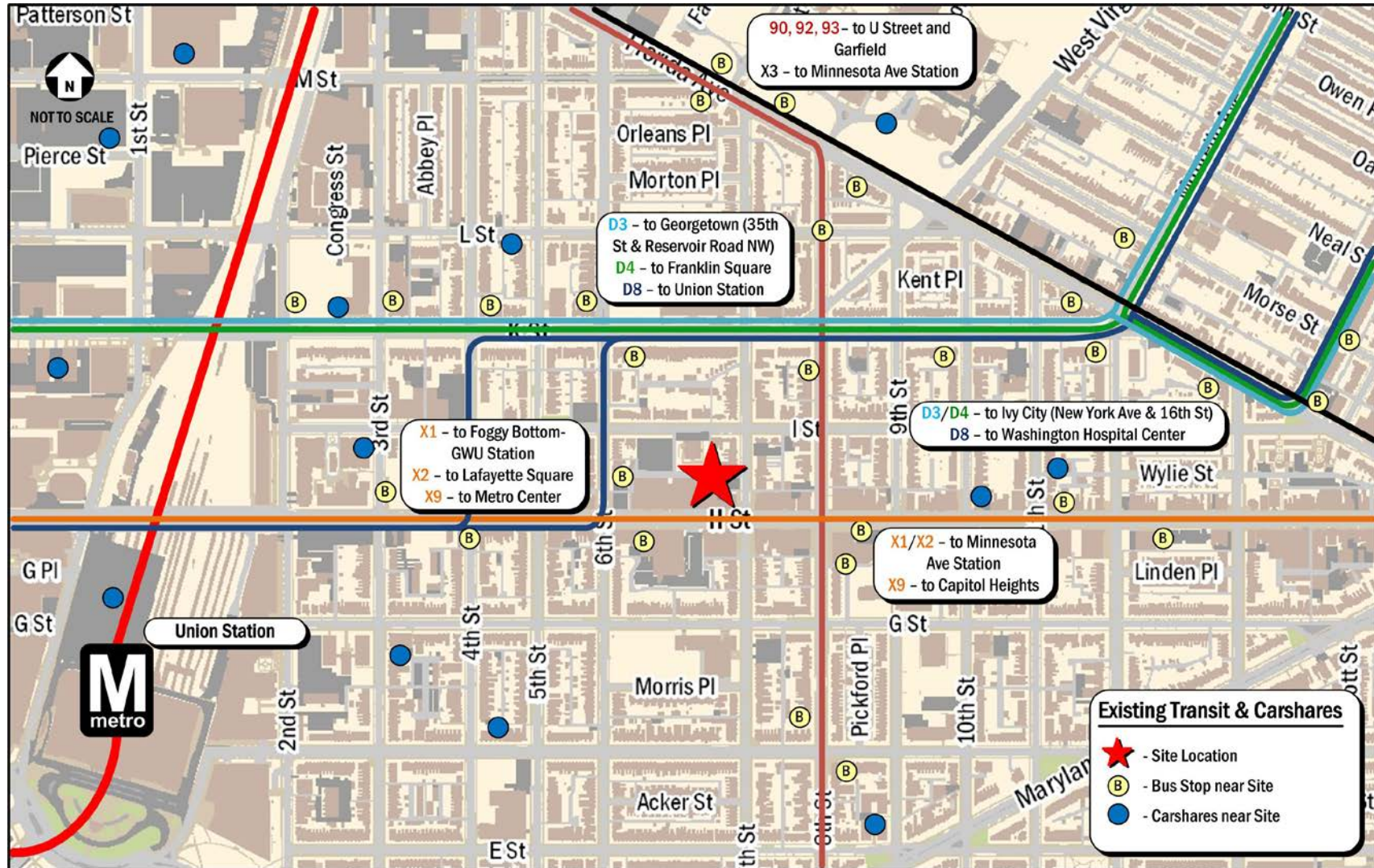


Figure 2: Existing Transit Facilities and Carshare Vehicles

January 26, 2015

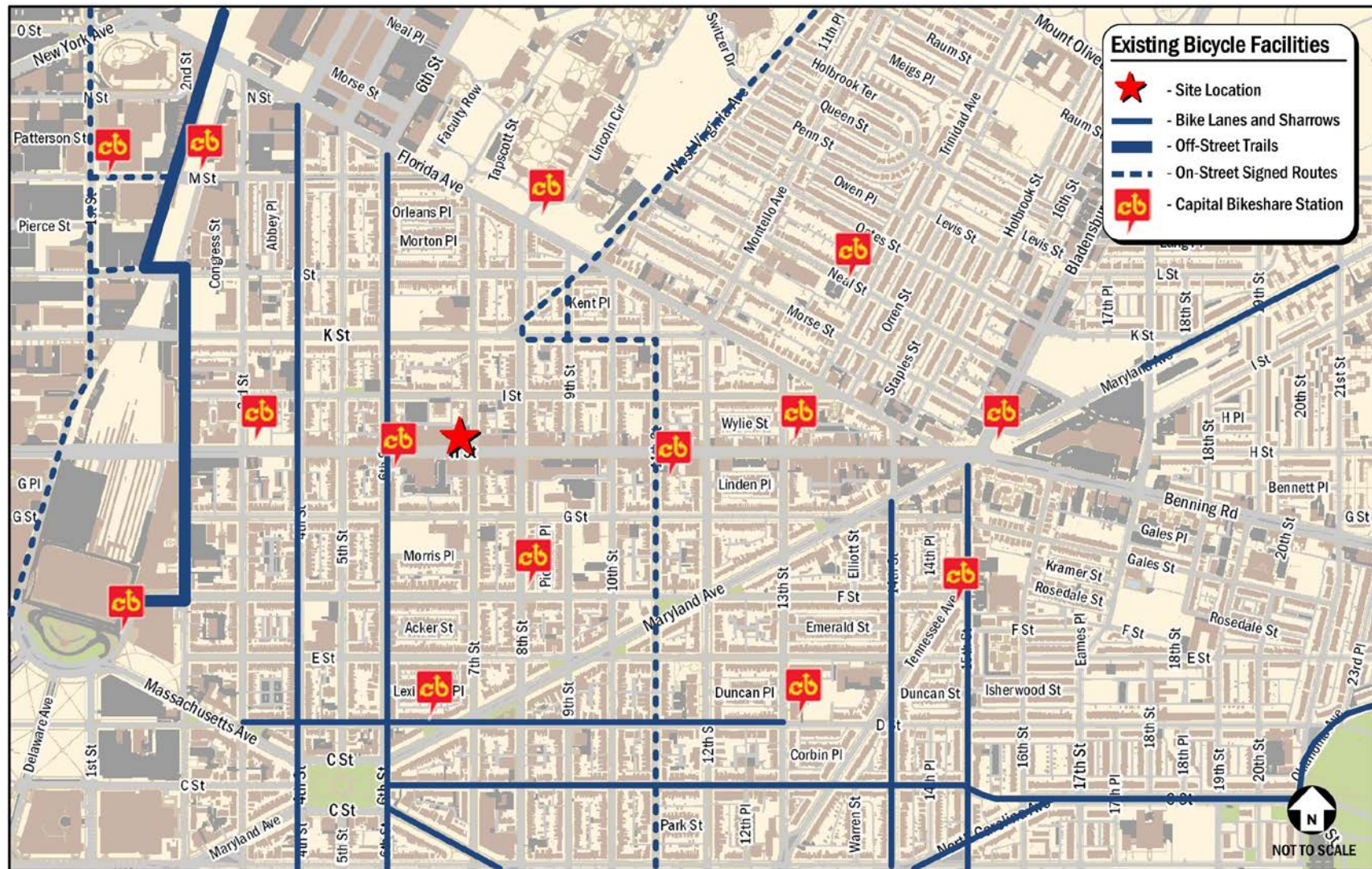


Figure 3: Existing Bicycle Facilities

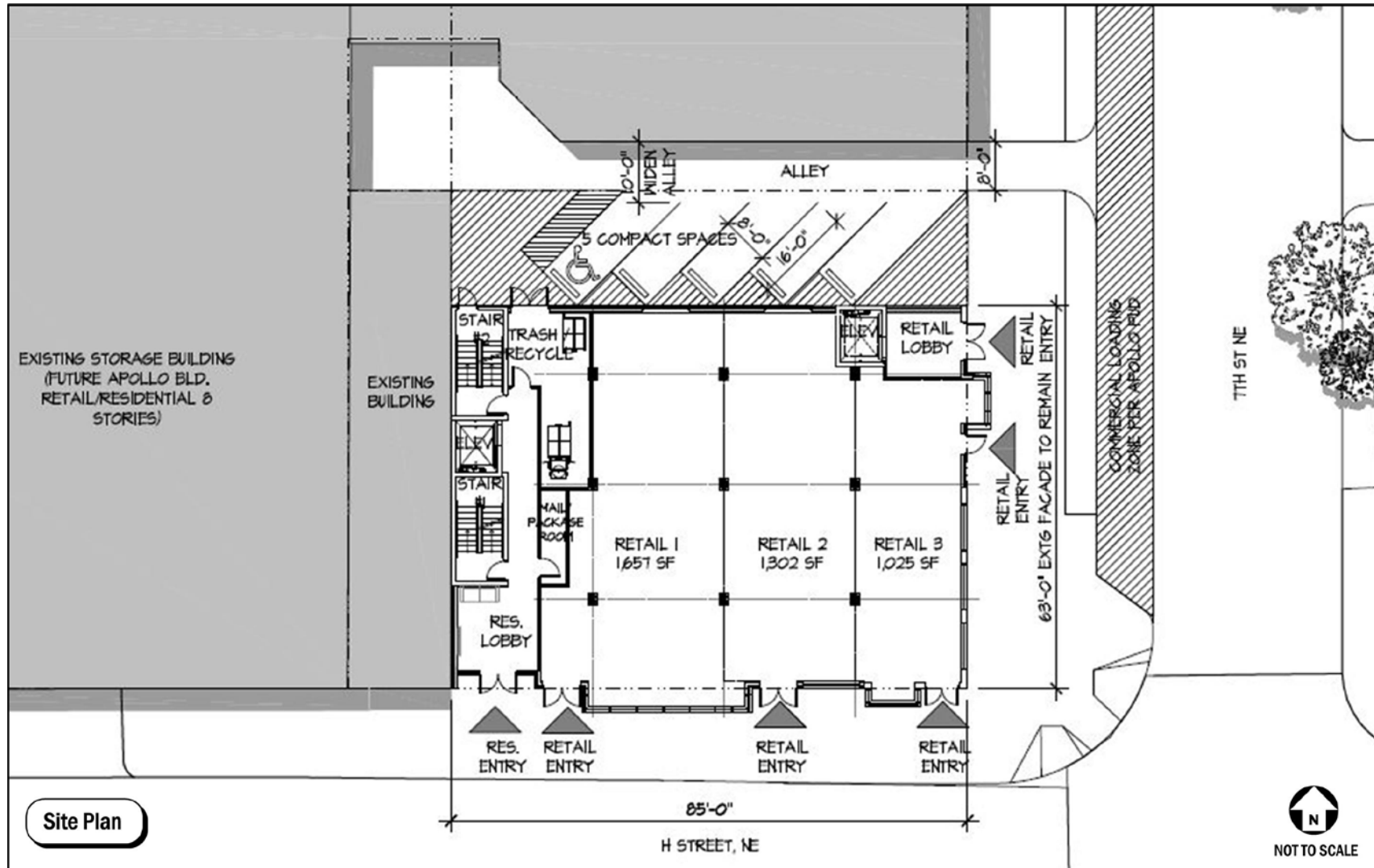


Figure 4: Site Access Plan

Parking

As mentioned previously, the project will provide five (5) compact parking spaces on-site. According to the current zoning regulations and based upon the existing zoning of the site location, the development is required to provide one parking space for each three dwelling units. Per zoning requirements, retail parking should provide one space per 750 sf of retail space above 3,000 sf. Based on these requirements the site would be required to provide 17 parking spaces.

Although the development does not meet current zoning requirements, the development will realize much less parking demand than required under zoning. As such, the five parking spaces are projected to be adequate to serve the demands of the site due to the following various considerations:

- The site is served by 10 Metrobus and MetroExpress routes within a quarter-mile walking distance.
- The H Street/Benning Road Streetcar line will be open by completion of the development allowing quick and efficient transportation between the site and Union Station. The site's location in relation to the Streetcar line also contributes to the site's fulfillment of the proposed zoning requirements as discussed above.
- Capital Bikeshare has three existing bike share locations near the site. One is approximately 400 feet from the site at the southeast corner of H Street and 6th Street NE with three additional locations within an approximately quarter mile walk from the site.
- The applicant will incorporate bicycle parking into the site. The design of these spaces will reflect similar dimensions as currently incorporated in other development throughout the District. The number of long-term spaces provided will exceed the bicycle parking requirements as stated within the DC zoning ordinance.
- The site area has a walkability score of 94 as calculated by WalkScore.com. This categorizes the site and the surrounding areas as a "walker's paradise."
- Numerous neighborhood amenities exist and are planned within a short walk of the site. This includes grocers, banks, restaurants, and other retailers, thereby reducing the need for vehicular travel for day-to-day trips.

Given the site's excellent access to numerous modes of transportation, minimal vehicular parking is anticipated to be necessary and the site will adequately serve the vehicular needs of the development.

Loading

The site plan indicates that there will be no loading facilities provided on-site. Pursuant to §2201.1, one 30 foot loading berth is required for the retail use and no such facilities are required for the residential use because the development will not provide 50 or more dwelling units. Additionally, loading cannot be accommodated on-site given the compact nature of the site and the alley serving the site. Therefore, it will be necessary for loading activity for the site to take place along the loading zone adjacent to the site on 7th Street. The number of truck trips generated by a project of this scale is relatively low. Based on previous studies, apartments have an average turnover of 18 months, with two trucks expected per turnover (one move-out and one move-in. Based on this assumption for a 26-unit apartment complex, there will be approximately 30-35 truck deliveries per year or approximately one move-in/move-out delivery every week. In addition, general retail stores are expected to have three van-sized deliveries per day, which are typically UPS, FedEx, and USPS deliveries.

Loading information for locations similar to the 646-654 H Street development was also compiled, as shown in Table 3. Properties with more total residential units than the 646-654 H Street development operate sufficiently utilizing either off-

street or on-street loading. Based on the compiled information, it appears that most move-in and move-outs utilize vehicles 24 feet in length and smaller. Occasionally, vehicles up to 30 feet in length are used. Therefore, it can be concluded that for a development of this size, the on-street loading area will be adequate to serve all loading operations.

Table 3: Comparable Site Loading Area Supply

Property	Total Units	Loading Location	Studio Apartment		Small 1 Bedroom Apartment	
			Average Size	Max Size	Average Size	Max Size
Hamilton House, 1255 New Hampshire Ave, NW	304	Off-Street	SU-25 or Less	SU-40 ²	N/A	N/A
M Street. 1112 M Street, NW ¹	124	Off-Street	SU-22 or Van	SU-30 ²	N/A	N/A
Preston, 1743 P Street, NW	27	On-Street	SU-20	SU-30	SU-22	SU-30
Sutton Plaza, 1230 13th Street, NW	176	On-Street	Van	SU-20 ²	SU-20	SU-22 ²

1. Most studio renters move in with personal vehicle.

2. Vehicle size used rarely throughout calendar year (10 times or less per year).

Trash Operations

As noted on Figure 4 above, the trash room for the development is located on the northwestern corner of the building and is accessible via a door to the alley. A trash compactor is planned in the trash room in order to assist in the efficient operation of trash collection for the development. Given the narrow nature of the alley, trash will be picked-up curbside from the adjacent on-street loading zone along 7th Street, with a similar operation to the loading described above. Bins from the trash compactor will be rolled from the trash room to the curbside by the trash collection company for pick-up and then will be returned to the trash room. At no time will trash bins be left at curbside unattended for pick-up.

Bicycle Facilities

According to the Bicycle Commuter and Parking Expansion Act of 2007, a residential building owner shall provide at least one secure bicycle parking space for each 3 residential units for all new residential buildings. Additionally, all other land uses require that the number of bicycle spaces provided shall be at least equal to five percent (5%) of the number of automobile parking required. Based on these regulations the development would require 10 bicycle parking spaces, which will be provided on the lower level of the development. Short-term bicycle parking along the perimeter of the development site will be provided in coordination with DDOT.

Transportation Demand Management

Transportation Demand Management (TDM) is the application of policies and strategies used to reduce travel demand or to redistribute demand to other times or spaces. TDM typically focuses on reducing the demand of single-occupancy private vehicles during peak period travel times or on shifting single-occupancy vehicular demand to off-peak periods. TDM's importance within the District is highlighted within section T-3.1 of the DC Comprehensive Plan, where it has its own dedicated section including TDM policies and actions.

Proposed TDM Plan

Based on the DDOT expectations for TDM programs, and analyzing the specific attributes of the development site, the following outlines the proposed TDM plan for the 646-654 H Street development.

- Transportation Management Coordinator (TMC)

Effective Transportation Management Programs (TMPs) require a coordinator to implement and manage TDM strategies. A member of the property management group would be a point of contact and would be responsible for coordinating, implementing, and monitoring the TMP strategies. This would include the development and distribution of information and promotional brochures to residents, visitors, patrons, and employees regarding transit facilities and services, pedestrian and bicycle facilities and linkages, ridesharing (carpool and vanpool) and car sharing. In addition, the TMC would be responsible for ensuring that loading and trash activities are properly coordinated and do not impede the pedestrian, bicycle, or vehicular lanes adjacent to the development. The contact information for the TMC would be provided to DDOT/Zoning Enforcement with annual contact updates.

- On-Site Services

A TransitScreen will be installed in the residential lobby to keep residents and visitors informed on all available transportation choices and provide real-time transportation updates. In addition, the TMC will make printed materials related to local transportation alternatives available to residents and employees upon request and at move-in for new tenants.

- Marketing Program

The TMC will establish a TDM marketing program that provides detailed transportation information and promotes walking, cycling, and transit. An effective marketing strategy should consist of a multi-modal access guide that provides comprehensive transportation information. This information can be compiled in a brochure for distribution. The marketing program should also utilize and provide website links to CommuterConnections.com and goDCgo.com, which provide transportation information and options for getting around the District.

- Transportation Incentives

To help encourage non-auto transportation uses, the Applicant will provide the first occupant of each residential unit with a one-time annual car sharing membership or a one-time annual Capitol Bikeshare membership to help alleviate the reliance on personal vehicles. These incentives will be included in a move-in transportation package that includes brochures for transit facilities as well as bicycle and car sharing services for the first occupant of each residential unit.

- Bicycle Amenities

The Applicant will encourage all alternative transportation modes including bicycling. Bicycling will be promoted with the provision of on-site bicycle parking spaces as described above. The marketing program will include brochures on bicycling in the District and for Capital Bikeshare.

- Ride-matching/Ridesharing Program

Retail employees and residents who wish to carpool will be provided detailed carpooling information as part of the marketing effort, and will be referred to other carpool matching services sponsored by the Metropolitan Washington Council of Governments.

Conclusions

This memorandum presents the findings of a parking and loading management plan for the 646-654 H Street development. The proposed development consists of a mix of residential and retail uses. The building will contain approximately 8,878 sf

January 26, 2015

of ground floor retail and 26 residential units. The following conclusions were made regarding the 646-654 H Street development:

- The site is surrounded by an existing network of transit, bicycle, and pedestrian facilities that result in an adequate environment for safe and effective non-auto transportation;
- Based on the site location near ample transit services in addition to an analysis of comparable residential sites, and coupled with a TDM plan, it was determined that the parking supplied by the development will be adequate to serve the needs of residents.
- Based on an analysis of comparable residential units and an estimation of loading and trash activity for the development, it was determined that the amount of loading and trash activity expected to take place at the site will be adequately served by the on-street loading area along 7th Street.
- A TDM plan for the development will include the implementation of a TDM coordinator, on-site services, a marketing program, transportation incentives, bicycle amenities, and ride-matching/ridesharing programs.