


**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, PPSA
District Department of Transportation

DATE: April 21, 2014

SUBJECT: **Zoning Commission Case No. 13-14** - McMillan Reservoir - 2501 First Street, NW

Project Summary

Vision McMillan Partners, LLC and District of Columbia (the "Applicant") propose a mixed use development on the property known as the "McMillan Reservoir" at 2501 First Street, NW (Square 3128, Lot 800). The site is bounded by North Capitol Street, First Street NW, Michigan Avenue NW, and Channing Street NW. The Applicant is seeking a first stage Planned Unit Development (PUD), a consolidated PUD for a portion of the site, and related map amendments. The consolidated PUD includes:

- Parcel 1 – 860,000 square feet of health care office, 15,000 square feet of retail, and 1,667 to 1,900 parking spaces
- Parcel 4 – 278 multi-family residential units, a 52,920 square foot grocery store, and 339 parking spaces
- Parcel 5 – 146 row houses and 208 to 292 parking spaces
- Parcel 6 – a 272,000 square foot community center and park

The first stage PUD includes:

- Parcel 2 – 258 multi-family residential units, 23,250 square feet of retail, and 313 parking spaces
- Parcel 3 – 170,000 square feet of office, 3,000 square feet of retail, and 194 parking spaces

Updated Applicant Analysis

DDOT's review responds to the changes included in the *McMillan Sand Filtration Site TIS – Supplemental Information & Revised Recommendations* memo from the Applicant's transportation consultants dated April 17, 2014. Changes described in this memo supersede the Comprehensive Transportation Review (CTR) dated March 17, 2014.

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 impact of the proposed action on the District's transportation network and, as necessary, propose appropriate mitigations. After an extensive, multi-administration review of the case materials submitted by the Applicant, DDOT finds:

Site Design

- A robust network of publicly accessible streets consisting of three new east-west streets parallel to Michigan Avenue and one major north-south parallel to North Capitol Street is proposed as part of the PUD application. The Applicant proposes maintaining the internal street network as private streets not under control of DDOT;
- The new street network has the potential to disperse site traffic in a way that minimizes the action's impact on the external road network and improve connectivity to the adjacent neighborhoods;
- The site design allows traffic to travel through the site to access the Hospital Center and avoid cut through travel in the Bloomingdale neighborhood;
- The First Street NW entrance for the medical office parking garage has the potential to cause operational problems if not properly managed;
- As currently designed, the proposed site access plan inhibits some travel movements and forces site trips to make turn movements in locations that lead to increased travel delay;
- All loading is proposed to occur from the private street network; and
- The berm and busy roadways along the perimeter of the site pose potential obstacles for safe and convenient pedestrian and bicycle connections to the site from the adjacent neighborhoods.

Travel Assumptions

- The action is expected to generate a significant number of new vehicle and transit trips and a moderate number of bicycle and pedestrian trips;
- The amount of vehicle parking for the Parcel 1 (medical office) is high, but likely appropriate and is generally appropriate for the Parcel 4 (grocery). The provision of parking for the Parcels 2 and 3 seeking only Stage 1 approval is high;
- The projected number of vehicle trips generated by the site is higher than likely to be realized. However, there is potential for vehicle travel impacts if the travel demand is not managed appropriately; and
- Half of trips will arrive or depart in the off-peak direction of travel, where there is generally more capacity available on the existing transportation network.

Analysis

- The Applicant utilized sound techniques to perform the analysis;
- Travel delay increases in the area and significantly increases at some locations;

- Significant increases to travel delay are projected at First Street / Michigan Avenue NW and at Michigan Avenue / North Capitol Street. Much of this delay is due to vehicles attempting to travel to the south being forced to exit the site to the north from the First Street NW and Healing Gardens access points and traveling east on Michigan Avenue to North Capitol Street south;
- DDOT expects that the medical office building may not be able to process the number of vehicle trips projected. This could likely lead to lower numbers of vehicle trips in the PM peak period;
- Proposed right turn lanes at the intersections of Michigan Avenue / First Street NW and Michigan Avenue / North Capitol Street would degrade the pedestrian experience. These lanes are largely unnecessary if site travel demand were to better circulate through the site or if some trips are not realized;
- Existing bus service does not have the capacity to accommodate future demand. DDOT expects more than 1,100 additional peak hour transit seats are necessary;
- Bicycle travel facilities in the area are minimal. Additionally, there is likely to be an unmet demand for bicycle travel between area Metro Stations and the site; and
- Pedestrian crossings of North Capitol in the vicinity of the site are problematic today.

To address the concerns identified, DDOT requests the following changes be incorporated into the project:

Mitigation

- Significant transit capacity improvements and selective roadway, bicycle, and pedestrian improvements are needed to accommodate the expected increase in travel demand;
- Specifically, 1,100 new bus seats of capacity should be provided. The Applicant may work with WMATA and the District to facilitate expansion plans to accommodate this need or may supply the service themselves. If facilities are phased, each building should guarantee the supply of its pro rata share as discussed in a later section;
- Commit to improving circulation and operations by instituting two-way operations on a portion of the Healing Garden driveway, installing signage in the garage such that egress in a specific direction is assigned to a certain access point, and institute trip caps for some medical office building parking garage driveways;
- Require a monitoring program as discussed later that addresses:
 - Left turn conditions from North Capitol Street into the site to minimize queuing into the mainline of northbound North Capitol Street;
 - Access to and from the medical office building;
- Strengthen the proposed Transportation Demand Management (TDM) plan to include the changes and additions recommended in this report;
- The Applicant proposes to construct a series of physical improvements. DDOT is in general agreement with most of the improvements. However, the following adjustments are expected:
 - Do not implement right turn lanes at Michigan Avenue / North Capitol Street and Michigan Avenue / First Street NW;
 - Adjust the design of First Street NW to remove a parking lane, exclude turn bays, and accommodate a bicycle climbing lane;
 - At this time, do not extend the peak period parking restrictions on North Capitol Street.
- Maximize pedestrian and bicycle facilities in the public space.

Continued Coordination

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

- Public space design, including curb & gutter, street trees and landscaping, street lights, sidewalks, and other appropriate features within the public rights of way bordering the site. Careful attention should be paid to pedestrian and bicycle connections along the site's perimeter and the adjacent infrastructure;
- Signal design and timing of all new traffic signals to optimize performance of the road network while providing ample pedestrian crossing time;
- The design of Michigan Avenue and First Street NW;
- Final design of new vehicular access points to ensure that safe design is incorporated;
- The Applicant has proposed adding 80 additional Capital Bikeshare docks. DDOT will need to coordinate with the Applicant on agreements and siting of the facilities; and
- Any changes to existing bus stops adjacent to the site.

TRANSPORTATION ANALYSIS

DDOT requests applicants going before the Zoning Commission for PUD approval perform a Comprehensive Transportation Review (CTR) for the action in order to determine its impact on the overall transportation network.

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, affordable, 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 & Design

The Applicant proposes several new private east-west and north-south roads that connect the site to the existing street grid. North Service Court and Evarts Street connect North Capitol Street and First Street NW through the site and South Service Court provides a connection to First Street NW. Half Street NW provides a north-south connection between Michigan Avenue and South Service Court and "One-Quarter Street" and "Three-Quarters Street" connect North Service Court and South Service Court. Two

additional driveways on Michigan Avenue provide circulation within the site for patient pick-up/drop-off, potential shuttle services, and access to the medical office building's Healing Gardens parking garage entrance. A driveway to access the medical office building parking lot is provided on First Street NW.



Figure 1 Site Design and Access (Gorove/Slade)

The new street network has the potential to disperse site traffic throughout the site in a way that minimizes the action's impact on the road network in the vicinity. However, as currently proposed, the site access does not take full advantage of the new street grid and instead places too much of the development's burden on the existing public road network. Specifically, the proposed site access and circulation requires site-generated southbound vehicles to travel north and/or east through the two busiest intersections in the vicinity – Michigan Avenue / First Street NW and Michigan Avenue / North Capitol Street. Several modifications to the internal street network and restrictions on the use of the medical office parking garage would reduce the development's impact. These changes are discussed at length in the Mitigations section of this report.

It is important to note that the parking garage beneath Parcel 1 is one single facility. The parking garage extends under Half Street. While the Applicant has segregated the three parking garage access points by user type, the entrances could and should be used by any of the site users. To underscore this point, this report refers to the entrances as the First Street, Healing Gardens, and North Service Court entrances.

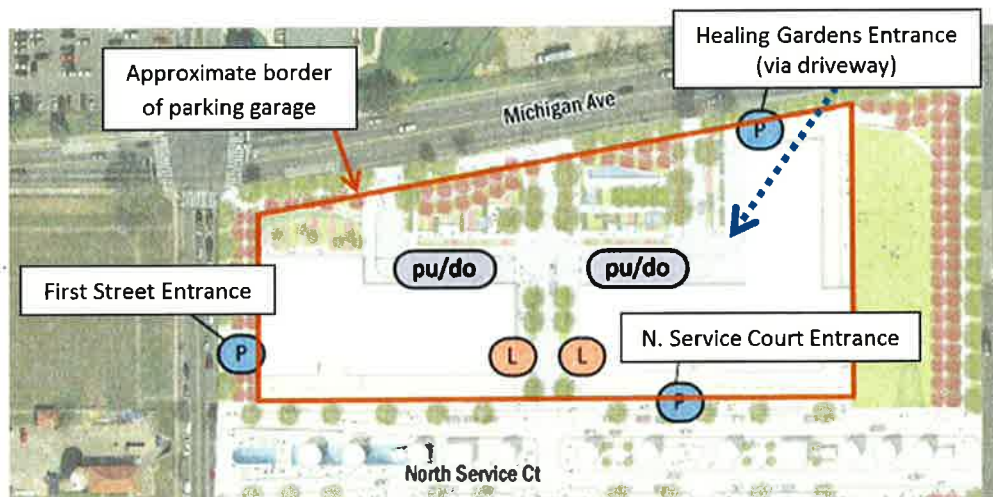


Figure 2 Medical Office Parking Garage (Gorove/Slade; altered by DDOT)

The new roads serve as vehicle, bicycle, and pedestrian access points for the site with the exception of the medical office parking garage entrance on First Street.

Due to the existing berm and busy adjacent roadways, pedestrian and bicycle connections are limited to specified entry points. The Applicant proposes multiple pedestrian and bicycle access points around the perimeter of the site. DDOT will work with the Applicant through the public space permitting process to ensure that pedestrian and bicycle access points provide safe and convenient site access, with a focus on connecting to adjacent neighborhoods and connections to major trip production or attraction areas such as Metro stations. DDOT understands the historical importance of the site and will work with the Applicant to address site access within historic preservation-related constraints.

Loading

DDOT's practice is to accommodate vehicle loading in a reasonable and safe manner while at the same time preserving safety across non-vehicle modes. For new developments, DDOT requires that loading take places in private space and that no back-up maneuvers occur in the public realm.

The Applicant's proposed loading locations comply with DDOT's loading requirements. All loading facilities are located on private streets and no loading is proposed on or from adjacent public streets. Loading for the medical office buildings is located on Half Street. Loading for the grocery store is proposed from Evarts Street.

DDOT is awaiting additional information on truck routing and will provide a review of the loading-related information in an addendum prior to the Zoning Commission hearing.

Streetscape

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 & gutter, 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. The *DDOT Public Realm Design 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. Specifically, 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.

Final design of the public space will be determined during DDOT's public space permitting process. DDOT notes the importance of maximizing the width of sidewalks along the perimeter of the site to accommodate pedestrian and bicycle activity.

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.

Trip Generation & Mode Split

The Applicant provided trip generation estimates utilizing the Institute of Traffic Engineers (ITE) Trip Generation Manual. The Applicant utilized the following ITE land uses in their trip generation estimation:

- Residential: Apartment (Code 220) for the multi-family building and Condominium/Townhouse (Code 230) for the townhouses
- Office: General Office (Code 710)
- Medical office: Medical-Dental Office Building (720)
- Grocery: Supermarket (Code 850)
- Retail: Shopping center (Code 820)
- Park and Community Center: Recreational (Code 441) for the parking and Community Center (Code 495) for the community center

DDOT generally finds the use of these ITE codes appropriate, but notes the lack of dependable information on trip generation for medical office uses in urban contexts. The data points associated with ITE Code 720 used to inform a predictive model contain significant variability in the amount of trip generation. This variability becomes even more pronounced as the facility size increases. Additionally, data is only available for a few medical office facilities greater than 90,000 square feet – approximately 10% of the size of the subject medical office facility. It is reasonable to expect lower trip generation rates from larger facilities, especially in urban contexts, due to the economies of scale available to patients making multiple appointments for the same visit. The limited data available from ITE Code 720 does not capture this dynamic. Accordingly, ITE Code 720 likely over-predicts the number of trips expected to be realized from the medical office component.

Each trip a person makes is made by a certain means of travel such as vehicle, bicycle, walking, etc. 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.

The Applicant developed the following mode split assumptions informed by WMATA's 2005 *Development-Related Readership Survey*, the US Census Bureau's 2007-2011 *American Community Survey*, and MWCOG's 2010 *State of the Commute* report. These mode split assumptions are generally reasonable, but likely overestimate the percentage of trips occurring by vehicle, particularly for the medical office and grocery components.

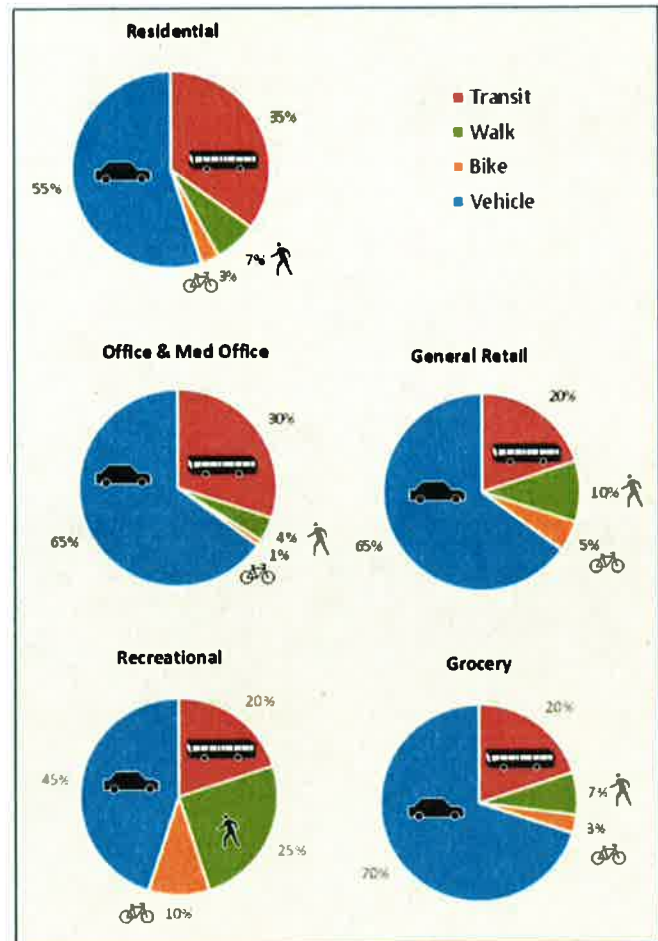


Figure 3 Mode Split Assumptions (Source: Gorove/Slade)

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

| Parcel | Land Use | Size | Weekday Trip Generation | | | | | | | | | |
|----------------------------------|--------------------------|---------------------|-------------------------|------------|--------------|--------------|--------------|--------------|--|--|--|--|
| | | | AM Peak Hour | | | PM Peak Hour | | | | | | |
| | | | In | Out | Total | In | Out | Total | | | | |
| Transit Trips | | | | | | | | | | | | |
| 1 | Medical Office | 860,000 Square Feet | 896 | 238 | 1,134 | 312 | 804 | 1,116 | | | | |
| | Ground Floor Retail | 15,000 Square Feet | 3 | 2 | 5 | 10 | 10 | 20 | | | | |
| 2 | Multi-Family Residential | 258 Dwelling Units | 10 | 41 | 51 | 41 | 22 | 63 | | | | |
| | Ground Floor Retail | 23,250 Square Feet | 5 | 3 | 8 | 15 | 16 | 31 | | | | |
| 3 | General Office | 170,000 Square Feet | 88 | 11 | 99 | 16 | 75 | 91 | | | | |
| | Ground Floor Retail | 3,000 Square Feet | 1 | 0 | 1 | 2 | 2 | 4 | | | | |
| 4 | Multi-Family Residential | 278 Dwelling Units | 11 | 44 | 55 | 44 | 24 | 68 | | | | |
| | Grocery Store | 52,920 Square Feet | 41 | 25 | 66 | 94 | 91 | 185 | | | | |
| 5 | Townhomes | 146 Dwelling Units | 5 | 23 | 28 | 22 | 11 | 33 | | | | |
| 6 | Community Center | 17,500 Square Feet | 18 | 10 | 28 | 16 | 15 | 31 | | | | |
| | Public Park | 6.2 Acres | | | | | | | | | | |
| Total New Transit Trips | | | 1,078 | 397 | 1,475 | 572 | 1,070 | 1,642 | | | | |
| Walk Trips | | | | | | | | | | | | |
| 1 | Medical Office | 860,000 Square Feet | 119 | 32 | 151 | 42 | 107 | 149 | | | | |
| | Ground Floor Retail | 15,000 Square Feet | 2 | 1 | 3 | 5 | 5 | 10 | | | | |
| 2 | Multi-Family Residential | 258 Dwelling Units | 2 | 8 | 10 | 8 | 5 | 13 | | | | |
| | Ground Floor Retail | 23,250 Square Feet | 3 | 1 | 4 | 7 | 8 | 15 | | | | |
| 3 | General Office | 170,000 Square Feet | 12 | 1 | 13 | 2 | 10 | 12 | | | | |
| | Ground Floor Retail | 3,000 Square Feet | 0 | 1 | 1 | 1 | 1 | 2 | | | | |
| 4 | Multi-Family Residential | 278 Dwelling Units | 2 | 9 | 11 | 9 | 5 | 14 | | | | |
| | Grocery Store | 52,920 Square Feet | 14 | 9 | 23 | 33 | 32 | 65 | | | | |
| 5 | Townhomes | 146 Dwelling Units | 1 | 5 | 6 | 4 | 3 | 7 | | | | |
| 6 | Community Center | 17,500 Square Feet | 22 | 13 | 35 | 20 | 19 | 39 | | | | |
| | Public Park | 6.2 Acres | | | | | | | | | | |
| Total New Walking Trips | | | 177 | 80 | 257 | 131 | 195 | 326 | | | | |
| Bicycle Trips | | | | | | | | | | | | |
| 1 | Medical Office | 860,000 Square Feet | 30 | 8 | 38 | 10 | 27 | 37 | | | | |
| | Ground Floor Retail | 15,000 Square Feet | 1 | 0 | 1 | 2 | 3 | 5 | | | | |
| 2 | Multi-Family Residential | 258 Dwelling Units | 1 | 3 | 4 | 4 | 1 | 5 | | | | |
| | Ground Floor Retail | 23,250 Square Feet | 1 | 1 | 2 | 4 | 4 | 8 | | | | |
| 3 | General Office | 170,000 Square Feet | 3 | 0 | 3 | 1 | 2 | 3 | | | | |
| | Ground Floor Retail | 3,000 Square Feet | 0 | 0 | 0 | 0 | 1 | 1 | | | | |
| 4 | Multi-Family Residential | 278 Dwelling Units | 1 | 4 | 5 | 4 | 2 | 6 | | | | |
| | Grocery Store | 52,920 Square Feet | 6 | 4 | 10 | 14 | 14 | 28 | | | | |
| 5 | Townhomes | 146 Dwelling Units | 0 | 2 | 2 | 2 | 1 | 3 | | | | |
| 6 | Community Center | 17,500 Square Feet | 9 | 5 | 14 | 8 | 7 | 15 | | | | |
| | Public Park | 6.2 Acres | | | | | | | | | | |
| Total New Bicycle Trips | | | 52 | 27 | 79 | 49 | 62 | 111 | | | | |
| Vehicle Trips | | | | | | | | | | | | |
| 1 | Medical Office | 860,000 Square Feet | 1,055 | 281 | 1,336 | 368 | 946 | 1,314 | | | | |
| | Ground Floor Retail | 15,000 Square Feet | 6 | 3 | 9 | 12 | 14 | 26 | | | | |
| | Retail Pass-By Trips | 30 % | -- | -- | -- | 5 | 6 | 11 | | | | |
| 2 | Multi-Family Residential | 258 Dwelling Units | 14 | 59 | 73 | 58 | 30 | 88 | | | | |
| | Ground Floor Retail | 23,250 Square Feet | 9 | 5 | 14 | 18 | 21 | 39 | | | | |
| | Retail Pass-By Trips | 30 % | -- | -- | -- | 8 | 9 | 17 | | | | |
| 3 | General Office | 170,000 Square Feet | 167 | 24 | 191 | 29 | 146 | 175 | | | | |
| | Ground Floor Retail | 3,000 Square Feet | 2 | 0 | 2 | 2 | 3 | 5 | | | | |
| | Retail Pass-By Trips | 30 % | -- | -- | -- | 1 | 1 | 2 | | | | |
| 4 | Multi-Family Residential | 278 Dwelling Units | 16 | 61 | 77 | 60 | 33 | 93 | | | | |
| | Grocery Store | 52,920 Square Feet | 79 | 47 | 126 | 125 | 121 | 246 | | | | |
| | Grocery Pass-By Trips | 30 % | -- | -- | -- | 54 | 51 | 105 | | | | |
| 5 | Townhomes | 146 Dwelling Units | 7 | 31 | 38 | 30 | 14 | 44 | | | | |
| 6 | Community Center | 17,500 Square Feet | 18 | 11 | 29 | 17 | 14 | 31 | | | | |
| | Public Park | 6.2 Acres | | | | | | | | | | |
| Total Pass-By Trips | | | -- | -- | -- | 68 | 67 | 135 | | | | |
| Total New Vehicular Trips | | | 1,373 | 522 | 1,895 | 719 | 1,342 | 2,061 | | | | |

Figure 4 Weekday Peak Hour Vehicle Trip Generation (Source: Grove/Slade)

The proposed action is expected to generate a substantial number of trips, and in particular, new vehicle trips. DDOT expects that the predicted level of vehicle trip generation is higher than is likely to be realized, particularly for the medical office and grocery components of the development. It is unlikely

that the medical office use is able to accommodate 1,300 vehicle trips during the peak hours because this represents a significant portion of the proposed parking supply for the parcel. Additionally, it is unlikely that the three medical office parking garage entrances as currently proposed can accommodate that volume of vehicle trip generation. Rather, DDOT expects some vehicle trips to spread out to non-peak hours and for additional trips to occur via non-auto modes. Similarly, it is unlikely that the grocery store will realize the level of trip generation projected.

Trip Distribution and Assignment

The Applicant assumed that trips related to each of the land uses would travel to and from different parts of the region in a manner specific to the land use. Therefore, the Applicant created unique trip distribution rates for retail, medical office, and residential trips.

The Applicant performed a driveshed analysis that considered likely travel times for each use as well as relevant demographic characteristics of the driveshed area. This driveshed analysis was then used to distribute the vehicle trips throughout the study area intersections. The analysis revealed that approximately half of the trips travel to and from the south which is generally the off-peak direction of travel.

DDOT is in agreement with the methodology used to determine trip distribution. However, the trip distribution likely under-assigns vehicle trips to the new road network within the site and over-assigns trips on the adjacent roadways that already experience high volumes and poor LOS. As will be discussed in the Mitigations section, modifications to the internal street network and restrictions on the use of the medical office parking garage are likely to result in more vehicles utilizing the site's street grid thus reducing the level of travel delay in the broader network.

Study Area and Data Collection

The Applicant in conjunction with DDOT identified 19 intersections where detailed vehicle, bicycle, and pedestrian 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 moderate to significant increases 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 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 April 24-25, 2013. In general, DDOT agrees with the time frame and collection dates. The collection dates are recent enough, and none occurred during Congressional recess or outside of the DCPS calendar.

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. The Veterans Affairs Master Plan, Armed Forces Retirement Home – Zone A, and the Howard University Campus Master Plan met the selection criteria. The previously-approved Washington Hospital Center PUD is expired and was not included in the background developments.

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 developments.

On-Site Parking Provision

The overall parking demand created by the development is primarily a function of land use, development square footage, and price/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, and proximity to transit.

Between 2,818 and 3,135 parking spaces are proposed for the site, including between 2285 and 2602 for Phase 1 and an additional 553 for Phase 2. The medical office component has the highest parking provision with between 1650-1883 parking spaces, which equates to between 1.91 and 2.19 parking spaces per thousand square feet or about 56%-65% of what would be needed in a suburban context. While parking is provided at a higher rate than what is typically needed in the District's urban, multi-modal context, the demand for vehicle parking is likely to be high given the medical office land use.

The amount of parking proposed for the rest of the uses is slightly higher than other new developments in the District, which may be necessary given the site's distance from Metro. DDOT notes that the proposed parking for the retail component in Parcel 4 as part of the Phase 2 development could be too high. The Applicant should re-examine the proposed parking provision for Phase 2 based on analysis of actual parking utilization of the Phase 1 development and considering the need of potential retail tenant(s). Reducing the supply of parking would serve to reduce the impact on the District's roadways.

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. The Applicant's future year analysis with the site development included several roadway changes from the PUD application to accommodate anticipated changes in travel behaviors. The changes are:

- Install a traffic signal at the intersection of Michigan Avenue and Half Street NW;
- Construct a westbound left turn lane at the intersection of Michigan Avenue and Half Street NW;
- Extend the eastbound left-turn lane at the intersection of Michigan Avenue and North Capitol Street
- Install a traffic signal at the intersection of North Service Court and North Capitol Street

- Install a traffic signal at the intersection of Evarts Street and North Capitol Street
- Construct a northbound left-turn lane at the intersections of the North Service Court and Evarts Street with North Capitol Street; and
- Widen First Street NW between Michigan Avenue and the First Street NW driveway to extend the northbound left-turn lane.

Including roadway changes in the future year analysis is not a typical approach. However, DDOT agrees in principle to the suggested changes. DDOT expects the Applicant to coordinate with DDOT to develop acceptable final design of the changes. The changes require DDOT approval.

Analysis provided by the Applicant shows that vehicle traffic impacts from the action will worsen the operations of several intersections in the study area as measured by Level of Service (LOS) even with the changes included in the PUD application. Most notably, the intersections of North Capitol Street / Michigan Avenue and Michigan Avenue / First Street experience a significant degradation of LOS. Additionally, several locations along North Capitol Street in the vicinity of the site are expected to operate at a failing LOS.

Most of the additional delay is coming from the northbound right at First Street NW / Michigan Avenue and from the eastbound right at Michigan Avenue / North Capitol Street. This is a direct result of traffic attempting to travel to the south being forced to egress onto Michigan Avenue from the First Street NW and Healing Gardens access points. Approximately 300 vehicle trips are expected to make the eastbound right movement at Michigan Avenue / North Capitol Street, approximately triple the current traffic making the same movement. The Applicant proposes additional transportation improvements intended to improve these substandard intersections, in particular eastbound right turn bays on Michigan Avenue to 1st Street NW and to North Capitol Street. While these changes could decrease the level of delay, the problem is with the site access, not the vehicle capacity on the external travel network.

High levels of delay are noted on North Capitol Street adjacent to the site. High levels of delay are shown for streets east of the site from the Stronghold neighborhood accessing North Capitol Street. This is generally due to an anomaly in the analysis software. With the signalization of site access points at the North Service Court and Evarts with North Capitol Street, the delay noted will not necessarily be realized. The implementation of signals will create gaps in traffic for vehicles to more easily access the Stronghold neighborhood.

Additional delay is also noted for the site intersections along North Capitol Street. Delay can be expected from these locations and in particular for northbound left turns into the site. However, much of the potential delay can be mitigated by implementing a coordinated signal system in the vicinity.

Transit Service

The District and Washington Metropolitan Transportation 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 mile – roughly 25 minutes walking - from the Brookland-Catholic University and Rhode Island Avenue Metro Stations on the Red Line and the Shaw-Howard University

and U Street Metro Stations on the Green Line. The site's distance from the Metro stations is beyond the typical walkshed of a rail transit facility. Accordingly, bus service is particularly important in order to provide the "last-mile" connection to the nearby Metro stations as well as connecting people to destinations served by the adjacent bus routes.

The site is well-served by high-frequency bus routes. Bus routes include:

- 80 – North Capitol Street
- D8 – Hospital Center
- H1 – Brookland-Potomac Park
- H2, H3, H4 – Crosstown Line

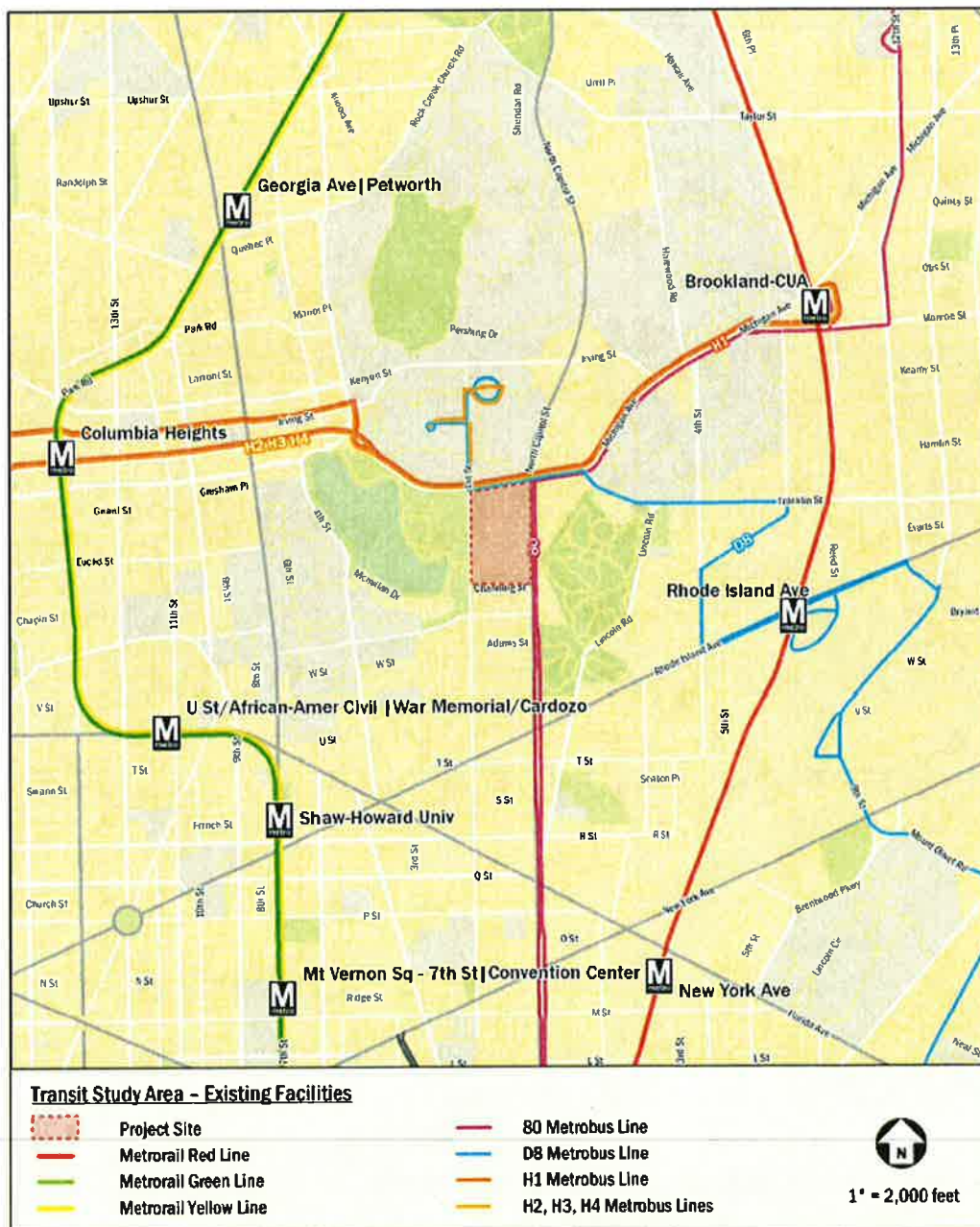


Figure 5 Existing Transit Services (Source: Gorove/Slade)

In addition to the WMATA services, 5 major institutions in the vicinity operate private shuttles to serve their site's employees, visitors and/or students. While these shuttles are private and currently operate independently from one another, potential coordination between institutions could lead to higher quality private transit service.

Given the importance of bus service to the development, the Applicant completed a robust transit analysis to determine available capacity as measured by Ridership/Capacity (R/C) ratio. The Applicant's analysis revealed that many of the bus routes serving the site are currently at or beyond acceptable levels. Noting the demand for enhanced bus service in the vicinity, several WMATA and District-led studies have identified enhanced bus service and capacity improvements that add approximately 1,100 additional bus seats during the peak periods. This addition of transit seats is necessary to accommodate future increases in demand, much of which can be attributed to the McMillan development. This additional transit capacity should be a requirement for approval. The Applicant may work with WMATA and the District to facilitate expansion plans to accommodate this need or may supply the service themselves. If facilities are phased, each building should guarantee the supply of its pro rata share as discussed in the Mitigations section.

The Applicant recommended several changes to the nearby bus stops, including relocations and eliminations. While changes to the bus stops are necessary to more safely and efficiently serve the site and the adjacent neighborhoods, further study is needed to assess the Applicant's proposal. The Applicant should work with WMATA and DDOT in the permitting process to determine the optimal bus stop locations. The Applicant has committed to pay for any bus stops relocated by the development.

Pedestrian Facilities

The District is committed to enhance the pedestrian accessibility of the city 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 performed an inventory of the pedestrian infrastructure in the vicinity and noted any substandard conditions. The area immediately adjacent to the site has numerous instances of missing or substandard sidewalks and curb ramps. In addition, numerous unsignalized crossings along North Capitol Street serve as a barrier to east-west pedestrian connectivity.

The Applicant proposes numerous changes to the pedestrian crossings along North Capitol Street. The installation of new traffic signals at North Service Court and Evarts Street allows the opportunity to provide two new signalized pedestrian crossings. As a result, unsignalized crossings at Girard Street and Douglas Street are proposed to be removed. These changes are appropriate to improve safety and pedestrian connections between the site and the Stronghold neighborhood. The Applicant will need to coordinate with DDOT on signal timing of the new traffic signals to optimize performance of the road network while providing ample pedestrian crossing time.

DDOT is awaiting additional information about the available public right-of-way that can be used for sidewalks and will provide a review of this information in an addendum prior to the Zoning Commission hearing. As discussed in the Site Access section, the Applicant is expected to work with DDOT through the public space permitting process to ensure that pedestrian access points provide safe and convenient

site access, with a focus on connecting to adjacent neighborhoods and connections to major trip production or attraction areas such as Metro stations. DDOT understands the historical importance of the site and will work with the Applicant to address site access within historic preservation-related constraints.

In addition to the pedestrian infrastructure improvements adjacent to the site, the proposed site design includes many opportunities to promote walking. New sidewalks that accompany the site's street network and the Olmstead Walk provide excellent pedestrian facilities internal to the site.

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. Cycling is expected to be an important mode of transportation for the site, most notably for connecting the site to nearby Metro stations. While the Metro stations are located outside of the typical watershed of rail transit stations, the distance is ideal for bicycling.

The Applicant has proposed on-site bicycle facilities and conducted an inventory and evaluation of the bicycle facilities in the vicinity. This evaluation found that much like the pedestrian infrastructure, manmade and natural barriers, roadway conditions, and a lack of supportive infrastructure (i.e. bicycle lanes/paths, bicycle parking, etc.) serve as barriers to a quality bicycle environment.

To address on-site bicycle facility needs, the Applicant has proposed short- and long-term parking facilities as well as showers and changing facilities. Several of the proposed short-term bicycle parking locations are far from building entrances and many entrances, particularly for the medical office buildings, do not have a short-term bicycle parking location within close proximity. The Applicant's short-term bicycle parking plan should ensure that short-term bicycle parking spaces are conveniently located near building entrances. Generally, the amount of long-term bicycle parking proposed is adequate. However, the locations of the parking facilities are generally inappropriate. Many of the bicycle parking facilities are in minimally accessible corners and below the first level of parking. Bicycle parking should be on the top level of parking in a location accessible to vertical circulation facilities. Additionally, the Applicant has committed to provide shower and changing facilities. However, these facilities are in minimally accessible locations or the quantities of facilities are not specified.

Additional bicycle facilities are necessary in DDOT's ROW to encourage bicycling to and from the site. These facilities can take the form of wider sidewalks or on-street lanes. Specifically, connections are needed to the Brookland, Rhode Island Avenue, Shaw, and U Street Metro Stations. Of particular need is a northbound climbing lane to reach the site along First Street NW.

Bicycle travel is projected to be a major form of travel to connect residents and workers to Metro facilities. Specifically, 20% of Metro riders are expected to bike or walk from the rail station to the site. This equates to between 150-200 trips in the peak hour. While some of these travelers will walk or ride their own bicycles, it is more than likely that a significant portion of the trips will utilize bikeshare. In addition, the Applicant anticipates demand for bicycle travel to the residential and retail portions of the site. It is reasonable to expect a large portion of these trips will utilize bikeshare facilities. To address the demand for bikeshare, robust facilities will be necessary on the site and at nearby Metro stations.

Currently one Capital Bikeshare station is located within ¼ mile of the site. The Applicant has proposed to increase the supply of Capital Bikeshare docks to accommodate expected demand generated by the site. This is discussed in greater detail in the Mitigations section of this report.

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 as 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 7 intersections within the study area that have a crash rate of 1.0 Million Entering Vehicles (MEV) or higher. A significant portion of the crashes are designated as “rear end” or “side swipe” crashes.

| Intersection | Rate per MEV | Right Angle | Left Turn | Right Turn | Rear End | Side Swipe | Head On | Parked | Fixed Object | Ran Off Road | Red. Involved | Backing | Non-Collision | Under/Over Ride | Unspecified | Total |
|--|--------------|-------------|-----------|------------|-----------|------------|---------|----------|--------------|--------------|---------------|----------|---------------|-----------------|-------------|-------|
| First Street & Michigan Avenue NW | 2.76 | 7 10% | 5 7% | 1 1% | 15 22% | 20 30% | 1 1% | 2 3% | 4 6% | 3 4% | 3 4% | 2 3% | 0 0% | 0 0% | 4 6% | 67 |
| North Capitol Street & Michigan Avenue | 1.44 | 3 5% | 8 12% | 2 3% | 24 37% | 13 20% | 4 6% | 1 2% | 2 3% | 1 2% | 4 6% | 1 2% | 1 2% | 0 0% | 1 2% | 65 |
| Michigan Avenue & Franklin Street NE | 2.17 | 2 5% | 2 5% | 2 5% | 10 24% | 10 24% | 3 7% | 1 2% | 2 5% | 0 0% | 2 5% | 5 12% | 0 0% | 0 0% | 3 7% | 42 |
| First Street & Channing Street NW | 1.08 | 1 10% | 0 0% | 1 10% | 4 40% | 1 10% | 0 0% | 1 10% | 1 10% | 0 0% | 0 0% | 0 0% | 0 0% | 0 0% | 1 10% | 10 |
| Georgia Avenue & Columbia Road NW | 1.16 | 4 13% | 3 9% | 2 6% | 5 16% | 9 28% | 1 3% | 1 3% | 1 3% | 0 0% | 2 6% | 1 3% | 1 3% | 0 0% | 2 6% | 32 |
| Georgia Avenue & Harvard Road NW | 1.33 | 7 21% | 2 6% | 0 0% | 8 24% | 8 24% | 0 0% | 1 3% | 0 0% | 0 0% | 4 12% | 2 6% | 0 0% | 0 0% | 2 6% | 34 |
| Georgia Avenue & Bryant Street NW | 2.26 | 2 5% | 4 10% | 0 0% | 5 12% | 20 48% | 0 0% | 2 5% | 1 2% | 0 0% | 2 5% | 2 5% | 0 0% | 0 0% | 4 10% | 42 |

Figure 6 Intersection Safety (Source: Gorove/Slade)

The PUD and its associated transportation improvements will alter many of these intersections and impact on the safety of the surrounding road network.

The site is expected to generate a significant number of new trips. The addition of these trips will lead to increased exposure and the opportunity for additional conflicts. In particular, the site will generate new left turns from North Capitol Street, Michigan Avenue, and First Street NW, which could lead to addition side swipe and rear end collisions. Additionally, several of the proposed improvements have the opportunity for pedestrian-vehicle conflicts where none exist currently.

Replacing several unsignalized cross walks on North Capitol Street with signalized intersections will improve pedestrian safety for pedestrians crossing North Capitol Street.

The Applicant will be required to coordinate with DDOT during the public space permitting process to ensure that safe design is incorporated into new vehicular access points.

MITIGATIONS AND CONDITIONS

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.

Site Circulation and Operations

The site should be designed in a manner to facilitate internal movement of people and vehicles such that the potential impacts to the external transportation network are minimized. When potential impacts are unavoidable, operational changes such as limitations on turn movements or changes in directionality of roadways are an effective way to manage a site's potential transportation impact.

As proposed, the site circulation plan forces many exiting vehicle trips to travel north to and along Michigan Avenue in order to travel south on North Capitol Street. More specifically, two of the three access points for the medical office building feed egressing vehicle northbound to Michigan Avenue. The First Street right in / right out access forces all egressing vehicles into the intersection of First Street and Michigan Avenue and the Healing Gardens access forces all egressing vehicles to Michigan Avenue eastbound between First Street and North Capitol Street. This concentration of access leads to unnecessary vehicle delay that could be avoided if vehicles traveling to and from the south could better circulate within the site. Specifically, it overwhelms the northbound right movement at First Street NW and Michigan Avenue and the eastbound right movement at Michigan Avenue and North Capitol Street. DDOT requests the following changes to address this concern:

- Improve Internal Circulation –The Applicant should be required to improve internal circulation by changing the directionality of the street connecting Half Street to the Healing Gardens entrance from one-way eastbound to two-way operations. This allows vehicles egressing to the south to better utilize the site roadway network.
- Garage Egress by Direction of Travel – As conceived, the Applicant proposed to assign specific types of users to specific access points; employees would use First Street NW, visitors would use the Healing Gardens, and the North Service Court would be for overflow. The Applicant should be required to promote and sign driveway usage by direction of travel. Specifically, westbound and northbound traffic should be signed to the First Street access, eastbound and southbound access (assuming internal circulation improvement noted previously) should be assigned to the Healing Gardens access, and southbound access should be signed to the North Service Court access.

- Trip Cap – A trip cap should be applied to certain access points to limit unnecessary delay. Details will be discussed in the Performance Monitoring section.

The Applicant has proposed additional peak period parking restrictions for the off-peak directions of travel on North Capitol Street. At this time, DDOT does not agree that this change is necessary. While this change may improve travel times, it comes at the cost of losing residential parking. During the monitoring program, DDOT asks that conditions be evaluated to determine the need for extending the parking restrictions.

Transportation Demand Management

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 a 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 has proposed the following TDM strategies:

- Designate a TDM coordinator responsible for organizing and marketing the TDM plan;
- Price all parking on the site at market rates based on parking costs within .25 mile radius from the site. Multi-family residential parking spaces will be unbundled from sale or lease terms.
- All office employers and the grocery store will provide SmartBenefits for their employees;
- Provide bicycle parking and shower accommodations;
- Reserve a minimum of 10 on-street parking spaces for car-sharing companies;
- Provide funding for a minimum of 60 Capital Bikeshare docks on-site and an addition 20 docks offsite near likely destinations such as Metro stations. Capital costs for one year of operations and maintenance will also be provided; and
- Provide real-time transportation information screen in the lobbies of all office and multi-family residential buildings.

DDOT agrees with these measures but has identified additional TDM measures that will be essential in minimizing vehicle trips generated by the site and achieving assumed travel demand patterns. Accordingly, DDOT requests that the following elements be added to the Applicant's TDM plan as a condition of approval:

- Provide corporate Capital Bikeshare memberships for all major employers for a period of 3 years;

- Offer a one-year Capital Bikeshare membership or carshare membership to all residential tenants for a period of 3 years;
- Adjust locations of bicycle parking and shower/changing room facilities. Specify the number of showers and lockers proposed for the medical office facility;
- Price retail parking such that office and medical office patrons are discouraged from utilizing this source of parking;
- Hold annual commuter fairs with representatives of various transportation providers to explain transportation services available for employees and residents;
- Post all TDM commitments to the project website; and
- Include links to Commuter Connections and goDCgo on the project website.

Transit Expansion

Existing transit capacity is insufficient to accommodate the demand expected to be generated by the site. Planned transit expansion, include additional service on WMATA's 80's and H routes along with east-west Circulator and DC Streetcar service. Transit expansion plans would add approximately 1,100 new transit seats in the vicinity during peak hours which would generally accommodate the anticipated transit travel demand for the site.

Unfortunately, these improvements are not yet funded. It is important that appropriate levels of transit are provided upon the opening of the project. In the event that new transit services are not in place upon the completion of the project, the Applicant should be required to provide the additional 1,100 peak hour transit seats to a Metro station. This requirement could include coordinating shuttle service with nearby institutions, new stand-alone shuttle service, or some other means but it would require additional seats at a prorated based on the amount of development constructed as outlined in the Applicant's proposal.

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 a series of physical improvements. DDOT agrees with the improvements as outlined in the Applicant's Transportation Impact Study dated March 17, 2014 and as amended by a supplemental memorandum dated April 16, 2014. Specifically, DDOT agrees that the following changes should be made:

- Traffic signals should be included where noted. Design and operational details will be determined at permitting.
- Michigan Avenue between First Street NW and North Capitol Street should be widened to accommodate left turn facilities. Currently the width of the facility varies. The Applicant should widen the facility to a consistent width between approximately 55' and 60'. Details should be determined during the permitting phase.
- Northbound left turn pockets on North Capitol Street at Evarts Street and the North Service Court should be constructed. Their length should generally accommodate anticipated queuing and can be determined at permitting.

- First Street northbound south of Michigan Avenue should be widened to accommodate an additional lane. Precise width and length of the widening will be determined at permitting.

The Applicant has proposed additional changes which should either not be implemented or should be implemented with the following changes:

- Michigan Avenue & North Capitol Street right-turn lane: The Applicant proposes to construct a 100' right-turn lane at Michigan Avenue & North Capitol to reduce vehicle travel delay such that the ability to provide bike and pedestrian facilities would be limited. DDOT opposes and will not allow this change. The cause of the delay is excessive right turn movements necessitated by the site design along with the introduction of additional pedestrians and transit riders at the intersection. Thus even if a right turn bay is constructed, it is unlikely that delay will abate due to the conflict with new pedestrian movements across North Capitol street. Assuming a robust performance monitoring program, as subsequently described, and an adjustment to site designed, as previously noted, is required a right turn bay will be less necessary. Without the right turn bay, the intersection would likely be subject to minor addition delay but the increase in delay would be outweighed by the improvement to the quality of the pedestrian environment
- Michigan Avenue & First Street NW right-turn lane: The Applicant proposes to review the need for a right-turn lane at Michigan Avenue & First Street NW at a future Stage 2 PUD process. DDOT agrees with this approach, but notes the same concerns with this location as with the proposed right turn lane at Michigan Avenue and North Capitol Street.
- First Street NW: The design of First Street as proposed is not feasible. The width of the street is not sufficient to handle the proposed turning facilities. Instead of implementing left and right turning bays as proposed, the Applicant should eliminate parking on the east side of the street and stripe a bike climbing lane. Details will be determined at permitting.

The Applicant had originally proposed a signal at the intersection of First Street NW & North Service Court but removed that recommendation because of the decrease in vehicular traffic expected as a result of operational constraints on the First Street medical office parking garage entrance. This signal will be analyzed as part of the CTR for the Parcels 2 and 3 Stage 2 PUD action, and the Applicant may be required to install a signal at that time if the signal is warranted.

Performance Monitoring

The CTR provides a prediction of an action's likely transportation impacts. However, in an urban environment that is rapidly developing and changing, the projections may not provide enough certainty to reveal the true future impacts of an action particularly at the scale of this PUD. A performance monitoring plan provides the framework for increasing the level of certainty concerning expected impacts so that DDOT and the public can have a better idea of expected future travel conditions. A performance monitoring plan establishes thresholds for new trips an action can generate, defines post-completion evaluation criteria and methodology, and establishes potential remediating measures.

DDOT's goal is to customize the performance monitoring plan to address the potential impacts identified. There are two basic areas for potential impacts. These include:

- Northbound lefts from North Capitol into the site.
- Egress onto Michigan Avenue from the First Street NW driveway and the Healing Gardens driveway.

To minimize the potential impacts at these areas, DDOT requests of the Zoning Commission and will require in the Public Space permitting process the following monitoring program:

- Measure queuing from North Capitol Street into the site in AM, PM, and weekend peak periods. Queuing that regularly spills into North Capitol is subject to mitigation that focuses on limiting trips making these movements. Queuing should also be evaluated for the through movements to determine if North Capitol Street parking restrictions should be extended to the off-peak directions.
- Establish a trip cap of 400 egressing right turns per hour in the PM peak from the First Street NW driveway. In addition, turns from the Healing Garden access on Michigan Avenue should be limited to 100 peak hour right turns. These numbers roughly correspond to the directionality that should utilize the access point. For First Street roughly 200 eastbound and 200 northbound trips are projected. The Healing Garden access should accommodate the 100 eastbound movements onto Michigan Avenue.

DDOT requests that the performance monitoring program consist of annual reporting once the project reaches 90% residential occupancy and 85% commercial occupancy. DDOT recommends the following parameters for annual performance monitoring:

- Evaluation should be conducted in the Fall when Congress, colleges, and schools are in session. Evaluation periods should be approximately 12 months apart.
- Turn movement counts for the appropriate time period(s) consistent with DDOT standards should be submitted for the following four intersections:
 - North Capitol and Evarts
 - North Capitol and North Service Court
 - First Street NW and Medical Office driveway
 - Healing Gardens (east) egress onto Michigan Avenue
- Queuing analysis should be performed during the peak hour of the roadway.
- The Applicant shall submit a copy of the analysis to DDOT's Policy, Planning, and Sustainability Administration, adjacent ANCs, and area neighborhood organizations no later than the end of the calendar year.
- When conditions are consistent with the requirements for two successive periods, the Applicant shall be released from the monitoring requirement.

In the event that the Development exceeds the projected vehicle trip generation by 10% for two consecutive years after operation, then the Applicant will be required to conduct a robust survey of users to determine mode of travel to and from the site. The Applicant would then be required to produce an implementation plan, to be included in the Annual Monitoring Plan. This plan would be based upon the survey results and would document how the Applicant will reach the trip generation thresholds. More specifically, this document would propose measures to shift vehicle trips to other modes or to off-peak travel times. If thresholds are exceeded for any two consecutive years, then the implementation plan would be required to be reviewed by DDOT and/or the Public Space Committee for approval. Details of the regulatory review will be addressed in the public space permitting process.

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 240-volt electric car charging stations in the following locations: at least 8 spaces in the medical office building parking garage, 2 in the grocery store/multi-family residential building parking garage, and 1 on the street adjacent to the community center and park.