

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



d. Planning and Sustainability Division


MEMORANDUM

TO: Sara Bardin
Director, Office of Zoning

FROM: Jim Sebastian
Associate Director

DATE: October 16, 2017

SUBJECT: ZC Case No. 16-29 – Columbian Quarter at Poplar Point



PROJECT SUMMARY

Poplar Point RBBR, LLC (the “Applicant”) seeks a first stage approval of a Planned Unit Development (“PUD”) and related map amendments to construct a mixed-use project with residential, office, and retail mixes along Howard Road SE between I-295 and South Capitol Street (Square 5860, Lots 97, 1025, 1026, 1027, 1028, 1029, 1030, 1031, 1036, 1037 and Square 5861, Lot 91). Five buildings are proposed for the site containing:

- 710 residential units;
- 49,980 square feet of retail;
- 1,679,510 square feet of office;
- 921 off-street vehicle parking spaces;
- 642 long-term and 93 short-term bicycle parking spaces.

SUMMARY OF DDOT REVIEW

The District Department of Transportation (DDOT) is committed to achieve an exceptional quality of life in the nation’s capital by encouraging sustainable travel practices, safer streets, and 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. The subject action is for Stage 1 PUD approval for a large project with multiple phases with uncertain implementation timeframes. As such, DDOT expects CTRs for each subsequent Stage 2 PUD to identify each phase's impacts and overall PUD cumulative impacts to refine mitigations identified in the Stage 1 CTR and to determine the phasing of mitigations. These CTRs will also need to account for interim site access schemes.

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

Site Design

- A robust network of private roadways is proposed as part of the PUD application. These include two new north-south private streets, an east-west private alley, and a private north-south driveway;
- 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. Furthermore, the new north-south streets set the framework for a robust street network to serve potential redevelopment within Anacostia Park/Poplar Point;
- The site layout is consistent with DDOT's South Capitol Street Corridor Project;
- The alignment of a north-south private street with the private driveway such that a 4-legged intersection is created with Howard Road is optimal to facilitate multimodal access to the site, but the operations of this intersection may require signalization;
- The proposed reconfiguration of the Howard Road right-of-way (ROW) and expansion of the public realm onto private property is appropriate and facilitates multimodal access to the site;
- The proposed driveway on Howard Road for Building D is in close proximity to the adjacent intersection with Suitland Parkway; and
- Loading for the each building is proposed to occur from the private alley and driveway consistent with DDOT standards.

Travel Assumptions

- Overall trip generation assumptions proposed by the Applicant are reasonable, however the level of vehicle trip generation greatly exceeds on-site parking supply and therefore actual vehicle trip generation is likely to be lower than assumed;
- Despite this, 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 Applicant proposes to construct the project in phases, but the transportation analysis studied the development as a whole such that transportation impacts by project phase are unknown; and
- The analysis is consistent with DDOT's South Capitol Street Corridor Project.

Analysis

- The Applicant utilized sound methodology to perform the analysis;

- The action is expected to increase travel delay in most study area locations but significantly impact operations for at least ten (10) intersections;
- The vehicle capacity analysis represents a conservative analysis, and the level of vehicle impacts identified in the CTR are unlikely to be fully realized;
- The proposed driveway on Howard Road for Building D has the potential to create safety problems due to poor site distance and vehicle speeds exiting Suitland Parkway;
- A robust network of transit options exists in close proximity to the site, and the proposed Metro station access improvements provide critical access to transit. Further evaluation of bus capacity and service accessibility is anticipated during future Stage 2 applications;
- Improvements to the pedestrian and bicycle network proposed as part of the subject development will supplement improvements planned by DDOT resulting in a robust network of pedestrian and bicycle facilities in the vicinity;
- The proposed TDM measures do not represent the state of the practice for encouraging non-auto travel and must be significantly improved in order to achieve the desired mode splits.

Mitigations

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

- Implement the following elements as proposed by the Applicant:
 - Rebuild Howard Road as proposed with further refinement through Stage 2 PUD applications and the public space permitting process;
 - Reconstruct access to the Anacostia Metro Station parking garage entrance to include robust pedestrian and bicycle facilities as proposed in concept subject to further refinement through Stage 2 PUD applications and the public space permitting process;
- Implement the following elements proposed by the Applicant but modified by DDOT:
 - Revisit the proposed Howard Road driveway for Building D as part of the Stage 2 PUD, which may result in removal of the driveway or geometric, signalization, operations, or other mitigations to safely accommodate the driveway. DDOT's preference is for all vehicular site access for Building D to be provided via the north-south private driveway between Buildings D and E;
 - Commit to implement the proposed operational changes as modified in this report with final decisions on these mitigations to be made following reanalysis in Stage 2 PUD CTRs to reflect revised capacity analyses informed by refined trip generation;
 - Do not implement proposed turn lane changes proposed at the Frederick Douglass Memorial Bridge & South Capitol Street East Oval and I-295 Northbound Ramps & Suitland Parkway;
 - Strengthen the TDM plan as described in this report;
 - Commit to a performance monitoring plan to be fully defined in the Stage 2 CTRs with the following parameters:
 - Timing - Conduct performance monitoring studies annually when Congress and schools are in session and when building occupancy is at least 80%.

- Targets - Establish trip generation targets for each building at Stage 2 review. The vehicle trip generation assumed in the Stage 1 approval is highly conservative and unlikely to be realized. Trip generation targets should be aggressive but reasonably attainable if supported by robust TDM and parking provision and pricing.
 - Methodology - Measure trip generation counts for each building by observation and tube counts. Measure mode splits for each building by observation and intercept surveys.
 - Scope – In addition to trip generation and mode split targets, the performance monitoring study may include intersection capacity analyses and queuing, if a need is identified through Stage 2 reviews.
 - Triggers – If the development exceeds the targeted vehicle trip generation, the Applicant will be required to conduct a robust survey of users to determine mode of travel to and from the site in order to determine additional TDM elements to be implemented to reach the trip generation target or physical improvements and operational changes to mitigate operations or queuing impacts.
 - Evaluation by construction phase where feasible – Generally, monitoring should be completed by construction phase. However, parking garages and other shared transportation infrastructure may connect multiple buildings. As such, performance monitoring studies may include buildings from multiple phases rather than buildings in a single phase.
 - Sunset - When conditions are consistent with the requirements for two successive periods, the Applicant shall be released from the monitoring requirement.
- Implement the following element suggested by DDOT:
 - Commit to install a signal at the intersection of Howard Road and the private street/driveway between Buildings A and B/D and E.

Continued Coordination

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

- Stage 2 PUD applications will be required to perform CTRs. Stage 2 CTRs will need to account for the subject phase and the overall PUD to identify impacts of each phase and cumulative impacts.
- Defining final details of the performance monitoring plan and performing monitoring reports;
- Ensuring continued consistency with DDOT's South Capitol Street Corridor Project, including construction staging;
- Ensuring connectivity to streets to support potential future Poplar Point redevelopment. As such, internal streets and alleys should be constructed to current DDOT standards;

- Final design of proposed Howard Road. Careful attention must be paid to the edges of the reconfiguration to ensure continuity of multimodal facilities to the east and west;
- Final design of proposed Anacostia Metro Station parking garage entrance improvements. The Metro entrance improvements may require right-of-way disposition;
- Permitting and approvals processes associated with proposed mitigations likely to include signal design, marking and signage, etc.
- Public space, including curb and gutter, street trees and landscaping, street lights, sidewalks, and other features within the public rights of way, are expected to be designed and built to DDOT standards. Careful attention should be paid to pedestrian and bicycle connections along the site's perimeter and adjacent infrastructure;
- All utility vaults are expected to be accommodated on private property;
- Size, number, and location of all loading facilities. DDOT expects all loading facilities to meet DDOT standards and accommodate anticipated loading demands on-site; and
- A curbside management and signage plan, assumed to include multi-space meter installation at the Applicant's expense, consistent with current DDOT policies.

TRANSPORTATION ANALYSIS

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

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

Site Design

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

Site Access

Two new private north-south streets and an alley to the north of Howard Road provide access to buildings A, B, and C. To the south of Howard Road, access to buildings D and E is proposed from one curb cut and a private driveway.

To facilitate access to the north buildings, the Applicant proposes to close existing alley rights of way through a Surveyor’s Order application and reopen private streets and alleys. Because these private facilities would serve as the basis for a street network to serve the potential redevelopment of Poplar Point, private streets and alleys should be designed to current DDOT standards.

The Applicant proposes to reconfigure the Howard Road right-of-way (ROW) and expand the public realm onto private property in order facilitate multimodal access to the site. Proposed changes are discussed in the Streetscape and Public Realm section.

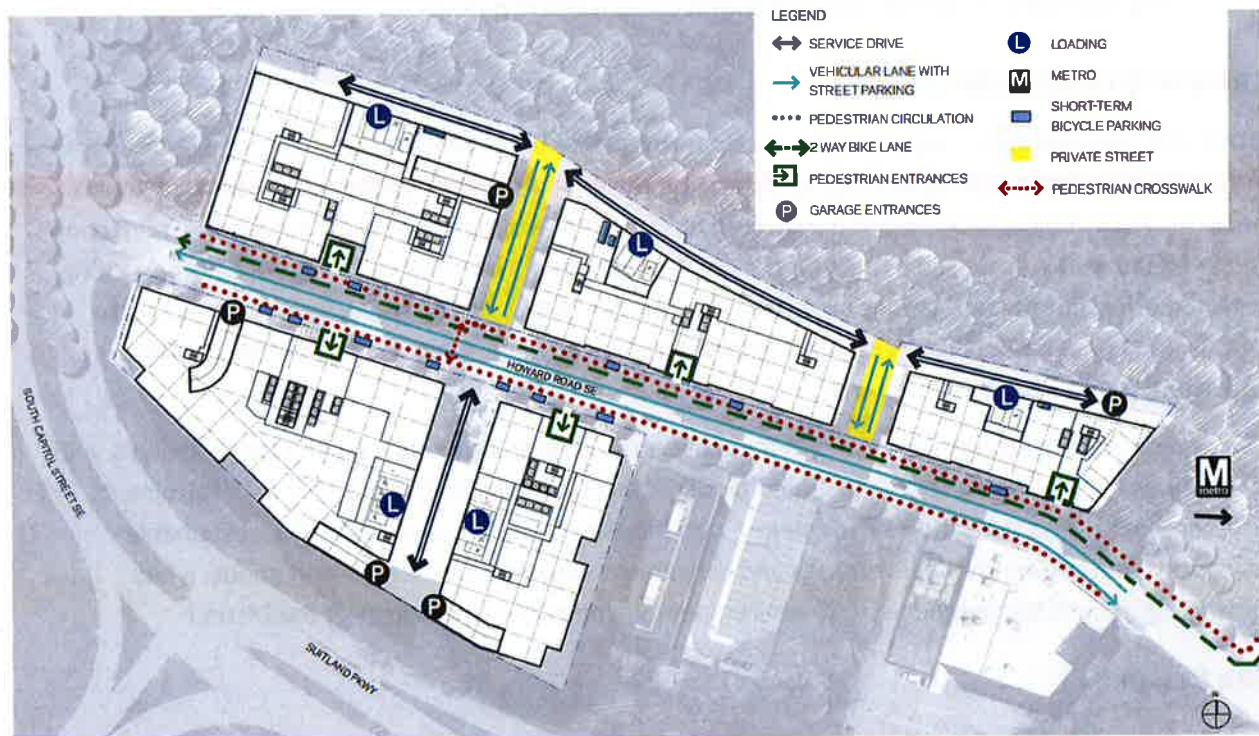


Figure 1 – Site Design and Access (Source: Applicant)

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. The roads serve as vehicle, bicycle, and pedestrian access points for the site. Furthermore, the new north-south streets set the framework for a robust street network to serve potential redevelopment within Anacostia Park/Poplar Point immediately north of the subject site.

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.

The Applicant’s proposed loading locations comply with DDOT’s loading requirements. Loading for all buildings is proposed via the private alley and driveway with head-in/head-out movements through public space. Final design of loading access will be addressed as part of the Stage 2 PUD. DDOT expects the Applicant to comply with DDOT’s standards for loading.

The size and quantity of loading facilities for each building are summarized in Figure 2. As development programs and building designs are refined through the second stage PUD process, DDOT expects the loading needs and access for each site to be accommodated. Should a use be proposed that requires additional or larger loading facilities, those loading needs will be required to be accommodated on-site in a manner consistent with DDOT standards.

The Applicant provided truck turning maneuvers showing how 30-foot trucks would access each building’s loading berths. Of note, maneuvers for Building B indicated a complex series of truck maneuvers needed to access the berth. The Applicant will be expected to refine the design of each building’s loading facilities such that they are easily access via trucks.

Building	Required [†]	Proposed
A	<u>601,970 SF office</u> >200,000 SF = 3 Loading Berths, 1 Delivery Space	3 Loading Berths, 1 Delivery Space
B	<u>20,500 SF retail</u> 20,000 – 100,000 SF = 2 Loading Berths, 1 Delivery Space	2 Loading Berths, 1 Delivery Space
C	<u>281 dwelling units</u> >50 dwelling units = 1 Loading Berth, 1 Delivery Space	1 Loading Berth, 1 Delivery Space
D	<u>1,077,540 SF office</u> >200,000 SF = 3 Loading Berths, 1 Delivery Space	3 Loading Berths, 1 Delivery Space
E		
Total	8 Loading Berths, 3 Delivery Spaces	9 Loading Berths, 4 Delivery Spaces
[†] Loading requirement calculated based on the use category with the highest loading requirement. [‡] The most recent program includes 683 dwelling units, 49,980 SF retail, and 1,608,190 SF office.		

Figure 2 Proposed Loading Facilities

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 (DCMR)*, DDOT's 2017 *Design and Engineering Manual (DEM)* and DDOT's *Public Realm Design Manual* will serve as the primary public space references for the Applicant. DDOT staff will be available to provide additional guidance during the public space permitting process. DDOT suggests that the Applicant participate in a Preliminary Design Review Meeting (PDRM) to address design related issues prior to the submission of public space permit applications.

The Howard Road design proposal is shown in *Figure 3*. Of note, the Applicant proposes to accommodate some of the public realm, including sidewalks and street trees, on private space. The public realm will be widened onto private property by 13 feet 3 inches on the south side of the street and 4 feet 9 inches on the north side of the street. On the south side of the street, the entirety of the 10 foot sidewalk and a portion of the tree box/furnishings zone (including the street trees) will be located on private property, while on the north side a portion of the sidewalk will be located on private property. The Applicant is expected to dedicate a public access easement for the sidewalks and furnishings areas.

Within the 62 foot wide Howard Road ROW, the Applicant proposes a 50 foot curb to curb dimension to including a two eight (8) foot parking lanes, two 11-foot travel lanes, and a 12 foot wide cycletrack and buffer. This street cross section provides adequate flexibility to install a center turn lane if approved by DDOT under future conditions (to be determined as part of Stage 2 PUDs for the subject property), which could be accomplished by removing parking on one side of the street, narrowing the remaining parking lane to seven (7) feet, and narrowing the travel lanes to 10.5 feet thereby creating a 10 foot center turn lane.

Careful attention must be paid to the edges of the proposed Howard Road reconfiguration to ensure that the reconfigured roadway ties in to existing conditions to the east and west of the project. In particular, the western terminus of the cycletrack must transition from an in-street cycle track to connect to the multiuse trail to be constructed as part of DDOT's South Capitol Street project. To the east, sidewalks and travel lanes must align with the existing network, and the cycletrack must safely terminate in a manner that provides access to the Metro station and does not preclude future extensions eastward. Howard Road treatment will be refined during subsequent Stage 2 PUDs and final design will take place through the public space permitting process.

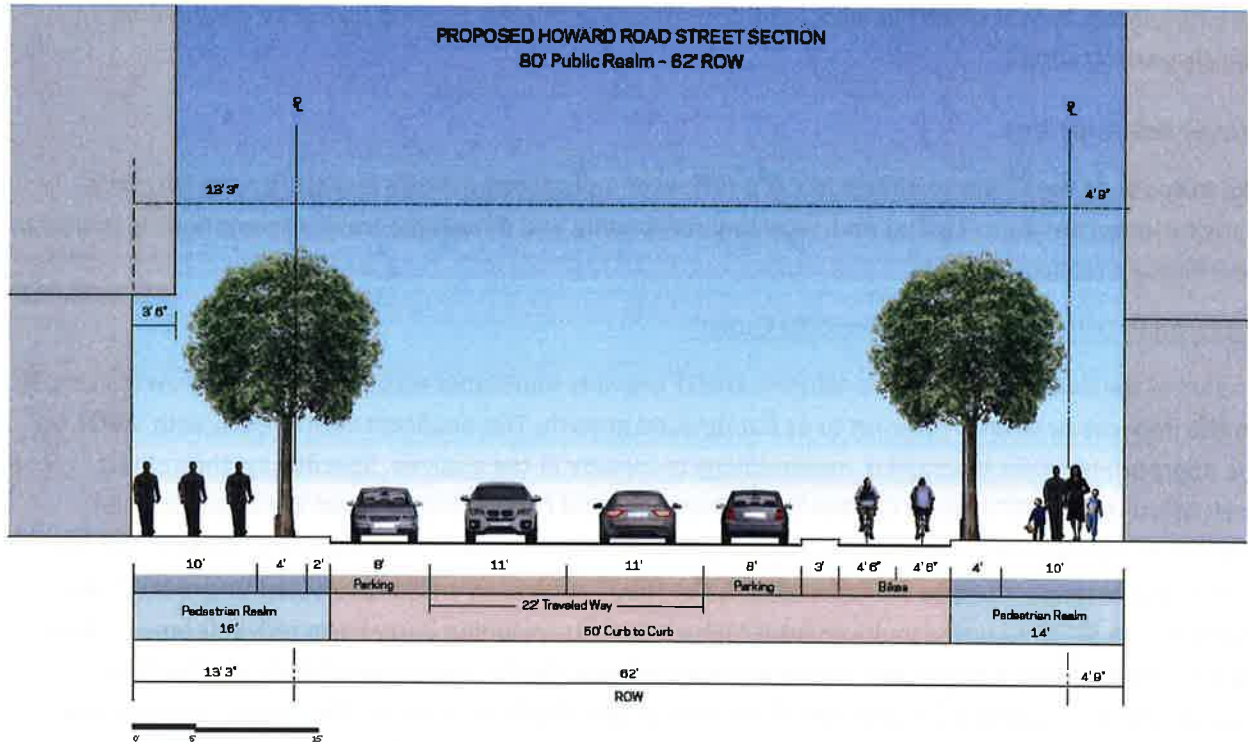


Figure 3 Proposed Howard Road Cross Section (Source: Applicant)

Heritage Trees

Heritage Trees are defined as a tree with a circumference of 100 inches or more and are protected by the Tree Canopy Protection Amendment Act of 2016. Non-Hazardous Heritage Trees may not be damaged or removed. The Applicant should confirm the lack of Heritage Trees in consultation with the Urban Forestry Division (UFD) to ensure there are no conflicts between these protected trees, including on adjacent lots, and the proposed project. In the event that conflicts exist, the Applicant may be required to redesign the site plan in order to preserve any Non-Hazardous Heritage Trees. With approval by the Mayor and the Urban Forestry Administration, Heritage Trees might be permitted to be relocated.

Sustainable Transportation Elements

Sustainable transportation measures target to promote environmentally responsible types of transportation in addition to the transportation mode shift efforts of TDM programs. These measures can range anywhere from practical implementations that would promote use of vehicles powered by alternative fuels to more comprehensive concepts such as improving pedestrian access to transit in order to increase potential use of alternative modes of transportation. Within the context of DDOT's development review process, the objective to encourage incorporation of sustainable transportation elements into the development proposals is to introduce opportunities for improved environmental quality (air, noise, health, etc.) by targeting emission-based impacts. The Applicant is expected to provide one electric vehicle (EV) charging station for every 50 vehicle parking spaces for a total of 19 EV

parking spaces. Spaces should be allocated proportionally to each building based on the building's vehicle parking supply.

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 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 travel forecasting methodology to include in the analysis. Specifically, the subject analysis utilized DDOT's South Capitol Street Supplemental Final Environmental Statement (SFEIS) analysis as the baseline to assess the subject's actions potential impacts within the context of the large scale transportation changes anticipated with the DDOT project as well as projected future land use changes. The SFEIS assumed multiple future developments including Barry Farm redevelopment, Joint Base Anacostia-Bolling employment and housing changes, Poplar Point redevelopment, Sheridan Station, and St Elizabeth's Department of Homeland Security development. The subject analysis also assumed the Curtis Properties development as an additional background development not assumed in the SFEIS. The analysis also utilized the regional growth rates from the SFEIS.

Trip Generation

The Applicant provided trip generation estimates utilizing the Institute of Transportation Engineers (ITE) *Trip Generation Manual, 9th Edition*. The Applicant utilized the following ITE land uses in their trip generation estimation:

- Residential: Apartments (Code 220)
- Retail: Shopping Center (Code 820)
- Office: General Office Building (Code 710)

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 Ridership Survey* and US Census data. A 45% residential auto mode split and 70% office and retail mode split were assumed. Based on the trip generation and mode split assumptions discussed above, the Applicant predicted the level of weekday peak hour trip generation as shown in Figure 4.

Land Use	AM Peak Hour			PM Peak Hour			
	In	Out	Total	In	Out	Total	
Proposed Development							
710 DU Apartment (LUC 220)	Total Trips	70	282	352	265	143	408
	Non-auto Trips	39	155	194	146	79	225
	Transit	37	146	183	138	75	213
	Bicycle	1	3	4	3	1	4
	Pedestrian	1	6	7	5	3	8
	New Vehicle Trips	31	127	158	119	64	183
49,980 SF Retail (LUC 820)	Total Trips	63	39	102	181	195	376
	Non-auto Trips	19	12	31	54	59	113
	Transit	17	11	28	49	53	102
	Bicycle	1	0	1	2	2	4
	Pedestrian	1	1	2	3	4	7
	Pass-by Trips	7	5	12	43	46	89
New Vehicle Trips	37	22	59	84	90	174	
1,679,510 SF Office (LUC 710)	Total Trips	1,609	219	1,828	333	1,627	1,960
	Non-auto Trips	483	66	549	100	488	588
	Transit	434	60	494	90	439	529
	Bicycle	16	2	18	3	16	19
	Pedestrian	33	4	37	7	33	40
	Vehicle Trips	1,126	153	1,279	233	1,139	1,372
Total Proposed Development	Total Trips	1,742	540	2,282	779	1,965	2,744
	Non-auto Trips	541	233	774	300	626	926
	Transit	488	217	705	277	567	844
	Bicycle	18	5	23	8	19	27
	Pedestrian	35	11	46	15	40	55
	New Vehicle Trips	7	5	12	43	46	89
	Vehicle Trips	1,194	302	1,496	436	1,293	1,729
¹ Note the current development program has decreased since the traffic analysis was conducted. The most recent development program includes 683 dwelling units, 49,980 SF of retail, and 1,608,190 SF of office.							

Figure 4 Weekday Peak Hour Vehicle Trip Generation (Source: Applicant)

DDOT finds the overall trip generation assumptions proposed by the Applicant are reasonable. However, the level of vehicle trip generation greatly exceeds on-site parking supply and therefore actual vehicle trip generation is likely to be lower than assumed. The Applicant proposes 921 vehicle parking spaces on private property. While a portion of vehicle trips will be made via taxi and Transportation Network Companies (e.g. Uber and Lyft) and some parking demand will be accommodated by on-street parking nearby, on-site vehicle parking is the predominant driver of trip generation. As such, it is highly unlikely that the assumed level of trip generation can be accommodated given the proposed parking supply. For

subsequent Stage 2 PUD CTRs, the Applicant should reevaluate vehicle trip generation estimates for each building that are consistent with refined building programming and parking supply. Despite this, the proposed action is expected to generate a significant number of transit and vehicular trips during the morning and evening peak hours.

Study Area and Data Collection

The Applicant in conjunction with DDOT identified 22 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 in May 2016. DDOT agrees with the time frame and collection dates. None of the collection dates occurred during Congressional recess or outside of the DC Public School calendar.

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 development is expected to be constructed in multiple phases, although the phasing plan is not currently known. Accordingly, three traffic scenarios were assumed for capacity analyses. These scenarios include:

1. 2017 Existing Conditions
2. 2030 Background Conditions (without the PUD)
3. 2030 Future Conditions (with PUD)

This approach identified expected impacts from the overall development. Supplemental CTRs will be expected as part of each subsequent Stage 2 PUD to assess each component’s transportation impacts and the phasing of mitigation measures discussed in the Mitigations section of this report.

Of note, the site is immediately adjacent to DDOT’s South Capitol Street Corridor Project (Phase 1). This project includes constructing a new Frederick Douglass Memorial Bridge, the reconstruction of South Capitol Street and highway interchanges, and the reconfiguration of South Capitol Street, which will

result in changes to local and regional circulation in the vicinity. The Applicant coordinated closely with DDOT to ensure that appropriate assumptions were made in the future transportation network. Completion of Phase 1 is anticipated at the end of 2021, likely in advance of the first phase of the subject development. Should the first phase of development advance faster than DDOT's project, the Applicant will be required to analyze a scenario as part of the Stage 2 CTR that assumes the current roadway configuration as well as scenario with the South Capitol Street Corridor Project changes.

Analysis provided by the Applicant indicates that in ultimate conditions the development significantly increases travel delay in the area for ten (10) intersections:

- Howard Road & Suitland Parkway
- Howard Road & Anacostia Metro Station parking garage
- Howard Road & Firth Sterling Avenue
- Howard Road & MLK Avenue & Sheridan Road
- Firth Sterling Avenue & Suitland Parkway
- MLK Avenue & Sumner Road
- MLK Avenue & Suitland Parkway (northbound)
- I-295 Northbound ramps & Suitland Parkway
- South Capitol Street (East Oval at the Frederick Douglass Memorial Bridge)
- South Capitol Street (East Oval at Howard Road)

Each of the impacted intersections are within the South Capitol Street Corridor Project. Accordingly, mitigations for these intersections must account for proposed changes by DDOT. Mitigations proposed by the Applicant are discussed in the Mitigations section.

Transit Service

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

The eastern edge of the site is adjacent to the Anacostia Metro Station parking garage which provides access to the station serving the Green Line. The western edge of the site is approximately 0.3 miles from the station entrance. The Applicant proposes enhancement, discussed in the Mitigations section, to the station's parking garage entrance to improve pedestrian accessibility via this entrance.

The site is well-served by high-frequency bus routes. These routes run in close proximity to the site, mostly servicing the Anacostia Metro Station. No bus stops are currently located on Howard Road. Bus routes include:

- A2, A6, A7, A8 – Anacostia – Congress Heights Line
- A4, W5 – Anacostia – Fort Drum Line
- A33 – Anacostia High School Line
- B2 – Blandensburg – Anacostia Line
- P6 – Anacostia – Eckington Line
- W2, W3 – United Medical Center – Anacostia Line

- W4 – Deanwood – Alabama Avenue Line
- W6, W8 – Garfield – Anacostia Loop Line
- 90 – U Street – Garfield Line
- 94 – Stanton Road Line
- V2 – Capitol Heights – Minnesota Avenue Line
- P18 – Oxon Hill – Fort Washington Line
- DC Circulator – Potomac Avenue – Skyland Line

During subsequent Stage 2 PUD applications, the Applicant will be required to assess whether sufficient capacity exists for rail and bus transit options. Additionally, the lack of direct bus service to the site should be evaluated, and the potential for bus service adjustments, if warranted, should be explored.

Pedestrian Facilities

The District is committed to enhancing pedestrian accessibility by ensuring consistent investment in pedestrian infrastructure on the part of both the public and private sectors. DDOT expects new developments to serve the needs of all trips they generate, including pedestrian trips. Walking is expected to be an important mode of transportation for this development.

The Applicant performed an inventory of the pedestrian infrastructure in the vicinity and noted any substandard conditions. Along the site's frontage on Howard Road, multiple deficiencies exist. The south side of the street features narrow sidewalks without a street tree buffer between the road while the north side has narrow sidewalks that do not meet DDOT standards. The redesign proposed for Howard Road will remedy these deficiencies. In addition, improvements to the Anacostia Metro Station parking garage entrance will address substandard pedestrian facilities and a general lack of pedestrian accessibility to the Metro station. DDOT's South Capitol Street Corridor Project and the Barry Farm PUD will make additional improvements where substandard pedestrian facilities have been identified. Together, these changes will provide excellent pedestrian facilities and connectivity near the site.

Bicycle Facilities

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

The site is currently located 0.3 miles from the Anacostia River Trail and 0.8 miles from the Suitland Parkway Trail. Additionally, with the South Capitol Street Corridor project by DDOT, new bicycle facilities will connect the site via expanded bicycle facilities along the new Frederick Douglass Memorial Bridge to the Anacostia Riverwalk Trail and an extensive network of bicycle facilities.

The Applicant proposes a two-way separated cycltrack on the north side of Howard Road between the Metro Station and Suitland Parkway. DDOT finds bicycle facilities appropriate at this location, although as mentioned in the Site Design section, careful attention must be paid to the edges of the bicycle facility to ensure it provides extended connectivity beyond the frontage of the site. The western

terminus of the cycletrack must transition from an in-street cycle track to connect to the multiuse trail to be constructed as part of DDOT’s South Capitol Street project. To the east, a high-quality design for the terminus of the cycletrack at the Metro Station is needed. The design should also preserve future opportunities for an eastward extension of the cycletrack.

Currently the closest Capital Bikeshare station is located approximately 0.5 miles from near the Metro Station. The Applicant’s proposed Metro entrance improvements note an area for incorporating a Capital Bikeshare station, but it is not clear if this Applicant proposes to proffer a station.

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 sight 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 (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	Type of Control	No. of Crashes (3 Years)	ADT (veh/day)	Crash Rate (MEV)
Howard Road/Suitland Parkway	Signal	N/A	3,380	N/A
Howard Road/Anacostia Metro Station parking garage *	Free Flow	N/A	5,630	N/A
Howard Road/I-295 Off-ramp	Signal	41	12,080	3.10
Howard Road/Firth Sterling Avenue	Signal	77	19,250	3.65
Howard Road/Anacostia Metro Station bus driveway (West) *	One-way Stop	N/A	10,090	N/A
Howard Road/Anacostia Metro Station bus driveway (East) *	Signal	N/A	9,570	N/A
Howard Road/MLK Jr. Avenue/Sheridan Road	Signal	76	16,050	4.32
Firth Sterling Avenue/Suitland Parkway	Signal	132	37,440	3.22
Firth Sterling Avenue/Barry Road/Sumner Road	Signal	29	9,970	2.66
Firth Sterling Avenue/St. Elizabeth's Avenue/Stevens Road/Barry Road	Signal	9	11,450	0.72
Firth Sterling Avenue/South Capitol Street/Defense Boulevard	Signal	33	26,960	1.12
MLK Jr. Avenue/Sumner Road	Signal	32	15,250	1.92
*Data not available for street intersections with driveways				

Figure 6 – Intersection Safety (Source: Applicant)

As noted by the Applicant, the South Capitol Street Corridor project and its associated transportation improvements will alter several of these intersections and impact on the safety of the surrounding road network. For example, regional traffic along Howard Road for vehicles accessing South Capitol Street from Anacostia Freeway will be reduced as a result of interchange improvement; therefore, crash rates are expected to decrease along Howard Road.

The Applicant will be required to coordinate with DDOT during the Stage 2 PUD and the public space permitting process to ensure that safe design is incorporated into new streets and vehicular access points.

Mitigations

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

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

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

Site Circulation, Operations, and Design

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.

The Applicant proposes to modify the geometry of and rebuild part of Howard Road between Suitland Parkway and the Anacostia Metro Station. DDOT finds these improvements appropriate but notes the need to continue refining the Howard Road treatment during subsequent Stage 2 PUDs and final design will take place through the public space permitting process. As noted above, careful consideration of vehicle, pedestrian, and bicycle treatments to connect to facilities to the east and west of the proposed improvements will be needed to ensure the continuity of these modal networks. In addition, dimensions of each element within the ROW should be considered to allow for the flexibility to install a center turn lane on Howard Road in the future if warranted.

The proposed Howard Road driveway for Building D is approximately 90 feet from the Suitland Parkway & Howard Road intersection. The driveway has the potential to cause safety issues related to the speed of eastbound vehicular traffic exiting Suitland Parkway at high rates of speed combined with site distance issues due to the geometry of the intersection. As such, DDOT does not agree to the curb cut at this time, and access for Building D will need to be further explored as part of the Stage 2 review. DDOT's preference is for all vehicular site access for Building D to be provided via the north-south private driveway between Buildings D and E. Should the Building D driveway be pursued at Stage 2, it is highly likely that operational restrictions (right-out only, right-in/right-out movements only, etc), signalization, and geometric changes to the Suitland Parkway & Howard Road intersection would be required.

To facilitate both vehicular and pedestrian demand generated by the development, the Applicant should commit to installing a signal at the intersection of Howard Road and the private street/driveway between Buildings A and B/D and E. A signal warrant analysis would need to be met to justify the need for the signal, which would be performed as part of subsequent Stage 2 PUDs. Signalization would facilitate vehicular and loading access while providing for a safe mid-block pedestrian crossing.

The Applicant proposes improvements to the Anacostia Metro Station parking garage entrance to include:

- Demolition of the parking deck vehicular ramp and relocation of the outdoor Kiss n' Ride surface lot to facilitate the design of a new plaza entrance;
- Pedestrian and bicycle improvements to enhance connections between the Anacostia Metro Station and Howard Road;
- Creation of a pocket park adjacent to the station entrance and proposed mixed-use residential building,
- Additional landscaping and hardscaping around the plaza entrance,
- Amenities and features to serve the Metro Station, such as a Capital Bikeshare Station, bike racks, benches, and local art installations; and
- Potential integration of retail areas within the proposed plaza entrance area.

A concept sketch of the proposed improvements are shown in *Figure 5*. DDOT agrees with the concept of improving multimodal connections from the Metro entrance to Howard Road. The Applicant will need to continue to refine the concept during Stage 2 PUDs and the public space permitting process. Several changes should be incorporated into the design:

- Include a minimum six (6) foot sidewalk on the east side of the driveway;
- Include an ADA-compliant crosswalk between the east and west sides of the driveway near the proposed pocket park to facilitate safe pedestrian movements;
- Design the driveway as a street with curb and gutter such that the intersection of the driveway with Howard Road looks like the intersection of two streets.

Realignment of the driveway is contingent upon removal of the southbound off-ramp from Anacostia Freeway to westbound Howard Road as part of DDOT's South Capitol Street Corridor Project. If the off-ramp relocation is not complete prior to the time when the Applicant must make the Metro Station

access improvements, a revised concept will be required in consultation with DDOT. Furthermore, realignment of the driveway may require right-of-way disposition and will require public space permits. Of note, the conceptual realignment as shown in Figure 5 moves the location of the intersection with Howard Road and thus may require a signal modification or new signal at the Applicant's expense. As noted in the Operational Changes subsection below, any future redesign of the Howard Road & Anacostia Metro Station parking garage would need to include crosswalks and supportive signal infrastructure to allow for pedestrian crossings of Howard Road.



Figure 5 Proposed Anacostia Metro Station Access Improvements

Operational Changes

The Applicant proposes a series of operational changes to mitigate the project impacts. These proposals fall into three (3) categories: mitigations that DDOT finds appropriate, mitigations that DDOT finds appropriate with changes or notes, and mitigations that are inappropriate and should not be implemented. Table 1 below summarizes DDOT's response to each proposed operational change. The Applicant should agree to implement the proposed operational changes as modified in Table 1 with final decisions on these mitigations to be made following reanalysis in Stage 2 PUD CTRs to reflect revised capacity analyses informed by refined trip generation.

Table 1 Mitigations

Intersection	Proposed Mitigation	DDOT Evaluation
Howard Road & Suitland Parkway	Signalization potentially by DDOT.	<p>The South Capitol Street Corridor Project identified this intersection as a candidate for signalization to facilitate pedestrian movements. If a full traffic signal is not included within the South Capitol Street Project, the Applicant should commit to installing a traffic signal at this location. Because Suitland Parkway is classified as an Interstate in DDOT’s roadway classification system, it is possible that an Interchange Modification Report (IMR) would be required as part of signalization, which the Applicant would be required to perform in coordination with DDOT and potentially the Federal Highway Administration.</p> <p>As noted above, geometric improvements to the Suitland Parkway & Howard Road intersection may be required to accommodate a driveway for Building D.</p>
Howard Road & Anacostia Metro Station parking garage	<p>Prohibit parking on the south side of Howard Road east of the Metro entrance to accommodate two eastbound travel lanes.</p> <p>Modify signal timings.</p>	<p>DDOT agrees with the recommendation to prohibit parking on the south side of Howard Road to the east of the Metro entrance subject to permitting. Parking is currently prohibited east of the Anacostia Freeway overpass but not expressly prohibited between the overpass and the Metro entrance.</p> <p>Any adjustments to signal timings to improve one movement at an intersection will negatively impact other movements, as well as intersections up- and down-stream. Thus, signal timings for all intersections in the vicinity will be reviewed comprehensively within the context of DDOT’s ongoing Signal Optimization efforts to determine optimal timings for the network. As such, Applicant-initiated signal retiming for this intersection is an inappropriate mitigation.</p> <p>Instead, the Applicant should commit to modify the existing signal (or replace depending on the ultimate location of the revised intersection in relation to its existing location) at this intersection to accommodate crosswalks traversing Howard Road. Under current conditions, the signal exists but crosswalks for Howard Road are not provided.</p>
Howard Road & Firth Sterling Avenue	<p>Implement a northbound advanced left turn phase on Howard Road with concurrent eastbound right turn overlap.</p> <p>Extend (to Howard Road) the westbound through/right lane on</p>	<p>DDOT concurs with current eastbound right and westbound left movements subject to permitting, however this will require a signal modification.</p> <p>DDOT does not agree with the extension of the westbound through/right lane to Howard Road as this creates a free flow movement at a high crash intersection. Instead, the Applicant should commit to additional TDM measures to reduce non-auto trips generated by the development.</p>

Intersection	Proposed Mitigation	DDOT Evaluation
	Firth Sterling Avenue at its intersection with Suitland Parkway.	
Howard Road & MLK Avenue & Sheridan Road	Modify signal timings.	<p>Any adjustments to signal timings to improve one movement at an intersection will negatively impact other movements, as well as intersections up- and down-stream. Thus, signal timings for all intersections in the vicinity will be reviewed comprehensively within the context of DDOT's ongoing Signal Optimization efforts to determine optimal timings for the network. As such, Applicant-initiated signal retiming for this intersection is an inappropriate mitigation.</p> <p>Instead, the Applicant should commit to additional TDM measures to reduce non-auto trips generated by the development.</p>
Firth Sterling Avenue & Suitland Parkway	Implement an eastbound left turn phase on Firth Sterling Avenue with concurrent southbound right turn overlap to be run concurrently with the westbound left turn phase.	<p>DDOT agrees subject to permitting. The Applicant will be responsible for signal modifications required to implement the proposed mitigation.</p> <p>Of note, DDOT has safety improvement plans under development for this intersection to implement a left turn phase for both Suitland Parkway approaches to correct a heavy left turn crash pattern. This improvement is likely to be installed prior to the Applicant's mitigation. The Applicant's proposed mitigation is consistent with these plans.</p>
MLK Avenue & Sumner Road	Provide separate eastbound and westbound turn lanes on Sumner Road, necessitating the removal of 3-4 parking spaces on the south side of the street.	DDOT agrees subject to permitting. The Applicant will be responsible for outreach with nearby residents and Excel Academy Public Charter School to ensure that school pick-up/drop-off operations are not negatively impacted.
MLK Avenue & Suitland Parkway Northbound Off Ramp	Modify signal timings.	<p>Any adjustments to signal timings to improve one movement at an intersection will negatively impact other movements, as well as intersections up- and down-stream. Thus, signal timings for all intersections in the vicinity will be reviewed comprehensively within the context of DDOT's ongoing Signal Optimization efforts to determine optimal timings for the network. As such, Applicant-initiated signal retiming for this intersection is an inappropriate mitigation.</p> <p>Instead, the Applicant should commit to additional TDM measures to reduce non-auto trips generated by the development.</p>

Intersection	Proposed Mitigation	DDOT Evaluation
I-295 Northbound Ramps & Suitland Parkway	Convert a northeast right turn lane to a left turn lane during the AM peak period only.	<p>DDOT disagrees. Implementing a part-time left turn lane would be very difficult to implement and lead to driver confusion.</p> <p>Instead, the Applicant should commit to additional TDM measures to reduce non-auto trips generated by the development.</p>
Frederick Douglass Memorial Bridge & South Capitol Street East Oval	Convert one of the two exclusive northwest bound left turn lanes into a third exclusive right turn lane.	<p>DDOT disagrees. Implementing this mitigation would modify DDOT's approved South Capitol Street Project, which is not desirable.</p> <p>Instead, the Applicant should commit to additional TDM measures to reduce non-auto trips generated by the development.</p>
Suitland Parkway & South Capitol Street East Oval	Modify signal timings.	<p>Any adjustments to signal timings to improve one movement at an intersection will negatively impact other movements, as well as intersections up- and down-stream. Thus, signal timings for all intersections in the vicinity will be reviewed comprehensively within the context of DDOT's ongoing Signal Optimization efforts to determine optimal timings for the network. As such, Applicant-initiated signal retiming for this intersection is an inappropriate mitigation.</p> <p>Instead, the Applicant should commit to additional TDM measures to reduce non-auto trips generated by the development.</p>

Transportation Demand Management

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

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

The Applicant proposes the following strategies:

- Designate a TDM coordinator responsible for organizing and marketing the TDM plan;
- Install electronic displays in each building showing non-auto transportation options;
- Maintain a website displaying non-auto transportation options;
- Provide bicycle parking in accordance with ZR16;
- Provide two (2) electric car charging stations in the north parcel and the south parcel;
- Provide two (2) parking spaces for a car sharing service subject to demand by a service provider;
- Offer the following TDM elements for residential buildings:
 - Offer personalized outreach to inform new residents of available transportation options
 - Unbundle the cost of parking from the lease/sale of residential units
- Offer the following TDM elements for office buildings:
 - Provide showers and changing facilities
 - Designate parking for carpools and vanpools in a convenient location with the parking garages
 - Unbundle the cost of parking from leases

DDOT seeks clarification on a number of proposed TDM elements:

- The Applicant commits to provide bike parking spaces in accordance with ZR16. However, the Applicant proposes 642 long-term bicycle parking spaces in lieu of the required 653 spaces, but does propose to provide the required 93 short-term bike parking spaces.
- Specify the numbers of showers, lockers, and changing facilities that will be provided.

Of note, while helpful to support a growing network of electric vehicle infrastructure, DDOT does not consider electric vehicle charging stations to be a TDM measure.

DDOT finds the TDM measures do not represent the state of the practice for encouraging non-auto travel and must be significantly improved in order to achieve the desired mode splits. Accordingly, the following TDM measures should be added:

- Share the TDM coordinator's contact information with goDCgo;
- Notify all residents of available transportation benefits provided by the applicant on a quarterly basis with clear instructions for how to redeem the benefits;
- Host a bi-annual transportation fair for residents;
- Fund the installation and first year's operation expenses of a new Capital Bikeshare station, to be located within 1000 feet of the site and in a mutually acceptable location to the Applicant and DDOT. The fee for the installation and first year's operation costs shall be determined at the time of issuance of a Certificate of Occupancy for the Project. Capital Bikeshare stations require a 6' by 50' pad for placement.
- Provide an annual Capital Bikeshare membership to every resident age 16 and above for the first five (5) years of occupancy and an equivalent value toward the use of a carshare service for the first three (3) years of occupancy.
- Provide one shopping cart (utility cart) for every 50 residential units so residents to encourage residents to walking trips to the grocery store and to run errands;
- Provide one cargo bike for every 100 residential units for residents to check out and run errands;
- Host a bi-annual meeting with a representative from each employer and work with goDCgo to educate tenants about available transportation benefits and the DC Commuter Benefits Law.

- Charge market rate for parking and only offer daily, weekly, or monthly parking rates. Quarterly, annual, long-term or any other parking lease, except for those included above, shall not be permitted.

Performance Monitoring

The CTR provides a projection 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.

The Applicant proposes to perform annual monitoring studies to measure the number of trips generated by the project. The Applicant proposes to determine details for the performance monitoring as part of Stage 2 PUDs. DDOT finds monitoring studies to be an appropriate tool to measure the project's impacts after completion, but parameters for the monitoring studies should be established at this stage with refinement during Stage 2 PUD review. As such, the Applicant should commit to the following performance monitoring parameters as part of Stage 1 approval:

- Timing - Conduct performance monitoring studies annually when Congress and schools are in session and when buildings are at least 80% occupied.
- Targets - Establish trip generation targets for each building at Stage 2 review. As noted previously, the vehicle trip generation assumed in the Stage 1 approval is highly conservative and unlikely to be realized. Trip generation targets should be aggressive but reasonably attainable if supported by robust TDM and parking provision and pricing.
- Methodology - Measure trip generation counts for each building by observation and tube counts. Measure mode splits for each building by observation and intercept surveys.
- Scope – In addition to trip generation and mode split targets, the performance monitoring study may include intersection capacity analyses and queuing, if a need is identified through Stage 2 reviews.
- Triggers – If the development exceeds the targeted vehicle trip generation, the Applicant will be required to conduct a robust survey of users to determine mode of travel to and from the site in order to determine additional TDM elements to be implemented to reach the trip generation target or physical improvements and operational changes to mitigate operations or queuing impacts.
- Evaluation by construction phase where feasible – Generally, monitoring should be completed by construction phase. However, parking garages and other shared transportation infrastructure may connect multiple buildings. As such, performance monitoring studies may include buildings from multiple phases rather than buildings in a single phase.
- Sunset - When conditions are consistent with the requirements for two successive periods, the Applicant shall be released from the monitoring requirement.

