


**GOVERNMENT OF THE DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION**



d. Policy, Planning and Sustainability Administration

MEMORANDUM

TO: Sara Bardin
Director, Office of Zoning

FROM: Samuel Zimbabwe 
Associate Director

DATE: June 10, 2016

SUBJECT: ZC Case No. 15-28 – 301-331 N Street NE

PROJECT SUMMARY

Foulger-Pratt Development, LLC (the “Applicant”) proposes a consolidated Planned Unit Development (“PUD”) and related map amendment from C-M-1 to C-3-C to construct a mixed-use development at premises 301-331 N Street (Square 772, Lots 20-23 & 800). The development proposal includes:

- 366 residential units
- 26,000 square feet of retail
- 25,000 square feet of office
- 175 key hotel
- 250 vehicle parking spaces

SUMMARY OF DDOT REVIEW

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, multi-administration review of the case materials submitted by the Applicant, DDOT finds:

Site Design

- Vehicle, loading, bicycle, and trash access is proposed via the alley, and is in keeping with DDOT's approach to site access;
- Access and preliminary public space plans are consistent with DDOT's recent Florida Avenue Multimodal Study;
- The proposed widening of the east-west alley to 34-feet in some locations has the potential to generate cut-through traffic between 3rd Street and 4th Street;
- The Applicant proposes to construct changes to N Street in coordination with ZC Case No. 15-22 to make the street more pedestrian-oriented. Design elements shown in the conceptual plan for N Street are generally consistent with approved uses in public space and DDOT does not object to the plan. The plan requires public space permits and may be adjusted as it progresses through the permitting process. The Applicant will be required to construct the N Street design as part of the public space improvements around the site. DDOT will not accept payment to construct the N Street design;
- The Applicant is required to rebuild the adjacent public space to current DDOT standards as part of their development. As such, DDOT would only consider N Street improvements in excess of the required public space improvements to be a benefit; and
- The proposed loading management plan is sufficient to address potential impacts of the loading relief on the transportation network.

Travel Assumptions

- The Applicant utilized sound methodology and assumptions to perform the analysis;
- Future residents, hotel guests, employees, and retail patrons are likely to use transit, walking, and bicycling at high rates; thus, auto use is likely to be low;
- The proposed mode split and subsequent trip generation is consistent with the parking provision; and
- The Applicant is seeking flexibility to construct the project in phases, but the transportation analysis only studied the development as a whole. Any mitigations proposed for the project as a whole should be implemented as part of the first phase of development.

Analysis

- The action is projected to increase travel delay and queuing at five intersections in the study area;
- Pedestrian infrastructure within the study will be improved as part of pipeline developments in the vicinity;
- The site is well-served by rail and bus services, as well as a robust network of bicycle facilities;
- The Transportation Demand Management (TDM) plan as proposed needs to be strengthened to further encourage non-auto travel and support the requested parking relief; and
- The proposed 200 long-term bicycle parking spaces greatly exceed the approximately 145 required spaces. A direct connection between the bicycle room and each land use component is lacking. An additional 30 short-term bicycle parking spaces are proposed.

Mitigations

DDOT has no objection to the requested action with the following conditions:

- Install traffic management cameras at North Capitol Street & M Street and 3rd Street & Florida Avenue NE for integration into the DDOT traffic management program to provide real-time traffic signal updates in coordination with other signals in the District;

- Provide showers and changing facilities for hotel, retail, and office employees;
- Provide a direct connection between the long-term bicycle parking and each land use component;
- Dedicate two parking spaces for car sharing services to use with right of first refusal;
- Offer each residential unit's incoming residents an annual carsharing membership or an annual Capital Bikeshare membership for a period of three years; and
- Price residential parking no less than charges of the lowest fee garage within one-quarter mile.

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:

- Final design of the proposed changes to the public space of the 300 block of N Street NE. The conceptual plans may be adjusted through the public space permitting process, and DDOT requests that the Zoning Commission grant flexibility for the conceptual plan to change in order to accommodate changes identified during permitting. The curblines of N Street is expected to be adjusted such that it intersects with Florida Avenue orthogonally rather than at an acute angle;
- 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. Public space plans are required to be compatible with changes from the Florida Avenue Multimodal Study;
- Utility vault locations and treatments, which are expected to be located on private space in the widened alley;
- Width and design of the widened alley's intersections with adjacent streets;
- A curbside management and signage plan, assumed to include multi-space meter installation at the Applicant's expense, consistent with current DDOT policies;
- Short-term bicycle parking locations and treatment; and
- Location of electric vehicle charging stations in the parking garage.

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

Vehicular, loading, bicycle, and trash access are proposed via the rear alley in compliance with DDOT's approach to site access, and is in keeping with DDOT's approach to site access. The east-west alley connects 3rd Street and 4th Street. The alley is currently 15-foot wide. The Applicant proposes to widen the alley via a 10-foot easement along the entire extent of the property. As part of the adjacent development to the south (ZC Case No. 14-19), the western half of the alley segment will also be widened onto private space by 9-feet. Together, the western half of the alley will be 34-foot wide, which is sufficiently wide to accommodate site traffic but may encourage vehicles using the alley to travel at high speeds. The Applicant should coordinate with DDOT through the public space permitting process to determine an appropriate width and treatment of the widened alley's intersections with 3rd Street and 4th Street.

Concurrent with the subject PUD, the Applicant is pursuing an alley closing (Surveyor's Order No. 16-25615) for a north-south alley stub that runs through a portion of the site and connects to the east-west alley. DDOT will submit a review to the alley closing to the Office of the Surveyor.

Pedestrian access to the residential and office components of the project will be from N Street and the hotel entrance will be from 3rd Street. Retail entrances are proposed from 3rd Street, N Street, and 4th Street.

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. This often results in loading being accessed through an alley network.

Zoning requires that the Applicant provide at least one 55-foot berth, three 30-foot berths, and three 20-foot service/delivery spaces. The Applicant proposes two 30-foot loading berths and one 20-foot service/delivery space. In order to ensure that the requested loading relief does not adversely impact the surrounding roadway network, a loading management plan is proposed with the following elements:

- Designate a loading facility manager, who will coordinate with residents and tenants to schedule deliveries;
- Require all residents and tenants to schedule deliveries utilizing trucks 20-feet or larger; and
- Prohibit loading from the curbside of 3rd Street, 4th Street, and N Street.

DDOT finds that the loading management plan will sufficiently address loading impacts. Emergency No Parking signs are available in the event a 55-foot truck needs to service the site, and sufficient curbside space is available on 3rd Street and 4th Street to accommodate large trucks.

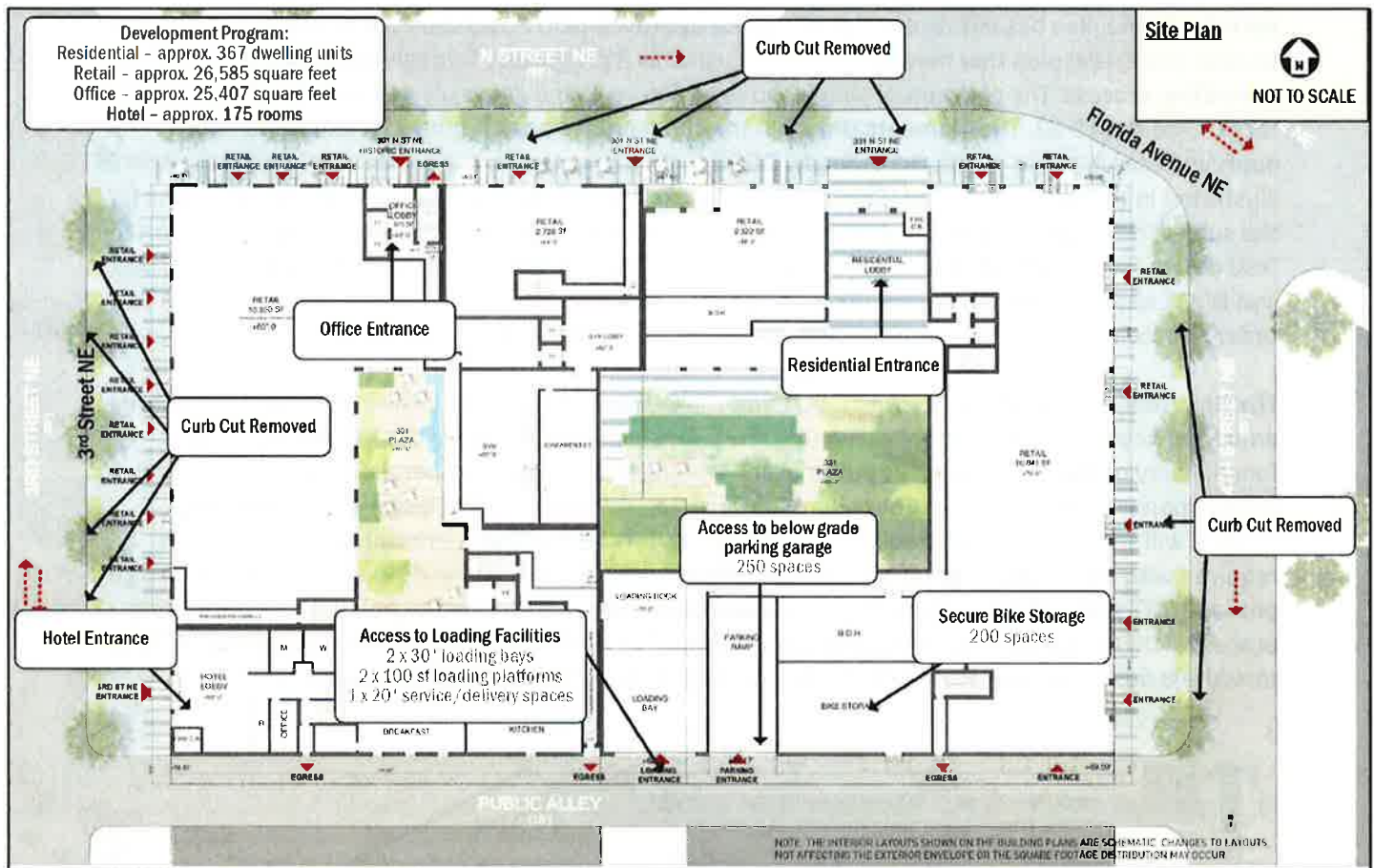


Figure 1 Site Design and Access (Source: Gorove/Slade)

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 proposes as a benefit a \$115,000 contribution to construct “significant public space enhancements on N Street... to make it more pedestrian-friendly and oriented toward recreation and gathering” (ZC Exhibit 26). The Applicant proposes to coordinate with the adjacent development on the north side of N Street (ZC Case No. 15-22) to develop a coordinated design for N Street, and provided a letter to the record (15-22, Exhibit 35B) for ZC Case No. 15-22 confirming a coordinated approach to N Street’s design. Of note, the Applicant will be required to rebuild the adjacent public space to current DDOT standards as part of their development. As such, DDOT would only consider changes in excess of the required public space improvements to be a benefit. The Applicant will be required to construct the

improvements as part of the public space improvements around the site. DDOT will not accept payment to construct the N Street design;

All proposed elements in public space, including the N Street conceptual plan, require public space permits. As the plan has not received public space approval, DDOT considers the N Street improvements to be a conceptual plan that may need to be adjusted as it progresses through the public space permitting process. The conceptual plan is shown in Figure 2, and generally matches the plan submitted for ZC Case No. 15-22. The elements shown in the conceptual plan are generally consistent with approved uses in public space. Accordingly, DDOT has no objection to the proffered N Street changes as illustrated in the conceptual plan (Exhibit 13) and looks forward to coordinating with the applicants for the subject development and the ZC Case No. 15-22 through the public space permitting process on the final design for N Street. As a result of this further coordination, the conceptual plans may be adjusted, and DDOT requests that the Zoning Commission grant flexibility for the conceptual plan to change in order to accommodate changes identified during the public space permitting process.

The Applicant must work closely with DDOT and the Office of Planning to ensure that the design of the entire 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 the District of Columbia Municipal Regulations, DDOT's *Design and Engineering Manual* will serve as the main public realm references for the Applicant. In addition, consistency is required with the Florida Avenue Multimodal Safety Study, which is currently in the preliminary design phase. DDOT staff will be available to provide additional guidance during the public space permitting process. DDOT suggests that the Applicant participate in a Preliminary Design Review Meeting (PDRM) to address design related issues prior to the submission of public space permit applications.

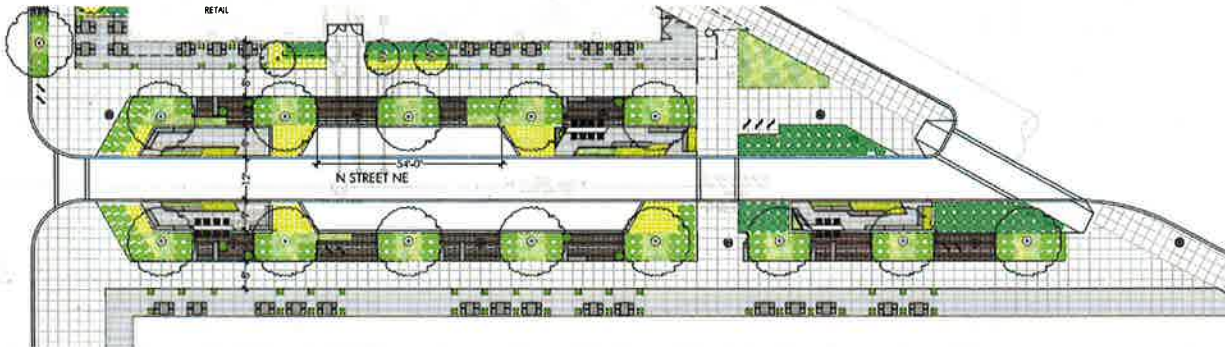


Figure 2 Applicant's Concept for N Street Public Space (Source: Exhibit 13B)

The Florida Avenue Multimodal Study may alter the curbline for Florida Avenue adjacent to the site. The proposed development is consistent with the Florida Avenue project. The Applicant will need to coordinate with DDOT as the timeline for the DDOT project and development are better defined to determine how the Applicant should rebuild the public space. Depending on timing, the Applicant may need to rebuild public space based on the current or future curbline.

While the preliminary public space plans are mostly consistent with DDOT standards, there are several considerations that need to be incorporated during the public space permitting process.

- N Street & Florida Avenue intersection: DDOT will require the curbline of N Street to be adjusted such that it intersects with Florida Avenue orthogonally rather than at an acute angle.

- Curb ramps: ADA-compliant curb ramps will be required to be provided at each intersection. This includes providing a curb ramp for each crossing (typically two per corner) and ensuring that the receiving curb ramps meet standards. Curb ramps shown at alley intersections should be removed from the plans.
- Vaults: Preliminary site plans do not indicate utility vault locations. DDOT expects vaults to be located on private space in the widened alley.

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.

Based on the size of the proposed development and the number of vehicular parking spaces, DDOT recommends that the Applicant provide at least two 240-volt electric car charging stations in the parking garage.

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. Only projects that were both approved and included an origin or destination within the study area were included in the analysis.

DDOT also requires applicants account for regional growth. This can be done by assuming a general growth rate or by evaluating growth patterns forecast in MWCOC'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.

Roadway Network

DDOT requires applicants to consider future changes to the roadway network. Anticipated roadway changes include improvements due to the Florida Avenue Multimodal Study, the two-way conversion of 4th Street and 5th Street associated with Florida Avenue Market developments, and the two-way conversion of several NoMa streets as part of a DDOT pilot program. The Applicant included these changes in the analysis.

Trip Generation

The Applicant provided trip generation estimates utilizing the Institute of Traffic Engineers (ITE) Trip Generation Manual, the Census, and the assumed mode split to convert base vehicular trips to base person trips using average auto occupancy data and then back to vehicular trips. DDOT finds this method appropriate.

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, availability and cost of parking, among many others. 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. The following mode splits were assumed.

Land Use	Mode			
	Auto	Transit	Bike	Walk
Residential	40%	35%	5%	20%
Retail	25%	35%	5%	35%
Office	40%	50%	5%	5%
Hotel	40%	40%	5%	15%

Figure 3 Mode Split Assumptions (Source: Gorove/Slade)

Based on the trip generation and mode split assumptions, the Applicant predicted the following level of weekday peak hour trip generation:

Mode	Land Use	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Auto	Apartments	15 veh/hr	58 veh/hr	73 veh/hr	58 veh/hr	30 veh/hr	88 veh/hr
	Retail	4 veh/hr	3 veh/hr	7 veh/hr	12 veh/hr	13 veh/hr	25 veh/hr
	Office	14 veh/hr	2 veh/hr	16 veh/hr	3 veh/hr	12 veh/hr	15 veh/hr
	Hotel	22 veh/hr	15 veh/hr	37 veh/hr	22 veh/hr	20 veh/hr	42 veh/hr
	Hotel Pass-by	5 veh/hr	5 veh/hr	10 veh/hr	5 veh/hr	5 veh/hr	10 veh/hr
	Total		60 veh/hr	83 veh/hr	143 veh/hr	100 veh/hr	80 veh/hr
Transit	Apartments	15 ppl/hr	58 ppl/hr	73 ppl/hr	57 ppl/hr	30 ppl/hr	87 ppl/hr
	Retail	10 ppl/hr	6 ppl/hr	16 ppl/hr	30 ppl/hr	32 ppl/hr	62 ppl/hr
	Office	20 ppl/hr	3 ppl/hr	23 ppl/hr	4 ppl/hr	18 ppl/hr	22 ppl/hr
	Hotel	48 ppl/hr	34 ppl/hr	82 ppl/hr	48 ppl/hr	44 ppl/hr	92 ppl/hr
	Total		93 ppl/hr	101 ppl/hr	194 ppl/hr	139 ppl/hr	124 ppl/hr
Bike	Apartments	2 ppl/hr	8 ppl/hr	10 ppl/hr	8 ppl/hr	4 ppl/hr	12 ppl/hr
	Retail	1 ppl/hr	1 ppl/hr	2 ppl/hr	4 ppl/hr	5 ppl/hr	9 ppl/hr
	Office	2 ppl/hr	0 ppl/hr	2 ppl/hr	0 ppl/hr	2 ppl/hr	2 ppl/hr
	Hotel	6 ppl/hr	4 ppl/hr	10 ppl/hr	6 ppl/hr	6 ppl/hr	12 ppl/hr
	Total		11 ppl/hr	13 ppl/hr	24 ppl/hr	18 ppl/hr	17 ppl/hr
Walk	Apartments	8 ppl/hr	34 ppl/hr	42 ppl/hr	32 ppl/hr	18 ppl/hr	50 ppl/hr
	Retail	10 ppl/hr	6 ppl/hr	16 ppl/hr	30 ppl/hr	32 ppl/hr	62 ppl/hr
	Office	2 ppl/hr	0 ppl/hr	2 ppl/hr	0 ppl/hr	2 ppl/hr	2 ppl/hr
	Hotel	18 ppl/hr	13 ppl/hr	31 ppl/hr	18 ppl/hr	17 ppl/hr	35 ppl/hr
	Total		38 ppl/hr	53 ppl/hr	91 ppl/hr	80 ppl/hr	69 ppl/hr

Figure 4 Peak Hour Trip Generation by Mode (Source: Gorove/Slade)

The proposed action is expected to generate a significant number of vehicle, transit, and walk trips and a moderate number of bicycle trips during the peak hours. The proposed mode split and subsequent trip generation is consistent with the parking provision.

Study Area and Data Collection

The Applicant in conjunction with DDOT identified 16 intersections where detailed vehicle counts would be conducted 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 that have 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 data on between 6:30AM-9:30AM and 4:00PM-7:00PM multiple dates in 2014, 2015, and 2016. DDOT agrees with the time frame and collection dates.

Analysis Scenarios

Robust analysis should be provided on a set of scenarios comparing build and no-build options in the near- and long-term. Such analysis helps pinpoint an action's impact on the transportation network compared to a no-build scenario. If the proposed development will be approved in stages, with significant trip generation for each stage, then each stage will be examined individually and collectively for the entire action. Ultimately, mitigations will be expected for the action as a whole. These expected mitigations would then be allotted to each development phase as appropriate.

The Applicant is seeking flexibility to construct the project in phases. However, the transportation analysis only studied the development as a whole and does not include an analysis for a phased implementation. Accordingly, any mitigations proposed for the project as a whole should be implemented as part of the first phase of development.

Analysis

To determine the action's impacts on the transportation network, a CTR includes an extensive multi-modal analysis of the existing baseline conditions, future conditions without the proposed action, and future conditions with the proposed development. The Applicant completed their analysis based on the assumptions described above.

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.

Analysis provided by the Applicant shows that five intersections within the study area operate under failing conditions as measured by Level of Service (LOS) as a result of the action. The action is expected to exacerbate failing conditions at these intersections:

- North Capitol Street & M Street
- First Street & M Street NE
- Florida Avenue & New York Avenue
- Delaware Avenue & M Street NE
- 3rd Street & Florida Avenue NE

Of note, two intersections – North Capitol Street & M Street and First Street & M Street NE – are affected by DDOT’s two-way conversion pilot program, and the Applicant provided analysis to determine the impacts of the two-way conversion under future conditions. Overall, there was found to be less delay at the study intersections under one-way conditions compared to two-way conversion. However, the two-way conversion increases accessibility and circulation.

Queuing analysis found that at least one approach at four intersections exceeds the available storage length, but none are the result of background growth and not attributed to the action. Mitigations for these impacts are discussed in the Mitigations section below.

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 0.3 miles, roughly a 5 minute walk, from the NoMa-Gallaudet U Metro Station. The station is served by the Red Line.

The site is well-served by high-frequency bus routes. Available bus routes and frequencies are summarized in Figure 5.

Route Number	Route Name	Service Hours	Headway	Walking Distance to Nearest Bus Stop
90,92	U Street-Garfield Line	Weekdays: 4:05AM – 2:04 AM Weekends: 4:05AM – 2:18 AM	7-15 min	<0.1 miles, 1 minute
X3	Benning Road Line	Weekdays: Westbound 6:00AM-8:39AM Eastbound 3:31PM-5:37PM	20-30 min	<0.1 miles, 1 minute

Figure 5 Bus Service (Source: Gorove/Slade)

These bus routes provide frequent service with peak hour headways less than 10 minutes. The closest bus stops are .1 miles from the site at 3rd Street/Florida Avenue. The site is approximately 0.5 miles from the H Street Streetcar Line and X2 and X9 Metrobus lines.

WMATA’s analysis of bus load factors revealed overcrowding conditions on the 90 Line. A recent study of the route recommended additional express service for this line in the future in order to reduce overcrowding and expand capacity.

Pedestrian Facilities

The District of Columbia is committed to enhance the 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 analysis identified a DDOT standard sidewalk on the north side of N Street adjacent to the subject site. However, this sidewalk segment is currently missing. Additionally, the Applicant will be required to upgrade all adjacent pedestrian facilities to current DDOT standards during the permitting process.

The analysis also revealed a gap in the sidewalk network along the west side of 3rd Street between N Street. This gap is expected to be remedied by future developments. Deficiencies along Florida Avenue will be repaired as part of ZC 06-40C, ZC 15-01, ZC 15-22 and the Florida Avenue Multimodal Study implementation.

Significant substandard pedestrian facilities exist in the interior of the Florida Avenue Market ("Market"). Developments in the Market (ZC 14-07 and 14-12) will upgrade the pedestrian facilities on 4th Street between Florida Avenue and Morse Street, the south side of Neal Place between 4th Street and 5th Street, and along the 5th Street and 6th Street frontages. Such connections between the subject site and other pipeline developments in the Market will allow adequate and safe pedestrian connections between the subject site and destinations in the Market. Pedestrian infrastructure within the Market will continue to be improved as the area redevelops.

Bicycle Facilities

The District is committed to enhance 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. The site is located in close proximity to a southbound bicycle lane on 4th Street south of Florida Avenue and a northbound bicycle lane on 6th Street south of Florida Avenue and a two-way cycle track north of Florida Avenue. Bicycle lanes on I Street and G Street provide east-west connectivity. The site is approximately two blocks from the Metropolitan Branch Trail. Future plans include a concept for a multiuse trail along New York Avenue that will connect through the Market area via railroad right of way to the west of 4th Street.

The closest Capital Bikeshare station with 22 docks is located two blocks from the site at M Street & Delaware Avenue.

The Applicant proposes 200 long-term bicycle parking spaces in a bicycle room on the ground floor, which greatly exceeds the approximately 145 required spaces, and an additional 30 short-term bicycle parking spaces adjacent to the site. Circulation between the bicycle room and each use within the development is unclear. As shown in Figure 1, an interior connection between the bicycle room and the various lobbies is not provided.

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 reveals nine intersections within the study area that have a crash rate of 1.0 Million Entering Vehicles (MEV) or higher. All intersections are within the study area for a DDOT project that will enhance safety at the intersections. Each of the high crash intersections along Florida Avenue, plus the New York Avenue/1st Street/O Street intersection, are included within the Florida Avenue improvements currently in the design phase and will be targeted for safety improvements. As discussed in the Site Design section, DDOT will require as part of the proposed N Street changes that the curblineline of N Street be adjusted such that it intersects with Florida Avenue orthogonally rather than at an acute angle. This change will improve intersection geometry and safety.

In addition, two intersections – North Capitol Street & M Street and 1st Street & M Street – will be changed as part of the two-way conversion project. The project will reconfigure the directionality of M Street and will remove potential conflicts between parking and travel lanes that are likely to improve safety and cut down on sideswipe and rear end collisions. Two additional intersections – 4th Street & M Street and 5th Street & M Street – are planned to be improved in association with the installation of a cycletrack, which will include safety improvements such as enhanced signage and striping. The 3rd Street & H Street intersection is under active monitoring as part of the H Street Streetcar line.

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	Unspecified	Total
North Capitol Street & M Street	1.12	7 13%	5 9%	0 0%	11 21%	16 30%	0 0%	2 4%	3 6%	0 0%	4 8%	1 2%	0 0%	0 0%	4 8%	53
New York Avenue & 1st Street & O Street NE	2.75	11 8%	11 8%	9 6%	29 20%	51 35%	2 1%	2 1%	5 3%	0 0%	3 2%	7 5%	0 0%	0 0%	15 10%	145
First Street & M Street NE	3.30	2 4%	1 2%	2 4%	6 13%	19 40%	0 0%	4 9%	1 2%	1 2%	2 4%	4 9%	1 2%	0 0%	4 9%	47
Florida Avenue & New York Avenue NE	2.97	9 5%	7 4%	7 4%	45 26%	79 46%	1 1%	0 0%	2 1%	1 1%	0 0%	1 1%	1 1%	0 0%	18 11%	171
3rd Street & Florida Avenue NE	2.13	0 0%	2 5%	1 2%	13 32%	22 54%	1 2%	0 0%	0 0%	0 0%	0 0%	1 2%	0 0%	0 0%	1 2%	41
3rd Street & H Street NE	1.18	1 2%	4 9%	1 2%	8 18%	13 30%	0 0%	4 9%	1 2%	3 7%	4 9%	1 2%	0 0%	0 0%	4 9%	44
4th Street & M Street NE	1.28	1 9%	1 9%	0 0%	1 9%	3 27%	0 0%	1 9%	1 9%	0 0%	1 9%	1 9%	0 0%	0 0%	1 9%	11
5th Street & Florida Avenue NE	1.29	5 17%	0 0%	1 3%	6 21%	4 14%	3 10%	2 7%	1 3%	0 0%	1 3%	2 7%	0 0%	0 0%	4 14%	29
5th Street & M Street NE	1.31	0 0%	0 0%	0 0%	0 0%	3 43%	0 0%	1 14%	0 0%	0 0%	0 0%	2 29%	0 0%	0 0%	1 14%	7

Figure 6 Intersection Safety (Source: Gorove/Slade)

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.

Signal Changes

The Applicant suggests signal timing changes to address vehicle impacts at three intersections – Florida Avenue & New York Avenue, Delaware Avenue & M Street NE, and 3rd Street & Florida Avenue NE – and does not propose mitigations to the two intersection – North Capitol Street & M Street and First Street & M Street NE – affected by the NoMa two-way conversion project.

Due to the coordinated signal system in the study area, small signal timing changes can have a broad impact on the overall throughput of commuter volumes. Thus, it is suggested that rather than pursue signal timing changes the Applicant fund the installation of traffic cameras in the following high-volume locations for integration into the DDOT traffic management program to reduce congestion and provide real-time traffic signal updates:

- North Capitol Street & M Street
- 3rd Street & Florida Avenue NE

The Florida Avenue & New York Avenue is included in the design for Florida Avenue changes resulting from the Florida Avenue Multimodal Safety Study. The design will make changes to the existing intersection in order to improve multimodal operations at the intersection.

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 the following TDM strategies:

- Designate TDM leaders responsible for organizing and marketing the TDM plan;
- Provide 200 long-term, 30 short-term bicycle parking spaces, and a bicycle service area;
- Unbundle residential parking costs from the price of lease;
- Install a transportation information screen in the residential, hotel, and office lobbies;

DDOT finds the TDM plan needs to be strengthened to further encourage non-auto travel and support the requested parking relief. Accordingly, the following elements or adjustments are needed:

- Provide showers and changing facilities for hotel, retail, and office employees;
- Dedicate two parking spaces for car sharing services to use with right of first refusal;
- Offer each residential unit's incoming residents an annual carsharing membership or an annual Capital Bikeshare membership for a period of three years; and
- Price residential parking no less than charges of the lowest fee garage within one-quarter mile.

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