

Government of the District of Columbia

Department of Transportation



d. Planning and Sustainability Division

MEMORANDUM

TO: Sara Bardin
Director, Office of Zoning

FROM: Jim Sebastian
Associate Director 

DATE: September 27, 2019

SUBJECT: ZC Case No. 19-10 – The Lady Bird

PROJECT SUMMARY

Valor Development, LLC (the “Applicant”) has requested approval of a Consolidated Planned Unit Development (PUD) application to redevelop a property bounded by Yuma Street NW to the north, 48th Street NW to the east, American University (AU) Spring Valley Building to the south, and Spring Valley Shopping Center to the west. The site currently contains a parking garage, vacant grocery store, and retail buildings. The proposal to construct a mixed-use development includes the following development program:

- 214 residential units and 5 townhomes;
- 16,500 SF retail/grocery;
- 375 on-site vehicle parking spaces (228 residential, 5 townhome, 86 retail/grocery, 56 AU);
- 83 long-term and 27 short-term bicycle parking spaces; and
- One (1) 55-foot loading berth, one (1) 30-foot berth, and one (1) 20-foot delivery space.

SUMMARY OF DDOT REVIEW

The District Department of Transportation (DDOT) is committed to achieving an exceptional quality of life in the nation’s capital by encouraging sustainable travel practices, constructing safer streets, and providing outstanding access to goods and services. As one means to achieve this vision, DDOT works through the zoning process to ensure that impacts from new developments are manageable within, and take advantage of, the District’s multimodal transportation network.

The purpose of DDOT’s review is to assess the potential safety and capacity impacts of the proposed action on the District’s transportation network and, as necessary, propose mitigations that are

commensurate with the action. After an extensive review of the case materials submitted by the Applicant, DDOT finds:

Site Design

- Vehicular access to the site is proposed via a two-way parking garage entrance from the existing rear alley network. All existing curb cuts to the site will be closed. These are consistent with DDOT standards;
- Of the 375 vehicle parking spaces proposed, 236 spaces are required for the neighboring office building as part of an agreement with AU. All but 56 of these 236 AU spaces will be available for use with the residential, grocery, and retail components of the PUD;
- Four (4) electric vehicle charging stations to serve eight (8) parking spaces will be provided in the garage, consistent with DDOT’s recommendation of at least 1 per 50 spaces;
- The project is meeting the ZR16 requirements for loading berths and delivery spaces by providing one (1) 55-foot berth, (1) 30-foot berth, and (1) 20-foot delivery spot;
- All loading activities are proposed to occur on private property via the rear alley network with head-in/head-out movements from the alley to public streets, consistent with DDOT standards;
- The Applicant proposes to exceed the ZR16 minimum requirements of 75 long-term and 16 short-term bicycle parking spaces by providing 83 long- and 27 short-term spaces; and
- Final locations of the short-term spaces (inverted U-racks) will be determined during public space permitting, but should be in easily accessible locations near building entrances.

Travel Assumptions

- The Applicant utilized sound methodology and assumptions to perform the analysis in the CTR;
- To present a conservative or “worst case” traffic scenario and to account for the level of available vehicle parking, the Applicant’s CTR assumed a higher vehicle mode share (90%) than would typically be studied for a site nearly 1.0 mile from Metrorail (65%-70%);
- The proposed development is projected to generate fewer vehicle trips during the weekday evening and Saturday peak hours than if retail and grocery uses were to re-occupy the vacant portions of the building;
- Existing traffic volumes on Massachusetts Avenue NW were observed to be more than 20% lower during the busiest hour on Saturday than during the weekday evening peak hour. Trip generation for the site is also projected to be lower during the Saturday peak. Therefore, the Saturday peak period was determined not to be a critical study period; and
- Projected vehicle trips will be dispersed across three alley entrances and through intersections within the study area, with site-generated volumes diminished at intersections farther from the site. Minimal site-generated traffic volumes are expected outside of the study area.

Analysis

- The CTR indicated that none of the study intersections would unacceptably degrade in level of service (LOS) due to the addition of site-generated vehicle trips (even with the very conservative 90% auto mode share assumption). Therefore, no mitigation for traffic impacts is requested by DDOT;

- DDOT estimates a project of the size, mix of uses, and distance from transit should provide approximately 190-240 spaces (including the 56 AU-only spaces). The availability of excess parking has the potential to induce additional demand for driving, which has been accounted for in the traffic analysis;
- To offset this impact, the Applicant has agreed with DDOT to implement a robust TDM program and make physical improvements to the pedestrian network to encourage walking and discourage driving;
- The site is surrounded by a mostly complete pedestrian network. Pedestrian facilities are mostly up-to-standards along anticipated walking routes to nearby amenities such as shopping centers, offices, and a park. The Applicant has proposed numerous neighborhood pedestrian network upgrades as both mitigation and in the Community Benefits Agreement; and
- DDOT concurs with the Applicant’s proposal to enclose trash containers along the north-south alley and widen the alley by approximately 7 feet onto private space so long as the widened alley segment is within a public access easement, a public space occupancy permit is obtained for the trash enclosures, and dumpsters in public space along Yuma Street are moved to the new enclosures.

Mitigations

- The TDM plan proposed in the August 23, 2019 CTR is sufficiently robust to encourage non-auto travel and offset the impacts of the high parking supply if implemented in conjunction with pedestrian network improvements at the four (4) identified intersections; and
- The Loading Management Plan (LMP) in the August 23, 2019 CTR should be included as a condition to help facilitate the movement of trucks and manage conflicts with other vehicles and pedestrians in the alley network.

Community Benefits

- As part of the Community Benefits Agreement, the Applicant has offered to install a HAWK pedestrian signal on Massachusetts Avenue NW between 48th and 49th Streets. This is the result of several years of coordination between the Applicant, community, ANC, and DDOT;
- DDOT concurs that this is a good candidate location for a HAWK signal given the “super block” distance between existing pedestrian crossings (~750 feet) and anticipated level of pedestrian usage after installation which would likely meet the threshold of 20 pedestrians per hour in the peak period (MUTCD Figure 4F-1). The final location and detailed design will be determined during public space permitting and will be subject to DDOT approval; and
- The Applicant is also committing to make a variety of changes to the public alley network, including textured paving, signage, mirrors, and striping. DDOT finds the proposal generally acceptable and will continue to work with the Applicant during public space permitting to further refine the alley network design.

Recommendation

DDOT has no objection to approval of this Consolidated Planned Unit Development application with the following conditions:

- Fund and construct pedestrian network improvements in the immediate vicinity of the site to encourage walking and offset the impacts of being over-parked. Specifically, upgrade sub-standard curb ramps, stripe missing crosswalks, and install curb extensions, subject to DDOT approval, at the following intersections:
 - 49th Street and Yuma Street NW
 - 48th Street and Yuma Street NW
 - 48th Street and Windom Place NW
 - 48th Street and Warren Street NW
- Implement the Transportation Demand Management (TDM) Plan as proposed in the Applicant’s August 23, 2019 CTR, for the life of the project, unless otherwise noted (the TDM Plan is discussed in greater detail later in this report); and
- Implement the Loading Management Plan (LMP) proposed in the Applicant’s August 23, 2019 CTR, for the life of the project, unless otherwise noted (the LMP is discussed in greater detail later in this report).

Continued Coordination

Given the complexity and size of the action, the Applicant is expected to continue to work with DDOT on the following matters outside of the zoning process:

- Public space, including curb and gutter, street trees and landscaping, street lights, sidewalks, curb ramps, and other features within the public rights of way, are expected to be designed and built to DDOT standards;
- The Applicant will be required to obtain public space permits for all elements of the project proposed in public space. DDOT has several comments on the Applicant’s initial public space design which are noted later in the Streetscape and Public Realm section and can be resolved during the public space permitting process;
- The Applicant should participate in a Preliminary Design Review Meeting (PDRM) to discuss the public space design with DDOT and OP;
- Continue to coordinate with DDOT’s Neighborhood Planning Branch regarding the design of the north-south alley, trash enclosures, and alley curb cut location on Yuma Street NW;
- Submit a detailed curbside management and signage plan to DDOT, consistent with current DDOT policies. If meter installation is required they will be at the Applicant’s expense;
- DDOT understands the Applicant has had conversations with the community regarding the potential of making the Exxon gas station’s 49th Street NW curb cut right-in/right-out. This portion of the Spring Valley Shopping Center is not part of the application and therefore should be addressed through public space permitting. The Applicant should coordinate with DDOT’s Neighborhood Planning Branch on the appropriateness of this access change, including the scoping of supporting analysis to evaluate future circulation changes and an appropriate design that meets DDOT standards;
- Coordinate with DDOT’s Active Transportation Branch, Traffic Operations and Safety Division (TOSD), and Traffic Engineering and Signals Division (TESD) on the appropriate location and final design of the proposed HAWK signal on Massachusetts Avenue NW;

- Coordinate with DDOT’s Active Transportation Branch, Neighborhood Planning Branch, and TOSD regarding design and implementation of the pedestrian network improvements; and
- Coordinate with DDOT’s Urban Forestry Division (UFD) and the Ward 3 arborist regarding the preservation and protection of existing small street trees, as well as the planting of new street trees, in bioretention facilities or a typical expanded tree planting space.

TRANSPORTATION ANALYSIS

DDOT requires applicants requesting an action from the Zoning Commission complete a Comprehensive Transportation Review (CTR) in order to determine the action’s impact on the overall transportation network. Accordingly, an applicant is expected to show the existing conditions for each transportation mode affected, the proposed impact on the respective network, and any proposed mitigations, along with the effects of the mitigations on other travel modes. A CTR should be performed according to DDOT direction. The Applicant and DDOT coordinated on an agreed-upon scope for the CTR that is consistent with the scale of the action.

The review of the analysis is divided into four categories: site design, travel assumptions, analysis, and mitigations. The following review provided by DDOT evaluates the Applicant’s CTR to determine its accuracy and assess the action’s consistency with the District’s vision for a cohesive, sustainable transportation system that delivers safe and convenient ways to move people and goods, while protecting and enhancing the natural, environmental, and cultural resources of the District.

Site Design

Site design, which includes site access, loading, vehicle parking, and public realm design, plays a critical role in determining a proposed action’s impact on the District’s infrastructure. While transportation impacts can change over time, the site design will remain constant throughout the lifespan of the proposed development, making site design a critical aspect of DDOT’s development review process. Accordingly, new developments must provide a safe and welcoming pedestrian experience, enhance the public realm, and serve as positive additions to the community.

Site Access

Pedestrian access to the main building is via two (2) entrances on Yuma Street NW (one for each of the grocery store and residential uses) and one (1) at the rear of the building in the alley network for the retail use. The townhouses are accessed via leadwalks to each individual unit from 48th Street NW.

Vehicular access to the parking garage is proposed via a two-way entrance/exit from the 20-foot east-west alley within the existing alley network. The public and private alleys serving the rear of this site connect to Massachusetts Avenue, 48th Street, and Yuma Street NW. The loading dock area and five (5) townhouse parking spaces are also accessed via the east-west alley. The proposed access to both parking and loading meets DDOT’s standard that all vehicular access be provided via the alley network when available.

The project proposes no new curb cuts to the public street network and instead will be closing all existing curb cuts on Yuma Street and 48th Street, excluding the alley entrances, consistent with DDOT standards for minimizing curb cuts. Figure 1 below shows the site layout of the proposed project.

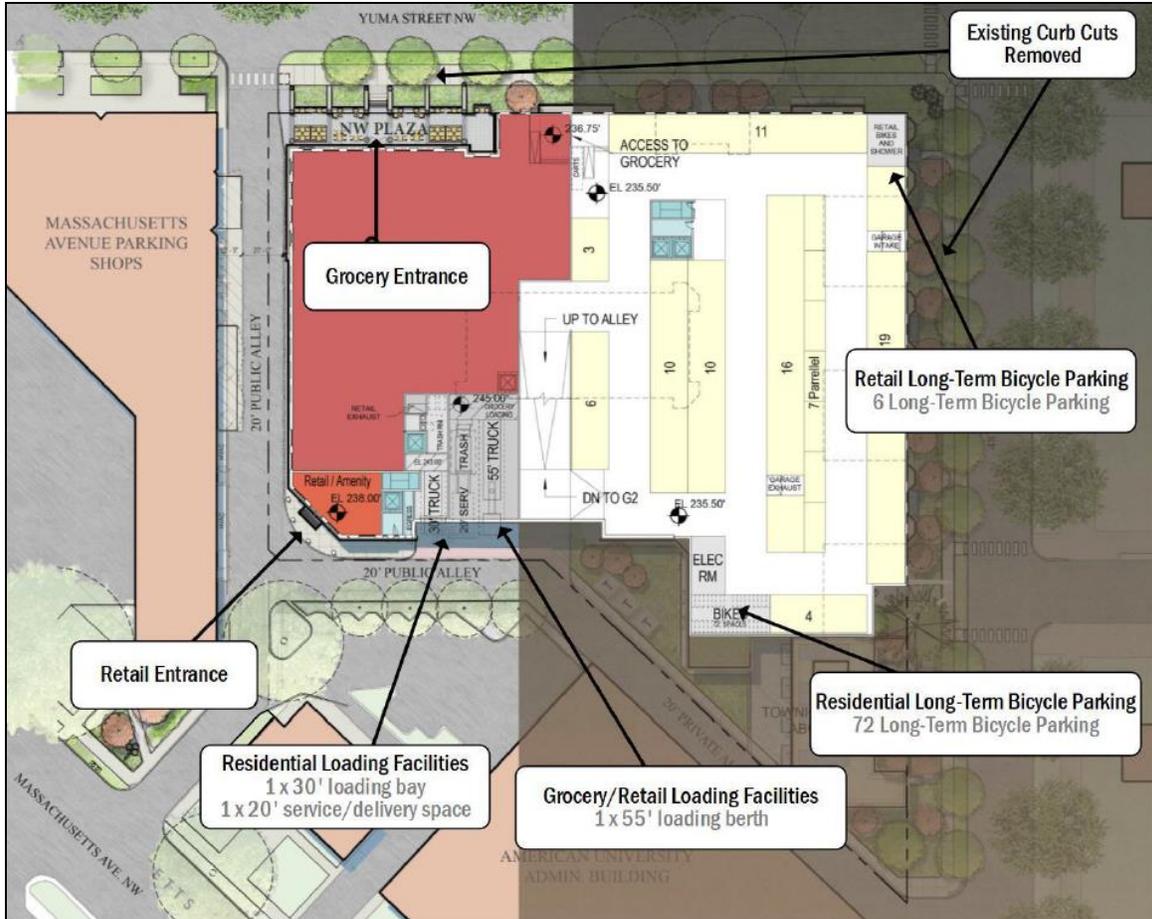


Figure 1 – Site Plan (Source: CTR, Gorove/Slade, Figure 7, 8/23/19)

Loading

DDOT’s practice is to accommodate vehicle loading in a safe and efficient manner, while at the same time preserving safety across non-vehicle modes and limiting any hindrance to traffic operations. For new developments, DDOT requires that loading take place in private space and that no back-up maneuvers occur in the public realm.

Per Subtitle C § 901.1 and § 901.4 of the 2016 Zoning Regulations (ZR16), residential properties with more than 50 units are required to provide one (1) loading berth, one (1) loading platform, and one (1) 20-foot delivery space. For the retail component of this project, zoning requires one (1) loading berth, one (1) loading platform, and zero (0) delivery spaces. The Applicant is proposing to meet the ZR16 requirements and practical needs for loading by providing a total of one (1) 55-foot berth, one (1) 30-foot berth, one (1) 20-foot delivery spaces, and loading platforms.

The building is designed so that all loading activities take place in the dock area off of the rear alley. The truck turning diagrams included in the August 23, 2019 CTR demonstrate that 55-foot and 35-foot trucks can enter and exit the alley network with head-in and head-out movements, consistent with DDOT standards. Trucks are able to maneuver and turn around while in the alley network and loading dock area, so that they can exit to the designated “truck through route” of Massachusetts Avenue NW, either

directly or via the short segment of 48th Street. The Applicant anticipates approximately 13 trucks per day will utilize the main building's loading dock area, including trash pick-up, mail drop-off, produce and retail deliveries, and move-ins/outs by residents.

It has been observed that large beer trucks and other delivery trucks destined for the Spring Valley Shopping Center, which is located within the PUD area, are currently making deliveries curb side on Yuma Street NW. This section of Yuma Street is currently signed for "No standing or parking anytime." Given the shopping center's proximity to the existing alley network and the Applicant's proposal to make physical upgrades to the alley, all trucks serving the Spring Valley Shopping Center should be directed not to load or unload on Yuma Street but to instead utilize the alley or internal private drive aisles.

To help facilitate truck movement and manage conflicts with vehicles and pedestrians within the alley network, the Applicant has proposed the following Loading Management Plan (LMP) in the August 23, 2019 CTR for the project:

- A loading dock manager will be designated by the building management. The dock manager will coordinate with vendors and tenants to schedule deliveries and will be on duty during delivery hours;
- All tenants will be required to schedule deliveries that utilize the loading docks – defined here as any loading operation conducted using a truck 20' in length or larger;
- Commercial deliveries will be scheduled between 7 AM – 7 PM (7 days a week), and discouraged from making deliveries after 4 PM on weekdays;
- Waste collection (both commercial & residential) allowed 7 AM – 4 PM (7 days a week);
- Residential move-ins/outs allowed 9 AM – 4 PM (7 days a week);
- The dock manager(s) will schedule deliveries such that the dock's capacity is not exceeded. In the event that an unscheduled delivery vehicle arrives while the dock is full, that driver will be directed to return at a later time when a berth will be available so as to not impede the drive aisle that passes in front of the loading dock;
- The dock manager(s) will monitor inbound and outbound truck maneuvers and will ensure that trucks accessing the loading dock do not block vehicular traffic except during those times when a truck is actively entering or exiting the alley;
- The loading manager(s) will monitor the alley to keep the designated loading areas clear for deliveries, keep the alley from being blocked due to vehicle loading/unloading activity, and enforce the no parking restrictions;
- Trucks using the loading dock will not be allowed to idle and must follow all District guidelines for heavy vehicle operation including but not limited to DCMR 20 – Chapter 9, Section 900 (Engine Idling), the regulations set forth in DDOT's Freight Management and Commercial Vehicle Operations document, and the primary access routes listed in the DDOT Truck and Bus Route System;
- The Applicant will continue to coordinate with DDOT and Massachusetts Avenue Parking Shops (Lots 802 and 803) regarding loading operations for the Massachusetts Avenue Parking Shops;
- All trash bins and dumpsters belonging to Massachusetts Avenue Parking Shops (Lots 802 and 803) currently located along Yuma Street NW will be relocated to the alley and placed in the proposed enclosures; and
- Trucks traveling to the Massachusetts Avenue Parking Shops will be directed not to pick-up or drop-off on Yuma Street NW and will be directed to use the rear alley network.

DDOT concurs with the proposed LMP above and has no objection to the site's loading scheme. The LMP should be included in the final Zoning Order.

Vehicle Parking

The overall parking demand created by the development is primarily a function of land use, development square footage, price, and supply of parking spaces. However in urban areas, other factors contribute to the demand for parking, such as the availability of high quality transit, frequency of transit service, proximity to transit, connectivity of bicycle and pedestrian facilities within the vicinity of the development, and the demographic composition and other characteristics of the potential residents.

DDOT understands that the Applicant has an agreement with American University (AU) to continue providing 236 vehicle parking spaces for the neighboring AU Administrative Building. Since the AU Administrative Building only needs 56 of those 236 spaces for day-to-day activities, the remaining 180 spaces will be shared with the residential, grocery, and retail components of the project.

The Applicant is proposing a total of 375 on-site parking spaces (370 in an underground garage). According to the breakdown of parking provided in the Applicant's August 23, 2019 Comprehensive Transportation Review (CTR) study the project will provide 86 spaces for the grocery/retail uses, 228 spaces for the multifamily building, and 56 spaces for the AU Administrative Building. There are also five (5) surface spaces proposed at the rear of the townhomes.

DDOT finds the amount of vehicle parking proposed on-site to be higher than expected given the project size, mix of uses, and distance from transit. Based on DDOT's preferred maximum parking rates published in the recently released June 2019 *Guidance for Comprehensive Transportation Review*, a total number of spaces in the 190-240 range (including the dedicated 56 AU spaces) would be more appropriate. Providing more parking than practically needed has the potential to induce more driving. As such, DDOT recommends that the Applicant make physical improvements to the adjacent pedestrian network and implement a robust TDM program to encourage walking to and from the site rather than driving (see Pedestrian Network and TDM sections later in this report). It is noted that these additional vehicle trips have also been accounted for in the mode split and trip generation assumptions of the traffic impact analysis.

Streetscape and Public Realm

In line with District policy and practice, any substantial new building development or renovation is expected to rehabilitate streetscape infrastructure between the curb and the property lines. This includes curb and gutters, street trees and landscaping, street lights, sidewalks, and other appropriate features within the public rights of way bordering the site.

The Applicant must work closely with DDOT and the Office of Planning (OP) to ensure that the design of the public realm meets current standards and will substantially upgrade the appearance and functionality of the streetscape for public users needing to access the property or circulate around it. In conjunction with Titles 11, 12A, and 24 of the DCMR, DDOT's 2019 version of the *Design and Engineering Manual (DEM)* and the *Public Realm Design Manual* will serve as the main public realm references for the Applicant. Public space designs will be reviewed in further detail during the public

space permitting process. DDOT staff will be available to provide additional guidance during these processes and encourages the Applicant to participate in a Preliminary Design Review Meeting (PDRM) to address design related comments provided by DDOT and OP.

While the preliminary public space plans, shown above in Figure 1, are generally consistent with DDOT standards, there are several considerations that need to be reviewed in greater detail during the public space permitting process:

- DDOT concurs that the existing curb cuts on Yuma Street and 48th Street NW should be closed and replaced with green space and street trees;
- An occupancy permit will be required for any portion of the outdoor café in public space near the Yuma Street NW grocery store entrance;
- Building projections on Yuma Street NW should not project more than 4-feet into public space;
- The concrete strips running north-south in the middle of the green space near the grocery store entrance on Yuma Street NW should be removed;
- DDOT finds the design of the proposed trash enclosures along the public alley appropriate and will require a public space occupancy permit;
- All dumpsters currently located in public space along Yuma Street west of the alley and east of Exxon, which is within the DDOT right-of-way, should be moved to the new enclosures in the public alley; and
- There are several sections of pavement in public space along Yuma Street west of the alley and east of Exxon, within the PUD area. These areas should be restored to green space with leadwalks connecting from the sidewalk to building entrances.

Alley Network

As shown below in Figure 2, the Applicant has proposed to enclose the trash containers from the Spring Valley Shopping Center that are currently scattered throughout the public alley and DDOT public space on Yuma Street NW. The containers currently occupy approximately 5 feet of private property on the west of the alley (rear of Spring Valley Shopping Center) and 7 feet of public space within the alley. In order to keep the full 20-foot width of the alley, the Applicant plans to widen the alley by 7 feet onto private property to the east. DDOT concurs with the Applicant's proposal so long as the widened alley segment is within a public access easement, a public space occupancy permit is obtained for trash enclosures, and dumpsters in public space along Yuma Street are moved to the new enclosures.

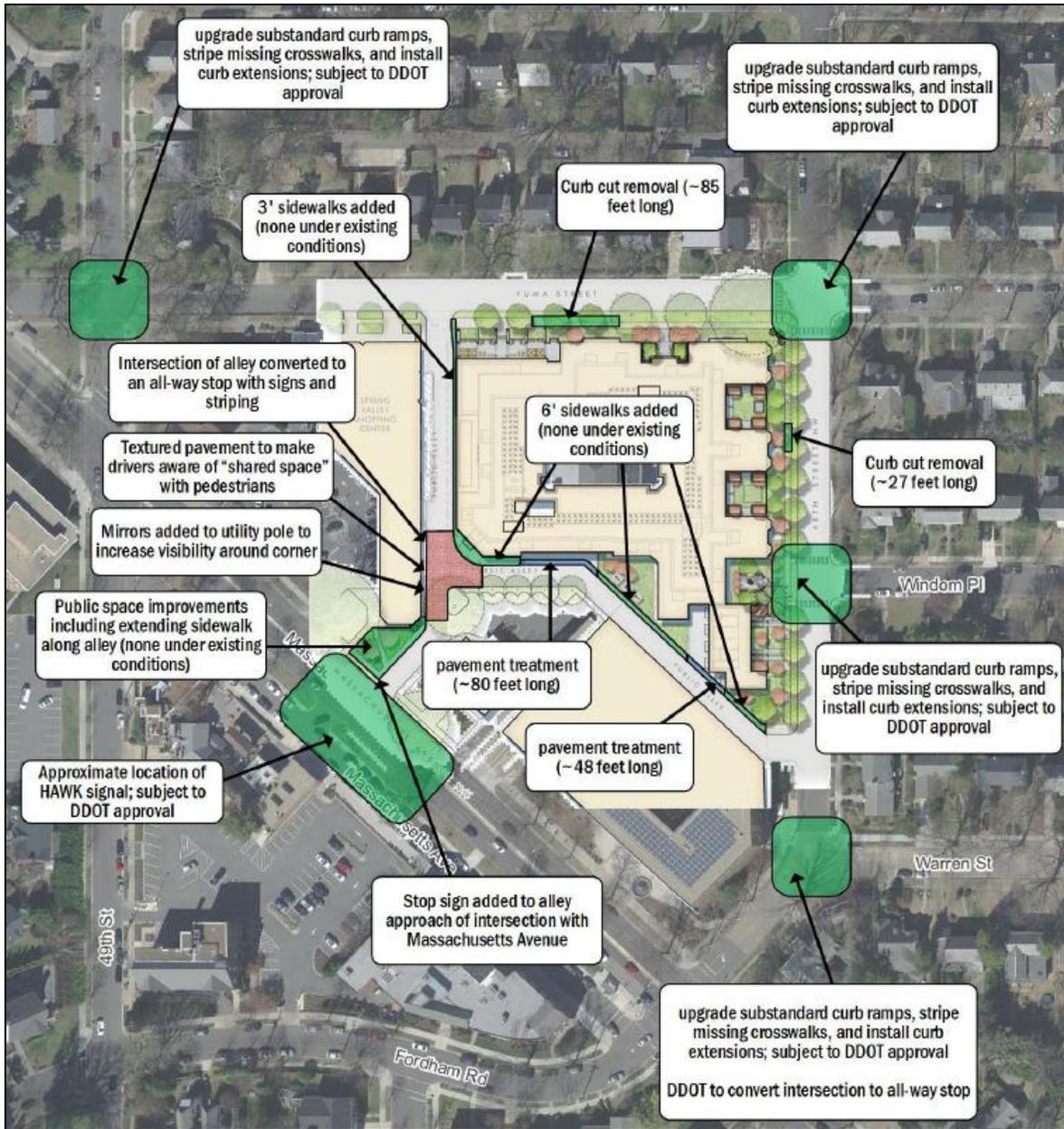


Figure 3 – Proposed Pedestrian Improvements (Source: CTR, Gorove/Slade, Figure 13, 8/23/19)

Heritage Trees

Heritage Trees are defined as a tree with a circumference of 100 inches or more and are protected by the Tree Canopy Protection Amendment Act of 2016. With approval by the Mayor and DDOT’s Urban Forestry Division (UFD), Heritage Trees might be permitted to be relocated. As such, the Applicant may be required to redesign the site plan in order to preserve the Non-Hazardous Heritage Trees. UFD did not identify any Heritage Trees or Special Trees on-site and recommends that the Applicant coordinate with the Ward 3 arborist regarding the preservation and protection of existing small street trees, as well as the planting of new street trees, in bioretention facilities or a typical expanded tree planting space.

Sustainable Transportation Elements

Sustainable transportation measures target to promote environmentally responsible types of transportation in addition to the transportation mode shift efforts of TDM programs. These measures can range anywhere from practical implementations that would promote use of vehicles powered by alternative fuels to more comprehensive concepts such as improving pedestrian access to transit in order to increase potential use of alternative modes of transportation. Within the context of DDOT's development review process, the objective to encourage incorporation of sustainable transportation elements into the development proposals is to introduce opportunities for improved environmental quality (air, noise, health, etc.) by targeting emission-based impacts.

The Applicant is proposing to provide four (4) electric vehicle (EV) charging stations in the parking garage to serve a total of eight (8) spaces, which is consistent with DDOT's recommendation to install at least one (1) EV station for every 50 vehicle parking spaces. Additionally, four (4) garage spaces are proposed to be reserved for carsharing services.

Travel Assumptions

The purpose of the CTR is to inform DDOT's review of a proposed action's impacts on the District's transportation network. To that end, selecting reasonable and defensible travel assumptions is critical to developing a realistic analysis.

Background Developments and Regional Growth

As part of the analysis of future conditions, DDOT requires applicants to account for future growth in traffic on the network or what is referred to as background growth. The Applicant coordinated with DDOT on the appropriate background developments to include in the analysis. Traffic from one (1) specific future project (15,000 SF expansion of the Spring Valley Shopping Center) was taken into account as a background development anticipated to be constructed and open by 2024.

DDOT requires Applicants account for regional growth through the build-out year of 2024. This can be done by assuming a general growth rate or by evaluating growth patterns forecast in MWCOG's regional travel demand model. The Applicant coordinated with DDOT on an appropriate measure to account for regional growth that accurately accounted for background growth on the network. Annually compounding background regional growth rates of between 0.10% and 0.75% were assumed in the study area, differing based on roadway and peak hour.

DDOT also requires applicants to consider future changes to the roadway network. It was determined in coordination with DDOT staff that no major changes to the local transportation network are anticipated before 2024.

Trip Generation

Each trip a person makes is made by a certain means of travel, such as vehicle, bicycle, walking, and transit. The means of travel is referred to as a 'mode' of transportation. A variety of elements impact the mode of travel, including density of development, diversity of land use, design of the public realm, proximity to transit options, availability and cost of vehicle parking, among many others.

The Applicant provided trip generation estimates which utilized the rates published in the Institute of Transportation Engineers (ITE) *Trip Generation Manual, 10th Edition* (Land Use Code 221 Multi-Family Mid-Rise, Code 220 Multi-Family Low-Rise, and Code 850 Supermarket) and the assumed mode-split to convert base vehicular trips to base person trips using average auto occupancy data and then back to vehicular, transit, bicycle, and pedestrian trips. DDOT finds these methods appropriate.

Mode split assumptions used in the subject analysis were informed by the Census, WMATA’s 2005 Development-Related Readership Survey, and mode splits used for nearby developments. Figure 4 below shows the mode splits assumed for the traffic impact analysis within the CTR. It is noted that DDOT and the Applicant agreed to use a much higher automobile mode share (90%) than would typically be assumed in this part of the District (65%-70%) to present a conservative or “worst case” scenario from a vehicle trip standpoint and to account for the presence of additional available parking which has the potential to induce more driving to the site.

Land Use	Mode			
	Auto	Transit	Bike	Walk
Residential	90%	5%	2%	3%
Grocer/Retail	90%	0%	2%	8%

Figure 4 – Summary of Mode Split Assumptions (Source: CTR, Gorove/Slade, Table 5, 8/23/19)

Based on the ITE trip generation rates and mode split assumptions, Figure 5 shows the predicted number of weekday and Saturday peak hour trips generated by each mode. As noted above, a conservative automobile mode share was assumed for this project and thus vehicle trip generation estimates may be higher than the levels of traffic that actually materialize once the project is constructed and open.

Mode	Land Use	AM Peak Hour			PM Peak Hour			Saturday Peak Hour		
		In	Out	Total	In	Out	Total	In	Out	Total
Auto	Residential	18 veh/hr	50 veh/hr	68 veh/hr	53 veh/hr	34 veh/hr	87 veh/hr	45 veh/hr	46 veh/hr	91 veh/hr
	Grocery/Retail	37 veh/hr	26 veh/hr	63 veh/hr	100 veh/hr	96 veh/hr	196 veh/hr	87 veh/hr	82 veh/hr	169 veh/hr
	Total	55 veh/hr	76 veh/hr	131 veh/hr	153 veh/hr	130 veh/hr	283 veh/hr	132 veh/hr	128 veh/hr	260 veh/hr
Transit	Residential	1 ppl/hr	3 ppl/hr	4 ppl/hr	3 ppl/hr	2 ppl/hr	5 ppl/hr	3 ppl/hr	3 ppl/hr	6 ppl/hr
	Grocery/Retail	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr
	Total	1 ppl/hr	3 ppl/hr	4 ppl/hr	3 ppl/hr	2 ppl/hr	5 ppl/hr	3 ppl/hr	3 ppl/hr	6 ppl/hr
Bike	Residential	0 ppl/hr	2 ppl/hr	2 ppl/hr	1 ppl/hr	1 ppl/hr	2 ppl/hr	1 ppl/hr	1 ppl/hr	2 ppl/hr
	Grocery/Retail	2 ppl/hr	1 ppl/hr	3 ppl/hr	4 ppl/hr	4 ppl/hr	8 ppl/hr	4 ppl/hr	3 ppl/hr	7 ppl/hr
	Total	2 ppl/hr	3 ppl/hr	5 ppl/hr	5 ppl/hr	5 ppl/hr	10 ppl/hr	5 ppl/hr	4 ppl/hr	9 ppl/hr
Walk	Residential	1 ppl/hr	2 ppl/hr	3 ppl/hr	2 ppl/hr	1 ppl/hr	3 ppl/hr	2 ppl/hr	1 ppl/hr	3 ppl/hr
	Grocery/Retail	6 ppl/hr	4 ppl/hr	10 ppl/hr	16 ppl/hr	16 ppl/hr	32 ppl/hr	14 ppl/hr	13 ppl/hr	27 ppl/hr
	Total	7 ppl/hr	6 ppl/hr	13 ppl/hr	18 ppl/hr	17 ppl/hr	35 ppl/hr	16 ppl/hr	14 ppl/hr	30 ppl/hr

Figure 5 – Multi-Modal Trip Generation Summary (Source: CTR, Gorove/Slade, Table 6, 8/23/19)

The proposed project is expected to generate a significant number of vehicle trips and a moderate amount of transit, bicycle and walking trips during the peak hours. However, as compared to reoccupying the existing grocery store and retail space with tenants, the proposed Lady Bird project would generate fewer vehicle trips during the weekday evening peak hour and Saturday mid-day peak

hour. During the weekday morning peak hour, the project would generate more trips due to the inclusion of the residential use which generates more trips at that time of day than grocery or retail uses. Figure 6 below shows a comparison of vehicle trips between the existing buildings fully occupied with their current uses versus the proposed development program in this PUD.

Development Program	AM Peak Hour			PM Peak Hour			Saturday Peak Hour		
	In	Out	Total	In	Out	Total	In	Out	Total
Existing On-Site Uses	60 veh/hr	40 veh/hr	100 veh/hr	195 veh/hr	196 veh/hr	391 veh/hr	195 veh/hr	186 veh/hr	381 veh/hr
Proposed Uses	55 veh/hr	76 veh/hr	131 veh/hr	153 veh/hr	130 veh/hr	283 veh/hr	132 veh/hr	128 veh/hr	260 veh/hr
Change	-5 veh/hr	36 veh/hr	31 veh/hr	-42 veh/hr	-66 veh/hr	-108 veh/hr	-63 veh/hr	-58 veh/hr	-121 veh/hr

Figure 6 – Comparison of Existing Uses vs Proposed Development (Source: CTR, Gorove/Slade, Table 8, 8/23/19)

Study Area and Data Collection

The Applicant in conjunction with DDOT identified 17 existing intersections (including the alley entrances surrounding the site) where detailed vehicle counts would be collected and a level of service analysis would be performed. These intersections are immediately adjacent to the site and include intersections radially outward from the site with the greatest potential to see impacts in vehicle delay. DDOT acknowledges that not all affected intersections are included in the study area and there will be intersections outside of the study area which would realize new trips. However, DDOT expects minimal to no increase in delay outside the study area as a result of the proposed action.

The Applicant collected weekday intersection traffic count data on Tuesday, March 26, 2019 between 6:30 AM-9:30 AM and 4:00 PM-7:00 PM while District of Columbia Public Schools and Congress were in session. Saturday traffic counts were also collected on March 30, 2019 between 10:00 AM-2:00 PM at two intersections on Massachusetts Avenue NW to see how the volumes compare on weekdays versus Saturdays. This comparison showed that volumes on Massachusetts Avenue were more than 20% lower on Saturdays than during the weekday evening commuter period.

Due to the combination of lower site trip generation and lower roadway volumes on Saturdays, it was determined that the busiest period on Saturday would not be studied further. Instead, DDOT agreed with the Applicant that the traffic impact analysis should focus on the weekday morning and evening commuter peak periods where the combined site traffic and adjacent roadway volumes were higher. These study periods represented more of a “worst case” from a traffic volume standpoint.

Analysis

To determine the proposed development’s impacts on the transportation network, the Applicant completed a Comprehensive Transportation Review (CTR), prepared by Gorove/Slade, dated August 23, 2019 which includes an extensive multi-modal analysis of existing conditions (2019 Existing), future with no development (2024 Background) and future conditions with development (2024 Future) scenarios.

Roadway Capacity and Operations

DDOT aims to provide a safe and efficient roadway network that provides for the timely movement of people, goods and services. As part of the evaluation of travel demand generated by the site, DDOT requests analysis of traffic conditions for the agreed upon study intersections for the current year and after the facility opens both with and without the site development or any transportation changes.

The roadway capacity analysis provided in the CTR demonstrated that none of the 17 study intersections would have an approach that degrades from Level of Service (LOS) D or better to LOS E or worse due to the addition of site generated traffic. Therefore, no mitigation for traffic impacts is requested by DDOT.

Transit Service

The District and Washington Metropolitan Area Transit Authority (WMATA) have partnered to provide extensive public transit service in the District of Columbia. DDOT's vision is to leverage this investment to increase the share of non-automotive travel modes so that economic development opportunities increase with minimal infrastructure investment.

The site is located approximately 1.0 mile, roughly a 15-20 minute walk, from the Tenleytown-AU Metrorail station which is served by the Red Line. Trains serve the Metrorail station every 6 minutes during weekday peak hours, 12 minutes during weekday non-peak times, and 15-18 minutes on weekends.

There are a couple bus stops near the site along Massachusetts Avenue NW at the intersections with 49th Street and Fordham Road/48th Street. These stops are served by Metrobus routes N4 and N6 with bus headways on these routes ranging from 5 to 30 minutes throughout the day.

Pedestrian Facilities

The District is committed to enhancing pedestrian accessibility by ensuring consistent investment in pedestrian infrastructure on the part of both the public and private sectors. DDOT expects new developments to serve the needs of all trips they generate, including pedestrian trips. Walking is expected to be an important mode of transportation for this development. DDOT expects that the Applicant will reconstruct the public space along the frontage on both Yuma Street and 48th Street and upgrade any pedestrian facilities to current DDOT standards.

The Applicant's inventory of existing pedestrian infrastructure, as shown in Figure 7 below, demonstrates that most sidewalks in the immediate vicinity of the site are currently constructed with appropriate widths and include accessible curb ramps. While there are a number of missing or substandard facilities in the broader area, the existing pedestrian network along major walking routes from the site to schools, attractions, and the Metrorail station is generally adequate.



Figure 7 – Existing Pedestrian Infrastructure (Source: CTR, Gorove/Slade, Figure 41, 8/23/19)

As discussed previously in the Vehicle Parking section, to offset the potential induced demand for being over-parked, the Applicant has agreed to fund and construct several pedestrian network improvements in the immediate vicinity of the site to encourage walking and discourage driving. Specifically, the Applicant will upgrade sub-standard curb ramps, stripe missing crosswalks, and install curb extensions on all corners of the following intersections, subject to DDOT approval. These curb extensions will make the stop signs more visible to drivers, shorten the crossing distance for pedestrians, and slow turning vehicles.

- 49th Street and Yuma Street NW
- 48th Street and Yuma Street NW
- 48th Street and Windom Place NW
- 48th Street and Warren Street NW

In conjunction with a robust TDM program, DDOT finds these intersection improvements to be acceptable and appropriate mitigation. DDOT notes that the final design of the curb extensions, curb ramps, and crosswalks will occur during public space permitting.

As part of the Community Benefits Agreement, the Applicant is proposing to install a High-intensity Activated crossWalk (HAWK) pedestrian beacon on Massachusetts Avenue NW in the vicinity of the alley entrance. This commitment is the result of several years of coordination between the Applicant, community, ANC, and DDOT. Since there is a significant distance (approx. 750 feet) between 48th and 49th Street pedestrian crossings, the signal will allow for safe and controlled mid-block pedestrian

crossings between existing shopping centers and residential neighborhoods on each side of Massachusetts Avenue NW. The Manual on Uniform Traffic Control Devices (MUTCD) sets a threshold of 20 pedestrian crossings per hour for mid-block pedestrian signals (MUTCD Figure 4F-1), which likely will be met after installation of the beacon and crosswalks. Given all of these factors, DDOT concurs that this is a good candidate location for a mid-block pedestrian beacon and finds the Applicant’s commitment acceptable as part of this PUD. However, it is noted that the final location and specific design of the HAWK signal will be determined during the public space permitting process and will be subject to DDOT approval.

Bicycle Facilities

The District is committed to enhancing bicycle access by ensuring consistent investment in bicycle infrastructure by both the public and private sectors. DDOT expects new developments to serve the needs of all trips they generate, including bicycling trips.

Per ZR16 Subtitle C § 802.1, it is estimated that the Applicant is required to provide 75 long-term and 16 short-term bicycle parking spaces. The Applicant is proposing to exceed these requirements by installing 83 long-term spaces in the parking garage and 27 short-term spaces around the perimeter of the site in public space. The locations of short-term spaces are not currently shown on the submitted drawings, but should be accommodated by installing inverted U-racks in public space or on private property. The final locations of short-term bicycle parking will be determined during public space permitting.

As shown below in Figure 8, there are currently no bicycle lanes or Capital Bikeshare stations in the vicinity of the site.

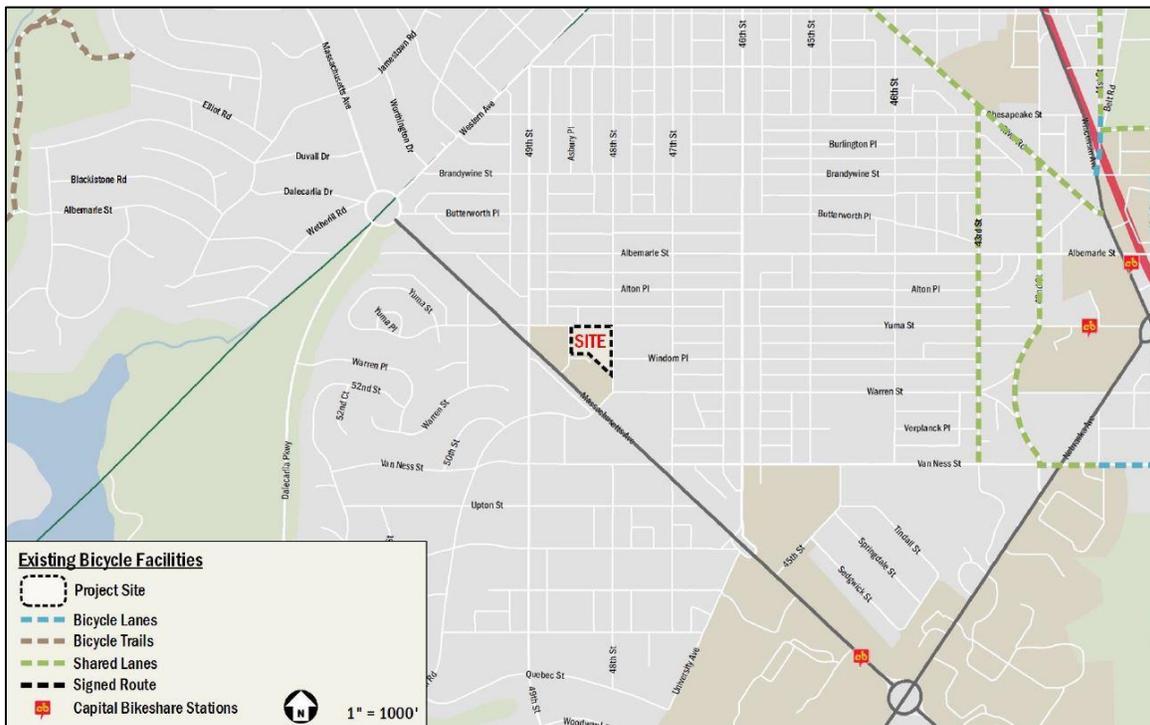


Figure 8 – Existing Bicycle Facilities (Source: CTR, Gorove/Slade, Figure 43, 8/23/19)

Safety

DDOT requires that the Applicant conduct a safety analysis to demonstrate that the site will not create new, or exacerbate existing safety issues for all travel modes. DDOT asks for an evaluation of crashes at study area intersections as well as a site distance analysis along the public space where there is expected to be conflicts between competing modes (e.g. crosswalks, driveway entrances, etc.).

The CTR's analysis of DDOT crash data over a three-year period (2016-2018) reveals that no intersections within the study area has a crash rate of 1.0 crashes per Million Entering Vehicles (MEV) or higher, which is the threshold for further design considerations. It is anticipated that the addition of site-generated trips associated with the development will not have a major impact on the MEV rates of study intersections.

Mitigations

As part of all major development review cases, DDOT requires the Applicant to mitigate the impacts of the development in order to positively contribute to the District's transportation network. The mitigations must sufficiently diminish the action's vehicle impact and promote non-auto travel modes. This can be done through Transportation Demand Management (TDM), physical improvements, operations, and performance monitoring.

DDOT preference is to mitigate vehicle traffic impacts first through establishing an optimal site design and operations to support efficient site circulation. When these efforts alone cannot properly mitigate an action's impact, a reduction in parking and implementation of TDM measures may be necessary to manage travel behavior to minimize impact. Only when these other options are exhausted will DDOT consider capacity-increasing changes to the transportation network because such changes often have detrimental impacts on non-auto travel and are often contrary to the District's multi-modal transportation goals.

The following analysis is a review of the Applicant's proposed mitigations and a description of DDOT's suggested conditions for inclusion in the Zoning Order:

Pedestrian Network

To offset the impacts of providing a large supply of on-site vehicle parking, the Applicant has proposed funding and constructing several pedestrian network improvements in the immediate vicinity of the site to encourage walking and discourage driving. Specifically, the Applicant will upgrade sub-standard curb ramps, stripe missing crosswalks, and install curb extensions on corners of the following intersections:

- 49th Street and Yuma Street NW
- 48th Street and Yuma Street NW
- 48th Street and Windom Place NW
- 48th Street and Warren Street NW

As part of the Community Benefits Agreement, the Applicant is proposing to install a HAWK pedestrian signal on Massachusetts Avenue NW, between 48th and 49th Streets, in the vicinity of the alley entrance. This commitment is the result of several years of coordination with the community, ANC, and DDOT.

DDOT finds the commitment acceptable as part of this PUD, but notes that the specific design and location of the HAWK signal and its approval will occur during the public space permitting process.

Transportation Demand Management

As part of all major development review cases, DDOT requires the Applicant to produce a comprehensive Transportation Demand Management (TDM) plan to help mitigate an action's transportation impacts. TDM is a set of strategies, programs, services, and physical elements that influence travel behavior by mode, frequency, time, route, or trip length in order to help achieve highly efficient and sustainable use of transportation facilities. In the District, this typically means implementing infrastructure or programs to maximize the use of mass transit, bicycle and pedestrian facilities, and reduce single occupancy vehicle trips during peak periods. The Applicant's proposed TDM measures play a role in achieving the desired and expected mode split.

The specific elements within the TDM plan vary depending on the land uses, site context, proximity to transit, scale of the development, and other factors. The TDM plan must help achieve the assumed trip generation rates to ensure that an action's impacts will be properly mitigated. Failure to provide a robust TDM plan could lead to unanticipated additional vehicle trips that could negatively impact the District's transportation network.

The Applicant proposes a TDM Plan in the August 23, 2019 CTR which includes the following elements:

- Fund a new HAWK (High-Intensity Activated crossWalk) signal on Massachusetts Avenue between 48th Street and 49th Street, pending DDOT approval;
- Fund and construct pedestrian safety improvements at four (4) intersections along 48th and 49th Street NW (see Pedestrian Network section);
- Provide \$100,000 on means for connecting residents to the Tenleytown Metro station through shuttle or geofence with ride hailing services;
- Will exceed ZR16 requirements for bicycle parking/storage facilities at the proposed development. This includes secure parking located on-site and short-term bicycle parking around the perimeter of the site;
- A bicycle repair station will be included in each of the long-term bicycle storage facilities;
- Dedicate four (4) parking spaces in the below-grade parking garage for car-sharing services to use with right of first refusal. If an agreement has not been reached with a car sharing service to occupy the four (4) dedicated car sharing spaces in the garage then the Applicant will provide an additional year of Capital Bikeshare memberships to new residents;
- Unbundle the cost of residential parking from the cost of lease or purchase of each unit. Unbundled cost of parking will be based on the average market rate within a quarter mile.
- No free parking shall be offered to any resident, employee, student, or otherwise. Only daily, weekly, and monthly rates will be made available for purchase;
- Identify TDM Leaders (for planning, construction, and operations). The TDM Leaders will work with residents and grocery/retail employees to distribute and market various transportation alternatives and options;
- Work with DDOT and goDCgo (DDOT's TDM program) to implement TDM measures at the site;
- Share the full contact information of the TDM Leaders for the site with DDOT and goDCgo (info@godcgo.com);
- The Applicant will post all commitments online for easy reference;

- Provide TDM materials to new residents in the Residential Welcome Package materials;
- Provide residents and grocery/retail employees who wish to carpool with detailed carpooling information and will be referred to other carpool matching services sponsored by the Metropolitan Washington Council of Governments (MWCOG);
- Install a Transportation Information Center Display (electronic screen) within the residential lobbies containing information related to local transportation alternatives;
- Offer either a one-year membership to Capital Bikeshare or a one-year membership to a car-sharing service to each residential unit for the initial lease of each unit;
- Restrict residents of the building from obtaining a Residential Parking Permit (“RPP”), with penalty of lease termination; and
- Provide one (1) shopping car for grocery shopping and running errands for every 30 units.

DDOT finds the proposed TDM plan to be sufficiently robust for this project if implemented in conjunction with the requested pedestrian network improvements.

JS:az