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: November 6, 2017

SUBJECT: ZC Case No. 17-10 – 5127-5131 Nannie Helen Burroughs Avenue NE (Strand Residences)

PROJECT SUMMARY

The Warrenton Group (the "Applicant") proposes a Consolidated Planned Unit Development (PUD) and Map Amendment to rezone Lots 19, 37, 805, and 814 in Square 5196 from MU-3 to MU-5-A.

The proposal to redevelop existing retail buildings at 5127-5131 Nannie Helen Burroughs Avenue NE, adjacent to The Strand Theater, includes the following development program:

- 86 residential units;
- 1,400 SF retail;
- 1,000 SF community space;
- 20 on-site vehicle parking spaces;
- 31 long-term and eight (8) short-term bicycle parking spaces; and
- Zero (0) 30-foot loading berths 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 new 14-foot private alley at the rear of the property. The existing 15-foot public alley from Division Avenue NE is proposed to be closed and shifted 40-feet to the south;
- Pedestrian access to the residential portion is via an entrance on Nannie Helen Burroughs Avenue NE and the rear parking lot area. Pedestrian access to the retail portion is only via the front of the building;
- The Applicant is seeking loading relief from the one (1) required loading berth. The Applicant is proposing to still provide the required one (1) 20-foot delivery space;
- The Applicant proposes that residential move-ins and move-outs occur via the rear 20-foot delivery space for smaller trucks and an on-street vehicle parking space using "emergency no parking" signs for larger trucks;
- The Applicant proposes to create a "commercial loading zone" on Division Avenue NE for trash pick-up and to establish a pick-up/drop-off zone on Nannie Helen Burroughs Avenue NE for the retail use; and
- As currently designed, trash trucks would back-out through public space to Division Avenue NE.

Travel Assumptions

- The Applicant utilized sound methodology and assumptions to perform the analysis in the CTR;
- The proposed mode split and subsequent trip generation are consistent with the level of on-site vehicle parking provided;
- The site is well served by local bus routes, but is more than a mile from the nearest Metrorail station; and
- The proposed project is expected to generate a relatively low number of vehicle, transit, bicycle and walking trips during the weekday commuter peak hours.

Analysis

- DDOT has no objection to the requested relief from the one (1) residential loading berth since residents can use the 20-foot delivery space for move-ins and move-outs with smaller trucks and are eligible to obtain "emergency no parking" signs for larger trucks;
- DDOT does not concur with the Applicant's proposal to create an on-street "commercial loading zone" on Division Avenue NE to accommodate trash pick-up. These zones are reserved for areas of the District with numerous retail storefronts and inadequate alley access. Additionally, this would result in the loss of three (3) on-street vehicle spaces;
- DDOT also does not concur with the Applicant's proposal to create a pick-up/drop-off zone for the retail use on Nannie Helen Burroughs Avenue NE. Retail patrons and delivery trucks can use either the unregulated vehicle spaces along Nannie Helen Burroughs Avenue or the one-hour parking spaces around the corner on Division Avenue NE. Additionally, this would result in the loss of three (3) on-street vehicle spaces;

- The proposed Loading Management Plan in the October 25, 2017 Gorove/Slade memorandum to DDOT should be revised to remove any elements that reference the creation of a commercial loading zone and a pick-up/drop-off zone. See Mitigations section for the three (3) specific bullets to be eliminated;
- Since this project is new construction and will involve the relocation of an existing alley, DDOT expects the Applicant will design the building and alley to accommodate head-in and head-out movements by trash trucks. The Applicant's current proposal forces trash trucks to back-out onto Division Avenue NE through public space;
- The quantity of bicycle parking proposed by the Applicant (31 long-term and 8 short-term spaces) exceeds the zoning requirements of 29 long- and four (4) short-term spaces;
- DDOT will provide formal comments on the proposed alley closure in a separate report to the Office of Surveyor. DDOT is generally in concurrence on closing the alley so long as neighbors still have access to the alley through a public access easement, and trash trucks can adequately maneuver without backing onto the street;
- The pedestrian network in the vicinity of site and walk ways to nearby schools and attractions is generally complete. The Applicant is proposing upgrades along the frontages on both Nannie Helen Burroughs Avenue NE and Division Avenue NE;
- The existing Capital Bikeshare station one block south of the site at Division Avenue and Foote Street NE only has 15 docks. DDOT's minimum standards size is 19-docks;
- The intersection of Nannie Helen Burroughs and Division Avenue NE is projected to be impacted by site generated traffic. The Applicant has proposed a signal timing adjustment as mitigation to improve level of service. In lieu of making this adjustment, which would require DDOT to re-evaluate signal timings in the corridor, the Applicant should focus on improving the proposed TDM plan; and
- The TDM plan proposed in the October 2, 2017 CTR is not sufficient to encourage non-auto travel and mitigate vehicular impacts to the transportation network. DDOT recommends the inclusion of additional measures, as noted in the Mitigations section below, to both bring the TDM plan up to the minimum DDOT expects from all PUD applications and to offset vehicular impacts to the intersection of Nannie Helen Burroughs Avenue and Division Avenue NE.

Mitigations

DDOT has no objection to approval of the Consolidated PUD with the following revisions and conditions:

- Reconfigure the design of the rear of the building and/or size of the alley to accommodate head-in and head-out movements by trash trucks;
- Implement the proposed Loading Management Plan, for the life of the project, as outlined in the Applicant's October 25, 2017 transportation memorandum, with the bullets referencing the commercial loading and pick-up/drop-off zones removed from the plan (see later in this report);
- Implement the Transportation Demand Management (TDM) Plan as proposed by the Applicant in the October 2, 2017 CTR, for the life of the project, unless otherwise noted;
- Revise the proposed TDM Plan to include the following elements to offset the impacts at the intersection of Nannie Helen Burroughs Avenue and Division Avenue NE:

- Fund and install an expansion of at least four (4) docks to the existing Capital Bikeshare station at the intersection of Division Avenue and Foote Street NE to bring it up to the DDOT minimum standard of 19-docks;
- Work with a private carshare provider to place at least one (1) carshare vehicle on site, preferably in one of the two on-site parking spaces on private property labeled 'retail parking';
- Work with DDOT and goDCgo, DDOT's TDM program, to implement TDM measures at the site;
- Share the full contact information of the TDM coordinator for the site with DDOT and goDCgo;
- Unbundle parking from the rent or purchase of all units for residents and the retailer;
- Charge at least market rate for parking and will not offer free parking; and
- Provide at least eight (8) shopping carts for residential use.

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 shown in public space. The following issues with the current public space design should be coordinated with DDOT as the Applicant pursues public space permits:
  - Final design and dimensions of new alley curb cut and closure of existing alley curb cut on Division Street NE;
  - Install one (1) additional tree on Division Street NE near the location of the closed alley curb cut;
  - Projection distances and clearance heights for proposed balconies on Nannie Helen Burroughs Avenue NE;
  - Remove existing ground floor building projection from pedestrian walkway;
  - Move bioretention planters on the southern side of Nannie Helen Burroughs Avenue NE to edge of curb to allow for a wider and straighter pedestrian clear path; and
  - Determine final locations for the short-term bicycle spaces (inverted U-racks).
- Provide a curbside management and signage plan, assumed to include multi-space meter installation at the Applicant's expense, consistent with current DDOT policies; and
- Coordinate with DDOT's Urban Forestry Division (UFD) and the Ward 7 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, 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

Primary vehicular access to the development is proposed to occur via a 14-foot rear private alley from Division Avenue NE. The Applicant is proposing to close the existing 15-foot rear public alley, use that strip of land as developable space, and create a new private alley approximately 40 feet to the south of the original location. DDOT notes that the Applicant is pursuing an alley closure application in parallel with this PUD case (Surveyor's Order 17-26544). DDOT generally finds this acceptable so long as a public access easement is in place so neighboring properties will not lose alley access or be precluded from accessing the new alley (due to any major changes in grade of the new alley for example) as a result of the shift and that trash trucks can adequately maneuver in the new alley. DDOT will provide more specific comments on the alley closure in a separate report to the Office of Surveyor.

Pedestrian access for the retail and community space portions of the project will be via entrances on Nannie Helen Burroughs Avenue NE. Residents of the property may either access the building via a third pedestrian entrance on Nannie Helen Burroughs Avenue NE or via the rear of the building in the vehicle parking area. Figure 1 below shows the site layout of the Strand Residences project.

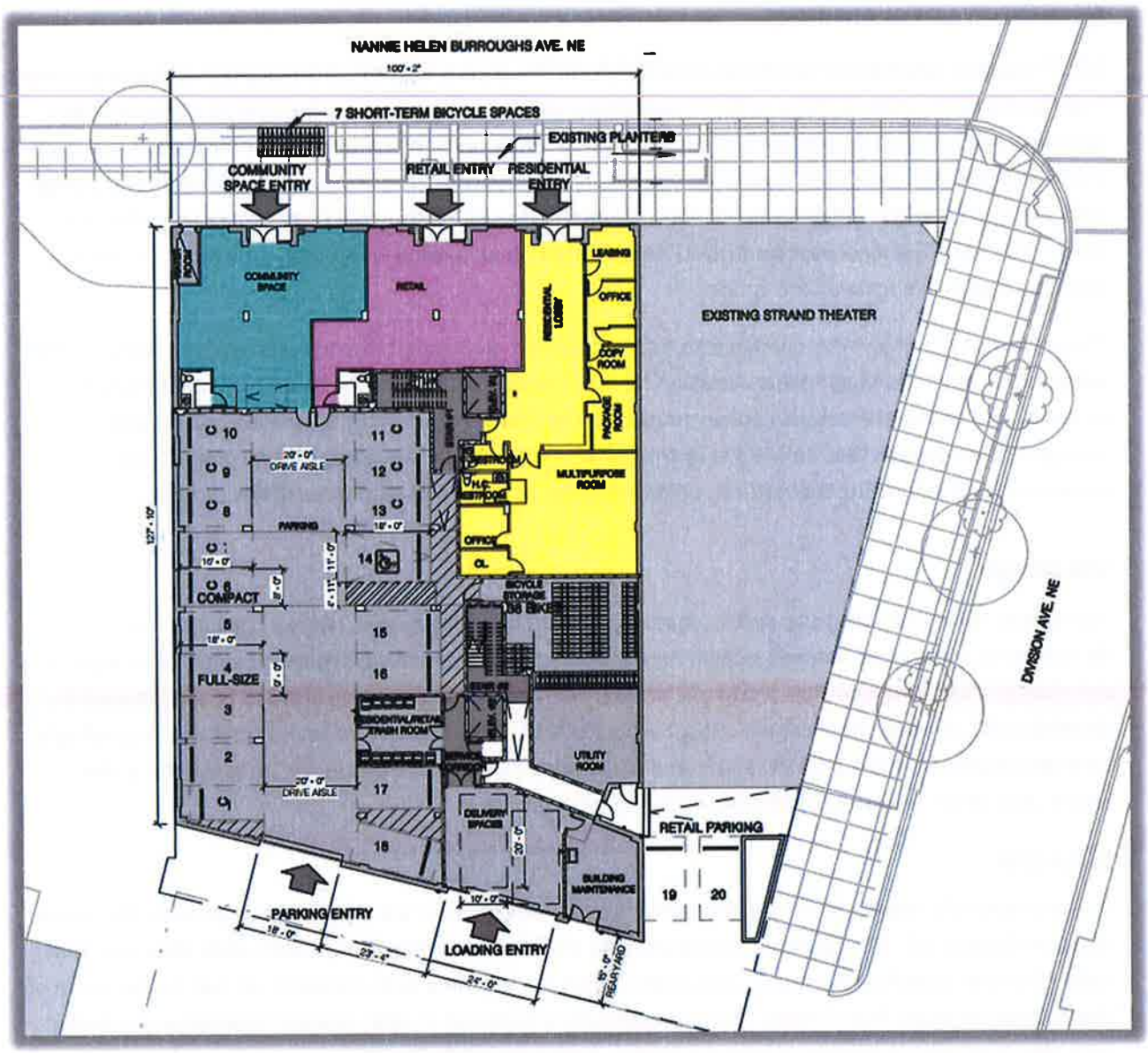

Figure 1 – Site Plan (Source: Applicant Plan Set, Sheet A-09, 10/26/17)

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 for residential properties with more than 50 units, the site is required to provide one (1) loading berth, one (1) loading platform, and one (1) 20-foot delivery space. The Applicant is seeking relief from the requirements to provide a loading berth and loading platform.

It is anticipated that the site will generate approximately six (6) loading trips per day, including three (3) general deliveries (trash removal, mail, parcel delivery), one (1) residential move-in or move-out, and two (2) retail deliveries. To meet these loading needs, the Applicant proposes to provide one (1) 20-foot delivery space on private property at the rear of the site accessed via the new private alley and that DDOT establish a commercial loading zone on Division Avenue NE for trash operations and retail deliveries. It is noted that the signing of a new commercial loading zone would result in the loss of approximately two (2) existing vehicle parking spaces. The Applicant also proposes that the three (3) unregulated on-street vehicle parking spaces in front of the site on Nannie Helens Burroughs Avenue NE be converted into a pick-ups and drop-off zone. Figure 2 below depicts the Applicant's proposed loading scheme and on-street vehicle parking signage.

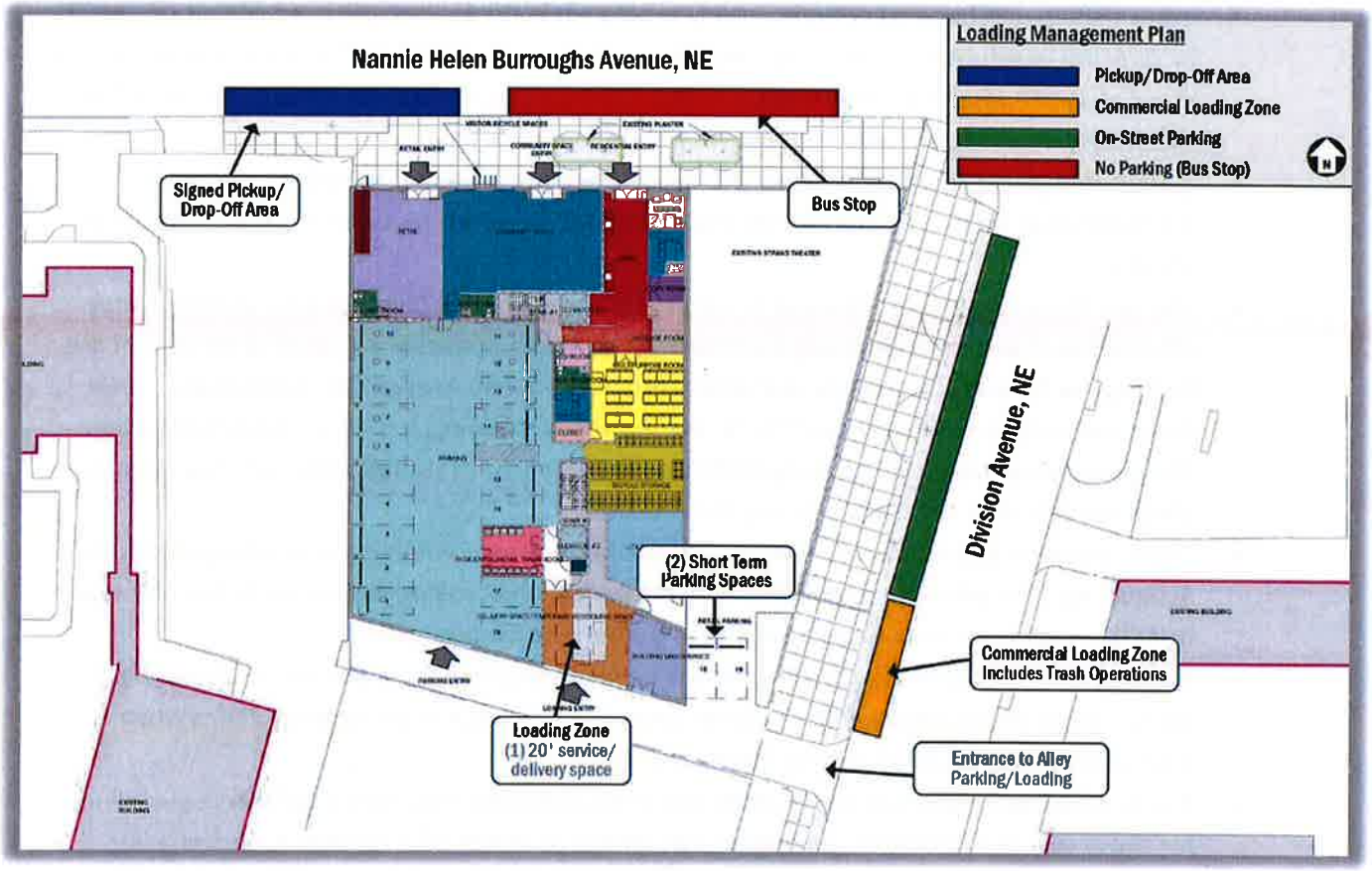

Figure 2 – Revised Loading Management Plan (Source: Gorove/Slade Memo, Figure 2, 10/25/17)

The Applicant submitted a revised Loading Management Plan, prepared by Gorove/Slade, dated October 25, 2017, which includes the following elements:

- Residents, vendors, and/or on-site tenants will be required to coordinate and schedule deliveries with an assigned loading coordinator, and the loading coordinator will be on duty during delivery hours.
- Residents will be required to schedule move-in and move-outs with the loading manager through leasing regulations.

- Trucks accessing the on-site service space will be limited to a maximum of 20 feet in length. All trucks 20 feet and under must meet service zone requirements.
- All residents and tenants will be required to schedule any loading operation conducted using a truck greater than 20 feet in length. These operations must take place from the street parking alongside Division Avenue, NE.
- Residents utilizing moving trucks greater than 20 feet in length will be required to obtain "Emergency, No Parking" signs during the duration of the move. The fees for this service will be paid by the resident.
- Commercial loading activity utilizing trucks greater than 20 feet shall utilize the proposed commercial loading zone alongside Division Avenue, NE.
- Deliveries will be scheduled such that the capacity of the service space is not exceeded. In the event that an unscheduled delivery vehicle arrives while the service space is full, that driver will be directed to return at a later time when the service space is available Should a delivery vehicle arrive at a time when the service space is unoccupied and no delivery is immediately scheduled, the driver may utilize the service space for a short period of time.
- A dedicated pickup/drop-off area will be signed along NHB Avenue, NE, where parking is restricted at all times. The area will be adjacent to the main residential and retail entrances of the site.
- The two (2) surface spaces included in the development will not be utilized for pickup or drop-off services. These short-term spaces intended for retail purposes are located in the rear of the building, far from the residential and retail entrances on NHB Avenue, NE. Additionally, while these spaces have a direct connection to the residential building, it is at an unstaffed location. The main residential entrance along NHB Avenue, NE will have staffed lobby where a security check can be made on who is entering the premises.
- Trash collection operations will take place from the commercial loading zone alongside Division Avenue, NE. This will be accomplished with the utilization of rolling dumpsters to transfer waste from the trash room to the waste collection truck in the loading zone.
- Inbound and outbound truck maneuvers will be monitored to ensure that trucks accessing the service space do not block vehicular traffic along the alley except during those times when a truck is actively entering or exiting the loading space.
- Trucks using the service space 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 loading manager will be responsible for disseminating DDOT's Freight Management and Commercial Vehicle Operations document to drivers as needed to encourage compliance with District laws and DDOT's truck routes. The dock manager will also post these documents in a prominent location within the service area.

DDOT does not agree with the Applicant's proposal to create a signed pick-up/drop-off zone on Nannie Helen Burroughs Ave NE or a commercial loading zone on Division Avenue NE because DDOT would prefer not to lose a total of six (6) on-street vehicle parking spaces (three on each street) to accommodate trash pick-up that should occur on private property. Instead the Applicant should reconfigure the rear of the site or alter the design of the proposed private alley to accommodate trash trucks entirely on private property or within the alley and allow for only head-in/head-out movements. As currently designed, trash trucks would pull head-in to the alley and then back-out through public space to Division Avenue NE.

Additionally, references to the following elements should be removed from the proposed loading management plan:

- Commercial loading activity utilizing trucks greater than 20 feet shall utilize the proposed commercial loading zone alongside Division Avenue, NE.
- A dedicated pickup/drop-off area will be signed along NHB Avenue, NE, where parking is restricted at all times. The area will be adjacent to the main residential and retail entrances of the site.
- Trash collection operations will take place from the commercial loading zone alongside Division Avenue, NE. This will be accomplished with the utilization of rolling dumpsters to transfer waste from the trash room to the waste collection truck in the loading zone.

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 recently released 2017 version of the *Design and Engineering Manual (DEM)* and DDOT's *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. DDOT encourages the Applicant to participate in a Preliminary Design Review Meeting (PDRM) to address design related issues raised by DDOT and OP.

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

- Final design and dimensions of new alley curb cut and closure of existing alley curb cut on Division Street NE;
- Install one (1) additional tree on Division Street NE near the location of the closed alley curb cut;

- Projection distances and clearance heights for proposed balconies on Nannie Helen Burroughs Avenue NE;
- Remove existing ground floor building projection from pedestrian walkway;
- Move bioretention planters on the southern side of Nannie Helen Burroughs Avenue NE to edge of curb to allow for a wider and straighter pedestrian clear path; and
- Determine final locations for the short-term bicycle spaces (inverted U-racks).

DDOT notes that these public space elements were discussed with the Applicant during a Preliminary Design Review Meeting (PDRM) on October 17, 2017.

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 7 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.

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 project (Deanwood Hills PUD – 150 units) was taken into account as a background development anticipated to be constructed by 2020.

DDOT requires applicants account for regional growth through the build-out year of 2020. 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 5.0% 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 changes to the roadway network are anticipated by 2020.

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.

Per Subtitle C § 701.5 and 702.1 of the 2016 Zoning Regulations, the Applicant is required to provide 15 vehicle parking spaces for 86 residential units and 1,400 SF of retail (1 per 3 units, 0 for retail under 3,000 SF, plus 50% transit reduction). The Applicant is proposing to provide a total of approximately 20 vehicle parking spaces (18 for residents and 2 for retail) in the rear of the property accessed via the new private alley.

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 by utilizing the rates published in the Institute of Transportation Engineers (ITE) *Trip Generation Manual, 9th Edition* (Land Use Code 220 Apartment, Code Code 820 Shopping Center) 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 3 below shows the mode splits that were assumed for the Strand Residences project.

Land Use	Mode			
	Drive	Transit	Bike	Walk
Residential	60%	35%	2%	3%
Retail	60%	25%	2%	13%

Figure 3 – Summary of Mode Split Assumptions (Source: CTR, Gorove/Slade, Table 2, 10/2/17)

Based on the trip generation and mode split assumptions, Figure 4 shows the predicted number of weekday peak hour trips generated by mode:

Mode	Land Use	AM Peak Hour			PM Peak Hour		
		In	*Out*	*Total*	*In*	*Out*	*Total*
Auto	Apartments	5 veh/hr	22 veh/hr	27 veh/hr	25 veh/hr	14 veh/hr	39 veh/hr
	Retail	1 veh/hr	0 veh/hr	1 veh/hr	1 veh/hr	2 veh/hr	3 veh/hr
	Total	**6 veh/hr**	**22 veh/hr**	**28 veh/hr**	**26 veh/hr**	**16 veh/hr**	**42 veh/hr**
Transit	Apartments	4 ppl/hr	14 ppl/hr	18 ppl/hr	16 ppl/hr	10 ppl/hr	26 ppl/hr
	Retail	1 ppl/hr	0 ppl/hr	1 ppl/hr	1 ppl/hr	1 ppl/hr	2 ppl/hr
	Total	**5 ppl/hr**	**14 ppl/hr**	**19 ppl/hr**	**17 ppl/hr**	**11 ppl/hr**	**28 ppl/hr**
Bike	Apartments	0 ppl/hr	1 ppl/hr	1 ppl/hr	1 ppl/hr	0 ppl/hr	1 ppl/hr
	Retail	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr
	Total	**0 ppl/hr**	**1 ppl/hr**	**1 ppl/hr**	**1 ppl/hr**	**0 ppl/hr**	**1 ppl/hr**
Walk	Apartments	0 ppl/hr	2 ppl/hr	2 ppl/hr	1 ppl/hr	1 ppl/hr	2 ppl/hr
	Retail	0 ppl/hr	0 ppl/hr	0 ppl/hr	1 ppl/hr	0 ppl/hr	1 ppl/hr
	Total	**0 ppl/hr**	**2 ppl/hr**	**2 ppl/hr**	**2 ppl/hr**	**1 ppl/hr**	**3 ppl/hr**

Figure 4 – Multi-Modal Trip Generation Summary (Source: CTR, Gorove/Slade, Table 3, 10/2/17)

The proposed project is expected to generate a relatively low number of vehicle, transit, bicycle and walking trips during the peak hours. The proposed mode split and subsequent trip generation is consistent with the amount of vehicle parking provided.

Study Area and Data Collection

The Applicant in conjunction with DDOT identified three (3) existing intersections (plus the driveway to Division Avenue NE) 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 Wednesday, March 22, 2017 between 6:30 AM-9:30 AM and 3:00 PM-6:00 PM and on Wednesday, June 7, 2017 between 6:30 AM-9:30AM and 4:00-7:00 PM while District of Columbia Public Schools and Congress were in session. DDOT is in agreement with the Applicant on the data collection time frame and dates.

Analysis

To determine the PUD's impacts on the transportation network, the Applicant completed a Comprehensive Transportation Review (CTR), prepared by Gorove/Slade, dated October 2, 2017 which includes an extensive multi-modal analysis of existing conditions (2017 Existing), future with no development (2020 Background), future conditions with development (2020 Future), and 2020 Future with Mitigations 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 following table (Figure 5) summarizes the results of the Applicant's capacity analysis and demonstrates the impacts on delay and level of service of the proposed mitigation measures.

Intersection	Approach	Existing Conditions (2017)				Background Conditions (2020)				Total Future Conditions (2020)				Total Future Conditions, Mitigations (2020)	
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour	
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
49th Street and Nannie Helen Burroughs Avenue, NE	Overall	20.4	C	20.1	C	24.1	C	20.7	C	24.2	C	20.8	C	--	--
	Eastbound	10.9	B	15.8	B	11.2	B	15.8	B	11.2	B	16.2	B	--	--
	Westbound	11.4	B	16.2	B	11.5	B	16.4	B	12.0	B	16.6	B	--	--
	Northbound	45.2	D	32.3	C	60.5	E	34.5	C	60.5	E	34.5	C	--	--
	Southbound	31.6	D	23.5	C	35.9	D	23.6	C	35.9	D	23.6	C	--	--
Division Avenue and Nannie Helen Burroughs Avenue, NE	Overall	30.1	C	21.5	C	31.4	C	22.2	C	36.4	D	23.2	C	31.5	C
	Eastbound	10.1	B	11.9	B	10.5	B	12.5	B	10.6	B	13.5	B	10.8	B
	Westbound	32.4	C	26.5	C	33.7	C	27.7	C	33.7	C	28.8	C	37.9	D
	Northbound	56.2	E	33.2	C	60.6	E	33.9	C	80.7	F	35.8	D	55.2	E
	Southbound	22.2	C	19.4	B	21.8	C	18.8	B	22.0	C	18.3	B	20.1	C
55th Street and Nannie Helen Burroughs Avenue, NE	Overall	30.7	C	32.0	C	31.9	C	32.3	C	31.9	C	32.6	C	--	--
	Eastbound	39.0	D	41.1	D	41.6	D	41.8	D	41.5	D	42.2	D	--	--
	Westbound	35.9	D	26.6	C	36.1	D	26.6	C	36.1	D	26.6	C	--	--
	Northbound	4.3	A	4.5	A	4.3	A	4.5	A	4.3	A	4.5	A	--	--
	Southbound	4.2	A	4.4	A	4.2	A	4.4	A	4.2	A	4.4	A	--	--
Division Avenue and Alley/Site Driveway, NE	Eastbound	For Future Use				For Future Use				15.4	C	15.0	C	--	--
	Northbound									0.0	A	0.0	A	--	--
	Southbound									0.0	A	0.0	A	--	--

Figure 5 – LOS Results (Source: CTR, Gorove/Slade, Table 6, 10/2/17)

As shown above, the analysis provided by the Applicant shows that 1 intersection within the study area has an approach during at least one peak hour either that operates at LOS E or LOS F conditions resulting from the addition of site traffic or worsened by site traffic:

- Nannie Helen Burroughs Avenue and Division Avenue NE – the northbound approach is projected to degrade from LOS E to LOS F between Background 2020 and Future 2020 conditions during the morning commuter peak hour. A signal timing adjustment was recommended in the CTR as a way to improve delay back to an LOS E. DDOT finds that signal timing changes are not appropriate as an isolated traffic mitigation solution in conjunction with a development project because an entire corridor would need to be re-timed. The Applicant should instead focus on providing additional TDM measures to offset the impact to this intersection (see Mitigations section).

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 1.1 miles, roughly a 25-minute walk, from the Benning Road Metrorail station which is served by the Blue and Silver Lines, and approximately 1.2 miles from the Deanwood Metrorail station which is served by the Orange Line.

There are several bus stops along both Nannie Helen Burroughs Avenue and Division Avenue in the vicinity of the site including one located directly in front of the site. Nearby bus stops are served by Metrobus routes U5, U6, V2, V4, W4, and X9 as shown below in Figure 6.

Route Number	Route Name	Service Hours	Headway	Walking Distance to Nearest Bus Stop
U5, U6	Mayfair – Marshall Heights Line	Weekdays: 4:45 AM – 1:16 AM Weekends: 5:20 AM – 2:44 AM	Weekdays: 12–36 minutes Weekends: 17–32 minutes	0.3 miles, 8 minutes
V2, V4	Capitol Heights-Minnesota Avenue Line	Weekdays: 4:15 AM – 2:50 AM Weekends: 4:35 AM – 2:46 AM	Weekdays: 3–32 minutes Weekends: 15–40 minutes	<0.1 mile, 1 minute
W4	Deanwood-Alabama Avenue Line	Weekdays: 5:06 AM – 2:18 AM Weekends: 6:05 AM – 2:08 AM	Weekdays: 10–30 minutes Weekends: 16–36 minutes	<0.1 mile, 1 minute
X9	Benning Road-H Street Limited Line	Weekdays: 6:23 AM – 7:16 PM	Weekdays: 11–20 minutes	<0.1 mile, 1 minute

Figure 6 – Metrobus Route Information (Source: CTR, Gorove/Slade, Table 8, 10/2/17)

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.

The Applicant's existing inventory of the pedestrian infrastructure in the vicinity of the sites, as shown in Figure 7 below, stretches of substandard sidewalks along the site frontages on both Nannie Helen Burroughs Avenue and Division Avenue NE. While there are several missing or substandard segments of sidewalk and curb ramps in the broader area, the existing pedestrian network along major pathways to schools and attractions is generally adequate.

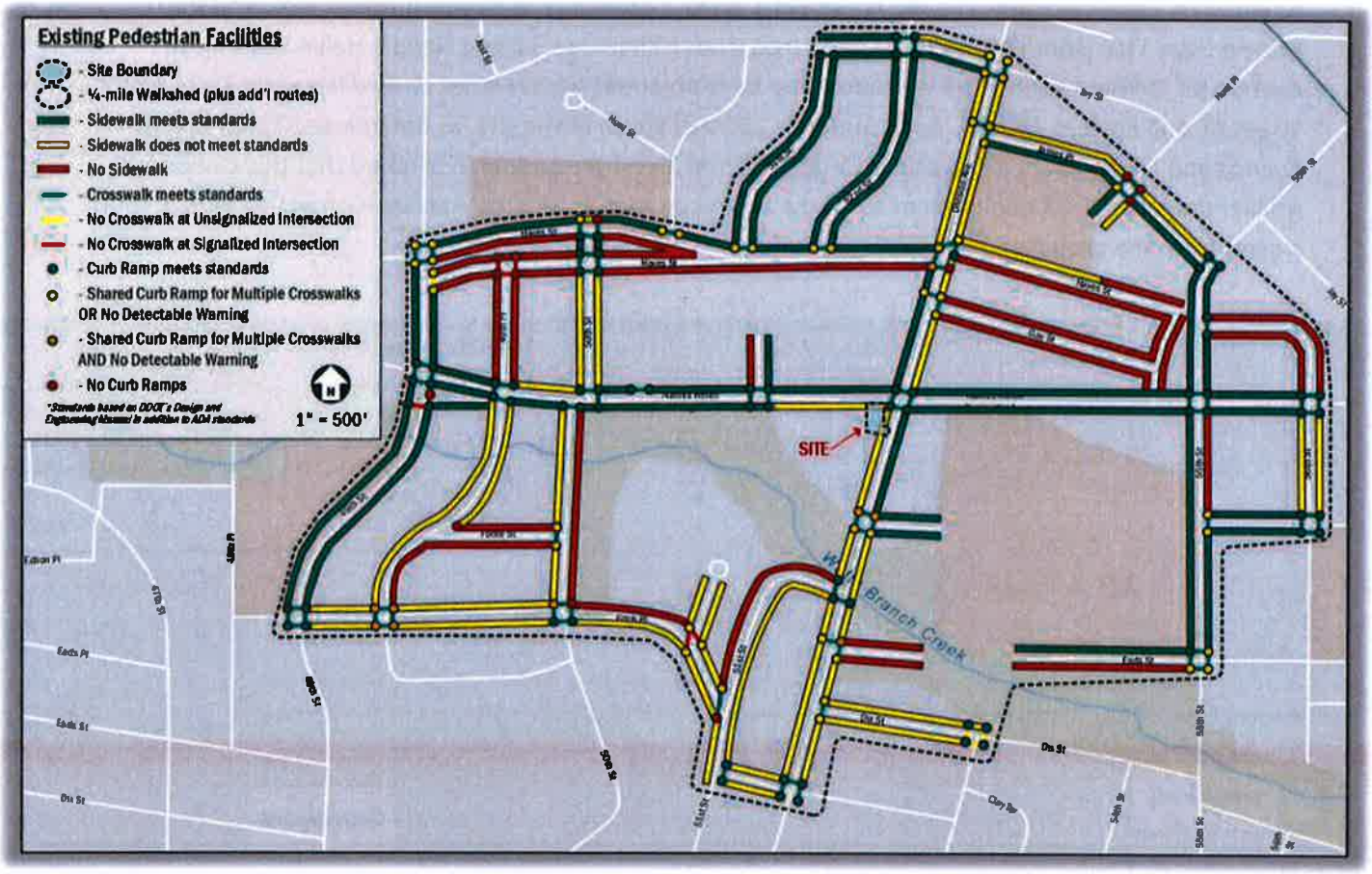

Figure 7 – Existing Pedestrian Facilities (Source: CTR, Gorove/Slade, Figure 21, 10/2/17)

DDOT expects that the Applicant will reconstruct the public space on both Nannie Helen Burroughs Avenue NE (from the corner to the western property line) and Division Street NE (from the corner south to the proposed private alley) and upgrade any pedestrian facilities to current DDOT standards.

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 Subtitle C § 802.1 of the 2016 Zoning Regulations, DDOT estimates that the Applicant is required to provide 29 long-term and four (4) short-term bicycle parking spaces. The Applicant is proposing to exceed these requirements by installing 31 long-term and eight (8) short-term spaces. The short-term spaces are proposed as four (4) inverted U-racks along the perimeter of the site in public space. The long-term spaces are proposed in a storage room on ground level with access from the front of the building and the rear parking lot.

As shown in Figure 8 below, the site is currently in close proximity to bicycle facilities including the Marvin Gaye Trail (south of the site) and shared lanes ("sharrows") along Nannie Helen Burroughs Avenue NE. Division Avenue NE is proposed to have on-street bicycle lanes striped between East Capitol Street NE and Eastern Avenue. Approximately 250 feet south of the site, at the intersection of Division Avenue and Foote Street NE, is also a 15-dock Capital Bikeshare Station. It is noted that this station is smaller than the DDOT minimum of 19-docks and recommends that the Applicant provide a 4-dock expansion in the proposed TDM plan.

Figure 8 – Existing Bicycle Facilities (Source: CTR, Gorove/Slade, Figure 23, 10/2/17)

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 Applicant's analysis of DDOT crash data over a three-year period reveals one (1) intersection within the study area that has a crash rate of 1.0 Million Entering Vehicles (MEV) or higher. The following table,

Figure 9, provides a breakdown of crash types at the intersection identified with a MEV rate of 1.0 or higher.

Intersection	Rate per MEV	Right Angle	Left Turn	Right Turn	Rear End	Side Swiped	Head On	Parked	Fixed Object	Ran Off Road	Ped. Involved	Backing	Non-Collision	Under/Over Ride	Unspecified	Total
NHB Avenue and Division	1.45	3	5	2	3	5	1	0	2	0	2	1	1	0	5	30
Avenue, NE		10%	17%	7%	10%	17%	3%	0%	7%	0%	7%	3%	3%	0%	17%	

Figure 9 – Summary of Crash Data (Source: CTR, Gorove/Slade, Table 11, 7/2/17)

DDOT has evaluated the Applicant's crash analysis and determined that there are no obvious crash trends at this intersection requiring roadway reconfiguration as part of this PUD application. It is anticipated that the relatively minor additional traffic (approximately 27 AM and 40 PM trips) associated with the development will not have a major impact on the existing MEV rate at this intersection.

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, 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 PUD:

Roadway Capacity and Operations

The Applicant's CTR capacity analysis demonstrated that delay and level of service at the intersection of Nannie Helen Burroughs Avenue and Division Avenue NE can be improved by making a traffic signal timing adjustment. In lieu of this improvement, DDOT recommends the Applicant make minor improvements to the transit network and TDM Plan, as discussed below.

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 October 2, 2017 CTR which includes the following elements:

- Identify a TDM Leader (for planning, construction, and operations) at the building, who will act as a point of contact with DDOT/Zoning Enforcement with annual updates. The TDM Leader will work with residents to distribute and market various transportation alternatives and options;
- Provide TDM materials to new residents in the Residential Welcome Package materials;
- Meet zoning requirements to provide bicycle parking facilities at the proposed development; This includes secure parking located on-site and a minimum of 8 short-term bicycle parking spaces around the perimeter of the Site (in the form of 4 bicycle racks);
- Provide a bicycle repair station to be located in the secure long-term bicycle storage room; and
- Install a Transportation Information Center Display (electronic screen) within the residential lobby containing information related to local transportation alternatives.

DDOT finds the proposed TDM plan to be not sufficient for a development program of this size and mix and recommends the inclusion of the following elements to offset the impacts to the transportation network:

- Fund and install an expansion of at least four (4) docks to the existing Capital Bikeshare station at the intersection of Division Avenue and Foote Street NE to bring it up to the DDOT minimum standard of 19-docks;
- Work with a private carshare provider to place at least one (1) carshare vehicle on site, preferably in one of the two on-site parking spaces on private property labeled 'retail parking';
- Work with DDOT and goDCgo, DDOT's TDM program, to implement TDM measures at the site;
- Share the full contact information of the TDM coordinator for the site with DDOT and goDCgo;
- Unbundle parking from the rent or purchase of all units for residents and the retailer;
- Charge at least market rate for parking and will not offer free parking; and
- Provide at least eight (8) shopping carts for residential use.

Loading

DDOT does not agree with the Applicant's proposals to create a 'commercial loading zone' on Division Avenue NE for trash pick-up or establish a pick-up and drop-off zone on Nannie Helen Burroughs Avenue

NE, which would result in the loss of six (6) on-street vehicle parking spaces. Instead DDOT expects the Applicant to make revisions to the private alley and/or building design in order to allow trash trucks to access the property via the alley making only head-in and head-out movements.

DDOT is in agreement with the Applicant on the requested loading relief for a residential loading berth and the use of 'emergency no parking' signs for on-street move-ins and move-outs on the condition that the proposed loading management plan being implemented. Additionally, the loading management plan should be revised to strike all elements referencing the proposed commercial loading zone or pick-up/drop-off zone.

JS:az