EXHIBIT B

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TECHNICAL MEMORANDUM

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Date:	February 24, 2016	
Subject:	608-618 T Street NW Traffic Statement	

INTRODUCTION

This memorandum presents the findings of a Traffic Statement conducted for 608-618 T Street NW, a development located in the Cardozo/Shaw neighborhood located between Wiltberger Street and 6th Street, NW in Washington, DC, in support of its BZA application (Case Number 19217). Figure 1 identifies the site location within the District. The site is currently occupied by retail establishments and will be redeveloped as a mixed-use building with approximately 59 to 79 residential dwelling units, 7,420 square feet of ground-floor retail space, and 26 to 43 below-grade parking spaces. Of note, the proposed parking access along Wiltberger Street and loading access along the North-South alley was conceptually approved by the Public Space Committee on December 17, 2015.

The purpose of this memorandum is to:

- Provide a summary of major transportation features near and adjacent to the site including reviewing roadways, transit facilities, and bicycle facilities;
- Provide a summary of the development's multi-modal transportation demand and determine the potential impacts of the proposed development on the surrounding transportation network; and
- Review the transportation elements of the development site plan, supplement the material provided in the plans that accompany the BZA application, and demonstrate that the site promotes non-automobile modes of travel and sustainability.

This Statement concludes that:

- The site is surrounded by an extensive regional and local transportation system that offers multi-modal accessibility to and from the site;
- Due to the size and location of the development, the site is not expected to generate substantial vehicular peak hour trips, and based on the vehicular capacity analysis results, the development is not expected to have detrimental impacts on the surrounding transportation network;

- The site provides adequate circulation with conveniently located access points for all modes of transportation; and
- Bicycle and pedestrian facilities will be supplied on site including long-term bicycle parking within the development's garage and pedestrian facilities along the perimeter of the site.

SITE LOCATION & MAJOR TRANSPORTATION FEATURES

This section of the Statement reviews the transportation facilities and features surrounding the development site, located at 608-618 T Street in the Northwest quadrant of Washington, DC. The site is served by many regional roadways and arterials, including Rhode Island Ave NW, Florida Ave NW, and Georgia Ave/7th Street NW. The site is accessible via these roadways, along with a network of collector and local streets.

The site is well-served by public transportation, including Metrorail and Metrobus service. The project site is also served by a pedestrian network consisting of sidewalks and crosswalks along the local streets and surrounding the project site. In addition to pedestrian accommodations, the site is served by a bicycle network, which consists of shared lanes and bike lanes.

Car Sharing

Three car-sharing companies serve the District: Zipcar, Enterprise Carshare, and Daimler's Car2Go. All three services are private companies that provide registered users access to a variety of automobiles. Zipcar has locations within walking distance of the project site. Table 1 lists the car-sharing locations within a quarter-mile of the site and the number of vehicles available at each location.

Table 1: Car Share Locations and Vehicles

Carshare Location	Number of Vehicles
Zipcar	
7th/R Street NW	1 Vehicle
625 Rhode Island Avenue NW	1 Vehicle
Total Number of Car Share Vehicles in Study Area	**2 Vehicles**

Car-sharing is also provided by Car2Go, which provides point-to-point car sharing. Unlike Zipcar, which requires two-way trips, Car2Go can be used for one-way rentals. Car2Go currently has a small 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.

Figure 1: Site Location

Transit

The study area is well served by heavy rail, commuter bus, and local bus service. Combined, these transit services provide local, city-wide, and regional transit connections and link the site with major cultural, residential, employment, and commercial destinations throughout the region. Figure 2 identifies the major transit routes, stations, and stops in the area.

Metrorail and Metrobus services connect the site with other District neighborhoods and the Washington Metropolitan region. The site is primarily serviced by Metrorail via the Shaw-Howard Metrorail station, which is a block west of the site and serves the Green and Yellow Lines. The Green and Yellow Lines connect the study area with major downtown stations such as Chinatown/Gallery Place and L'Enfant Plaza, as well as Fort Totten and Greenbelt, Maryland to the north and Branch Avenue station in Maryland to the South. Metrorail trains run approximately every three minutes during the morning and afternoon peak hours. They run about every 5-6 minutes during weekday non-peak hours, every 10-15 minutes on weekday evenings after 7:00 pm and 6-15 minutes on the weekends.

The site is accessible to Metrobus routes along the Florida Avenue, Rhode Island Avenue, and 7th Street corridors, with some local service within the neighborhoods. The routes serving this area connect the site to various locations throughout the District and the downtown business core. Table 2 shows a summary of the bus route information for the Lines that serve the site vicinity, including service hours, headway, and walking distance to the nearest bus stop.

Table 2: Bus Route Information

Route Number	Route Name	Service Hours[1]	Headway[1]	Walking Distance to Nearest Bus Stop
70, 79	Georgia Ave-7th Street Line	Weekdays: 4:00AM – 3:40AM Weekends: 4:00AM – 3:00AM	15 min – 20 min	0.1 miles, 1 minutes
90, 92 93	U Street-Garfield Line	Weekdays: 4:00AM – 3:00AM Weekends: 4:00AM – 3:00AM	15 min	0.1 miles, 1 minute
96	East Capitol Street-Cardozo Line	Weekdays: 4:50AM – 3:45AM Weekends: 4:50AM – 4:00AM	12 min - 25 min	0.1 miles, 1 minute
G8	Rhode Island Ave Line	Weekdays: 4:40AM – 2:00 AM Weekends: 5:20AM – 1:00 AM	10 min – 30 min	0.3 miles, 6 minutes
X3	Benning Road Line	Weekdays: Westbound: 6:00AM – 9:25 AM Eastbound: 3:38PM – 6:50PM	5 min – 40 min	0.1 miles, 1 minute
63	Takoma-Petworth Line	Weekdays: 4:30AM – 2:00 AM Weekends: 5:20AM – 1:00 AM	10 min – 30 min	0.3 miles, 7 minutes
G2	P Street-LeDroit Park Line	Weekdays: 5:00AM – 1:30 AM Weekends: 6:00AM – 1:00 AM	20 min – 30 min	0.3 miles, 6 minutes

Bicycle Facilities

Within the study area bicycles have access to on-street bike lanes, shared lanes, and local and residential streets that facilitate cycling. The bicycle network provides good conditions for local trips and there are several routes for trips between the study area and other areas within the District.

[1] WMATA route schedules, http://wmata.com/bus/timetables/

Located within Ellington Plaza, directly surrounding the site is existing short-term bicycle parking. There are shared lanes that lead users along safe routes to the site, in addition to bike lanes that connect the site in all directions. The T Street NW (east and westbound) and 7th Street NW (north and southbound) bike lanes provide connectivity to areas around the site and link cyclists to other bicycle facilities in the District. A map of the existing and proposed bicycle facilities in the vicinity of the site is shown in Figure 3.

The Capital Bikeshare program allows for an additional cycling option. Users can choose to join the program for one day, three days, a month, or a year, making this option accessible for both visitors and residents of the area. Users can rent a bike from the nearest docking station, ride the bike to their destination and return the bike to a different docking station, making the system convenient for one-way and two-way trips. The Capital Bikeshare program has placed over 350 bicycle-share stations across Washington, DC, Arlington and Alexandria, VA, and Montgomery County, MD, with over 3,000 bicycles provided. There are two stations within a quarter-mile radius of the site located at 7th and T Street NW and at 7th and R Street NW/Shaw Library contributing to a total of 27 docking stations as summarized in Table 3. There are several additional Bikeshare stations located within a half-mile of the site as shown in Figure 3.

Table 3: Bikeshare Locations and Docking Stations

Bikeshare Location	Number of Docking Stations
7th and T Street NW	14 docking stations
7th and R Street NW/Shaw Library	13 docking stations
Total Number of Bikeshare Docking Stations	**27 docking stations**

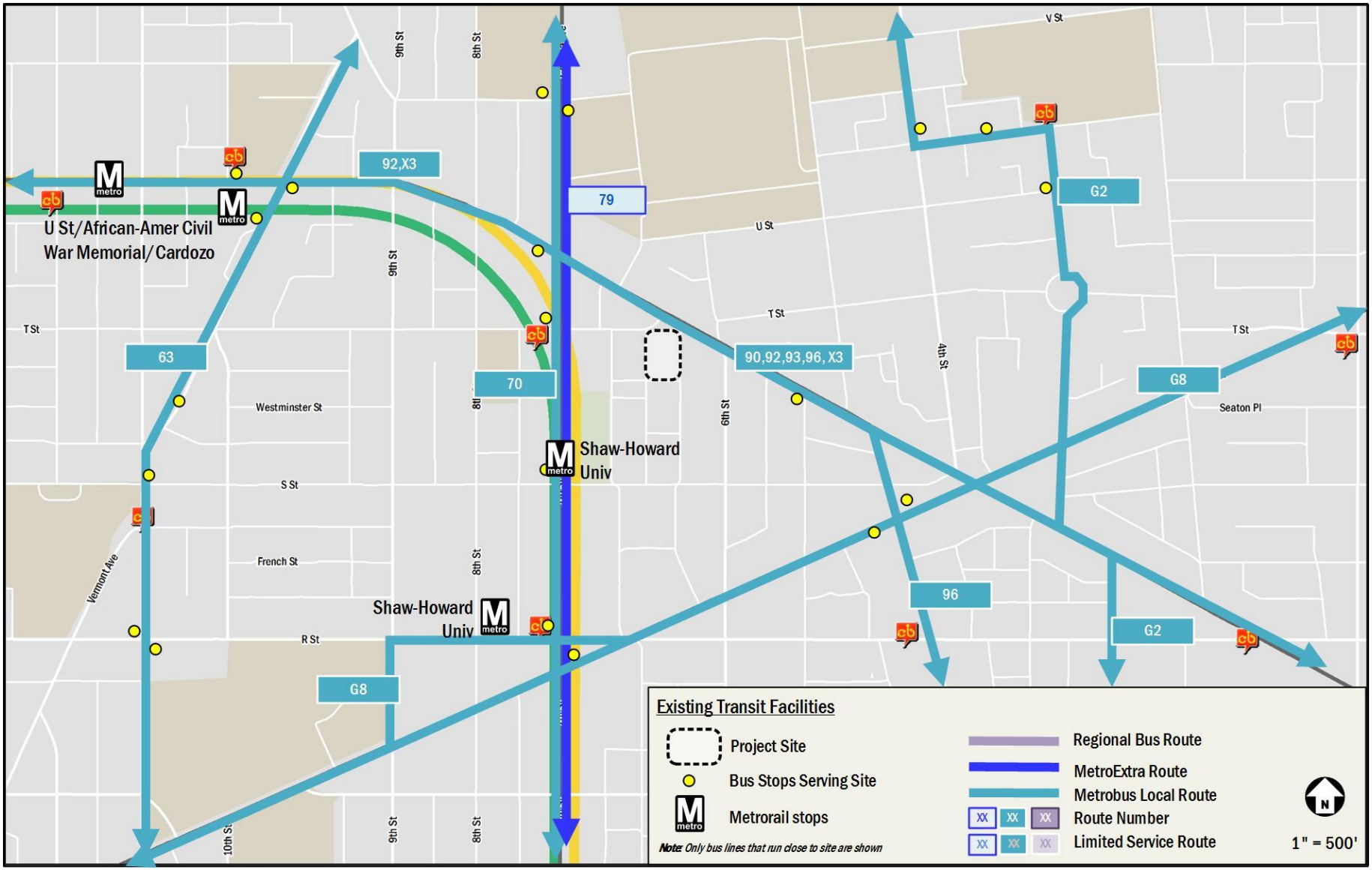


Figure 2: Existing Transit Facilities

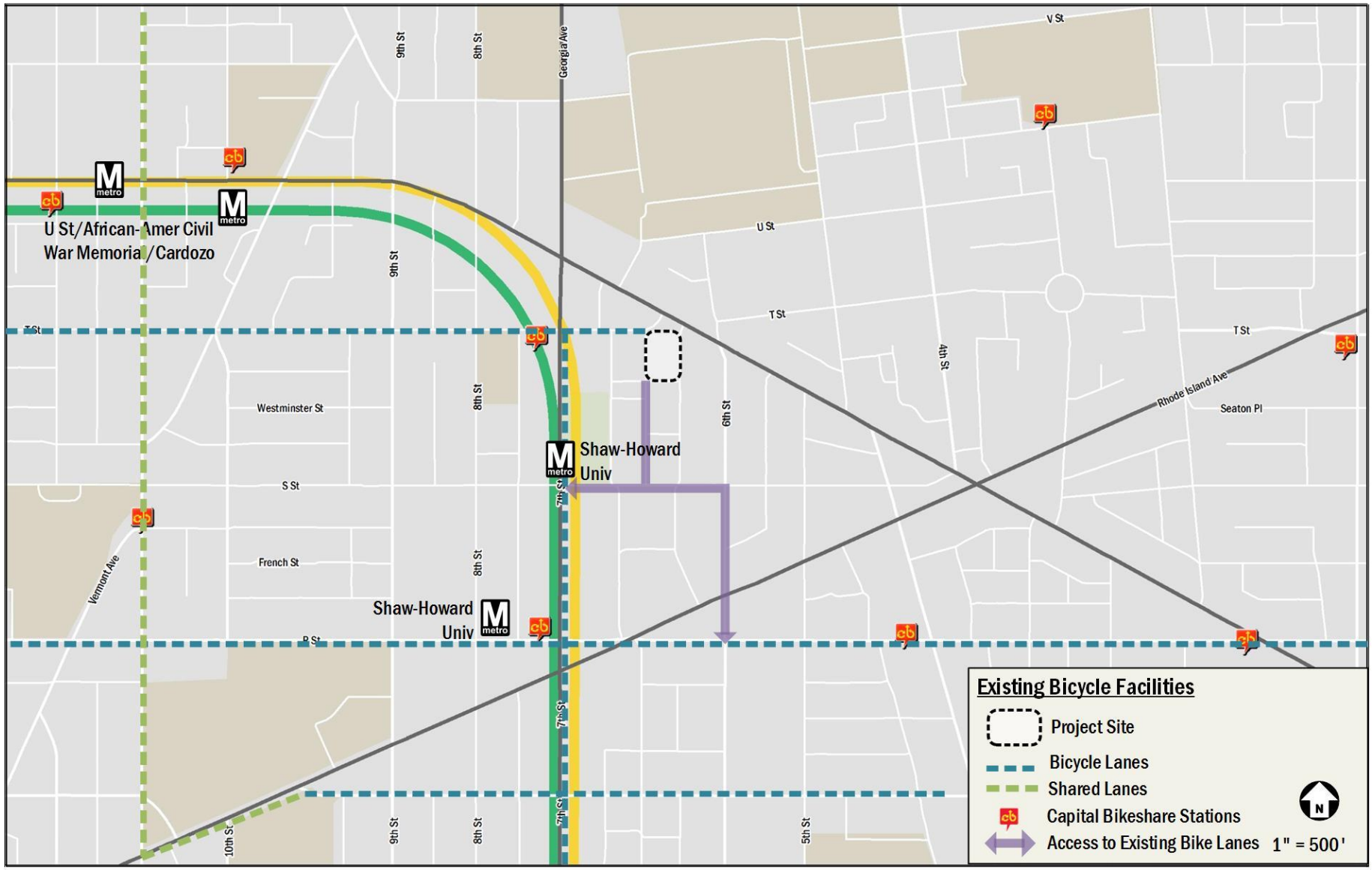


Figure 3: Existing Bicycle Facilities

Pedestrian Facilities

This section provides an inventory of the existing pedestrian facilities. Overall, the pedestrian facilities within the study area provide a good walking environment. Pedestrian access to the site is provided along all adjacent streets.

The site has good pedestrian access to nearby transit. The Shaw-Howard Metrorail station is located a block west of the site, with a portal located on 7th Street and S Street NW, and provides access to the Green and Yellow Lines. The site is also within walking distance to many bus routes along Florida Avenue, Rhode Island Avenue, and 7th Street that provide local and commuter service between the study area and destinations throughout the District.

A detailed review of pedestrian facilities near the site shows that most facilities meet DDOT standards, and provide a quality walking environment. Figure 5 shows a detailed illustration of the existing pedestrian infrastructure within a quarter-mile walkshed of the development site. Sidewalks, crosswalks, and curb ramps are evaluated based on the guidelines set forth by DDOT's Public Realm Design Manual in addition to ADA standards. Sidewalk width and buffer requirements for the District are shown below in Table 4. Within the quarter-mile walkshed, most roads are considered residential with a moderate to high density due to the proximity to the Shaw-Howard Metrorail station, the presence of multiple elementary and middle schools, and the frequency of commercial buildings that serve the neighborhood. The majority of sidewalks comply with an 8 foot sidewalk width and most have a 4 to 6 foot buffer. Even if no buffer exists between the edge of the sidewalk and the roadway, most roadways allow on-street parking which creates an additional buffer between pedestrians and vehicular traffic. ADA standards require that all curb ramps be provided wherever an accessible route crosses a curb and must have a detectable warning. Additionally, shared curb ramps between two crosswalks is not desired. As shown in Figure 5, under existing conditions there are occasional issues regarding curb ramps and for the most part, these issues are due to a lack of detectable warning strips.

Table 4: Sidewalk Requirements

Street Type	Minimum Sidewalk Width	Minimum Buffer Width
Residential (Low to Moderate Density)	6 ft	4 ft (6 ft preferred for tree space)
Residential (High Density)	8 ft	4 ft (6 ft preferred for tree space)
Commercial (Non-downtown)	10 ft	4 ft
Downtown	16 ft	6 ft

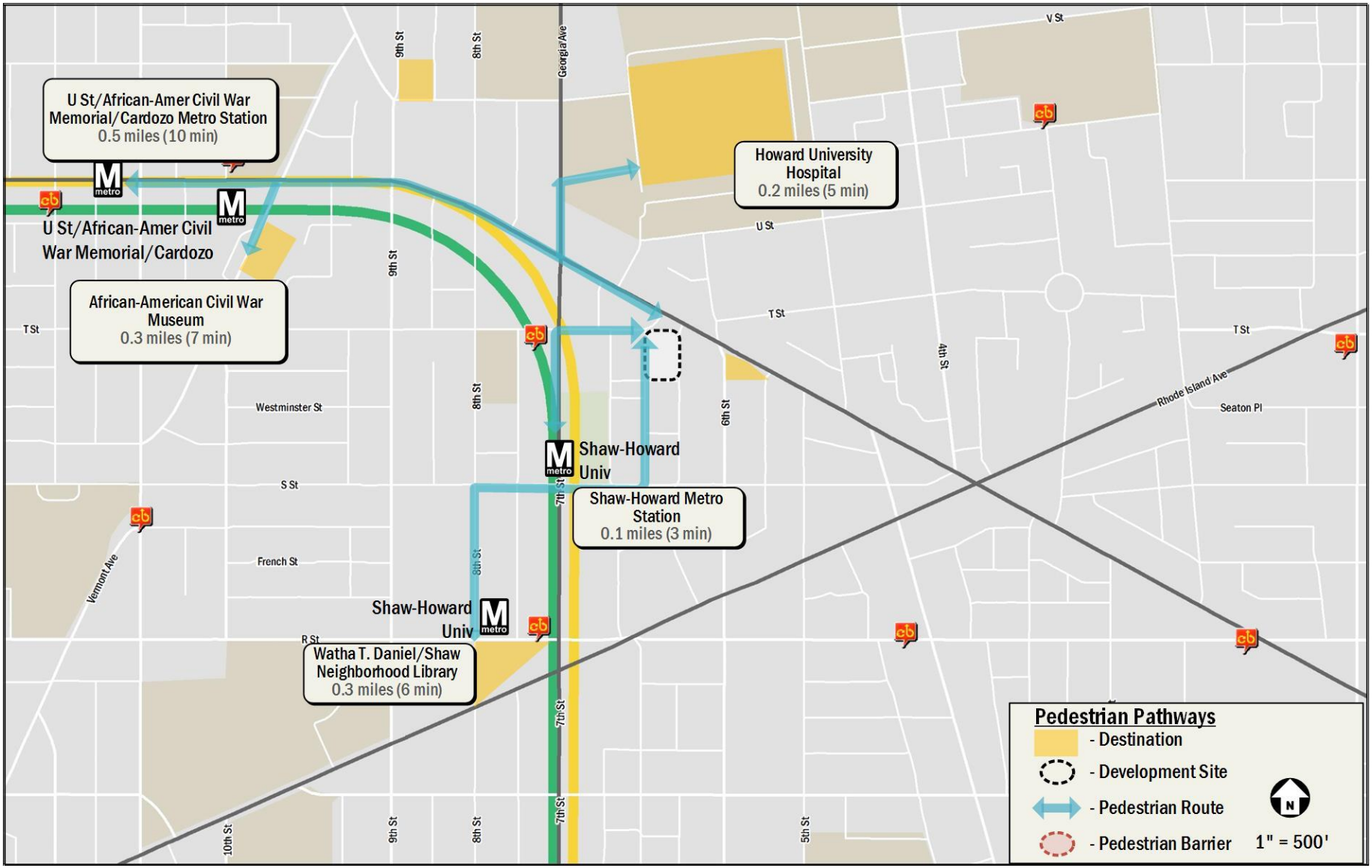


Figure 4: Pedestrian Pathways

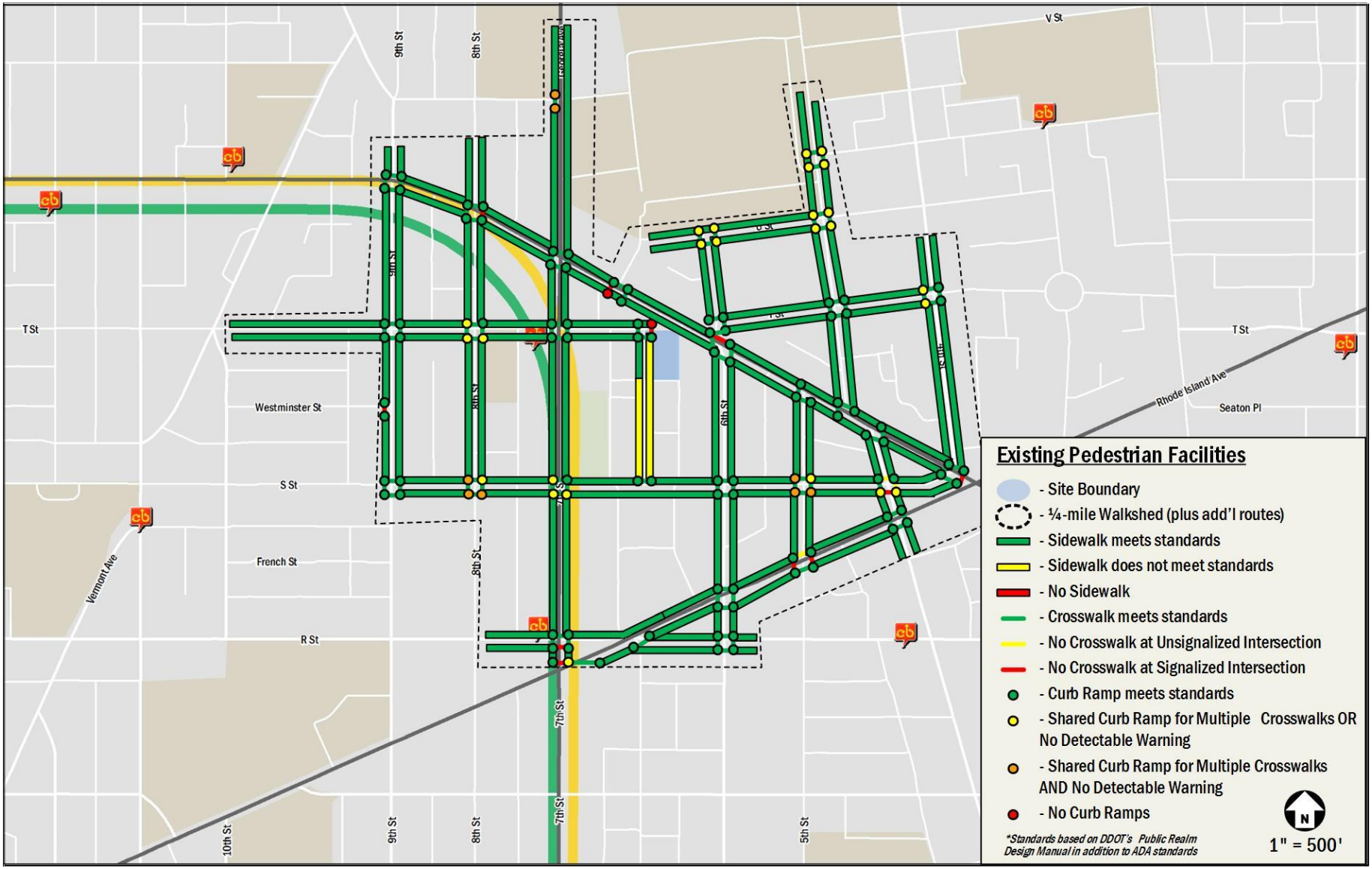


Figure 5: Pedestrian Infrastructure

TRAFFIC IMPACT ANALYSIS

Scope of Analysis

This traffic impact study was conducted in general accordance with the typical parameters set by DDOT for preparing such studies. The following intersections (shown in Figure 6) are included in this study:

1. T Street & Wiltberger Street, NW
2. Florida Avenue & T Street, NW
3. Florida Avenue & Alley, NW
4. S Street & Wiltberger Street, NW
5. S Street & Alley, NW

The analysis contained herein compares three traffic volume scenarios: (1) existing conditions within the study area, (2) background conditions, representing future traffic levels with ambient growth and other planned developments within the proximity of the proposed development, and (3) total future conditions, representing background conditions with the addition of the proposed development. The following section outlines the components for each scenario.

Existing Conditions

Field surveys were performed to record lane designations, traffic controls, and signal timings. Lane configurations and traffic control for the AM and PM peak hours are shown in the Technical Attachments. The turning movement count data was collected on Thursday, October 29, 2015 from 6:30 to 9:30 AM and from 4:00 to 7:00 PM, in accordance with DDOT and national standards. This count date represents “typical” weekdays when local public school systems were in session. These “typical” weekdays also represent time periods that include normal operations for other major traffic generators in the study area. The traffic volumes for the 2015 Existing conditions are included in the Technical Attachments.

2017 Background Conditions

The traffic projections for the 2017 Background conditions consist of the existing volumes with two additions:

- Traffic generated by developments expected to be completed prior to the project (known as background developments); and
- Inherent growth on the roadway (representing regional traffic growth).

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

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

Based on these criteria, no developments were included in the 2017 Background scenario.

Regional traffic growth was derived from the Metropolitan Washington Council of Government's (MWCOG) currently adopted regional transportation model, comparing the difference between the year 2015 and 2017 model scenarios. The growth rates observed in this model served as a basis for analysis assumptions along Florida Avenue. Data along T Street and S Street was inconsistent throughout the model, therefore a nominal growth rate of 1 percent was applied to the through movements along these roadways. The applied growth rate along Florida Avenue is shown in Table 5.

The traffic volumes generated by the inherent growth along the network were added to the existing traffic volumes in order to establish the 2017 Background traffic volumes. The volumes for the 2017 Background conditions are included in the Technical Attachments.

Table 5: Applied Growth Rates

Roadway	Applied Annual Growth Rate		Growth Rate between 2015 and 2017	
	AM	PM	AM	PM
Florida Avenue (Eastbound)	4.2%	1.1%	8.6%	2.2%
Florida Avenue (Westbound)	0.1%	1.9%	0.2%	3.8%

2017 Future Conditions

The 2017 Total Future traffic volumes consist of the 2017 Background volumes with the addition of the traffic volumes generated by the proposed development (site-generated trips). Thus, the 2017 Total Future traffic volumes include traffic generated by: the existing volumes, the inherent growth on the study area roadways, and the proposed project.

The trip distribution for the project-generated trips was assembled based on a review of existing traffic patterns and potential employment regions to which the development's residents will travel. Based on this review and the site access locations, the site-generated trips were distributed through the study area intersections.

Weekday peak hour trip generation for the development was calculated based on the methodology outlined in the Institute of Transportation Engineers' (ITE) Trip Generation, 9th Edition. This methodology was supplemented to account for the urban nature of the site (Trip Generation provides data for non-urban, low transit use sites) and to generate trips for multiple modes including vehicle, transit, biking, and walking.

Residential trip generation was calculated based on ITE land use 220, Apartment, splitting trips into different modes using assumptions derived from census data for the residents that currently live near the site. The vehicular mode split was then adjusted to reflect the parking supply and other developments with similar proximity to Metrorail. Retail trip generation was calculated based on ITE land use 820, Shopping Center. Rates based on average vehicle trip ends per 1,000 square feet of gross leasable area were used. Mode splits for the retail portion of the site were based on information contained in WMATA's *2005 Development-Related Ridership Survey* and mode splits used for retail uses of nearby developments that have recently been studied. A summary of mode splits for all land uses within the development is shown on Table 6. The multi-modal trip generation for the morning and afternoon peak hours is shown on Table 7.

The traffic volumes generated by the site were added to the 2017 Background traffic volumes in order to establish the 2017 Future traffic volumes. The traffic volumes for the 2017 Future conditions are included in the Technical Attachments.

Table 6: Mode Split Summary

Land Use	Mode Split			
	Auto	Transit	Bike	Walk
Residential	40%	40%	5%	15%
Retail	25%	50%	5%	20%

Table 7: Multi-Modal Trip Generation Summary

Mode	Land Use	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Auto	Apartments	4 veh/hr	11 veh/hr	15 veh/hr	14 veh/hr	8 veh/hr	22 veh/hr
Auto	Retail	1 veh/hr	1 veh/hr	2 veh/hr	3 veh/hr	4 veh/hr	7 veh/hr
Auto	**Total**	**5 veh/hr**	**12 veh/hr**	**17 veh/hr**	**17 veh/hr**	**12 veh/hr**	**29 veh/hr**
Transit	Apartments	4 ppl/hr	13 ppl/hr	17 ppl/hr	16 ppl/hr	9 ppl/hr	25 ppl/hr
Transit	Retail	4 ppl/hr	2 ppl/hr	6 ppl/hr	12 ppl/hr	13 ppl/hr	25 ppl/hr
Transit	**Total**	**8 ppl/hr**	**15 ppl/hr**	**23 ppl/hr**	**28 ppl/hr**	**22 ppl/hr**	**50 ppl/hr**
Bike	Apartments	0 ppl/hr	2 ppl/hr	2 ppl/hr	2 ppl/hr	1 ppl/hr	3 ppl/hr
Bike	Retail	0 ppl/hr	1 ppl/hr	1 ppl/hr	1 ppl/hr	2 ppl/hr	3 ppl/hr
Bike	**Total**	**0 ppl/hr**	**3 ppl/hr**	**3 ppl/hr**	**3 ppl/hr**	**3 ppl/hr**	**6 ppl/hr**
Walk	Apartments	1 ppl/hr	5 ppl/hr	6 ppl/hr	6 ppl/hr	3 ppl/hr	9 ppl/hr
Walk	Retail	1 ppl/hr	1 ppl/hr	2 ppl/hr	5 ppl/hr	5 ppl/hr	10 ppl/hr
Walk	**Total**	**2 ppl/hr**	**6 ppl/hr**	**8 ppl/hr**	**11 ppl/hr**	**8 ppl/hr**	**19 ppl/hr**

Analysis Results

Intersection capacity analyses were performed for the three scenarios outlined above at the intersections contained within the study area during the morning and afternoon peak hours. *Synchro, Version 9.0* was used to analyze the study intersections based on the Highway Capacity Manual (HCM) 2000 methodologies. The results of the capacity analyses are expressed in level of service (LOS) and delay (seconds per vehicle) for each approach. A LOS grade is a letter grade based on the average delay (in seconds) experienced by motorists traveling through an intersection. LOS results range from "A" being the best to "F" being the worst. LOS E is typically used as the acceptable LOS threshold in the District; although LOS F is sometimes accepted in urbanized areas.

Table 8 shows the results of the capacity analyses, including LOS and average delay per vehicle (in seconds) for the existing, background, and future scenarios. As shown in the capacity analysis results, the majority of the intersections are expected to operate at an acceptable level of service in the existing, background, and future conditions with an LOS E or better. As a result, the development is anticipated to have a minimal impact on the overall roadway network surrounding the site.

Of note, the analysis was completed based on a previously proposed development program of 59-69 residential units and 7,495 square feet of retail space. The residential trip generation was based on the upper limit of 69 residential units. Since the analysis was conducted, the upper limit has increased to 79 residential units. The capacity analysis was not updated to reflect this increase in units as the overall trip generation would only increase by 2 trips in the morning peak hour and 3 trips in the afternoon peak hour as a result of 10 additional residential units. Additionally, since all study intersections were found to operate well within acceptable conditions, this increase in trips would result in negligible changes in delay.

Table 8: Vehicular Capacity Analysis Results

Intersection	Approach	Existing Conditions				Future Background Conditions (2017)				Total Future Conditions (2017)			
		AM Peak		*PM Peak*		*AM Peak*		*PM Peak*		*AM Peak*		*PM Peak*	
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
T St & Wiltberger St	Eastbound	0.0	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0	A
Florida Ave & T St	Northbound	11.6	B	12.9	B	12.1	B	13.1	B	12.1	B	13.1	B
Florida Ave & Alley	Westbound Left	0.2	A	0.3	A	0.2	A	0.3	A	0.2	A	0.3	A
	Northbound	15.7	C	15.4	C	16.4	C	15.6	C	16.4	C	15.6	C
S St & Wiltberger St	Southbound	14.1	B	14.4	B	14.2	B	14.6	B	14.5	B	14.9	B
S St & Alley	Eastbound Left	0.1	A	0.1	A	0.1	A	0.1	A	0.1	A	0.1	A
	Southbound	12.9	B	13.7	B	13.0	B	13.8	B	13.0	B	13.9	B

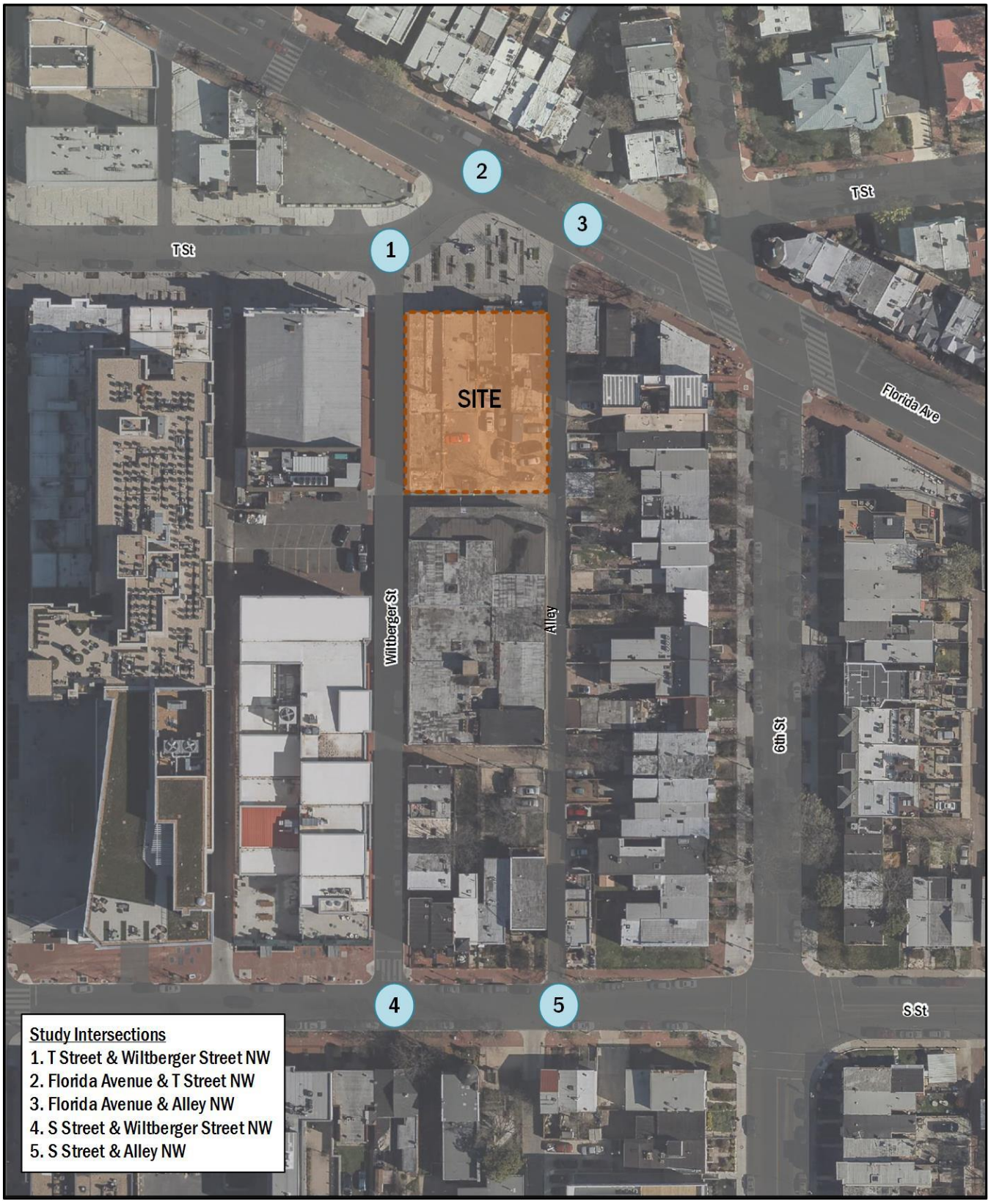


Figure 6: Study Area

DESIGN REVIEW

This section provides an overview of the on-site transportation features of the proposed 608-618 T Street NW development. 608-618 T Street NW is located at the intersection of T Street and Wiltberger Street in the Northwest quadrant of the District. The proposed development includes a mixed-use building with approximately 59 to 79 dwelling units, 7,420 square feet of ground-floor retail space, and 26 to 43 parking spaces. Figure 7 shows the site plan of the development.

Site Access and Internal Circulation

Vehicular Access and Circulation

The access scheme for the development includes parking access from Wiltberger Street and loading access from the North-South Alley. Due to site constraints and limitations, the development team reviewed several access plans before settling on the current scheme, which was conceptually approved by the Public Space Committee on December 17, 2015. Several schemes were reviewed in an effort to balance the desires of neighboring residents who expressed concerns with daily vehicular blockages within the alley, and DDOT standards. Of note, the ANC passed a unanimous resolution in favor of this proposed access scheme, and is supportive of the project with this access scheme.

After initial discussions with DDOT, parking access off the East-West alley in lieu of Wiltberger Street was investigated, as such a scheme would align with DDOT standards. A review of this configuration found it to be impractical, due to the narrow width of both Wiltberger Street and the East-West alley, the one-way southbound configuration of Wiltberger Street, and constraints within the footprint of the site. These constraints led to difficult S-curves and overlapping turning sweeps between inbound and outbound vehicular traffic into and out of a parking access along the East-West Alley. Additionally, on Thursdays, when parking is allowed on the west side of Wiltberger Street, turning maneuvers would be further constrained.

Based on this knowledge, the access scheme involving parking access off of Wiltberger Street was further analyzed based on vehicular and pedestrian operations and volumes along the surrounding roadways and alleys. The design team found this access scheme best balanced the needs of the site, the neighborhood, and the surrounding transportation network. This access scheme was approved by the Public Space Committee on December 17, 2015.

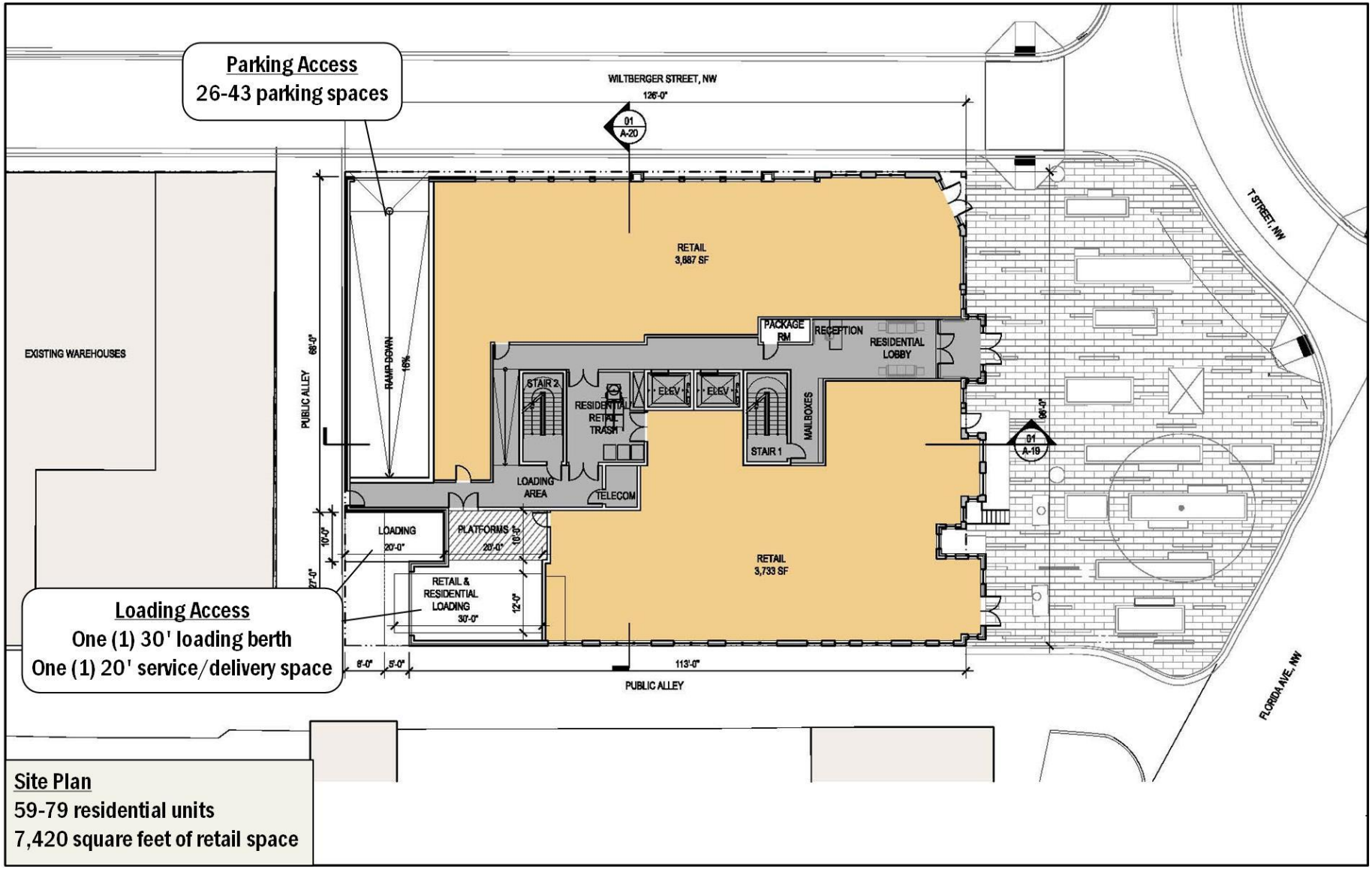


Figure 7: Site Plan

Loading

Routing of delivery vehicles to the site will take advantage of the project's proximity to District truck routes. Based on the location and orientation of the 30' loading bay, delivery vehicles will access the site from the north via Florida Avenue and exit the site to the south via S Street. S Street provides ample access to additional truck routes near the site such as 7th Street, Rhode Island Avenue, Florida Avenue, and New Jersey Avenue. The proposed truck routing, based on DDOT's Bus and Truck Route System map, is shown on Figure 8.

Delivery trucks will be able to maneuver into and out of the dock without difficulty. Truck maneuverability analyses were completed to ensure that there is sufficient room for trucks to access and egress the site along the alley without encroaching on adjacent parcels. As shown in Figure 9, 30' trucks can easily maneuver into and out of the loading dock.

The project's loading plan does not meet zoning requirements, but will be sufficient to accommodate all expected demand. According to DC zoning requirements, the residential component is required to provide (1) 55' loading berth and one (1) 20' service/delivery space and the retail component is required to provide (1) 30' loading berth. Alternatively, the development proposes to include one (1) 30' loading berth and one (1) 20' service/delivery space.

The proposed amount of loading facilities will be sufficient to accommodate all loading and service demand. In order to review the adequacy of the loading facilities, this Statement calculated the amount of loading expected at the site is estimated based on the following assumptions:

- As a baseline, it is assumed that there will be three daily truck deliveries for the site as a whole (covering trash, a general shared loading, and mail).
- Residential loading activity is estimated assuming an expected rental or condo turnover of 18 months, with two trucks per move – one move-in and one move-out.
- A general retail store is expected to generate an additional two (2) deliveries per day in addition to the shared deliveries.

Using these assumptions, it is expected that there will be three (3) shared deliveries per day, one (1) or fewer residential deliveries per day, and four (4) retail deliveries per day (assuming two independent retail spaces). This amounts to a maximum of 9 deliveries per day, which can be handled within the proposed loading facilities.

Additionally, the size of the residential units will not require deliveries from trucks larger than the 30' loading berth can accommodate. The largest vehicles expected to use the loading facilities are trash trucks, which will fit within the 30' loading berth. Residential deliveries are expected to use even smaller trucks. For reference, the U-Haul truck rental company estimates that a 24' truck is appropriate for "two bedroom houses [or] larger apartment moves" (http://www.uhaul.com/Trucks/17ft-Moving-Truck-Rental/EL/), the latter of which is comparable to the largest units expected in the proposed development.

Parking

The parking proposed for this project includes approximately 26 to 43 parking spaces in a two-level below ground parking structure accessed via Wiltberger Street. For zoning purposes, 20 to 37 of these spaces will be allocated to residential use and 6 of these will be allocated to retail use.

The proposed parking supply meets the zoning requirement. The project is required to provide 1 parking space per 3 dwelling units (amounting to 20 to 27 spaces) and 1 space per 750 square feet of retail over 3,000 square feet (amounting to 6 spaces). Thus, the minimum requirement is 26 spaces, which is the minimum supply proposed.

The practical parking needs of the site will also be met. Based on parking demands observed in the District, parking demand is usually 1 parking space per 1,000 square feet of retail space and 0.4 spaces per 1 residential dwelling unit. This amounts to a total of 31 to 39, depending on the final number of dwelling units. Although there is some overlap between the supply and demand ranges, the actual demand numbers for this project are likely to be lower than other District sites given the exceptional multi-modal access the site provides and the TDM plan. Thus from a practical standpoint, the parking supply is ample and will meet demand.

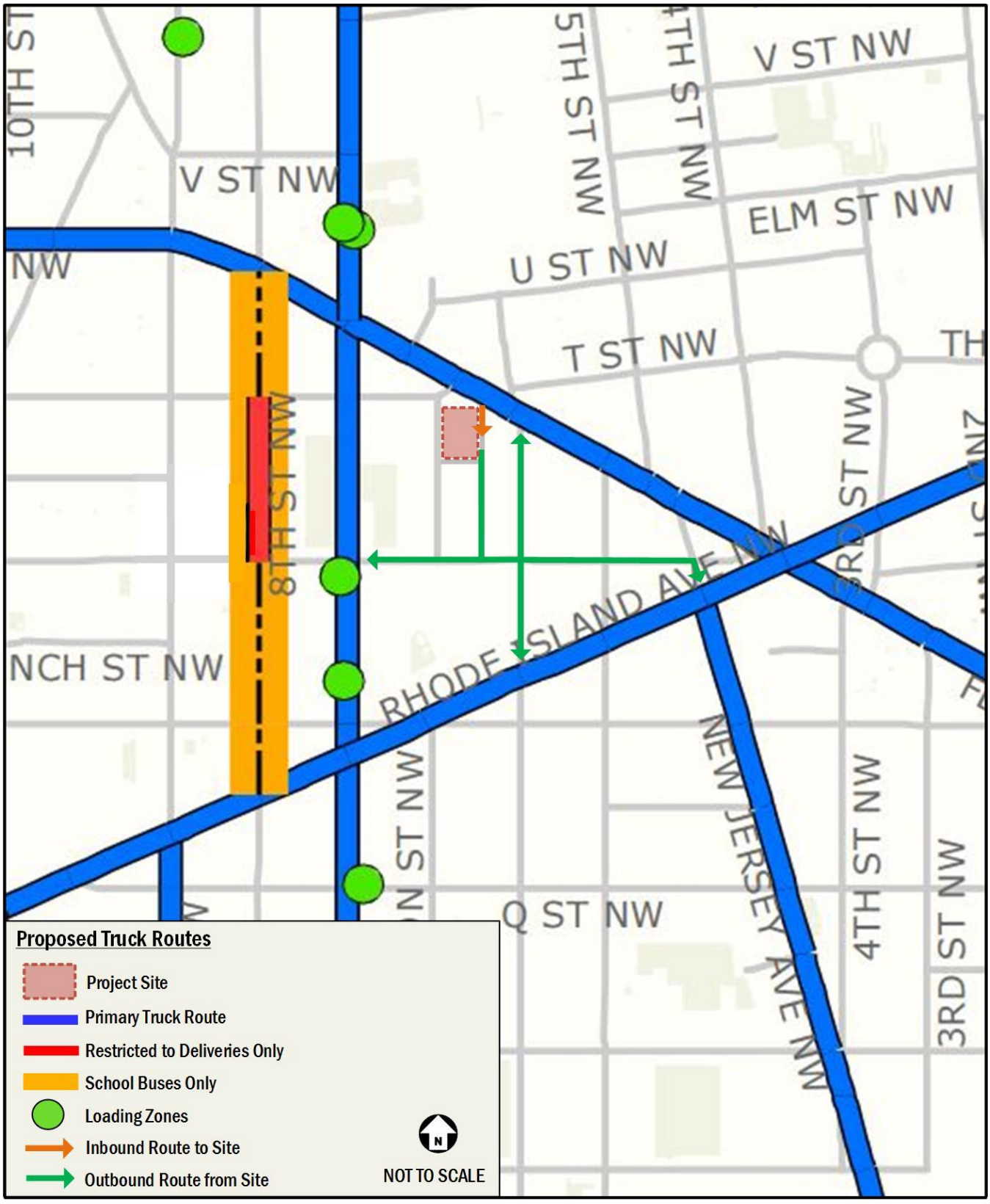


Figure 8: Proposed Truck Routes

Figure 9: 30' Truck Maneuverability Diagram

Bicycle & Pedestrian Facilities

There is existing short-term bicycle parking around the perimeter of the property and the development will provide long-term bicycle parking within the parking garage. The development plan includes 21 to 28 secure bicycle parking spaces, all located within the garage. This meets current bicycle parking regulations, which require one secure bicycle parking space per three residential units, a total of 20 to 27 required spaces.

Pedestrian facilities surrounding the site will remain as they are under existing conditions. Ellington Plaza, which is located along the north perimeter of the site, provides ample clear space for pedestrians, in addition to pedestrian amenities such as benches and landscaping. The sidewalks along Wiltberger Street adjacent to the site are currently only 5 feet wide and the development will maintain this width. Although this width does not meet DDOT standards, given the low pedestrian volumes along this street, the existing allocation of private and public space, the limited right-of-way, and the proposed pedestrian access locations for the development along T Street, larger sidewalks are not feasible at this location nor necessary to process pedestrian traffic.

Transportation Demand Management (TDM)

TDM is the application of policies and strategies used to reduce travel demand or to redistribute demand to other times or spaces. TDM typically focuses on reducing the demand of single-occupancy, private vehicles during peak period travel times or on shifting single-occupancy vehicular demand to off-peak periods. The Transportation Demand Management (TDM) plan for the proposed development is based on DDOT expectations for TDM programs. The Applicant proposed the following TDM measures:

- The Applicant will provide bicycle parking/storage facilities that meet or exceed Zoning requirements. This includes secure parking located in the garage for residents.
- The Applicant will unbundle the cost of residential parking from the cost of lease or purchase for the majority of the units.
- The Applicant will identify a TDM Leader (for planning, construction, and operations). The TDM Leader will work with residents in the building to distribute and market various transportation alternatives and options.

CONCLUSIONS

This Statement concludes that:

- The site is surrounded by an extensive regional and local transportation system that offers multi-modal accessibility to and from the site;
- Due to the size and location of the development, the site is not expected to generate substantial vehicular peak hour trips, and based on the vehicular capacity analysis results, the development is not expected to have detrimental impacts on the surrounding transportation network;
- The site provides adequate circulation with conveniently located access points for all modes of transportation; and
- Bicycle and pedestrian facilities will be supplied on site including long-term bicycle parking within the development's garage and pedestrian facilities along the perimeter of the site.

608-618 T STREET – TECHNICAL ATTACHMENT A: DDOT SCOPING FORM AND ATTACHMENTS

January 19, 2016

Project Name & Applicant Team:

Applicant: Monument Realty – Josh Olsen and AJ Luce
Land Use Counsel:
Transportation Consultant: Gorove/Slade Associates
Dan VanPelt, (202-540-1924), dbv@goroveslade.com
Rob Schiesel, (202-540-1926), rbs@goroveslade.com

Case Type & No. (PUD, LTR, etc.): BZA (Case No. 19217)

Street Address: 608-618 T Street NW

Current Zoning and/or Overlay District: ARTS/C-2-B

Date of Filing: 12/11/2015

Estimated Date of Hearing: 3/15/2016

Description of Project:

The project site is located at 608-618 T Street between Wiltberger Street and 6th Street in the Shaw neighborhood of Washington, DC. The redevelopment plans call for a mixed-use building that includes:

- 56-69 residential units
- 7,495 square feet of ground-floor retail space
- Access to parking from a single curb cut on Wiltberger Street
  - 26 to 43 parking spaces
- Access to loading from the alley on the east side of the site
  - One (1) 30' loading berth

1. Strategic Planning Elements (Planning Documents)	DDOT Comments/Action Items

Planning Guidelines: The CTR will address how the proposed development considers the primary city-wide planning documents, as well as localized studies. See Section 3.1 of the CTR guidelines for more information. **Proposed Documents:** The study will address how the proposed development considers the primary planning documents of the District, as well as localized studies. We propose that the study include a section addressing the following documents: ○ DCMR Title 11 – Zoning Regulations (Sections 16, 21, 22, 23, and 24) ○ DC Comprehensive Plan ○ DDOT Comprehensive Transportation Review Guidelines ○ DDOT Design & Engineering Manual ○ DC's Transit Future System Plan ○ Bicycle Master Plan ○ Pedestrian Master Plan ○ MoveDC	DDOT concurs.
2. Roadway Network, Capacity & Operations	**DDOT Comments/Action Items**
Vehicle Trip Generation Assumptions **Guidelines:** Provide *preliminary* site-generated vehicle trips and mode split assumptions. In addition, provide the assumptions and supporting documentation behind the proposed mode split. See Section 3.2.1 of the CTR guidelines for further information. **Proposed preliminary mode split and supporting documentation:** We propose a multi-modal trip generation methodology using ITE rates and mode split assumptions. A detailed breakdown of these assumptions and trip generation calculations is attached to this form.	DDOT concurs.

Trip Gen Summary by Land Use/Mode

Mode	Land Use	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Auto	Apartments	4 veh/hr	11 veh/hr	15 veh/hr	14 veh/hr	8 veh/hr	22 veh/hr
Auto	Retail	1 veh/hr	1 veh/hr	2 veh/hr	3 veh/hr	4 veh/hr	7 veh/hr
Auto	**Total**	**5 veh/hr**	**12 veh/hr**	**17 veh/hr**	**17 veh/hr**	**12 veh/hr**	**29 veh/hr**
Transit	Apartments	4 ppl/hr	13 ppl/hr	17 ppl/hr	16 ppl/hr	9 ppl/hr	25 ppl/hr
Transit	Retail	4 ppl/hr	2 ppl/hr	6 ppl/hr	12 ppl/hr	13 ppl/hr	25 ppl/hr
Transit	**Total**	**8 ppl/hr**	**15 ppl/hr**	**23 ppl/hr**	**28 ppl/hr**	**22 ppl/hr**	**50 ppl/hr**
Bike	Apartments	0 ppl/hr	2 ppl/hr	2 ppl/hr	2 ppl/hr	1 ppl/hr	3 ppl/hr
Bike	Retail	0 ppl/hr	1 ppl/hr	1 ppl/hr	1 ppl/hr	2 ppl/hr	3 ppl/hr
Bike	**Total**	**0 ppl/hr**	**3 ppl/hr**	**3 ppl/hr**	**3 ppl/hr**	**3 ppl/hr**	**6 ppl/hr**
Walk	Apartments	1 ppl/hr	5 ppl/hr	6 ppl/hr	6 ppl/hr	3 ppl/hr	9 ppl/hr
Walk	Retail	1 ppl/hr	1 ppl/hr	2 ppl/hr	5 ppl/hr	5 ppl/hr	10 ppl/hr
Walk	**Total**	**2 ppl/hr**	**6 ppl/hr**	**8 ppl/hr**	**11 ppl/hr**	**8 ppl/hr**	**19 ppl/hr**

Vehicle Site Access

Guidelines: If vehicle access is needed, at a minimum the CTR will provide locations of access point(s) and desired access controls (full, right-in/right-out, etc.). See Section 3.2.2 of the CTR guidelines for any further requirements.

Access Location(s): Parking access along Wiltberger Street and loading access along the alley on the east side of the site
Access Control: Unsignalized
Existing Curb cuts utilized: None
Existing curb cuts abandoned: None
Proposed curb cuts: One curb cut proposed along Wiltberger Street
Curb cut width and radii: TBD

As noted, this access configuration was already approved by the PSC. Note that additional details on the design of the access point as well as alley access will be expected.

GS: Comment noted

Of note, the parking access along Wiltberger Street was approved by the Public Space Committee on December 17, 2015.	
CTR Triggers for further vehicle analysis (for sections below) **Guidelines:** See Section 3.2.3 of the CTR guidelines to determine if a more comprehensive vehicle analysis is required. If so, completion of the remainder of the *Roadway Network, Capacity & Operation* section of the scoping form is required. Due to the low trip generation, the site does not trigger a vehicular analysis. We realize that all vehicular traffic will be accessing the site via one-way eastbound T Street due to the one-way southbound operations of Wiltberger Street; however, because the peak inbound trip generation is only 17 trips, we do not feel it will be necessary to analyze the vehicular impacts due to the access and egress constraints.	Noted. If some traffic analysis could be conducted, DDOT believes it would be helpful to understand the 7th/T intersection operations. Additionally, exploration of conversion of the final mini-block of T Street to two way operations to allow a different ingress point could be considered. GS: The intersection of 7th/T Street was not collected during our data collection efforts. Due to the small scale of the project, and the focus on public space elements/pedestrian flow, we found it appropriate to collect full TMCs at the intersections directly surrounding the site: 1. T Street & Wiltberger Street, NW 2. Florida Avenue & T Street, NW 3. Florida Avenue & Alley, NW 4. S Street & Wiltberger Street, NW 5. S Street & Alley, NW Although all inbound traffic will go through the intersection of 7th Street & T street, the peak inbound trip generation is only 17 vehicles. This will likely be split between vehicles traveling northbound on 7th Street and turning right on to T Street and vehicles traveling southbound on 7th Street and turning left on to T Street. This amount of trips split between two movements is not expected to result in detrimental impacts to the intersection. Additionally, for this reason, we do not believe two-way operations are warranted along T Street. The amount of traffic generated by the development is very low and can be accommodated within a single intersection. Two-way

	operations along T Street may also result in unnecessary impacts to Florida Avenue operations if vehicles are trying to turn left onto T Street.
Development Scenarios **Guidelines:** See Section 3.2.4 of the CTR guidelines for discussion of the required development scenarios. **Proposed Development Scenario:** Due to the low trip generation, the site does not trigger a vehicular analysis. We will provide a discussion of trip generation in the CTR, but will not provide a vehicular capacity analysis.	If capacity analysis of any sort is conducted, please include discussion of it in the report. GS: We will include a review of our vehicular impacts analysis in the transportation statement.
Vehicle Study Area **Guidelines:** See Section 3.2.5 of the CTR guidelines for discussion of the study area. **Proposed Study Area intersections, including access points (attach Figure at end of Scoping Form as needed):** A vehicular capacity analysis will not be included in the CTR.	DDOT concurs.
Data Collection and Hours of Analysis **Guidelines:** See Section 3.2.6 of the CTR guidelines for discussion of the required data collection and hours of analysis. **Proposed turning movement count intersections:** A vehicular capacity analysis will not be included in the CTR.	DDOT concurs.
Roadway Improvements **Guidelines:** The study will account for approved and funded roadway improvement projects within the study area that are expected to begin before the proposal's horizon year. See Section 3.2.7 of the CTR guidelines. **Proposed roadway improvements:** A vehicular capacity analysis will not be included in the CTR.	DDOT concurs.
Background Developments **Guidelines:** The study will account for vehicle trips generated by developments in the study area that have an origin/destination within the study area. See Section 3.2.8 of the CTR guidelines. **Proposed background development:** A vehicular capacity analysis will not be included in the CTR.	DDOT concurs.

Background Growth **Guidelines:** The study will account for annual growth or decrease in through traffic on minor and principal arterials that pass through the proposed study area. See Section 3.2.9 of the CTR guidelines. **Proposed annual background growth:** A vehicular capacity analysis will not be included in the CTR.	DDOT concurs.
Site Trip Distribution & Assignment **Guidelines:** Trips generated by the site will be distributed throughout the study area network. See Section 3.2.10 of the CTR guidelines for information in trip distribution and assignment. **Proposed site distribution and assignment (attach Figures, as needed, at end of Scoping Form):** A vehicular capacity analysis will not be included in the CTR.	DDOT concurs.
Analysis Methodology	

Guidelines: Capacity analyses are typically performed using Highway Capacity Manual (HCM) methodologies or a similar industry recognized software. See Section 3.2.11 of the CTR guidelines. **Proposed analysis methodology:** A vehicular capacity analysis will not be included in the CTR.	DDOT concurs.
Vehicle Trip Mitigation **Guidelines:** Proposed mitigation of vehicle impacts, if needed, must not add significant delay to other travel modes. Standard non-urban mitigation often includes geometric re-design which may not fit DDOT's practice of balancing safety and capacity across multiple transportation modes. See Section 3.2.12 of the CTR guidelines. **For Informational purposes only. Mitigation will be documented in the final CTR. No information is required in the scoping form.**	
3. Bicycle & Pedestrian Facilities	**DDOT Comments/Action Items**
CTR Triggers for bike and pedestrian mode share **Guidelines:** A CTR is required to include some level analysis of the bike and pedestrian network at a minimum, based on several potential factors. See Section 3.3.1 of the CTR guidelines to determine if a more comprehensive analysis is required. If so, complete the remainder of the *Bicycle & Pedestrian Facilities* section of this scoping form.	
CTR Bike and Pedestrian Study area **Guidelines:** See Section 3.3.2 of the CTR guidelines to determine bike and pedestrian study areas. **Proposed bike and pedestrian study areas:** We propose a pedestrian study area that includes pedestrian facilities within a quarter-mile radius of the site, plus additional walking routes to major destinations. We will also the pedestrian facilities along the perimeter of the site and the desire lines between the site and adjacent bus stops and major destinations, including crosswalk locations and building entrances. The bicycle study area focuses on the routes that cyclists will take to and from major bicycle facilities. We will also highlight the internal bicycle circulation and facilities.	DDOT concurs.
Data Collection and Analysis of Bike Network and Facilities **Guidelines:** See Section 3.3.3 of the CTR guidelines for data collection requirements and analysis for bike and pedestrian modes.	DDOT concurs.

Proposed Bike network and facilities analysis: Pedestrian (external to site): We will provide a qualitative analysis of all pedestrian facilities in the pedestrian study area. This will include a maps outlining which routes meet DDOT standards (a green/yellow/red map), and proposing improvements to enhance the pedestrian experiences walking to/from the site. Pedestrian (internal to site): For the internal pedestrian facilities, we will review the internal pedestrian circulation and document all sidewalk widths. Bicycle (external to site): We will review the quality of the bicycle facilities in the bicycle study area, focused on the major cycling routes, and suggest improvements as needed to help cyclists to and from major bike facilities. Bicycle (internal to site): We will also show the proposed internal bicycle circulation and the general number and location of bicycle racks within the site.	
Mitigation for Bike network **Guidelines:** If deficiencies have been documented in the study area's pedestrian or bike facilities that would preclude the proposed mode split, then mitigation of these deficiencies is required. See Section 3.3.4 of the CTR guidelines for mitigation requirements of the bike network. **For Informational purposes only. Mitigation will be documented in the final CTR. No information required in scoping form.**	
4. Transit Service	**DDOT Comments/Action Items**
CTR Triggers for transit mode share **Guidelines:** A CTR is typically required to include some level analysis of the transit network, based on several potential factors. See Section 3.4.1 of the CTR guidelines to determine the minimum analysis requirements and if a more comprehensive transit analysis is required. If so, completion of the remainder of the *Transit Service* section of this scoping form is required. See Section 3.4.1 of the CTR guidelines	
CTR Transit study area **Guidelines:** If further analysis of the transit network is triggered, see Section 3.4.2 of the CTR guidelines for determining the requisite study area. **Proposed transit study area:** Per CTR guidelines, the transit study area will include an overview of all transit schedules and stops for service provided within a half mile for heavy rail and a quarter mile for bus and streetcar.	DDOT concurs.
Analysis of Transit Network	

Guidelines: Analysis of the transit network will incorporate both a quantitative and qualitative review. See Section 3.4.3 of the CTR guidelines for further information. **Proposed transit analysis:** We will outline the existing and proposed transit facilities that serve the site, as well as identifying the bus stops that we expect transit riders to use. As stated in the "Bicycle & Pedestrian" section above, we will also identify the desire lines between the site and the site and adjacent bus stops, including crosswalk locations and building entrances. The site plan's accommodation of transit service, including any changes to bus stops necessary due to development will be discussed. We will examine the future transit routes and stops and recommend improvements and/or consolidation of stops, if necessary.	DDOT concurs.
<u>Transit Trip Mitigation</u> **Guidelines:** Proposed mitigation of transit impacts may be needed, given certain impacts to the network. See Section 3.4.4 of the CTR guidelines for more information. **For Informational purposes only. Mitigation will be documented in the final CTR. No information is required in scoping form.**	
5. Site Access and Loading	**DDOT Comments/Action Items**
Guidelines: At a minimum, the Applicant is required to show site access for vehicles, pedestrians and bicyclists. In addition, DDOT has additional policies for site access and loading as they relate to public space. See Section 3.5 of the CTR guidelines for additional information regarding these policies. ***Freight\Delivery*** The study will identify existing and proposed commercial vehicle access to the site. See Section 3.5.1 of the CTR guidelines. ***Motorcoach*** For developments that will generate significant tourist activity (hotels, museums, etc.) the study will discuss the site plan's accommodation of motorcoach access. See Section 3.5.2 of the CTR guidelines. **Proposed Loading Analysis:** The study will contain access diagrams showing circulation for loading, parking access, and pick-up/drop-off activity for the site. The study will include a discussion of how the access plan was developed and if it meets DDOTs requirements and standards. Of note, the parking access along Wiltberger Street was approved at the	DDOT concurs.

PSC Hearing on December 17, 2015. This CTR will focus on loading as the Applicant is requesting relief from the requirement to provide one (1) 55' loading berth and will instead provide one (1) 30' loading berth. For freight/delivery trucks, truck routing maps will be included to show how trucks will travel to and from the site. Truck maneuvering diagrams (using AutoTURN) for all site driveways provided loading access will be provided in the application. Detailed truck maneuvering diagrams showing trucks accessing each loading dock for each building will be included. No motorcoach activity is anticipated.	
6. Parking	**DDOT Comments/Action Items**
Guidelines: Minimum requirements exist for documenting parking needs and constraints, regardless of development size. Further requirements may be needed for larger developments. See Section 3.6 **Proposed Parking Analysis:** The study will include details on the proposed parking supply, which is currently planned at 26 - 43 spaces. A discussion on the level of residential parking will be included.	DDOT concurs.
7. Transportation Demand Management	**DDOT Comments/Action Items**
Triggers for a TDM Plan **Guidelines:** All developments are encouraged to produce TDM plans, regardless of size. See Section 3.7 **Proposed TDM Plan:** The study will include a TDM plan, based on DDOT's TDM guidelines, and recently approved PUDs with similar programs.	DDOT concurs.
8. Performance Monitoring & Measurement	**DDOT Comments/Action Items**
Guidelines: Developments of a certain size may need to incorporate a performance monitoring element as a condition of zoning approval. See Section 3.8 of the CTR guidelines for more information. **For informational purposes only. Requirements for performance monitoring will be coordinated with the DDOT case manager.**	
9. Safety	**DDOT Comments/Action Items**

Guidelines: The CTR will demonstrate that the site will not create or exacerbate existing safety issues for all modes of travel. See Section 3.9 of the CTR guidelines for further information. **Proposed Safety Analysis:** We do not propose to include a crash analysis in the CTR.	DDOT concurs.
10. Streetscape/Public Realm	**DDOT Comments/Action Items**
Guidelines: DDOT expects new developments to rehabilitate streetscape infrastructure between the curb and property lines. The applicant must work closely with DDOT and OP to ensure that design of the public realm meets current standards. See Section 3.10 of the CTR guidelines for direction on streetscape rehabilitation. **These guidelines are provided to inform that public realm design standards may alter an Applicant's intended use of public space.**	Please provide a summary overview of the site's treatment of the streetscape/public realm in proximity to this development. Ensure that the proposed site design complies with DDOT Design and Engineering Manual, Public Realm Design Manual, and Transportation Review Guidelines and Standards. GS: Comment noted

Information/Data Requests (List requested data from DDOT after each field below):

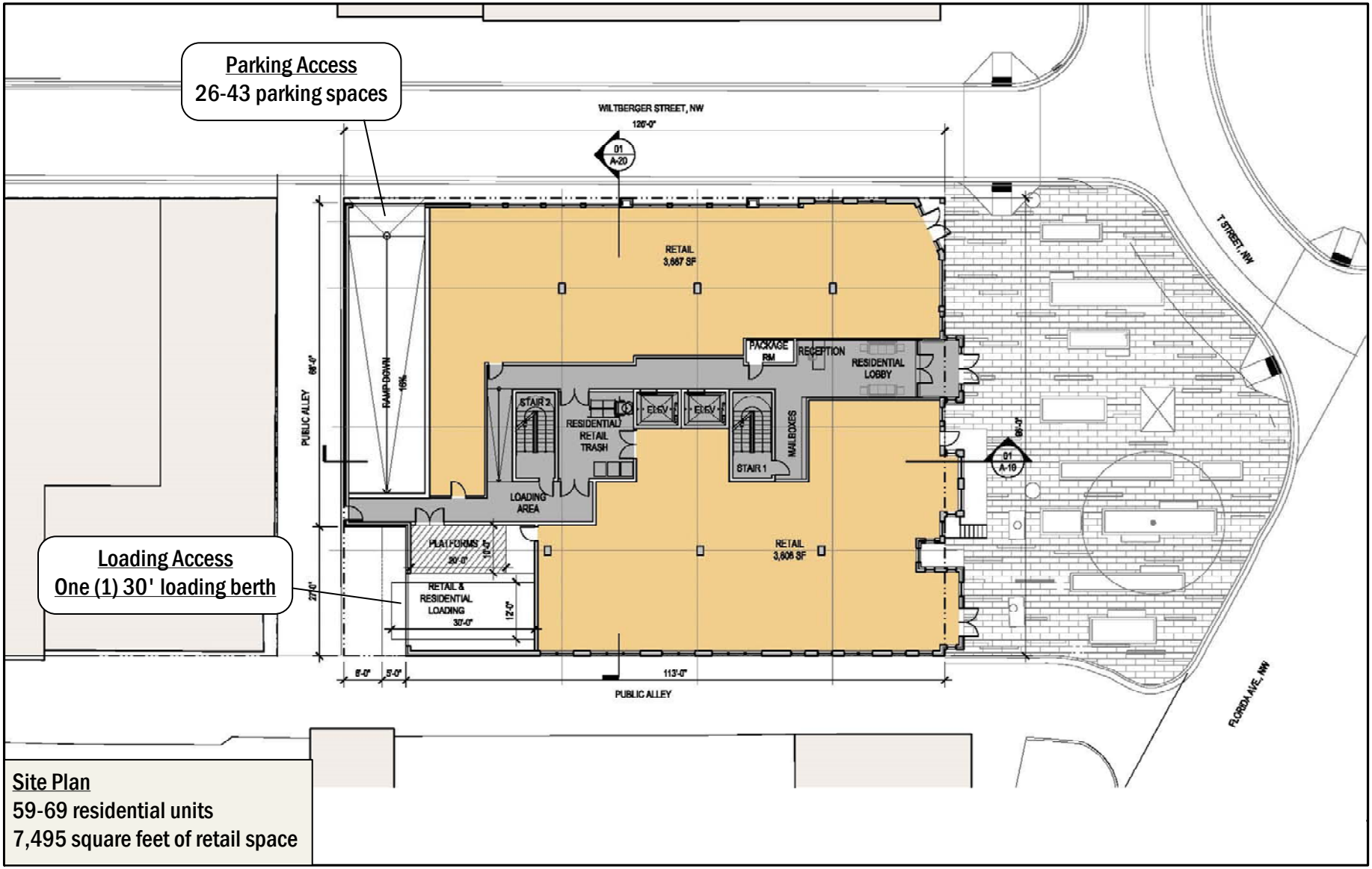
- District planning documents:
- Local planning documents, including small area plans:
- Information on programmed and/or funded roadway improvements in study area:
- Studies for background developments in study area:
- Signal Timings:
- Crash Data:

Proposed Schedule:

- DDOT comments on Scoping Document: 2/10/16
- Transportation Consultant/Applicant responses to comments:
- Phase I Completion:
- Phase II Completion:
- Submission of Report to DDOT:
- Zoning Commission or BZA Hearing Date:

Attach any Figures, Tables, and Appendices here:


U St/African-Amer
Civil |War
Memorial/Cardozo
Shaw-Howard
Univ
9th St
8th St
Georgia Ave
U St
T St
Westminster St
S St
French St
R St
Vermont Ave
7th St
6th St
Rhode Island Ave
Seaton Pl
4th St
3rd St
Q St
5th St
Site Location
Project Site
N
NOT TO SCALE



Site Plan
59-69 residential units
7,495 square feet of retail space

Mode Split Assumptions

Residential Component

Pertinent Mode Split data from other sources:

Information Source	Mode						
	SOV	Carpool	Transit	Bike	Walk	Telecommute	Other
CTPP - TAZ Residents	22.1%	5.3%	40.4%	8.2%	19.7%	4.3%	0.0%
State of the Commute (of District residents)	41%	7%	41%	11%		---	
WMATA Ridership Survey (average for *Suburban-Inside the Beltway*)	39%		49%	14%		---	

Ratio of parking provided vs. suburban parking rates:

Parking provided	Max. suburban parking demand (per ITE Parking Generation, 4th Ed)	Percentage of suburban demand proposed
37 spaces (max) (0.54 per dwelling unit)	92 spaces (LU 222, using rates)	40%

Mode Split assumed in TIS:

Land Use	Mode				
	Drive	Transit	Bike	Walk	Telecommute/Other
Residential Mode Split	40%	40%	5%	15%	---

Notes: -Census data (CTPP) used as basis for assumptions
-Drive adjusted up from census data to reflect parking ratio influence

Retail Component

Pertinent Mode Split data from other sources:

Information Source	Mode						
	SOV	Carpool	Transit	Bike	Walk	Telecommute	Other
WMATA Ridership Survey (U Street Main Street)	19%		57%	25%			
WMATA Ridership Survey (average for *retail sites*)	36%		37%	27%		---	

Mode Split assumed in TIS:

Land Use	Mode				
	Drive	Transit	Bike	Walk	Telecommute/Other
Retail Mode Split	25%	50%	5%	20%	---

Notes: -Adjusted due to proximity to Metrorail; likely to have mode split more similar to that of the U Street site than the average amount all sites given the likelihood of neighborhood-serving retail at the site

Trip Generation - Residential

Step 1: Base trip generation using ITEs' *Trip Generation*

Land Use	Land Use Code	Quantity (x)	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Apartments	220	69 du	8 veh/hr	30 veh/hr	38 veh/hr	36 veh/hr	20 veh/hr	56 veh/hr
		Calculation Details:	*20%*	*80%*	*=0.49(x)+3.73*	*65%*	*35%*	*=0.55(x)+17.65*

Step 2: Convert to people per hour, before applying mode splits

Land Use	People/Car (from 2009 NHTS, Table 16)	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Apartments	1.13 ppl/veh	9 ppl/hr	34 ppl/hr	43 ppl/hr	41 ppl/hr	22 ppl/hr	63 ppl/hr

Step 3: Split between modes, per assumed Mode Splits

Land Use	Mode	Split	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Apartments	Auto	40%	4 ppl/hr	13 ppl/hr	17 ppl/hr	16 ppl/hr	9 ppl/hr	25 ppl/hr
Apartments	Transit	40%	4 ppl/hr	13 ppl/hr	17 ppl/hr	16 ppl/hr	9 ppl/hr	25 ppl/hr
Apartments	Bike	5%	0 ppl/hr	2 ppl/hr	2 ppl/hr	2 ppl/hr	1 ppl/hr	3 ppl/hr
Apartments	Walk	15%	1 ppl/hr	5 ppl/hr	6 ppl/hr	6 ppl/hr	3 ppl/hr	9 ppl/hr

Step 4: Convert auto trips back to vehicles/hour

Land Use	People/Car (from 2009 NHTS, Table 16)	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Apartments	1.13 ppl/veh	4 veh/hr	11 veh/hr	15 veh/hr	14 veh/hr	8 veh/hr	22 veh/hr

Trip Gen Summary for Residential

Mode	AM Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total
Auto	4 veh/hr	11 veh/hr	15 veh/hr	14 veh/hr	8 veh/hr	22 veh/hr
Transit	4 ppl/hr	13 ppl/hr	17 ppl/hr	16 ppl/hr	9 ppl/hr	25 ppl/hr
Bike	0 ppl/hr	2 ppl/hr	2 ppl/hr	2 ppl/hr	1 ppl/hr	3 ppl/hr
Walk	1 ppl/hr	5 ppl/hr	6 ppl/hr	6 ppl/hr	3 ppl/hr	9 ppl/hr

Trip Generation - Retail

Step 1: Base trip generation using ITEs' *Trip Generation*

Land Use	Land Use Code	Quantity (x)	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Retail	820	7,495 sf	4 veh/hr	3 veh/hr	7 veh/hr	13 veh/hr	15 veh/hr	28 veh/hr
		Calculation Details:	*62%*	*38%*	*=0.96x*	*48%*	*52%*	*=3.71x*

Step 2: Convert to people per hour, before applying mode splits

Land Use	People/Car	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Retail	1.78 ppl/veh	7 ppl/hr	5 ppl/hr	12 ppl/hr	23 ppl/hr	27 ppl/hr	50 ppl/hr

Step 3: Split between modes, per assumed Mode Splits

Land Use	Mode	Split	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Retail	Auto	25%	2 ppl/hr	1 ppl/hr	3 ppl/hr	6 ppl/hr	7 ppl/hr	13 ppl/hr
Retail	Transit	50%	4 ppl/hr	2 ppl/hr	6 ppl/hr	12 ppl/hr	13 ppl/hr	25 ppl/hr
Retail	Bike	5%	0 ppl/hr	1 ppl/hr	1 ppl/hr	1 ppl/hr	2 ppl/hr	3 ppl/hr
Retail	Walk	20%	1 ppl/hr	1 ppl/hr	2 ppl/hr	5 ppl/hr	5 ppl/hr	10 ppl/hr

Step 4: Convert auto trips back to vehicles/hour

Land Use	People/Car	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Retail	1.78 ppl/veh	1 veh/hr	1 veh/hr	2 veh/hr	3 veh/hr	4 veh/hr	7 veh/hr

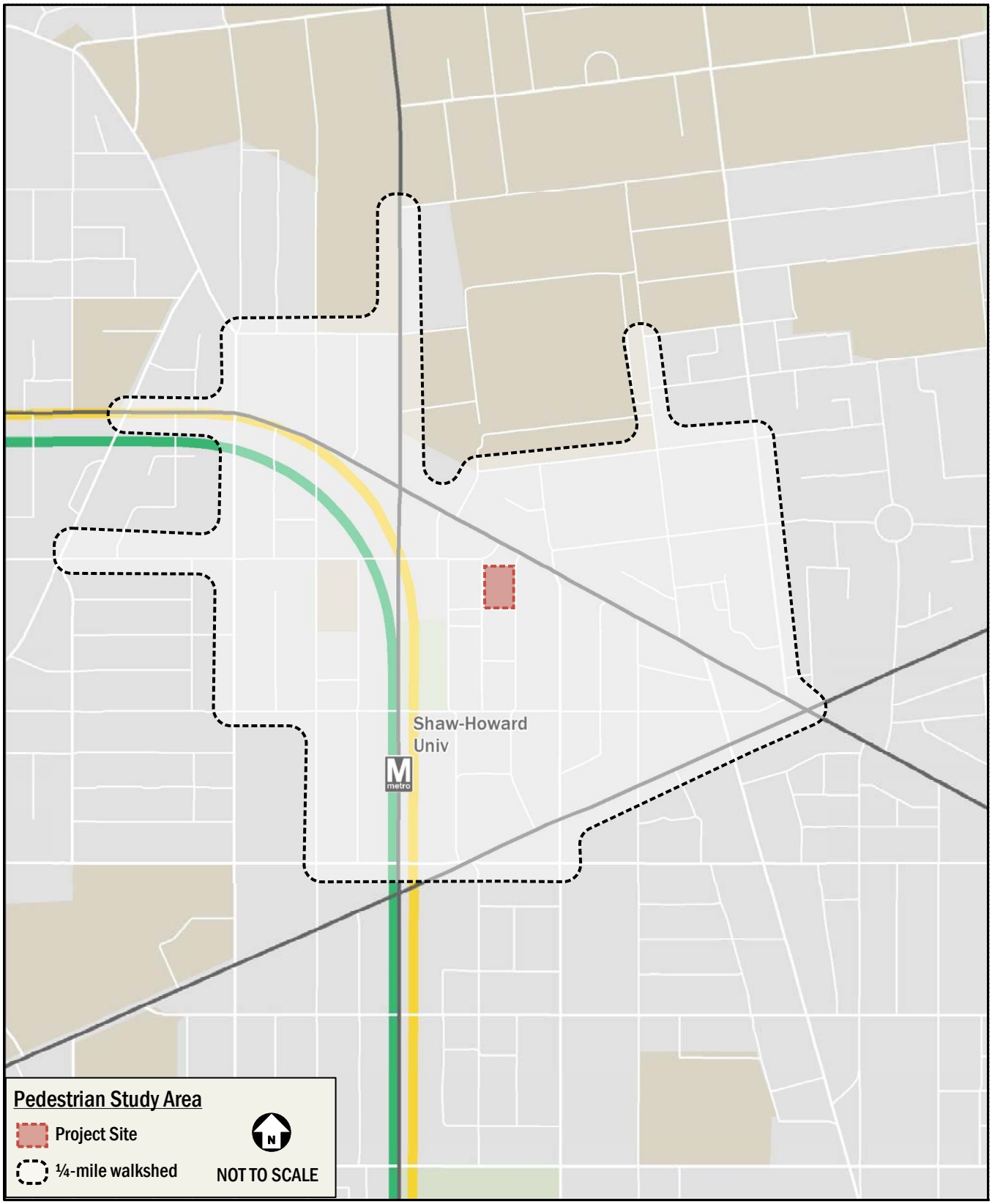
Trip Gen Summary for Retail

Mode	AM Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total
Auto	1 veh/hr	1 veh/hr	2 veh/hr	3 veh/hr	4 veh/hr	7 veh/hr
Transit	4 ppl/hr	2 ppl/hr	6 ppl/hr	12 ppl/hr	13 ppl/hr	25 ppl/hr
Bike	0 ppl/hr	1 ppl/hr	1 ppl/hr	1 ppl/hr	2 ppl/hr	3 ppl/hr
Walk	1 ppl/hr	1 ppl/hr	2 ppl/hr	5 ppl/hr	5 ppl/hr	10 ppl/hr

Trip Gen Summary by Land Use/Mode

Mode	Land Use	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Auto	Apartments	4 veh/hr	11 veh/hr	15 veh/hr	14 veh/hr	8 veh/hr	22 veh/hr
Auto	Retail	1 veh/hr	1 veh/hr	2 veh/hr	3 veh/hr	4 veh/hr	7 veh/hr
Auto	**Total**	**5 veh/hr**	**12 veh/hr**	**17 veh/hr**	**17 veh/hr**	**12 veh/hr**	**29 veh/hr**
Transit	Apartments	4 ppl/hr	13 ppl/hr	17 ppl/hr	16 ppl/hr	9 ppl/hr	25 ppl/hr
Transit	Retail	4 ppl/hr	2 ppl/hr	6 ppl/hr	12 ppl/hr	13 ppl/hr	25 ppl/hr
Transit	**Total**	**8 ppl/hr**	**15 ppl/hr**	**23 ppl/hr**	**28 ppl/hr**	**22 ppl/hr**	**50 ppl/hr**
Bike	Apartments	0 ppl/hr	2 ppl/hr	2 ppl/hr	2 ppl/hr	1 ppl/hr	3 ppl/hr
Bike	Retail	0 ppl/hr	1 ppl/hr	1 ppl/hr	1 ppl/hr	2 ppl/hr	3 ppl/hr
Bike	**Total**	**0 ppl/hr**	**3 ppl/hr**	**3 ppl/hr**	**3 ppl/hr**	**3 ppl/hr**	**6 ppl/hr**
Walk	Apartments	1 ppl/hr	5 ppl/hr	6 ppl/hr	6 ppl/hr	3 ppl/hr	9 ppl/hr
Walk	Retail	1 ppl/hr	1 ppl/hr	2 ppl/hr	5 ppl/hr	5 ppl/hr	10 ppl/hr
Walk	**Total**	**2 ppl/hr**	**6 ppl/hr**	**8 ppl/hr**	**11 ppl/hr**	**8 ppl/hr**	**19 ppl/hr**

CTR Thresholds	Threshold	Project	Met?
General CTR Requirements			
Forecasted person-trips during the peak hour	50	29	No
Forecasted parking demand (spaces)	20	43	Yes
Amount of commercial development	5,000 SF	7,267 SF	Yes
Amount of residential development	20 units	69 units	Yes
CTR Trigger for Further Analysis - Vehicular			
Vehicle trips in the peak direction at peak times	25	17	No
CTR Trigger for Further Analysis - Bike & Pedestrian			
Amount of residential development	200 units	69 units	No
Amount of commercial development	50,000 SF	7,267 SF	No
Site ecompasses more than a small block-grid	Yes	No	No
Combined peak hour ped/bike trip generation	100	39	No
CTR Trigger for Further Analysis - Transit			
Peak hour transit trip generation	50	50	Yes
Project Transit Mode Split	30%	40%	Yes


Shaw-Howard
Univ
M
metro
Pedestrian Study Area
Project Site
¼-mile walkshed
N
NOT TO SCALE

608-618 T STREET – TECHNICAL ATTACHMENT B: SYNCHRO CAPACITY ANALYSIS RESULTS

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	821	0	0	1058	0	38
Future Volume (Veh/h)	821	0	0	1058	0	38
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.99	0.99	0.96	0.96	0.85	0.85
Hourly flow rate (vph)	829	0	0	1102	0	45
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			829		1380	414
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			829		1380	414
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	92
cM capacity (veh/h)			798		135	587

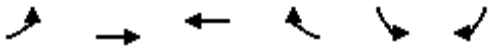
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1
Volume Total	414	414	551	551	45
Volume Left	0	0	0	0	0
Volume Right	0	0	0	0	45
cSH	1700	1700	1700	1700	587
Volume to Capacity	0.24	0.24	0.32	0.32	0.08
Queue Length 95th (ft)	0	0	0	0	6
Control Delay (s)	0.0	0.0	0.0	0.0	11.6
Lane LOS					B
Approach Delay (s)	0.0		0.0		11.6
Approach LOS					B

Intersection Summary			
Average Delay	0.3		
Intersection Capacity Utilization	39.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	56	25	0	0	0	0
Future Volume (Veh/h)	56	25	0	0	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.85	0.85	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	66	29	0	0	0	0
Pedestrians	1			4	217	
Lane Width (ft)	12.0			0.0	0.0	
Walking Speed (ft/s)	3.5			3.5	3.5	
Percent Blockage	0			0	0	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			312		298	302
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			312		298	302
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1248		692	738

Direction, Lane #	EB 1
Volume Total	95
Volume Left	0
Volume Right	29
cSH	1700
Volume to Capacity	0.06
Queue Length 95th (ft)	0
Control Delay (s)	0.0
Lane LOS	
Approach Delay (s)	0.0
Approach LOS	

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	24.6%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	113	250	0	14	9
Future Volume (Veh/h)	0	113	250	0	14	9
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.87	0.87	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	0	130	294	0	16	11
Pedestrians		2	1		177	
Lane Width (ft)		12.0	12.0		12.0	
Walking Speed (ft/s)		3.5	3.5		3.5	
Percent Blockage		0	0		17	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	471				602	473
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	471				602	473
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				96	98
cM capacity (veh/h)	907				384	491

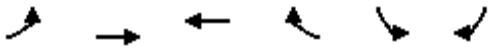
Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	130	294	27
Volume Left	0	0	16
Volume Right	0	0	11
cSH	1700	1700	422
Volume to Capacity	0.08	0.17	0.06
Queue Length 95th (ft)	0	0	5
Control Delay (s)	0.0	0.0	14.1
Lane LOS			B
Approach Delay (s)	0.0	0.0	14.1
Approach LOS			B

Intersection Summary			
Average Delay	0.8		
Intersection Capacity Utilization	24.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	855	3	3	1033	0	3
Future Volume (Veh/h)	855	3	3	1033	0	3
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.94	0.94	0.98	0.98	0.85	0.85
Hourly flow rate (vph)	910	3	3	1054	0	4
Pedestrians				1	189	
Lane Width (ft)				12.0	12.0	
Walking Speed (ft/s)				3.5	3.5	
Percent Blockage				0	18	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			1102		1634	646
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1102		1634	646
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		100	99
cM capacity (veh/h)			516		75	339

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1
Volume Total	607	306	354	703	4
Volume Left	0	0	3	0	0
Volume Right	0	3	0	0	4
cSH	1700	1700	516	1700	339
Volume to Capacity	0.36	0.18	0.01	0.41	0.01
Queue Length 95th (ft)	0	0	0	0	1
Control Delay (s)	0.0	0.0	0.2	0.0	15.7
Lane LOS			A		C
Approach Delay (s)	0.0		0.1		15.7
Approach LOS					C

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	41.0%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	2	129	260	8	2	4
Future Volume (Veh/h)	2	129	260	8	2	4
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.91	0.91	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	2	142	306	9	2	5
Pedestrians					160	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					3.5	
Percent Blockage					15	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	475				616	470
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	475				616	470
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				99	99
cM capacity (veh/h)	921				384	503

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	144	315	7
Volume Left	2	0	2
Volume Right	0	9	5
cSH	921	1700	462
Volume to Capacity	0.00	0.19	0.02
Queue Length 95th (ft)	0	0	1
Control Delay (s)	0.1	0.0	12.9
Lane LOS	A		B
Approach Delay (s)	0.1	0.0	12.9
Approach LOS			B

Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	24.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	817	0	0	813	0	95
Future Volume (Veh/h)	817	0	0	813	0	95
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.85	0.85
Hourly flow rate (vph)	869	0	0	865	0	112
Pedestrians				2		
Lane Width (ft)				12.0		
Walking Speed (ft/s)				3.5		
Percent Blockage				0		
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			869		1302	436
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			869		1302	436
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	80
cM capacity (veh/h)			771		152	567

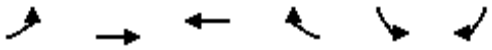
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1
Volume Total	434	434	432	432	112
Volume Left	0	0	0	0	0
Volume Right	0	0	0	0	112
cSH	1700	1700	1700	1700	567
Volume to Capacity	0.26	0.26	0.25	0.25	0.20
Queue Length 95th (ft)	0	0	0	0	18
Control Delay (s)	0.0	0.0	0.0	0.0	12.9
Lane LOS					B
Approach Delay (s)	0.0		0.0		12.9
Approach LOS					B

Intersection Summary			
Average Delay	0.8		
Intersection Capacity Utilization	35.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	97	33	0	0	0	0
Future Volume (Veh/h)	97	33	0	0	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	108	37	0	0	0	0
Pedestrians	14			12	229	
Lane Width (ft)	12.0			0.0	0.0	
Walking Speed (ft/s)	3.5			3.5	3.5	
Percent Blockage	1			0	0	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			374		370	368
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			374		370	368
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1184		622	678

Direction, Lane #	EB 1
Volume Total	145
Volume Left	0
Volume Right	37
cSH	1700
Volume to Capacity	0.09
Queue Length 95th (ft)	0
Control Delay (s)	0.0
Lane LOS	
Approach Delay (s)	0.0
Approach LOS	

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	26.6%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	221	250	0	26	20
Future Volume (Veh/h)	0	221	250	0	26	20
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.91	0.91	0.85	0.85	0.87	0.87
Hourly flow rate (vph)	0	243	294	0	30	23
Pedestrians		6	4		124	
Lane Width (ft)		12.0	12.0		12.0	
Walking Speed (ft/s)		3.5	3.5		3.5	
Percent Blockage		1	0		12	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	418				665	424
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	418				665	424
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				92	96
cM capacity (veh/h)	1006				373	552

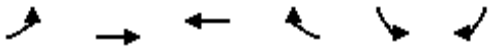
Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	243	294	53
Volume Left	0	0	30
Volume Right	0	0	23
cSH	1700	1700	435
Volume to Capacity	0.14	0.17	0.12
Queue Length 95th (ft)	0	0	10
Control Delay (s)	0.0	0.0	14.4
Lane LOS			B
Approach Delay (s)	0.0	0.0	14.4
Approach LOS			B

Intersection Summary			
Average Delay	1.3		
Intersection Capacity Utilization	25.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	889	3	4	811	0	2
Future Volume (Veh/h)	889	3	4	811	0	2
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.89	0.89	1.00	1.00
Hourly flow rate (vph)	988	3	4	911	0	2
Pedestrians				3	155	
Lane Width (ft)				12.0	12.0	
Walking Speed (ft/s)				3.5	3.5	
Percent Blockage				0	15	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			1146		1608	654
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1146		1608	654
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		100	99
cM capacity (veh/h)			516		81	348

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1
Volume Total	659	332	308	607	2
Volume Left	0	0	4	0	0
Volume Right	0	3	0	0	2
cSH	1700	1700	516	1700	348
Volume to Capacity	0.39	0.20	0.01	0.36	0.01
Queue Length 95th (ft)	0	0	1	0	0
Control Delay (s)	0.0	0.0	0.3	0.0	15.4
Lane LOS			A		C
Approach Delay (s)	0.0		0.1		15.4
Approach LOS					C

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	36.2%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	3	251	247	9	3	2
Future Volume (Veh/h)	3	251	247	9	3	2
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.93	0.93	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	3	270	291	11	4	2
Pedestrians		1			111	
Lane Width (ft)		12.0			12.0	
Walking Speed (ft/s)		3.5			3.5	
Percent Blockage		0			11	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	413				684	408
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	413				684	408
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				99	100
cM capacity (veh/h)	1025				370	574

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	273	302	6
Volume Left	3	0	4
Volume Right	0	11	2
cSH	1025	1700	420
Volume to Capacity	0.00	0.18	0.01
Queue Length 95th (ft)	0	0	1
Control Delay (s)	0.1	0.0	13.7
Lane LOS	A		B
Approach Delay (s)	0.1	0.0	13.7
Approach LOS			B

Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	25.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	892	0	0	1060	0	39
Future Volume (Veh/h)	892	0	0	1060	0	39
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.99	0.99	0.96	0.96	0.85	0.85
Hourly flow rate (vph)	901	0	0	1104	0	46
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			901		1453	450
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			901		1453	450
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	92
cM capacity (veh/h)			750		121	556

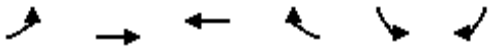
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1
Volume Total	450	450	552	552	46
Volume Left	0	0	0	0	0
Volume Right	0	0	0	0	46
cSH	1700	1700	1700	1700	556
Volume to Capacity	0.27	0.27	0.32	0.32	0.08
Queue Length 95th (ft)	0	0	0	0	7
Control Delay (s)	0.0	0.0	0.0	0.0	12.1
Lane LOS					B
Approach Delay (s)	0.0		0.0		12.1
Approach LOS					B

Intersection Summary			
Average Delay	0.3		
Intersection Capacity Utilization	39.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	57	25	0	0	0	0
Future Volume (Veh/h)	57	25	0	0	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.85	0.85	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	67	29	0	0	0	0
Pedestrians	1			4	217	
Lane Width (ft)	12.0			0.0	0.0	
Walking Speed (ft/s)	3.5			3.5	3.5	
Percent Blockage	0			0	0	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			313		300	302
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			313		300	302
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1247		691	737

Direction, Lane #	EB 1
Volume Total	96
Volume Left	0
Volume Right	29
cSH	1700
Volume to Capacity	0.06
Queue Length 95th (ft)	0
Control Delay (s)	0.0
Lane LOS	
Approach Delay (s)	0.0
Approach LOS	

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	24.6%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	115	255	0	14	9
Future Volume (Veh/h)	0	115	255	0	14	9
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.87	0.87	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	0	132	300	0	16	11
Pedestrians		2	1		177	
Lane Width (ft)		12.0	12.0		12.0	
Walking Speed (ft/s)		3.5	3.5		3.5	
Percent Blockage		0	0		17	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	477				610	479
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	477				610	479
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				96	98
cM capacity (veh/h)	902				380	487

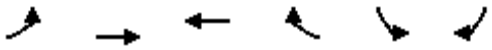
Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	132	300	27
Volume Left	0	0	16
Volume Right	0	0	11
cSH	1700	1700	417
Volume to Capacity	0.08	0.18	0.06
Queue Length 95th (ft)	0	0	5
Control Delay (s)	0.0	0.0	14.2
Lane LOS			B
Approach Delay (s)	0.0	0.0	14.2
Approach LOS			B

Intersection Summary			
Average Delay	0.8		
Intersection Capacity Utilization	24.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	929	3	3	1035	0	3
Future Volume (Veh/h)	929	3	3	1035	0	3
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.94	0.94	0.98	0.98	0.85	0.85
Hourly flow rate (vph)	988	3	3	1056	0	4
Pedestrians				1	189	
Lane Width (ft)				12.0	12.0	
Walking Speed (ft/s)				3.5	3.5	
Percent Blockage				0	18	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			1180		1712	686
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1180		1712	686
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		100	99
cM capacity (veh/h)			482		66	320

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1
Volume Total	659	332	355	704	4
Volume Left	0	0	3	0	0
Volume Right	0	3	0	0	4
cSH	1700	1700	482	1700	320
Volume to Capacity	0.39	0.20	0.01	0.41	0.01
Queue Length 95th (ft)	0	0	0	0	1
Control Delay (s)	0.0	0.0	0.2	0.0	16.4
Lane LOS			A		C
Approach Delay (s)	0.0		0.1		16.4
Approach LOS					C

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	41.0%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	2	132	265	8	2	4
Future Volume (Veh/h)	2	132	265	8	2	4
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.91	0.91	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	2	145	312	9	2	5
Pedestrians					160	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					3.5	
Percent Blockage					15	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	481				626	476
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	481				626	476
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				99	99
cM capacity (veh/h)	917				379	499

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	147	321	7
Volume Left	2	0	2
Volume Right	0	9	5
cSH	917	1700	458
Volume to Capacity	0.00	0.19	0.02
Queue Length 95th (ft)	0	0	1
Control Delay (s)	0.1	0.0	13.0
Lane LOS	A		B
Approach Delay (s)	0.1	0.0	13.0
Approach LOS			B

Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	24.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	835	0	0	844	0	97
Future Volume (Veh/h)	835	0	0	844	0	97
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.85	0.85
Hourly flow rate (vph)	888	0	0	898	0	114
Pedestrians				2		
Lane Width (ft)				12.0		
Walking Speed (ft/s)				3.5		
Percent Blockage				0		
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			888		1337	446
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			888		1337	446
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	80
cM capacity (veh/h)			758		145	559

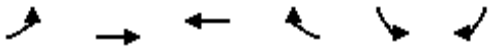
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1
Volume Total	444	444	449	449	114
Volume Left	0	0	0	0	0
Volume Right	0	0	0	0	114
cSH	1700	1700	1700	1700	559
Volume to Capacity	0.26	0.26	0.26	0.26	0.20
Queue Length 95th (ft)	0	0	0	0	19
Control Delay (s)	0.0	0.0	0.0	0.0	13.1
Lane LOS					B
Approach Delay (s)	0.0		0.0		13.1
Approach LOS					B

Intersection Summary			
Average Delay	0.8		
Intersection Capacity Utilization	36.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	99	33	0	0	0	0
Future Volume (Veh/h)	99	33	0	0	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	110	37	0	0	0	0
Pedestrians	14			12	229	
Lane Width (ft)	12.0			0.0	0.0	
Walking Speed (ft/s)	3.5			3.5	3.5	
Percent Blockage	1			0	0	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			376		372	370
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			376		372	370
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1182		621	676

Direction, Lane #	EB 1
Volume Total	147
Volume Left	0
Volume Right	37
cSH	1700
Volume to Capacity	0.09
Queue Length 95th (ft)	0
Control Delay (s)	0.0
Lane LOS	
Approach Delay (s)	0.0
Approach LOS	

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	26.6%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	225	255	0	26	20
Future Volume (Veh/h)	0	225	255	0	26	20
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.91	0.91	0.85	0.85	0.87	0.87
Hourly flow rate (vph)	0	247	300	0	30	23
Pedestrians		6	4		124	
Lane Width (ft)		12.0	12.0		12.0	
Walking Speed (ft/s)		3.5	3.5		3.5	
Percent Blockage		1	0		12	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	424				675	430
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	424				675	430
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				92	96
cM capacity (veh/h)	1001				368	548

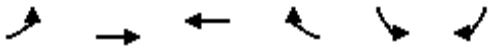
Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	247	300	53
Volume Left	0	0	30
Volume Right	0	0	23
cSH	1700	1700	430
Volume to Capacity	0.15	0.18	0.12
Queue Length 95th (ft)	0	0	10
Control Delay (s)	0.0	0.0	14.6
Lane LOS			B
Approach Delay (s)	0.0	0.0	14.6
Approach LOS			B

Intersection Summary			
Average Delay	1.3		
Intersection Capacity Utilization	25.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	909	3	4	842	0	2
Future Volume (Veh/h)	909	3	4	842	0	2
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.89	0.89	1.00	1.00
Hourly flow rate (vph)	1010	3	4	946	0	2
Pedestrians				3	155	
Lane Width (ft)				12.0	12.0	
Walking Speed (ft/s)				3.5	3.5	
Percent Blockage				0	15	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			1168		1648	664
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1168		1648	664
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		100	99
cM capacity (veh/h)			506		76	342

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1
Volume Total	673	340	319	631	2
Volume Left	0	0	4	0	0
Volume Right	0	3	0	0	2
cSH	1700	1700	506	1700	342
Volume to Capacity	0.40	0.20	0.01	0.37	0.01
Queue Length 95th (ft)	0	0	1	0	0
Control Delay (s)	0.0	0.0	0.3	0.0	15.6
Lane LOS			A		C
Approach Delay (s)	0.0		0.1		15.6
Approach LOS					C

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	37.0%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	3	256	252	9	3	2
Future Volume (Veh/h)	3	256	252	9	3	2
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.93	0.93	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	3	275	296	11	4	2
Pedestrians		1			111	
Lane Width (ft)		12.0			12.0	
Walking Speed (ft/s)		3.5			3.5	
Percent Blockage		0			11	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	418				694	414
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	418				694	414
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				99	100
cM capacity (veh/h)	1020				365	571

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	278	307	6
Volume Left	3	0	4
Volume Right	0	11	2
cSH	1020	1700	415
Volume to Capacity	0.00	0.18	0.01
Queue Length 95th (ft)	0	0	1
Control Delay (s)	0.1	0.0	13.8
Lane LOS	A		B
Approach Delay (s)	0.1	0.0	13.8
Approach LOS			B

Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	26.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	892	0	0	1060	0	39
Future Volume (Veh/h)	892	0	0	1060	0	39
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.99	0.99	0.96	0.96	0.85	0.85
Hourly flow rate (vph)	901	0	0	1104	0	46
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			901		1453	450
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			901		1453	450
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	92
cM capacity (veh/h)			750		121	556

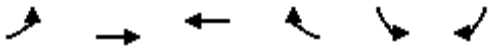
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1
Volume Total	450	450	552	552	46
Volume Left	0	0	0	0	0
Volume Right	0	0	0	0	46
cSH	1700	1700	1700	1700	556
Volume to Capacity	0.27	0.27	0.32	0.32	0.08
Queue Length 95th (ft)	0	0	0	0	7
Control Delay (s)	0.0	0.0	0.0	0.0	12.1
Lane LOS					B
Approach Delay (s)	0.0		0.0		12.1
Approach LOS					B

Intersection Summary			
Average Delay	0.3		
Intersection Capacity Utilization	39.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	57	30	0	0	0	0
Future Volume (Veh/h)	57	30	0	0	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.85	0.85	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	67	35	0	0	0	0
Pedestrians	1			4	217	
Lane Width (ft)	12.0			0.0	0.0	
Walking Speed (ft/s)	3.5			3.5	3.5	
Percent Blockage	0			0	0	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			319		302	306
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			319		302	306
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1241		689	734

Direction, Lane #	EB 1
Volume Total	102
Volume Left	0
Volume Right	35
cSH	1700
Volume to Capacity	0.06
Queue Length 95th (ft)	0
Control Delay (s)	0.0
Lane LOS	
Approach Delay (s)	0.0
Approach LOS	

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	24.6%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	115	255	0	20	15
Future Volume (Veh/h)	0	115	255	0	20	15
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.87	0.87	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	0	132	300	0	24	18
Pedestrians		2	1		177	
Lane Width (ft)		12.0	12.0		12.0	
Walking Speed (ft/s)		3.5	3.5		3.5	
Percent Blockage		0	0		17	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	477				610	479
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	477				610	479
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				94	96
cM capacity (veh/h)	902				380	487

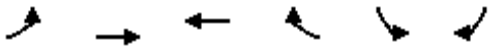
Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	132	300	42
Volume Left	0	0	24
Volume Right	0	0	18
cSH	1700	1700	420
Volume to Capacity	0.08	0.18	0.10
Queue Length 95th (ft)	0	0	8
Control Delay (s)	0.0	0.0	14.5
Lane LOS			B
Approach Delay (s)	0.0	0.0	14.5
Approach LOS			B

Intersection Summary			
Average Delay	1.3		
Intersection Capacity Utilization	24.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	929	3	3	1035	0	3
Future Volume (Veh/h)	929	3	3	1035	0	3
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.94	0.94	0.98	0.98	0.85	0.85
Hourly flow rate (vph)	988	3	3	1056	0	4
Pedestrians				1	189	
Lane Width (ft)				12.0	12.0	
Walking Speed (ft/s)				3.5	3.5	
Percent Blockage				0	18	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			1180		1712	686
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1180		1712	686
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		100	99
cM capacity (veh/h)			482		66	320

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1
Volume Total	659	332	355	704	4
Volume Left	0	0	3	0	0
Volume Right	0	3	0	0	4
cSH	1700	1700	482	1700	320
Volume to Capacity	0.39	0.20	0.01	0.41	0.01
Queue Length 95th (ft)	0	0	0	0	1
Control Delay (s)	0.0	0.0	0.2	0.0	16.4
Lane LOS			A		C
Approach Delay (s)	0.0		0.1		16.4
Approach LOS					C

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	41.0%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	2	138	265	8	2	4
Future Volume (Veh/h)	2	138	265	8	2	4
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.91	0.91	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	2	152	312	9	2	5
Pedestrians					160	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					3.5	
Percent Blockage					15	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	481				632	476
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	481				632	476
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				99	99
cM capacity (veh/h)	917				376	499

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	154	321	7
Volume Left	2	0	2
Volume Right	0	9	5
cSH	917	1700	456
Volume to Capacity	0.00	0.19	0.02
Queue Length 95th (ft)	0	0	1
Control Delay (s)	0.1	0.0	13.0
Lane LOS	A		B
Approach Delay (s)	0.1	0.0	13.0
Approach LOS			B

Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	24.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	835	0	0	844	0	97
Future Volume (Veh/h)	835	0	0	844	0	97
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.85	0.85
Hourly flow rate (vph)	888	0	0	898	0	114
Pedestrians				2		
Lane Width (ft)				12.0		
Walking Speed (ft/s)				3.5		
Percent Blockage				0		
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			888		1337	446
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			888		1337	446
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	80
cM capacity (veh/h)			758		145	559

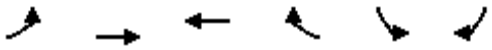
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1
Volume Total	444	444	449	449	114
Volume Left	0	0	0	0	0
Volume Right	0	0	0	0	114
cSH	1700	1700	1700	1700	559
Volume to Capacity	0.26	0.26	0.26	0.26	0.20
Queue Length 95th (ft)	0	0	0	0	19
Control Delay (s)	0.0	0.0	0.0	0.0	13.1
Lane LOS					B
Approach Delay (s)	0.0		0.0		13.1
Approach LOS					B

Intersection Summary			
Average Delay	0.8		
Intersection Capacity Utilization	36.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	99	50	0	0	0	0
Future Volume (Veh/h)	99	50	0	0	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	110	56	0	0	0	0
Pedestrians	14			12	229	
Lane Width (ft)	12.0			0.0	0.0	
Walking Speed (ft/s)	3.5			3.5	3.5	
Percent Blockage	1			0	0	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			395		381	379
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			395		381	379
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1164		613	668

Direction, Lane #	EB 1
Volume Total	166
Volume Left	0
Volume Right	56
cSH	1700
Volume to Capacity	0.10
Queue Length 95th (ft)	0
Control Delay (s)	0.0
Lane LOS	
Approach Delay (s)	0.0
Approach LOS	

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	26.6%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	225	255	0	32	26
Future Volume (Veh/h)	0	225	255	0	32	26
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.91	0.91	0.85	0.85	0.87	0.87
Hourly flow rate (vph)	0	247	300	0	37	30
Pedestrians		6	4		124	
Lane Width (ft)		12.0	12.0		12.0	
Walking Speed (ft/s)		3.5	3.5		3.5	
Percent Blockage		1	0		12	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	424				675	430
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	424				675	430
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				90	95
cM capacity (veh/h)	1001				368	548

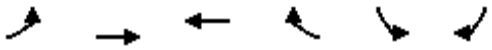
Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	247	300	67
Volume Left	0	0	37
Volume Right	0	0	30
cSH	1700	1700	432
Volume to Capacity	0.15	0.18	0.16
Queue Length 95th (ft)	0	0	14
Control Delay (s)	0.0	0.0	14.9
Lane LOS			B
Approach Delay (s)	0.0	0.0	14.9
Approach LOS			B

Intersection Summary			
Average Delay	1.6		
Intersection Capacity Utilization	25.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	909	3	4	842	0	2
Future Volume (Veh/h)	909	3	4	842	0	2
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.89	0.89	1.00	1.00
Hourly flow rate (vph)	1010	3	4	946	0	2
Pedestrians				3	155	
Lane Width (ft)				12.0	12.0	
Walking Speed (ft/s)				3.5	3.5	
Percent Blockage				0	15	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			1168		1648	664
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1168		1648	664
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		100	99
cM capacity (veh/h)			506		76	342

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1
Volume Total	673	340	319	631	2
Volume Left	0	0	4	0	0
Volume Right	0	3	0	0	2
cSH	1700	1700	506	1700	342
Volume to Capacity	0.40	0.20	0.01	0.37	0.01
Queue Length 95th (ft)	0	0	1	0	0
Control Delay (s)	0.0	0.0	0.3	0.0	15.6
Lane LOS			A		C
Approach Delay (s)	0.0		0.1		15.6
Approach LOS					C

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	37.0%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	3	262	252	9	3	2
Future Volume (Veh/h)	3	262	252	9	3	2
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.93	0.93	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	3	282	296	11	4	2
Pedestrians		1			111	
Lane Width (ft)		12.0			12.0	
Walking Speed (ft/s)		3.5			3.5	
Percent Blockage		0			11	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	418				700	414
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	418				700	414
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				99	100
cM capacity (veh/h)	1020				361	571

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	285	307	6
Volume Left	3	0	4
Volume Right	0	11	2
cSH	1020	1700	412
Volume to Capacity	0.00	0.18	0.01
Queue Length 95th (ft)	0	0	1
Control Delay (s)	0.1	0.0	13.9
Lane LOS	A		B
Approach Delay (s)	0.1	0.0	13.9
Approach LOS			B

Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	26.5%	ICU Level of Service	A
Analysis Period (min)	15		