


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: February 1, 2016

SUBJECT: Zoning Commission Case No. 15-20 – Sursum Corda

PROJECT SUMMARY

Sursum Corda Cooperative Association (“the Applicant”) seeks approval of a First Stage Planned Unit Development (“PUD”) and related Map Amendment to permit construction of a mixed-use development in an area roughly bounded by M Street NW, 1st Place NW, L Street NW, and 1st Street NW (Sq. 620, Lots 248-250 & 893-895). The development program includes two phases:

Phase 1 (south of a new but private extension of Pierce Street):

- 430 dwelling units
- 8,315 square feet of community-serving space
- 272 vehicle parking spaces

Phase 2 (north of Pierce Street):

- 712 dwelling units
- 23,225 square feet of retail
- 17,880 square feet of office/commercial use
- 474 vehicle parking spaces

The project includes substantial changes to the internal and external road network, including the closure of existing alleys, 1st Terrace and a portion of 1st Place, the opening of a new segment of 1st Place, and the addition of a new segment of Pierce Street as a private street. While the PUD application assumes this network, final approval for new public streets and alleys takes place in the DDOT public facilities acceptance process. DDOT’s comments in this report should not be construed as acceptance of the proposed facilities.

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

- The application includes substantial changes to the internal and external road network. Changes include the closure of existing alleys, 1st Terrace through the site and a portion of 1st Place, the extension of 1st Place to L Street, and the extension of Pierce Street through the site as a private street;
- The proposed alignment of the private Pierce Street intersection with 1st Street is consistent with DDOT's approach for intersection layout;
- The existing asphalt curb and sidewalk on 1st Street are to be replaced by a standard streetscape which includes curb and gutter. However, the Applicant proposes to retain the private space which was formerly part of the 1st Street right-of-way (ROW);
- Phase 1 features two curb cuts – one on 1st Place for vehicular access and one on L Street for combined vehicular, loading access, bicycle, and trash access both of which are consistent with DDOT standards;
- Phase 2 features four curb cuts – one on 1st Place for vehicular access and three on the private Pierce Street for loading and vehicular access. All three curb cuts proposed on the private Pierce Street are inconsistent with DDOT standards due to either close proximity to each other or back in loading operations; and
- The Applicant proposes 746 vehicle parking spaces, approximately 0.6 spaces per unit, greatly in excess of the required 347 spaces and marginally higher than what DDOT would expect to see from the development program.

Travel Assumptions

- The Applicant utilized sound methodology and assumptions to perform the analysis, including assuming a relatively high auto mode split commensurate with the proposed parking provision; and
- Future residents and retail visitors are likely to utilize transit, walking, and bicycling at approximately similar rates as driving.

Analysis

- The changes to the roadway network help restore the historical road network and will improve multimodal access to the site and circulation in the vicinity;
- The action is expected to negatively impact operations at two intersections - 1st Street & New York Avenue and 1st Street & K Street;

- Proposed sidewalk widths are not consistent with DDOT standards along 1st Street, 1st Place, and L Street;
- Upgrading sidewalks, curb ramps, and crosswalks along the perimeter of the site may necessitate changes to public infrastructure in the DDOT ROW that would need to be mitigated at the expense of the Applicant. These may include but are not limited to:
 - Signal at 1st Street & M Street;
 - Catch basin at 1st Place & M Street;
 - Catch basin at 1st Street & L Street;
 - Catch basin at 1st Street & Pierce Street; and
 - Mature street trees at 1st Place & Pierce Street
- The Applicant proposes to construct the public space along L Street between 1st Place and 1st Street to current DDOT standards. To facilitate the Applicant's vision for L Street, traffic signal and geometric and pedestrian improvements may be needed at the intersection of North Capitol Street & L Street;
- A sidewalk gap exists on the north side of L Street between 1st Place and North Capitol Street which is expected to see a significant increase in pedestrian activity as a result of the action;
- Existing transit service and bicycle facilities in the vicinity can accommodate additional project demand;
- The limited Capital Bikeshare station coverage in the vicinity will be improved by the Applicant's proffer to install a Capital Bikeshare station as part of Phase 1;
- The Applicant proposes a TDM plan to encourage non-auto travel and support the non-auto mode split assumed in the analysis. Additional TDM measures may be required during subsequent Stage 2 reviews; and
- The Applicant proposes to provide at least 183 and 270 long-term bicycle parking spaces, consistent with District requirements, in Phases 1 and 2, respectively, and an undefined number of short-term bicycle parking spaces along the interior and perimeter of the site.

Mitigations

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

- Prior to DDOT agreeing to changes to the roadway network, the Applicant should consider reducing vehicle parking as a means to reduce intersection impacts. All assessments of impacts should be further addressed during the Stage 2 PUD process;
- All analysis for Stage 2 PUD applications should consider both the application at hand and the project as a whole so as not to overlook potential impacts;
- Further TDM measures may be required based on the outcome of the previously noted Stage 2 PUD review;
- All impacted public infrastructure in the DDOT ROW due to project construction, the addition of new transportation facilities, or upgrades to public space facilities, including facilities in private space which are typical to the public space, should be mitigated at the expense of the Applicant;
- Identify and commit to implement pedestrian improvements on the north side of L Street between 1st Place and North Capitol Street;
- DDOT is planning improvement to the signal at North Capitol Street & L Street. The Applicant should be prepared to re-evaluate this location as part of subsequent Stage 2 PUD applications and may be required to perform other pedestrian or geometric mitigations;
- The Applicant has agreed to install curb and gutter along with a typical "public space" along the east side of 1st Street in the area that is at least partially privately owned. A cross-section of 1st Street which sets the east side curb in the appropriate location consistent with adjacent sections

of 1st Street and DDOT standards should be identified and approved by DDOT. Typical public space elements, trees, sidewalks, lights, greenspace, etc. should be designed consistent with DDOT standards;

- Intersection control at the intersection of Pierce Street and 1st Street should be determined and the Applicant should commit to implement the appropriate control;
- In addition to funding installation of a standard 50-foot long Capital Bikeshare station, the Applicant should also commit to funding one year of operations; and
- Install at least 23 and 41 short-term bicycle parking spaces in Phases 1 and 2, respectively.

Continued Coordination

The Applicant is expected to continue to work with DDOT on the following matters:

- DDOT looks forward to working with the Applicant to find ways to minimize impacts to the roadway network specifically at 1st Street & K Street and 1st Street & New York Avenue. As the project advances into subsequent Stage 2 PUD submissions, DDOT expects an updated CTR will be necessary which may include concept drawings;
- Intersection control for the new intersection of 1st Street & Pierce Street should be explored and a signal warrant analysis should be performed;
- An access agreement to public access of the private space in the historic 1st Street ROW which may include DDOT ownership;
- Design and timings for signals at North Capitol Street & L Street, 1st Street & New York Avenue, and 1st Street & K Street;
- Working with the Applicant and Mount Airy Baptist Church to facilitate a designated pedestrian facility on the north side of L Street between North Capitol Street & 1st Place;
- A location for the Capital Bikeshare station, which will need to be shown in the Applicant's public realm plans;
- Closure and Acceptance process for proposed ROW actions. During this process, DDOT will focus on the optimal mechanism for ensuring an appropriate ROW, cartpath, and adequate pedestrian facilities for the 1st Street segment adjacent to the site, possibly to include a public access easement, Building Restriction Line, or ROW dedication;
- Design of the public realm, including utility vault location and treatment, location of short-term bicycle parking spaces, sidewalk widths, curb ramp and crosswalk locations, and a possible mid-block crossing on 1st Place to connect to the proposed green space; and
- A curbside management and signage plan, possibly including multi-space meter installation at the Applicant's expense, consistent with current DDOT policies to facilitate new curbside uses made possible by curb cut closings and ROW changes associated with the development; and

TRANSPORTATION ANALYSIS

DDOT requires applicants who request PUD approval from the Zoning Commission perform a Comprehensive Transportation Review (CTR) in order to determine the PUD'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.

Right-of-Way (ROW) Changes

The project includes substantial changes to the internal and external road network. Changes include the closure of existing alleys, 1st Terrace through the site and a portion of 1st Place, the opening of a new segment of 1st Place to align with the existing northern alignment of the street, and the addition of a new segment of Pierce Street as a private street. Changes are shown in Figure 1.

The 1st Place opening is proposed to be 60-feet. While this dimension does not meet DDOT's 75-foot standard for new right-of-way widths, the proposed width of the new 1st Street segment matches the existing width of 1st Street and is therefore appropriate.

Pierce Street, which currently exists west of 1st Street and east of North Capitol Street, is proposed to be opened as a 70-foot wide private street and will align with the public segment of Pierce Street to the west. The existing buildings to the east of the subject site do not permit the connection of Pierce Street to the east. Pierce Street is proposed to have one lane of vehicle travel in each direction and parking on both sides of the street. While private, Pierce Street must be designed and constructed to current DDOT standards. Of note, as Pierce Street is proposed as a private street, the District will not be responsible for street maintenance, snow removal, parking enforcement, and other services the District provides to public streets. Pierce Street will be constructed as part of Phase 1.

L Street is historically a 90-foot ROW, but was narrowed in the 1960s to its present ROW width of approximately 40 feet. This narrow existing ROW does not allow for a full typical District street section, including sidewalks and tree boxes of both sides of the street, two-way traffic, and curbside parking. The ROW is further constrained to the east of the site by stairs from Mount Airy Baptist Church that project about 8-10 feet into the limited ROW. Re-establishment of a full L Street section requires the extension of the street to the south. The Severna just to the south of the subject site set back their development to preserve adequate land for the eventual re-establishment of L Street, which requires the redevelopment of the two properties to the east of the Severna. The Applicant proposes L Street as two-way operations between 1st Street and 1st Place and one-way eastbound between North Capitol Street and 1st Place, which is appropriate given the limited ROW. The Applicant will also construct the public space along L Street between 1st Place and 1st Street to current DDOT standards. To facilitate the Applicant's vision for L Street, traffic signal and pedestrian improvements are needed at the intersection of North Capitol Street & L Street. These improvements are discussed in the Mitigations section.

Together, these changes help restore the historical road network and will improve multimodal access to the site and circulation in the vicinity.

1st Street, too, is historically a 90-foot ROW, but was narrowed in the 1960s to its present ROW width of 60 feet. The 30-foot segment of former ROW was divided between the Sursum Corda Cooperative and the federal government under the ownership of the National Park Service (NPS). The eastern edge of the existing ROW roughly aligns with the future eastern curblineline of 1st Street, which the Applicant proposes to widen in order to facilitate two-way operations (one lane in each direction) and a parking lane on the west side of the street. This leaves no ROW on the east side of 1st Street for a typical sidewalk section, including street trees and a sidewalk. As present time, the Applicant proposes to set back their development to the historic ROW line and improve the land between the eastern curblineline and the building line to current DDOT standards.

NPS owns two parcels of land within the Square. Lot 897 contains NPS's share of the former 1st Street ROW. As Lot 897 occupies the former ROW, this area must be designed with a typical DDOT sidewalk section in order to provide an important pedestrian connection along the west side of the subject development. Just to the east, Lot 896 is the site of the proposed park included in the subject application.

Future land ownership of these parcels remains an open issue at the time of this report. As discussed in the Mitigations section, DDOT desires to re-establish the historical 90-foot wide ROW. The Applicant proposes maintain the Sursum Corda Cooperative's portion of the former ROW as private space and seeks to enter into a maintenance agreement for the NPS parcels. In an email to the District's Office of Federal and Regional affairs dated January 20, 2016, NPS expressed its interest to transfer administrative jurisdiction over those two parcels to the District.

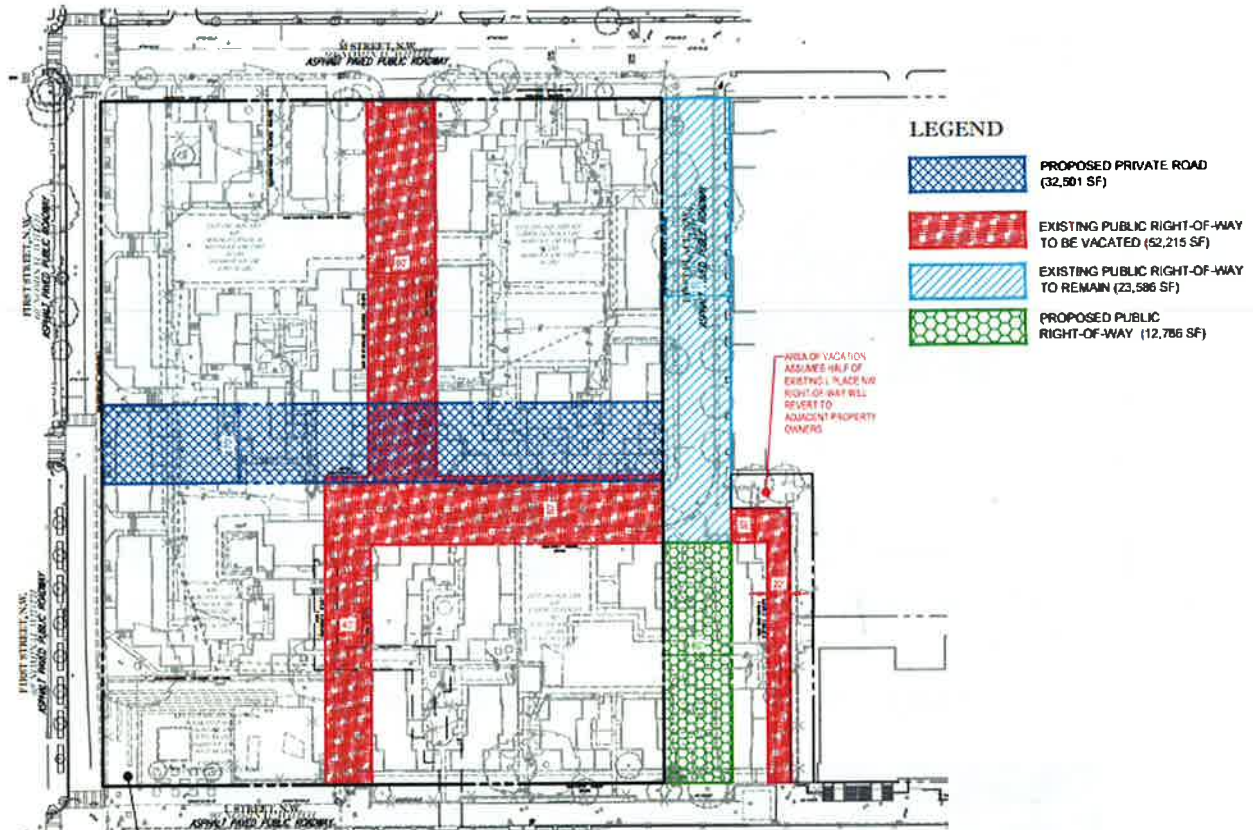


Figure 1 Proposed ROW Changes

Site Access

The overall ground floor site plan for the project is shown in Figures 2 and 3. Phase 1 features two curb cuts – one on 1st Place for vehicular access and one on L Street for combined vehicular, loading access, bicycle, and trash access. The loading and trash facilities are designed such that they can be accessed with head-in/head-out movements from L Street consistent with DDOT standards. Phase 2 features four curb cuts – one on 1st Place for vehicular access and three on the private Pierce Street for loading and vehicular access. The two loading curb cuts are proposed to require back-in/front-out operations across the sidewalk on Pierce Street. Although Pierce Street is a private street and therefore not subject to DDOT standards that prohibit backing movements through public space, DDOT’s preference would to provide loading access with head-in/head-out movements.

Multiple pedestrian access points are proposed from public streets, Pierce Street, and internal walkways within the site.

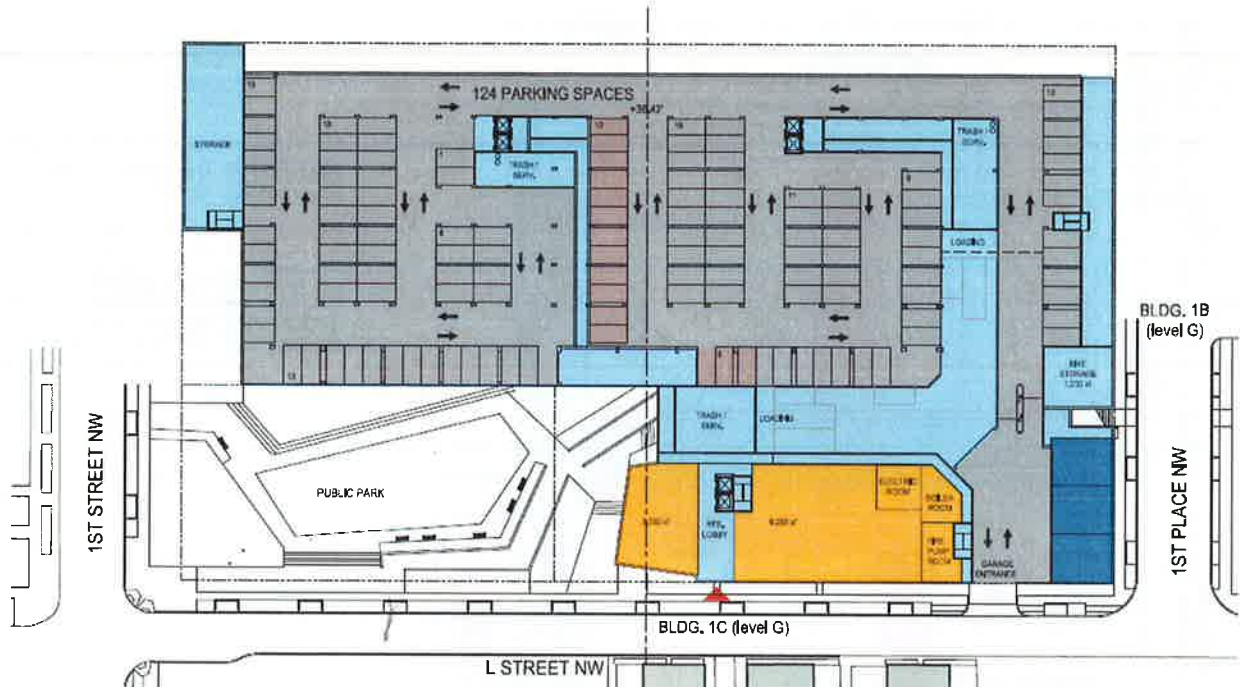


Figure 2 – Phase 1 Site Design and Access (Source: Boggs & Partners)

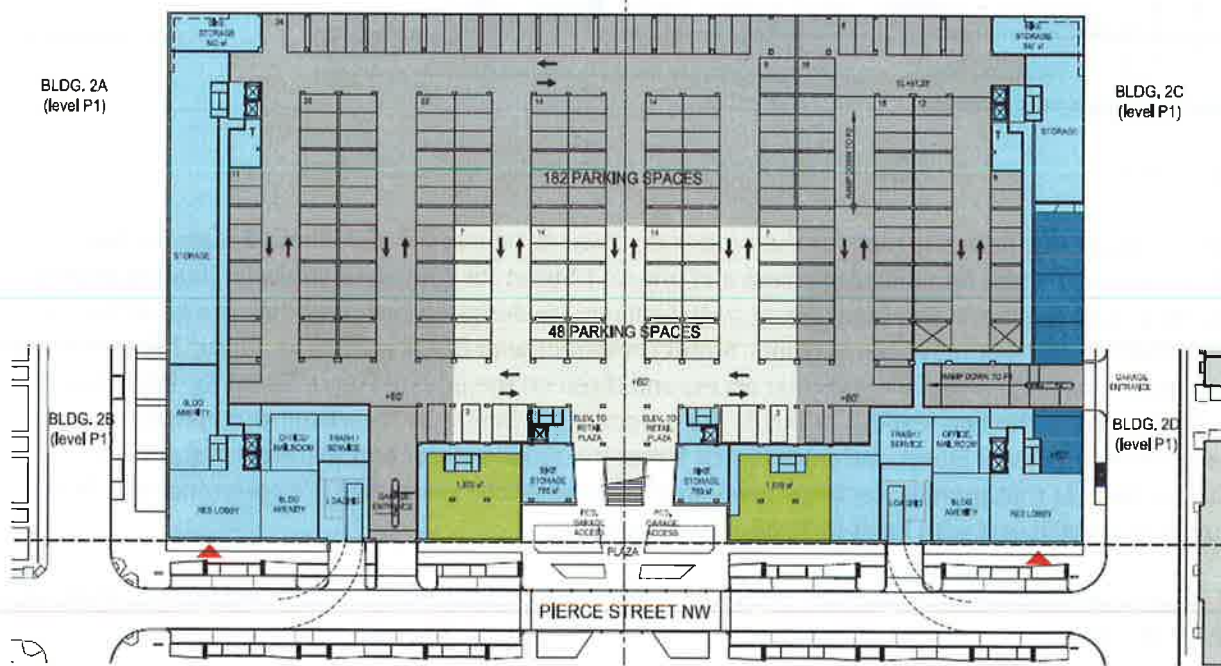


Figure 3 – Phase 2 Site Design and Access (Source: Boggs & Partners)

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.

For Phase 1, the loading access from L Street provides access to two loading areas – one for Buildings 1A and 1C that features two 30-foot loading berths and two 20-foot service delivery spaces and one for Building 1B that features one 30-foot loading berth and one 20-foot service delivery space. The loading facilities are connected via access corridors to each building. For Phase 2, the two loading areas accessed from Pierce Street will each contain one 30-foot loading berth and one 20-foot service delivery space.

The zoning regulations require that each of the five separate buildings provide one 55-foot loading berth and one 20-foot service delivery space. The Applicant instead proposes five total 30-foot loading berths and five total service delivery spaces. DDOT finds the 30-foot berths are sufficient to accommodate the loading needs of the proposed residential unit size and mix. Zoning regulations do not require loading facilities for the non-residential uses. In the event that larger trucks need to access the site to serve either the residential or non-residential uses, Emergency No Parking signs are available from DDOT.

On-Site Parking

A total of 746 spaces are proposed for the site. The proposed parking supply and distribution among uses is shown in Figure 4:

Land Use	Proposed Parking Supply
Phase 1	
Residential	258 spaces
Community Space	14 spaces
Phase 2	
Residential	427 spaces
Retail	27 spaces
Office	20 spaces
Total	746 spaces

Figure 4 Proposed Parking Supply (Source: Gorove/Slade)

An additional 25-30 vehicle curbside parking spaces are anticipated on Pierce Street.

The residential parking supply ratio equates to about 0.6 vehicle parking spaces per unit, greatly in excess of the required 347 spaces and marginally higher than what DDOT would expect to see from the development program.

At the time of scoping, the Applicant proposed 980 vehicle parking spaces but subsequently reduced the proposed parking provision consistent with Figure 4.

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 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 the District of Columbia Municipal Regulations, DDOT's *Design and Engineering Manual* will serve as the main public realm references for the Applicant. DDOT staff will be available to provide additional guidance during the public space permitting process.

While the preliminary public space plans are mostly consistent with DDOT standards, there are several adjustments needed, particularly to sidewalk widths that must be incorporated. The following clear sidewalk widths will be required during public space permitting:

- L Street, 1st Street, 1st Place: at least 8-foot wide clear sidewalks
- M Street: at least 10-foot wide clear sidewalks

In addition, Pierce Street should have 8-foot wide sidewalks.

The Applicant has not yet identified potential locations for electric vaults. DDOT's preference is that vaults be located on private space and grated vaults in the sidewalk will not be permitted. The Applicant must coordinate with DDOT on vault locations and treatments through the permitting process.

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 pipeline developments in the study area and future growth in traffic on the network. The Applicant coordinated with DDOT on the appropriate methodology to include in the analysis. Specifically, eight background developments were included in the analysis.

Development Scenarios

The Applicant and DDOT coordinated to determine five appropriate development scenarios to analyze for capacity impacts:

- 2015: existing conditions
- 2018: future conditions without development
- 2018: future conditions with Phase 1
- 2020: future conditions with Phase 1
- 2020: future conditions with Phase 2

Future Road Network

Through DDOT's *New Jersey Avenue NW Safety Upgrades & Two-Way Conversion Project*, New Jersey Avenue will be converted from one-way to two-way between I Street and Morgan Street. Per DDOT's instruction, the Applicant's analysis assumed this change in the future conditions scenarios. Subsequent lane configuration changes were also included as a background improvement.

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.

The following ITE land use codes were used to estimate trip generation for the project:

- Residential – Code 220, Apartments
- Office – Code 710, General Office Building
- Retail – Code 820, Shopping Center
- Daycare – Code 565, Day Care Center
- Recreation Center – Code 495, Recreational Community Center

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 a variety of resources including WMATA's *2005 Development-Related Ridership Survey*, Census data, and comparable sites. Of note, automobile auto mode splits were adjusted upwards to account for the high proposed parking rates in order to account for automobile use induced by the parking provision.

Discounts were taken based on the existing residential uses on site. These trips were subtracted from the cumulative trip generation estimates for the proposed uses of the site.

Based on the trip generation and mode split assumptions discussed above, the Applicant predicted the following level of weekday peak hour trip generation for Phase 1, Phase 2, and the full build-out. Figure 4 shows the trip generation for the full site build-out.

Mode	Land Use	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Auto	Apartments	57 veh/hr	227 veh/hr	284 veh/hr	216 veh/hr	115 veh/hr	331 veh/hr
	Daycare	8 veh/hr	7 veh/hr	15 veh/hr	7 veh/hr	8 veh/hr	15 veh/hr
	Recreation Center	3 veh/hr	2 veh/hr	5 veh/hr	3 veh/hr	3 veh/hr	6 veh/hr
	Office	16 veh/hr	3 veh/hr	19 veh/hr	4 veh/hr	14 veh/hr	18 veh/hr
	Retail	6 veh/hr	5 veh/hr	14 veh/hr	19 veh/hr	21 veh/hr	40 veh/hr
	Existing	-11 veh/hr	-39 veh/hr	-50 veh/hr	-42 veh/hr	-22 veh/hr	-64 veh/hr
	Total	79 veh/hr	205 veh/hr	287 veh/hr	207 veh/hr	139 veh/hr	346 veh/hr
Transit	Apartments	52 ppl/hr	205 ppl/hr	257 ppl/hr	194 ppl/hr	106 ppl/hr	300 ppl/hr
	Daycare	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr
	Recreation Center	3 ppl/hr	1 ppl/hr	4 ppl/hr	3 ppl/hr	3 ppl/hr	6 ppl/hr
	Office	8 ppl/hr	2 ppl/hr	10 ppl/hr	2 ppl/hr	7 ppl/hr	9 ppl/hr
	Retail	10 ppl/hr	6 ppl/hr	16 ppl/hr	29 ppl/hr	32 ppl/hr	61 ppl/hr
	Existing	-9 ppl/hr	-37 ppl/hr	-46 ppl/hr	-38 ppl/hr	-20 ppl/hr	-58 ppl/hr
	Total	64 ppl/hr	177 ppl/hr	241 ppl/hr	190 ppl/hr	128 ppl/hr	318 ppl/hr
Bike	Apartments	3 ppl/hr	10 ppl/hr	13 ppl/hr	10 ppl/hr	5 ppl/hr	15 ppl/hr
	Daycare	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr
	Recreation Center	2 ppl/hr	1 ppl/hr	3 ppl/hr	2 ppl/hr	2 ppl/hr	4 ppl/hr
	Office	1 ppl/hr	0 ppl/hr	1 ppl/hr	0 ppl/hr	1 ppl/hr	1 ppl/hr
	Retail	1 ppl/hr	1 ppl/hr	2 ppl/hr	4 ppl/hr	4 ppl/hr	8 ppl/hr
	Existing	0 ppl/hr	-2 ppl/hr	-2 ppl/hr	-2 ppl/hr	-1 ppl/hr	-3 ppl/hr
	Total	7 ppl/hr	10 ppl/hr	17 ppl/hr	14 ppl/hr	11 ppl/hr	25 ppl/hr
Walk	Apartments	10 ppl/hr	41 ppl/hr	51 ppl/hr	39 ppl/hr	21 ppl/hr	60 ppl/hr
	Daycare	10 ppl/hr	10 ppl/hr	20 ppl/hr	10 ppl/hr	10 ppl/hr	20 ppl/hr
	Recreation Center	8 ppl/hr	4 ppl/hr	12 ppl/hr	7 ppl/hr	8 ppl/hr	15 ppl/hr
	Office	1 ppl/hr	0 ppl/hr	1 ppl/hr	0 ppl/hr	1 ppl/hr	1 ppl/hr
	Retail	4 ppl/hr	2 ppl/hr	6 ppl/hr	11 ppl/hr	12 ppl/hr	23 ppl/hr
	Existing	-2 ppl/hr	-7 ppl/hr	-9 ppl/hr	-8 ppl/hr	-4 ppl/hr	-12 ppl/hr
	Total	31 ppl/hr	50 ppl/hr	81 ppl/hr	59 ppl/hr	48 ppl/hr	107 ppl/hr

Figure 5 Weekday Peak Hour Trip Generation by Mode (Source: Grove/Slade)

Study Area and Data Collection

The Applicant in conjunction with DDOT identified 20 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 on May 7, 12, and 14 in 2015. DDOT agrees with the time frame and collection dates. Additionally, traffic counts for two intersection – New Jersey Avenue & Pierce Street and New Jersey Avenue & L Street – were taken from DDOT’s *New Jersey Avenue NW Safety Upgrades & Two-Way Conversion Project* study.

Of note, the Applicant’s traffic counts found that a significant amount of traffic makes illegal southbound right turns and northbound left turns from North Capitol Street onto L Street NW. These movements were noted, but site generated traffic was not assigned to unpermitted movements.

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 13 intersections operate at unacceptable conditions or have an approach that operates at unacceptable conditions during at least one of the study scenarios:

- New Jersey Avenue & New York Avenue
- 1st Street & New York Avenue
- North Capitol Street SB Ramp & New York Avenue
- North Capitol Street NB Ramp & New York Avenue
- North Capitol Street & M Street
- North Capitol Street & Pierce Street
- North Capitol Street & L Street
- North Capitol Street & H Street
- 1st Street & M Street
- 1st Street & K Street
- 1st Street & H Street
- 4th Street & K Street

An additional two intersections were determined to operate at unacceptable conditions or significantly increase delay due to the development:

- 1st Street & New York Avenue
- 1st Street & K Street

In addition, the intersection of North Capitol Street & L Street was found to have multiple deficiencies, including a missing traffic signal, a substandard crosswalk, and missing curb ramps. Time missing traffic signal leaves the eastbound movement of the intersection unregulated, thereby causing operational and safety concerns at the intersection. The impacts of the pedestrian facilities at this intersection are discussed in the Pedestrian Facilities 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 0.4 miles from both the NoMa-Gallaudet Metro Station, roughly an 8 minute walk. The station is served by Metro’s Red line.

The site is well-served by high-frequency bus routes. A summary of availability is found in Figure 5.

Route Number	Route Name	Service Hours	Headway	Walking Distance to Nearest Bus Stop
30N, 30S	Friendship Heights-Southeast Line	Weekdays: Eastbound 4:00AM-2:30AM Westbound 4:22AM-2:46AM Weekend: 4:30 AM-2:30AM	15-30 min	0.1 miles, 1 minutes
32,34,36	Pennsylvania Avenue Line	Weekdays: Eastbound 5:12AM-12:05AM Westbound 4:30AM-12:29AM	10-30min	0.1 miles, 1 minutes
39	Pennsylvania Avenue Limited Line	Weekdays: Eastbound 3:30PM-6:39PM Westbound 6:00AM-9:04AM	15 min	0.1 miles, 1 minutes
82	Bladensburg Road - Anacostia Line	Weekdays: Northbound 4:45AM-3:14AM Southbound 4:25AM-2:32AM Weekend: 4:27 AM-1:20AM	10-30 min	0.1 miles, 1 minutes
M6	Fairfax Village Line	Weekdays: Eastbound 5:21AM-1:08AM Westbound 5:00AM-1:17AM Weekend: 4:30 AM-2:30AM	30 min	0.1 miles, 1 minutes
V1	Bennin Heights-M Street Line	Weekdays: Eastbound 2:55PM-7:45PM Westbound 5:04AM-9:37AM	20-30 min	0.1 miles, 1 minutes
V4	Capitol Heights-Minnesota Avenue Line	Weekdays: Eastbound 3:09AM-2:56AM Westbound 4:10AM-2:19AM Weekend: 5:30 AM-1:17AM	15-30 min	0.1 miles, 1 minutes
Circulator	Potomac Avenue Metro - Skyland	Winter: 6:00AM-3:07PM Summer: 6:45AM-8:06PM Saturdays: 7:00AM-9:00PM	10 min	0.1 miles, 3 minutes

Figure 6 Bus Route Information (Source: Gorove/Slade)

Of note, the site has access to both north-south and east-west bus lines, providing excellent service to many destinations and points of interest throughout the District. The closest bus stops are located at M Street & 1st Place (serving the 96 line) and North Capitol Street & M Street (serving the 80 and P6 lines).

As noted in the Trip Generation section above, the project is expected to generate a significant number of transit trips (approximately 240 and 320 in the morning and evening peak periods, respectively). Noting strained capacity on the 80 and 96/97 lines, WMATA completed two line studies in recent years to identify ways to address rising transit demand. A noteworthy finding of the 80s line study was the recommendation for an express bus line, which would provide additional high-quality transit capacity for the site.

Pedestrian Facilities

The District 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 site has good overall pedestrian access to nearby destinations and transit. Pedestrian facilities – sidewalks, curb ramps, and crosswalks – are generally in good condition and meet current DDOT

standards; however, the Applicant's analysis revealed several notable gaps or substandard conditions, including:

- Missing sidewalks on the north side of L Street between North Capitol Street and 1st Street. Under existing conditions, L Street's limited ROW and the proximity of the existing Sursum Corda buildings to the ROW line prevent a sidewalk along the north side of L Street.
- Substandard sidewalks on the east side of 1st Street. Under existing conditions, 1st Street's limited ROW and the proximity of the existing Sursum Corda buildings to the ROW line prevent a sidewalk along the east side of 1st Street.
- Missing or substandard curb ramps and crosswalks along the perimeter of the site. Of note, the Applicant's analysis did not recognize substandard or missing pedestrian facilities at the 1st Place & M Street intersection.
- Unsafe pedestrian crossing conditions at North Capitol Street & L Street. Under existing conditions, the curb ramp on the west side of the street is missing and the crosswalk terminates into the L Street drive aisle west of North Capitol Street, which creates a conflict with eastbound vehicular traffic on L Street. Such an arrangement does not meet ADA or DDOT standards and represents an unsafe pedestrian condition that is expected to see significant increases in pedestrian activity as a result of the action.

Remedies to these deficiencies are discussed in the Mitigations section.

Bicycle Facilities

The District of Columbia is committed to enhance bicycle access by ensuring consistent investment in bicycle 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 bicycling trips. The site is currently well-served by bicycle infrastructure.

While not immediately adjacent to on-street bicycle facilities, the site is located approximately two blocks from the Metropolitan Branch Trail, providing excellent an excellent north-south connection. The site is also several blocks from the 1st Street NE cycletrack. Additionally, nearby local, low volume roadways provide comfortable bicycle routes and connections major bicycle infrastructure.

The closest Capital Bikeshare station about 0.3 miles to the east, at the intersection of 1st Street NE & M Street. This station has 14 docks. There are limited other Bikeshare Stations in the vicinity.

The Applicant proposes 183 and 270 long-term bicycle parking spaces in Phases 1 and 2, respectively in the parking facilities. The Applicant also proposes an undetermined number of short-term bicycle parking spaces. The exact number and location of short-term bicycle facilities will be determined during the subsequent Stage 2 PUD reviews.

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 seven intersections within the study area that have a crash rate of 1.0 Million Entering Vehicles (MEV) or higher. Of these intersections, 1st Street & M, 1st Street & Pierce, and 1st Street and K Street experience low traffic volumes overall, thus elevating the crash rates despite the relatively low number of crashes.

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	Under/Over Ride	Unspecified	Other	Total
North Capitol Street & New York Avenue	3.81	12	20	12	40	76	2	1	1	0	9	2	1	9	2	187
		6%	11%	6%	21%	41%	1%	1%	1%	0%	5%	1%	1%	5%	1%	
North Capitol Street & M Street	1.46	8	6	0	13	22	0	3	3	0	2	1	0	1	1	60
		13%	10%	0%	22%	37%	0%	5%	5%	0%	3%	2%	0%	2%	2%	
North Capitol Street & K Street	1.50	6	9	2	20	20	0	2	2	0	8	2	0	3	0	74
		8%	12%	3%	27%	27%	0%	3%	3%	0%	11%	3%	0%	4%	0%	
North Capitol Street & H Street	2.31	9	11	7	29	34	1	0	3	0	10	4	0	2	4	114
		8%	10%	6%	25%	30%	1%	0%	3%	0%	9%	4%	0%	2%	4%	
First Street & M Street NW	1.99	2	1	1	6	12	0	0	3	0	1	4	0	0	0	30
		7%	3%	3%	20%	40%	0%	0%	10%	0%	3%	13%	0%	0%	0%	
First Street & Pierce Street NW	2.61	2	1	0	2	3	0	1	0	0	1	2	0	1	0	13
		15%	8%	0%	15%	23%	0%	8%	0%	0%	8%	15%	0%	8%	0%	
First Street & K Street NW	1.02	1	0	0	10	7	0	0	1	0	3	5	0	1	0	28
		4%	0%	0%	36%	25%	0%	0%	4%	0%	11%	18%	0%	4%	0%	

Figure 7: 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 and minimize impacts. 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.

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 proposed the following TDM strategies:

- Designate a TDM coordinator;
- Establish a TDM marketing program that provides detailed transportation information and promotes walking, cycling, and transit;
- Unbundle all parking costs from the cost of the lease and set the cost at no less than the charges of the lowest fee garage located within a quarter-mile of the site;
- Dedicate two parking spaces in each garage for car sharing services to use with right of first refusal;
- Install electronic displays in each of the residential building lobbies and the community service building lobby that will display real-time transit availability;
- Provide at least 183 and 270 long-term bicycle parking spaces in Phases 1 and 2, respectively, and short-term bicycle parking along the interior and perimeter of the site that exceed zoning requirements; and
- Install of a Capital Bikeshare station within the site.

The proposed TDM elements are a good basis for encouraging non-auto travel, but several elements need clarification or refinement:

- The Capital Bikeshare station should include installation and one year of operations for a standard 50-foot long Capital Bikeshare dock;
- The Capital Bikeshare station should be installed as part of the Phase 1 development; and
- Install at least 23 and 41 short-term bicycle parking spaces in Phases 1 and 2, respectively.

Additional TDM measures may be required during subsequent Stage 2 PUD reviews.

Pedestrian Improvements

The Applicant's analysis identified multiple pedestrian infrastructure gaps and substandard infrastructure.

The Applicant proposes to address the missing pedestrian infrastructure on L Street between 1st Place and 1st Street by installing a standard sidewalk section to include street trees and a sidewalk along the frontage of the subject property. This will ensure safe and adequate pedestrian facilities along this segment, but leaves a gap between 1st Place and North Capitol Street. Understanding the challenges posed by the narrow ROW and the church's stair projections, the Applicant should commit to coordinating with the church and DDOT to develop an interim plan to accommodate pedestrian activity between 1st Place and North Capitol Street. Due to ROW limitations, a standard curb sidewalk section with a curb is not required; however, a pedestrian path should somehow be demarcated in the ROW. Final design of the pedestrian facility will be addressed through the public space permitting process.

DDOT and the Applicant reviewed the existing curb ramps at all intersection adjacent to the site and discovered multiple substandard or missing curb ramps. The Applicant will be required to upgrade all adjacent curb ramps, the receiving curb ramps, and crosswalks connecting the curb ramps as part of the

public space permitting process. In several locations accommodating standard DDOT curb ramps may necessitate changes to traffic signals, stormwater inlets/catch basins, or other obstructions. These locations may include but are not limited to:

- Signal at 1st Street & M Street;
- Catch basin at 1st Place & M Street;
- Catch basin at 1st Street & L Street;
- Catch basin at 1st Street & Pierce Street; and
- Mature street trees at 1st Place & Pierce Street

As mentioned in the Site Design section, the 1st Street sidewalk section is currently proposed to be entirely outside of DDOT's ROW either in private land owned by the Sursum Corda Cooperative or NPS. DDOT's preference is to re-establish the historical 90-foot wide ROW of 1st Street between L Street and M Street, which would include the Lot 897 and the former ROW land owned by the Sursum Corda Cooperative. Such an arrangement provides the greatest ability to meet existing and future transportation needs. The Applicant is pursuing a Surveyor's Order for the proposed ROW closings and openings. The current Application includes closing 52,215 square feet of ROW and dedicating 12,786 square feet of ROW, for a net reduction in 39,429 square feet of ROW. Dedicating the former 1st Street ROW would make for a more balanced approach to ROW changes, restore the historic ROW, and provide greater ability for the District to meet current and future transportation needs. If the land is not dedicated to DDOT for ROW purposes, it is imperative that DDOT-standard pedestrian facilities be built on these lands and that a public access easement be established to ensure adequate and continuous pedestrian facilities along the perimeter of the site.

Physical Improvements

Physical improvements (i.e. striping changes, turn lanes, traffic signals, additional lanes, etc.) are occasionally needed in order to accommodate site-generated traffic.

The Applicant has proposed several physical improvements. A review of each of the improvements is below:

- 1st Street & New York Avenue: The Applicant proposes signal timing and restriping to mitigate impacts at this intersection. Striping changes would include restriping 1st Street between M Street and New York Avenue to accommodate one through lane in each direction and turn lanes at the northbound approach to New York Avenue and the southbound approach to M Street. In addition, the Applicant proposes to add afternoon parking restrictions to the west side of 1st Street between New York Avenue and N Street to allow for a southbound right turn lane.

DDOT has reviewed this proposal and agrees that these changes would improve operations of the intersection. However, the proposal would also result in the elimination of parking spaces. The Applicant must define the parking impacts, provide more detailed concept drawings showing the proposal, and perform additional community outreach to better understand community impacts. Signal timing changes require further review by DDOT to determine impacts to other signals and intersections. DDOT's determination of this mitigation will be determined during the Stage 2 PUD process.

- 1st Street & K Street: The Applicant proposes to restrict parking on the westbound approach of K Street during the afternoon peak to allow the westbound approach to function as a shared thru-left lane and shared thru-right lane.

DDOT has reviewed this proposal and agrees that this change would improve operations of the intersection. However, the proposal would also result in the elimination of parking spaces. The Applicant must define the parking impacts, provide detailed concept drawings showing the proposal, and perform additional community outreach to better understand community impacts. DDOT's determination of this mitigation will be determined during the Stage 2 PUD process.

- North Capitol Street & L Street: The Applicant proposes to reconfigure the intersection to include installing a signal head for the eastbound L Street approach and updating the signal timing plan. Pedestrian improvements associated with this intersection are discussed in the Pedestrian Improvements section.

DDOT agrees that this mitigation would improve safety and operations of the intersections. However, the signal may possibly be installed as part of a larger effort to some convert streets in NoMa to two-way operations. This proposed mitigation should be revisited as part of the Stage 2 PUD processes to determine the status of the signal in relation to the NoMa changes. If deemed an appropriate mitigation, the Applicant must coordinate with DDOT on all changes to this intersection, including pedestrian improvements, signal head installation, and signal timing changes. If not deemed an appropriate mitigation for this PUD, improvements to other intersections in the vicinity can be pursued instead. If the signal is

- 1st Street & Pierce Street: The Applicant proposes to install an all-way stop control at this intersection as a means to improve pedestrian crossing conditions and reduce vehicular speeding. The Applicant must complete a warrant analysis of the all-way stop.

Transit Improvements

The Applicant proposes to work with DDOT on improving the bus stop at M Street & First Place as part of the public space improvements along the perimeter of the site, to include elements such as a shelter. Improvements to the public space, including upgrading pedestrian infrastructure, will improve conditions for bus riders. DDOT reviews bus shelter installation requests to determine if one is warranted and oversees bus shelter installations. Private entities such as developers are not eligible to purchase and/or install bus shelters. Accordingly, DDOT cannot guarantee the appropriateness of a bus shelter at this location or ensure the availability of a bus shelter for future installation. Accordingly, should not be required to provide a bus shelter in this location. The Applicant should submit a bus shelter installation request for DDOT's review during public space permitting process for the M Street improvements.

SZ:jr