

COMPREHENSIVE TRANSPORTATION REVIEW

STANTON SQUARE/COMMONS PUD

WASHINGTON, DC

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ZONING COMMISSION
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Prepared by:



GOROVE / SLADE

Transportation Planners and Engineers

1140 Connecticut Avenue NW
Suite 600
Washington, DC 20036
Tel: 202.296.8625
Fax: 202.785.1276

3914 Centreville Road
Suite 330
Chantilly, VA 20151
Tel: 703.787.9595
Fax: 703.787.9905

15125 Washington Street
Suite 136
Haymarket, VA 20169
Tel: 703.787.9595
Fax: 703.787.9905

www.goroveslade.com

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EXECUTIVE SUMMARY

The following report is a Comprehensive Transportation Review (CTR) for the Stanton Square and Commons project. This report reviews the transportation aspects of the project's Planned Unit Development (PUD) application. The Zoning Commission Case Number is 13-09.

The purpose of this study is to evaluate whether the project will generate a detrimental impact to the surrounding transportation network. This evaluation is based on a technical comparison of the existing conditions, background conditions, and total future conditions. This report concludes that **the project will not have a detrimental impact** to the surrounding transportation network assuming that all planned site design elements and mitigations are implemented.

Proposed Project

Pedestrian access to the Stanton Square portion of the development will occur predominately via Stanton Road and Pomeroy Road. Pedestrian access to the Commons portion of the development will be off Elvans Road.

Vehicular access to the Stanton Square component will be off Pomeroy Road and Stanton Road. Two curb cuts are proposed to provide vehicular access to the planned development's private street, and two curb cuts will provide access to two private alleys that abut the townhomes. Vehicular access to the Commons component will be off Elvans Road. Three curb cuts are proposed to provide vehicular access to the western portion of the Commons, and one curb cut will provide access to the eastern portion of the Commons.

The PUD meets zoning minimums for loading. Based on an analysis of anticipated loading activity, the PUD also provides sufficient loading facilities to accommodate practical loading needs.

The PUD exceeds zoning minimums for parking. Although that is the case, this report examined practical parking demand versus the proposed supply. This analysis concluded that at peak times, up to 31 vehicles will use on-street parking in the vicinity of the site. There is sufficient on-street parking to accommodate this demand, the majority of which is curbside space adjacent to the PUD.

Thus, although a mixture of surface parking on-site and off-street parking adjacent to the project will be used to accommodate demand, the PUD will not generate a detrimental impact to the surrounding on-street parking supply.

Multi-Modal Impacts and Recommendations

Transit

The site is well-served by regional and local transit services such as Metrorail and Metrobus. The site is less than 1 mile from the Anacostia Metrorail station portal located on Howard Road between Firth Sterling Avenue and Martin Luther King Jr Avenue. Six Metrobus routes service the site, with 24 buses scheduled to arrive during the peak commuting time, providing a good connection to Metrorail and other destinations. Metrobus stops are located within a block of the site along Stanton Road, Pomeroy Road, and Morris Road.

Although the development will be generating new transit trips on the network, the existing facilities have enough capacity to handle the new trips. The Anacostia Metrorail station does not have existing capacity concerns and is not expected to as a result of the planned development.

Pedestrian

The site is surrounded by a pedestrian network with limited connections. Some roadways within a quarter-mile radius provide sidewalks and acceptable crosswalks and curb ramps, particularly along primary walking routes. There are some pedestrian barriers surrounding the site such as limited connectivity to the south and west due to Suitland Parkway. The area in the vicinity of the site is considered to be below the District average in terms of quality of pedestrian facilities.

In order to help improve sidewalk conditions, as part of the PUD, the Applicant plans to improve conditions along the site, and between the Stanton Square and Commons portions on property not part of the PUD. This requires dedicating property within the PUD to public use.

The Applicant has designed a public realm along Stanton, Elvans and Pomeroy Roads that allows for a three foot wide planting strip adjacent to the travelways and a six foot wide sidewalk. In order to accomplish this, the Applicant has placed all of the sidewalk along Pomeroy Road on private property, along Stanton Road the sidewalk includes 2.3-2.9 feet of private property, and along Elvans Road the sidewalk includes



2.2-4.8 feet of private property. The above provisions will provide a vastly improved pedestrian environment near the site.

Furthermore, the Applicant will fund the upgrading of sidewalks adjacent to Lot 874, which the Applicant does not own, to complete the pedestrian network between Stanton Square and Commons components of the development.

Bicycle

The site has adequate access to existing bicycle facilities. The Suitland Parkway Trail, to the south and west of the site, offers east-west connectivity. On site, the planned development will meet zoning requirements for bicycle parking.

Vehicular

The Stanton Square and Commons site is well-connected to regional roadways such as Suitland Parkway and Interstate 295, as well as primary and minor arterials such as Martin Luther King Jr Avenue and an existing network of collector and local roadways.

In order to determine if the proposed development will have a negative impact on this transportation network, this report projects future conditions with and without the development of the site and performs analyses of intersection delays. These delays are compared to the acceptable levels of delay set by DDOT standards to determine if the site will negatively impact the study area. Three intersections were found to operate under unacceptable delay/Level-of-service (LOS) in existing conditions were reviewed for potential improvements. The analysis found no instances of unacceptable conditions in the scenario with the PUD constructed that do not occur in the scenario without the PUD.

The analyses concluded that the planned development will not have adverse impacts on the surrounding transportation network.

Summary and Mitigations

Overall, the PUD will not generate significant transportation demand during peak hours, and this demand can be accommodated within the local roadway, transit and parking systems. The one aspect of the surrounding network that cannot accommodate anticipated demand is the pedestrian infrastructure near and adjacent to the site.

As described above, the Applicant has already committed to improving sidewalks adjacent to the site, and between the two portions of the PUD property.

This report recommends additional improvements to help improve the pedestrian environment near the site. The additional improvements recommended by this report focus on two nearby intersections on the expected pedestrian walking routes, as follows:

- (1) Improved marking and signage, including stop bars, crosswalks, and curb ramps at the intersection of Elvans Road and Gainesville Street so that they meet DDOT and ADA standards.
- (2) Improved marking and signage, including stop bars, crosswalks, and curb ramps at the intersection of Elvans Road and Morris Road and Erie Street so that they meet DDOT and ADA standards.

These two intersections currently have pedestrian facilities below standards due to faded or ineffective markings as well as missing curb ramps.

With these pedestrian improvements in place, and the Transportation Demand Management (TDM) plan outlined within, this report concludes that the PUD will not have a detrimental impact on the surrounding transportation network.

INTRODUCTION

This report reviews the transportation elements of the Stanton Square and Commons development project. The site, shown in Figure 1, is located in the Hillside/Fort Stanton neighborhood in southeast DC.

The purpose of this report is to:

1. Review the transportation elements of the development site plan and demonstrate that the site conforms to DDOT's general policies of promoting non-automobile modes of travel and sustainability.
2. Provide information to the District Department of Transportation (DDOT) and other agencies on how the development of the site will influence the local transportation network. This report accomplishes this by identifying the potential trips generated by the site on all major modes of travel and where these trips will be distributed on the network.
3. Determine if development of the site will lead to adverse impacts on the local transportation network. This report accomplishes this by projecting future conditions with and without development of the site and performing analyses of vehicular delays. These delays are compared to the acceptable levels of delay set by DDOT standards to determine if the site will negatively impact the study area. The report discusses what improvements to the transportation network are needed to mitigate adverse impacts.

CONTENTS OF STUDY

This report contains nine sections as follows:

- *Study Area Overview*
This section reviews the area near and adjacent to the proposed project and includes an overview of the site location.
- *Project Design*
This section reviews the transportation components of the project, including the site plan and access. This chapter also contains the proposed Transportation Demand Management (TDM) plan for the site.
- *Trip Generation*
This section outlines the travel demand of the proposed project. It summarizes the proposed trip generation of the project.
- *Traffic Operations*
This section provides a summary of the existing roadway facilities and an analysis of the existing and future roadway capacity in the study area. This section highlights the vehicular impacts of the project, including presenting mitigation measures.
- *Transit*
This section summarizes the existing and future transit service adjacent to the site, reviews how the project's transit demand will be accommodated, outlines impacts, and presents recommendations as needed.
- *Pedestrian Facilities*
This section summarizes existing and future pedestrian access to the site, reviews walking routes to and from the project site, outlines impacts, and presents recommendations as needed.
- *Bicycle Facilities*
This section summarizes existing and future bicycle access to the site, reviews the quality of cycling routes to and from the project site, outlines impacts, and presents recommendations as needed.
- *Safety/Crash Analysis*
This section reviews the potential safety impacts of the project. This includes a review of crash data at intersections in the study area and a qualitative discussion on how the development will influence safety.
- *Summary and Conclusions*
This section presents a summary of the recommended mitigation measures by mode and presents overall report findings and conclusions.

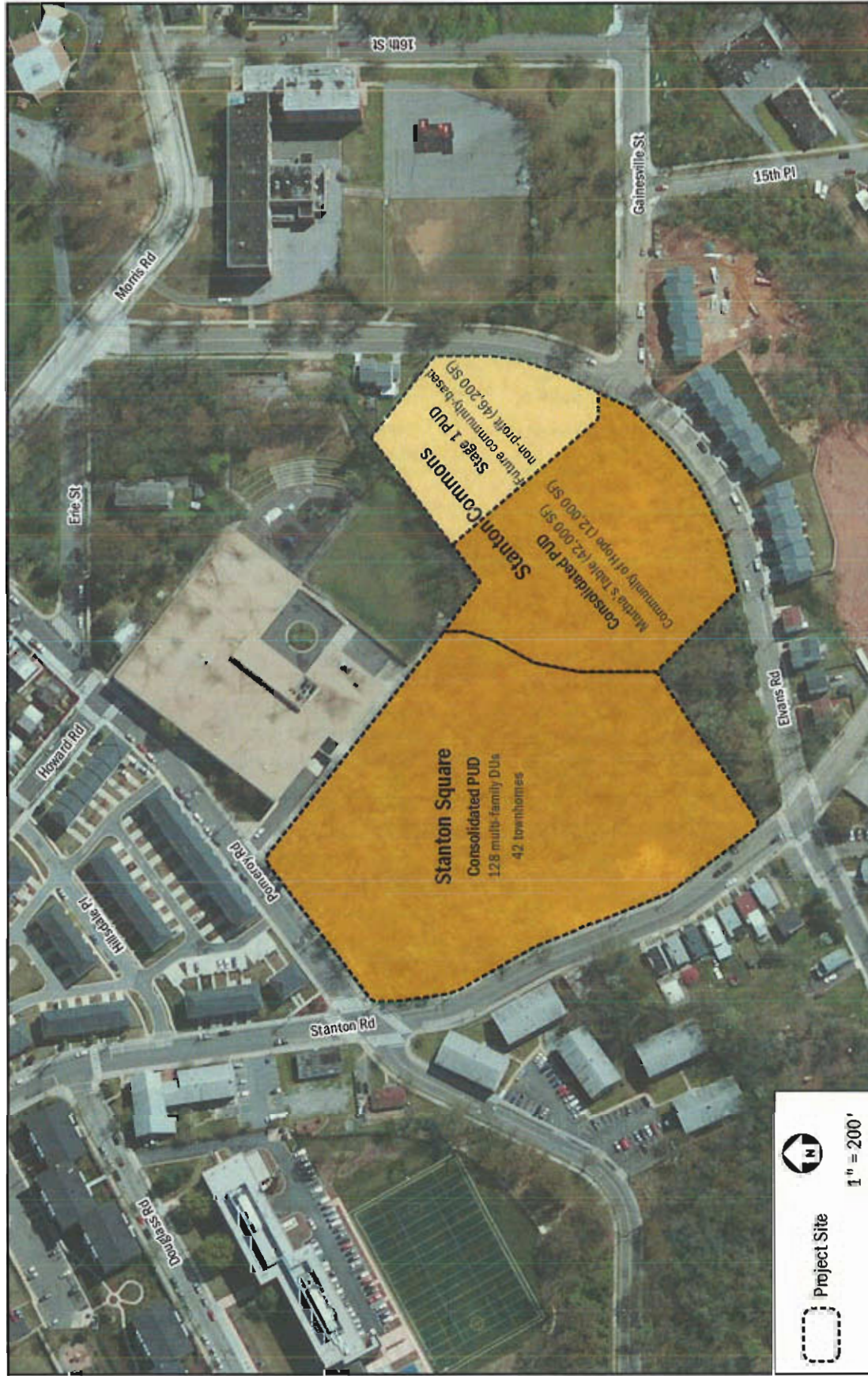


Figure 1: Site Location



STUDY AREA OVERVIEW

This section reviews the study area and includes an overview of the site location, including a summary of the major transportation characteristics of the area and of future regional projects.

The following conclusions are reached within this chapter:

- The site is surrounded by an extensive regional and local transportation system that will accommodate the residents of the proposed development
- The site has access to public transportation with service to the Green Metrorail line and several local and regional Metrobus lines.
- There is some existing bicycle infrastructure including the bike trail along the Suitland Parkway Trail and signed routes in the vicinity of the site.
- Pedestrian conditions are generally good, particularly along anticipated major walking routes.

MAJOR TRANSPORTATION FEATURES

Overview of Regional Access

The Stanton Square and Commons site has ample access to regional vehicular- and transit-based transportation options, as shown in Figure 3, that connect the site to destinations within the District, Virginia, and Maryland.

The site is accessible from several US interstates such as I-295 and I-695. The interstates create connectivity to the Capital Beltway (I-495) that surrounds Washington, DC and its inner suburbs as well as regional access to I-95. All of these roadways bring vehicular traffic within a half-mile of the site, at which point arterials and local roads can be used to access the site directly.

The site has access to the Green Line which provides connections to areas in the District and Maryland. The Green Line connects stations in Prince George's County and Montgomery County, Maryland while providing access to the District core. In addition, the Green Line provides connections to additional Metrorail lines allowing for access to much of the DC Metropolitan area.

Overall, the site has access to several regional roadways and transit options, making it convenient to travel between the site and destinations in the District, Virginia, and Maryland.

Overview of Local Access

There are several local transportation options near the site that serve vehicular, transit, walking, and cycling trips, as shown on Figure 4.

The site is served by a local vehicular network that includes several primary and minor arterials such as Martin Luther King Jr Avenue and South Capitol Street. In addition, there is an existing network of connector and local roadways that provide access to the site.

The Metrobus system provides local transit service in the vicinity of the site, including a connection to Union Station which acts as a primary hub for Amtrak, VRE, and MARC rail services. As shown in Figure 4, there are six bus routes that service the site. In the vicinity of the site the majority of routes travel along Stanton Road and Morris Road. These bus lines connect the site to many areas of the District and Maryland, including several Metrorail stations.

There are existing bicycle facilities that connect the site to areas within the District, most notably the Suitland Parkway Trail which provides connection to other bicycle facilities leading Downtown. Other facilities include bicycle-friendly roads along Sheridan Road and Howard Road.

In the vicinity of the site, not all roadways provide sidewalks with crosswalks present at most intersections. Anticipated pedestrian routes, such as those to public transportation stops, retail zones, and community amenities, provide below-standard pedestrian facilities due to lack of buffers and narrow sidewalks. Furthermore, there are some pedestrian barriers in the area that limit the overall connectivity to and from the site. A detailed review of existing and proposed pedestrian access and infrastructure is provided in a later section of this report.

Overall, the site is surrounded by an extensive local transportation network that allows for efficient transportation options via transit, bicycle, walking, or vehicular modes.

Car-sharing

Three car-sharing companies provide service in the District: Zipcar, Enterprise Carshare, and Car2Go. All three services are



private companies that provide registered users access to a variety of automobiles. Of these, Zipcar and Enterprise Carshare have designated spaces for their vehicles. There are no car-share locations located within a quarter-mile of the site.

Car-sharing is also provided by Car2Go, which provides point-to-point car sharing. Unlike Zipcar or Enterprise Carshare, which require two-way trips, Car2Go can be used for one-way rentals. Car2Go currently has a fleet of vehicles located throughout the District. Car2Go vehicles may park in any non-restricted metered curbside parking space or Residential Parking Permit (RPP) location in any zone throughout the defined "Home Area". Members do not have to pay meters or pay stations. Car2Go does not have permanent designated spaces for their vehicles; however availability is tracked through their website, which provides an additional option for car-sharing patrons.

Walkscore

Walkscore.com is a website that provides scores and rankings for the walking, biking, and transit conditions within neighborhoods of the District. Based on this website the planned development is located in the Anacostia Neighborhood. This project location itself has a walk score of 42 (or "Car Dependent"), transit score of 70 (or "Excellent Transit"), and a bike score of 50 (or "Somewhat Bikeable"). Figure 2 shows the neighborhood borders in relation to the site location and displays a heat map for walkability and bikeability.

As shown in Figure 2, the site is situated in a neighborhood that encompasses some good and some average walk scores. The site is situated in an area with average bike scores due to the hilly topography and its proximity to bike facilities. Overall, the Anacostia neighborhood has average walk, transit, and bike

scores. Additionally, other planned developments and roadway improvements will help increase the walk and bike scores in the Anacostia neighborhood.

FUTURE REGIONAL PROJECTS

There are several District initiatives and background developments located in the vicinity of the site. These planned and proposed projects are summarized below.

Local Initiatives

MoveDC: Multimodal Long-Range Transportation Plan

MoveDC is an implementation-based plan that provides a vision for the future of DC's transportation system. As the District grows, so must the transportation system, specifically in a way that expands transportation choices while improving the reliability of all transportation modes.

The MoveDC report outlines recommendations by mode with the goal of having them complete by 2040. The plan hopes to achieve a transportation system for the District that includes:

- 70 miles of high-capacity transit (streetcar or bus)
- 200 miles of on-street bicycle facilities or trails
- Sidewalks on at least one side of every street
- New street connections
- Road management/pricing in key corridors and the Central Employment Area
- A new downtown Metrorail loop
- Expanded commuter rail
- Water taxis

In direct relation to the proposed development, the MoveDC plan outlines recommended transit and bicycle improvements such as a Streetcar route and new bicycle trails and cycle

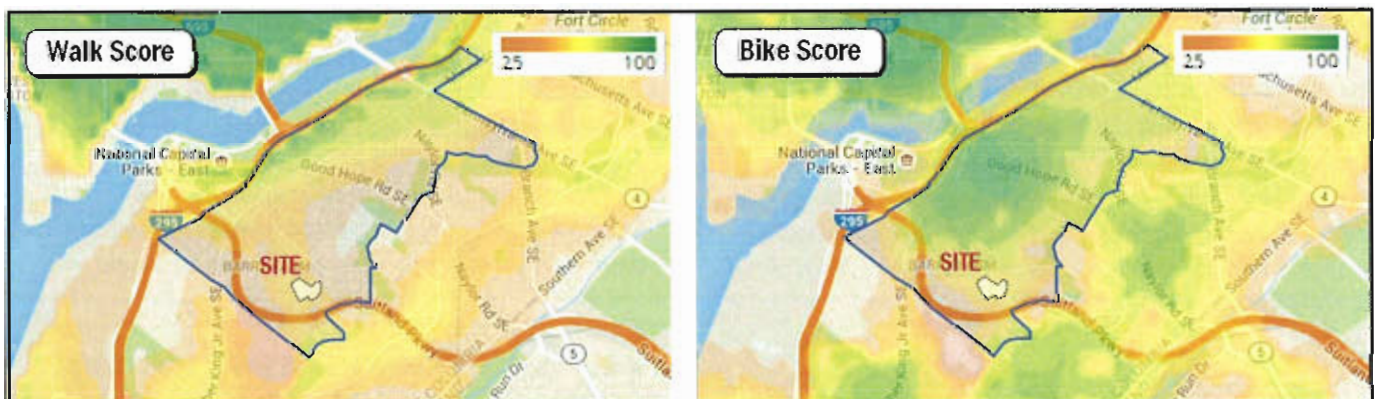


Figure 2: Summary of Walkscore and Bikescore



tracks. These recommendations would create additional multi-modal capacity and connectivity to the proposed development.

Anacostia Transit Area Strategic Investment Plan

The purpose of Plan is to revitalize the Anacostia neighborhood and reconnect it to the resources of the region. The project will: (1) Improve pedestrian safety and access to transit; (2) Build appropriate density on sites with good Metro access; (3) strengthen Martin Luther King Jr Avenue; (4) improve neighborhood connectivity; (5) invest in existing historical buildings; and (6) enhance and provide green space. Ultimately the goal of the Plan is to address the problems of the neighborhood in a way that both addresses the transportation issues, while also revitalizing the surrounding neighborhoods. The Plan recommends significant improvements to pedestrian paths to and from the Metro, as well as the addition of shared parking, more open space and streetscape improvements.

Planned Developments

There are several potential development projects in the vicinity of the Stanton Square and Commons site. For the purpose of this analysis, only approved developments expected to be complete prior to planned development with an origin/destination within the study area were included. A detailed list of all background developments considered and a description of their applicability for incorporation in the study is included in the Technical Attachments. Figure 5 shows the location of these developments in relations to the proposed development. Of the background developments considered, none were ultimately included.

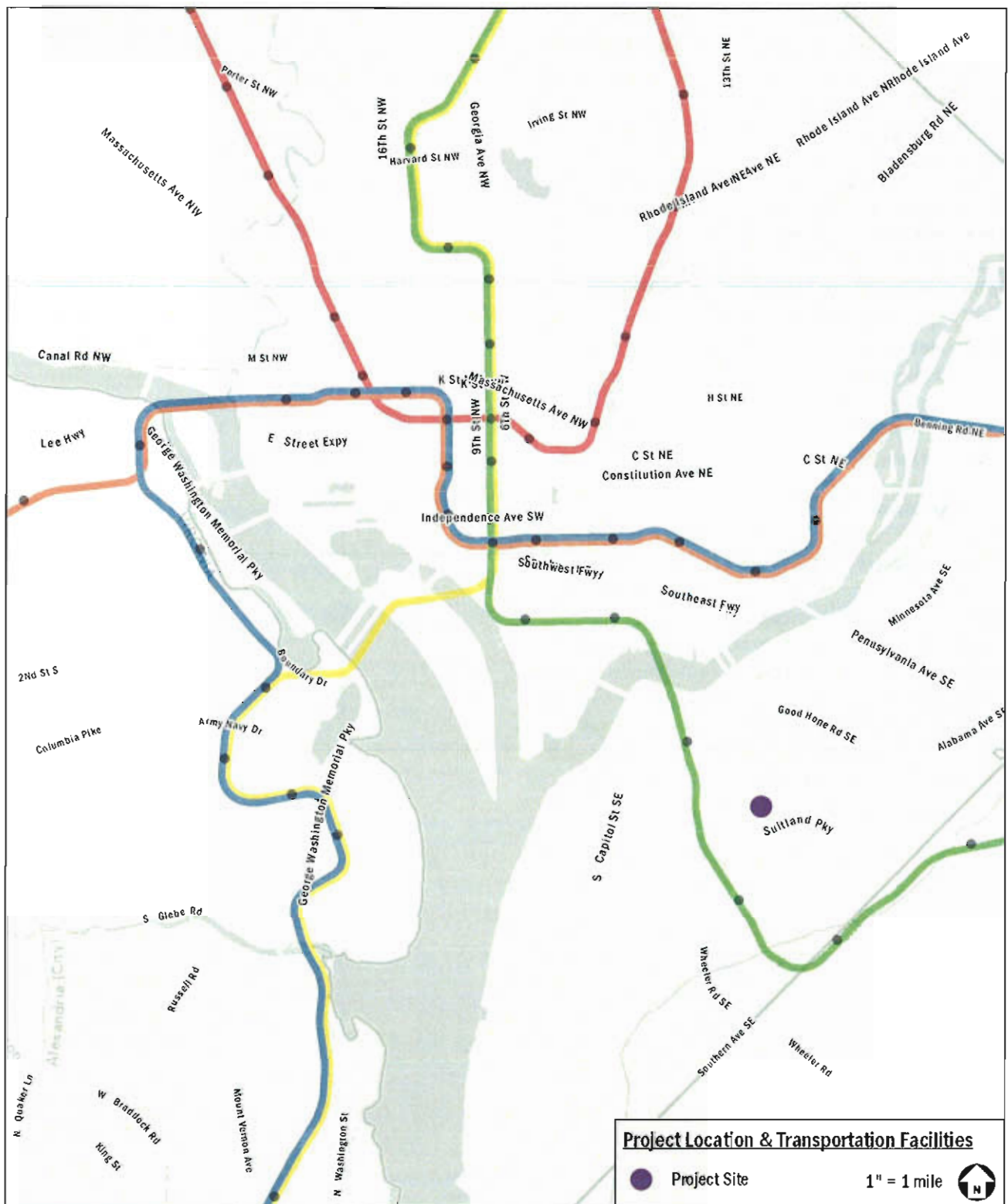


Figure 3: Major Regional Transportation Facilities

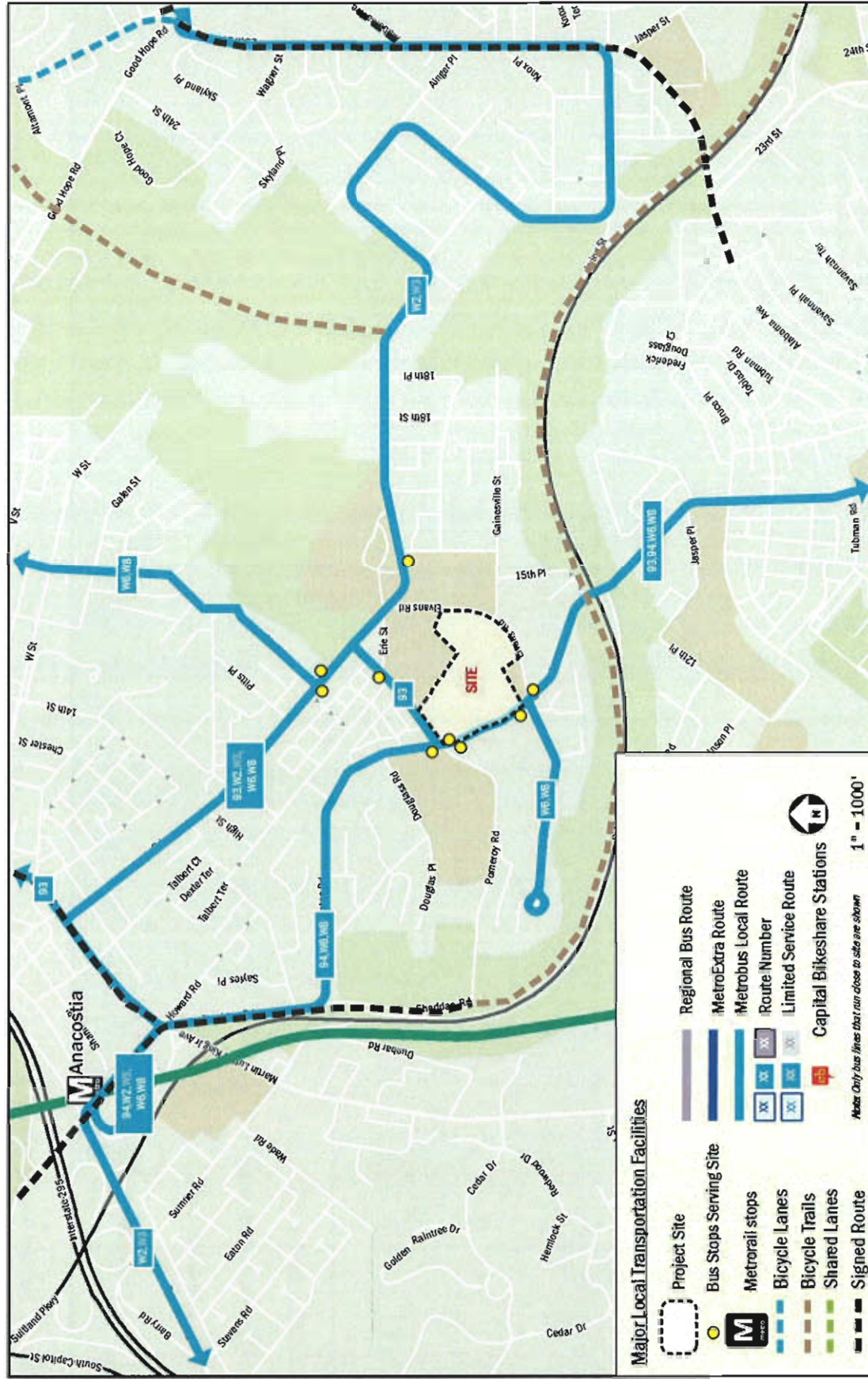


Figure 4: Major Local Transportation Facilities

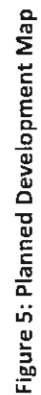


Figure 5: Planned Development Map

PROJECT DESIGN

This section reviews the transportation components of the Stanton Square and Commons, including the proposed site plan and access points. It includes descriptions of the site's vehicular access, loading, parking, and Transportation Demand Management (TDM) plan. It supplements the information provided in the site plans package that accompanied the Zoning Application, which includes several illustrations of site circulation and layout.

The project will develop a currently undeveloped parcel of land into a residential component known as Stanton Square, and a community service center component known as The Commons. The residential component of the development includes 128 multi-family units in three structures and 42 townhomes. The community service center component is divided into two parts. The western portion of The Commons includes a single structure that will house Martha's Table (42,000 sf) and Community of Hope (12,000 sf) programs. The eastern portion of The Commons is being reserved as a first-stage PUD, and is envisioned as a single structure (46,200 sf) with similar programmatic elements as Martha's Table and Community of Hope. Figure 7 shows an overview of the development program and site plan elements.

ACCESS AND LOADING

Pedestrian Access

Pedestrian access to the Stanton Square portion of the development will occur via Stanton Road, Pomeroy Road and an internal surface parking lot. Building A will be accessed from Stanton Road, Building B will have pedestrian entrances along Pomeroy Road, and Building C will have pedestrian entrances on the private street. All will have access from surface parking lot. Thirty-eight (38) townhomes will be accessed primarily off the private street, with four (4) townhomes directly fronting Stanton Road. Pedestrian access to the Commons portion of the development will be off Elvans Road.

Vehicular Access

Vehicular access to the Stanton Square component will be off Pomeroy Road and Stanton Road. As shown in Figure 7, two curb cuts are proposed to provide vehicular access to the planned development's private street, and two curb cuts will provide access to two private alleys that abut the townhomes. These curb cuts will serve as parking and loading access for the residential component of the development. Vehicular access to

the Commons component will be off Elvans Road. As shown in Figure 7, three curb cuts are proposed to provide vehicular access to the western portion of the Commons, and one curb cut will provide access to the eastern portion of the Commons.

Loading Facilities

The PUD will meet Zoning Regulation requirements for loading. According to DC zoning requirements, the residential component of the development is not required to provide any loading or service bays. The community-serving component of the development is required to provide one 20-foot service/delivery space in the western (Consolidated) portion, which is provided in the parking lot. The eastern (Stage 1 PUD only) portion requires one 30-foot loading berth and one 20-foot service/delivery space. Details on how those will be provided will be included in the Stage 2 application for that portion of the PUD.

The PUD also provides sufficient loading facilities to accommodate practical loading needs.

The residential component of the development is expected to generate 3.6 truck trips per day. This includes daily trash removal services, mail and parcel delivery, and move-in and move-out trips. One (1) trash removal truck, two (2) mail and parcel delivery trucks, and 0.6 move-in and -out trucks (calculated using an average of 18 months average turnover per unit), will service the entire residential component on a daily basis. Loading is expected to occur within the surface parking area for multi-family buildings, and on the Private Street adjacent to the townhomes. The amount of available space to load and unload provided can meet the expected demand.

The Martha's Table and Community of Hope component of the development is expected to generate 2.4 truck trips per day. This includes trash removal services, mail and parcel delivery, and produce delivery. Per discussions with Martha's Table and Community of Hope operations staff, the building will generate one (1) trash removal truck, one (1) mail and parcel delivery trucks, and 0.4 produce delivery trucks (calculated using an average of 2 trucks per week) on a daily basis. The loading dock provided in the surface parking lot can accommodate this demand.

Truck routing to and from the site will be focused on roads connecting the site with Martin Luther King Jr Avenue, a DDOT designated primary truck route, such as Suitland Parkway.

PARKING

Zoning Requirements

The PUD exceeds zoning minimums for parking. Based on current District zoning laws, the following outlines the parking requirements for all land uses of the development:

- Residential (Townhomes)
1 space per dwelling unit, amounting to a minimum requirement of 42 parking spaces
- Residential (Multi-family Units)
1 space per 2 dwelling units, amounting to a minimum requirement of 64 parking spaces
- Community Service (western portion)
1 space per 2,000 sf, amounting to a minimum requirement of 27 spaces
- Community Service (eastern portion)
In excess of 2,000 sf, 1 for each additional 1,800 sf, amounting to a minimum requirement of 24 spaces

For the Stanton Square component of the development, a total of 145 parking spaces will be supplied. This includes 50 spaces in the surface parking lot, 28 spaces in a below-grade parking garage under Building C, 42 spaces provided in garages for each townhome, and 25 spaces on the new private street. For the

Commons component of the development, a total of 37 spaces will be supplied by the western portion of the Commons on a surface parking lot and 24 spaces will be supplied by the eastern portion of the Commons on a surface parking lot. Therefore, the proposed development will satisfy the zoning requirement of 106 parking spaces in the Stanton Square component by supplying 145 parking spaces, and satisfy the zoning requirement of 51 parking spaces in the Commons by supplying 61 parking spaces.

Practical Demand

Since the community-serving uses of the site are unique in nature, a survey was administered by the Martha's Table and Community of Hope organizations to help project the practical demand for parking. The survey results were used to plot out arrival and departure times by user group and mode of travel. The results of the parking demand analysis, shown in Figure 6, forecast a peak parking demand of 68 parking spaces.

Since this exceeds the 37 parking spaces serving Martha's Table and the Community of Hope, an observation of parking inventory was conducted within a one-block radius of the Commons to identify on-street parking supply. Figure 8 shows the findings of the observation.

Since the peak parking demand for the Commons is anticipated to be 68 vehicles, and the western portion of the Commons will

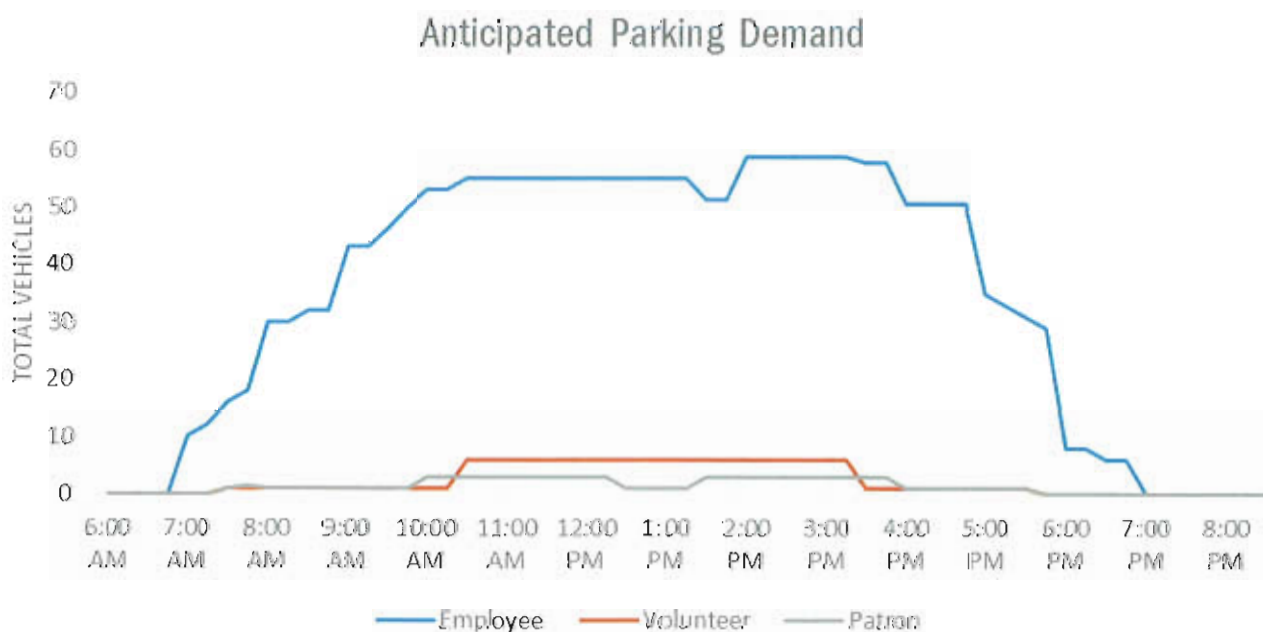


Figure 6: Martha's Table and Community of Hope Anticipated Parking Demand

be supplying 37 parking spaces, there is a potential for spill-over parking onto Elvans Road and Gainesville Street of up to 31 vehicles. Figure 9 depicts this level of on-street parking, showing that most of the vehicles can be accommodate in curbside parking spaces adjacent to the PUD itself. The peak amount of 31 vehicles anticipated to use on-street parking occupy a fraction of the available parking inventory in the vicinity of the site.

Additional parking demand will be generated by parents dropping-off and picking-up children from the Day Care at Martha's Table. This demand will be short-term, as parents will be encouraged to park and walk their children into the Day Care, and will occur outside of the long-term parking peak demand hours of 10 am to 4 pm.

Thus, although a mixture of surface parking on-site and off-street parking adjacent to the project will accommodate demand, the PUD will not generate a detrimental impact to the surrounding on-street parking supply.

PEDESTRIAN AND BICYCLE FACILITIES

The narrow right-of-ways of the streets surrounding the PUD (Stanton, Elvans, and Pomeroy Roads all have right-of-way widths of only 50 feet) have led to sidewalks that do not meet DDOT standards. Due to the physical constraints of the public right-of-way, DDOT sidewalk and buffer width standards cannot be met without impinging onto the roadway and affecting traffic operations. Thus, as part of this PUD, the Applicant plans to improve conditions along the site, and between the Stanton Square and Commons portions on property not part of the PUD. This requires dedicating property within the PUD to public use.

The Applicant has designed a public realm along Stanton, Elvans and Pomeroy Roads that allows for a three foot wide planting strip adjacent to the travelways and a six foot wide sidewalk. In order to accomplish this, the Applicant has placed all of the sidewalk along Pomeroy Road on private property, along Stanton Road the sidewalk includes 2.3-2.9 feet of private property, and along Elvans Road the sidewalk includes 2.2-4.8 feet of private property. The above provisions will provide a vastly improved pedestrian environment near the site.

Furthermore, the Applicant will fund the upgrading of sidewalks adjacent to Lot 874, which the Applicant does not

own, to complete the pedestrian network between Stanton Square and Commons components of the development.

The project will meet DC Zoning Regulation minimums for bicycle parking, and will include short-term public bicycle spaces along the interior and perimeter of the site. These short term spaces will include inverted U-racks placed in high-visibility areas. The applicant will work with DDOT to determine the exact location of bicycle racks in public space.

TRANSPORTATION DEMAND MANAGEMENT (TDM)

TDM is the application of policies and strategies used to reduce travel demand or to redistribute demand to other times or spaces. TDM typically focuses on reducing the demand of single-occupancy, private vehicles during peak period travel times or on shifting single-occupancy vehicular demand to off-peak periods.

The Transportation Demand Management (TDM) plan for the planned development is based on the DDOT expectations for TDM programs. The Applicant proposes the following TDM measures:

- The Applicant will identify TDM Leaders (for planning, construction, and operations). The TDM Leaders will work with residents to distribute and market various transportation alternatives and options.
- The Applicant will establish a TDM marketing program that provides detailed transportation information and promotes walking, cycling, and transit. An effective marketing strategy should consist of a multi-modal access guide that provides comprehensive transportation information. This information can be compiled in a brochure for distribution. The marketing program should also utilize and provide website links to CommuterConnections.com and goDCgo.com, which provide transportation information and options for getting around the District.
- The Applicant will install Transportation Information Center Displays (with electronic screens) within the lobbies of the residential multi-family Building A and the community serving building.
- The Applicant will encourage all alternative transportation modes including bicycling. Bicycling will be promoted with the provision of on-site outdoor temporary bicycle parking spaces.



Figure 7: Site Plan

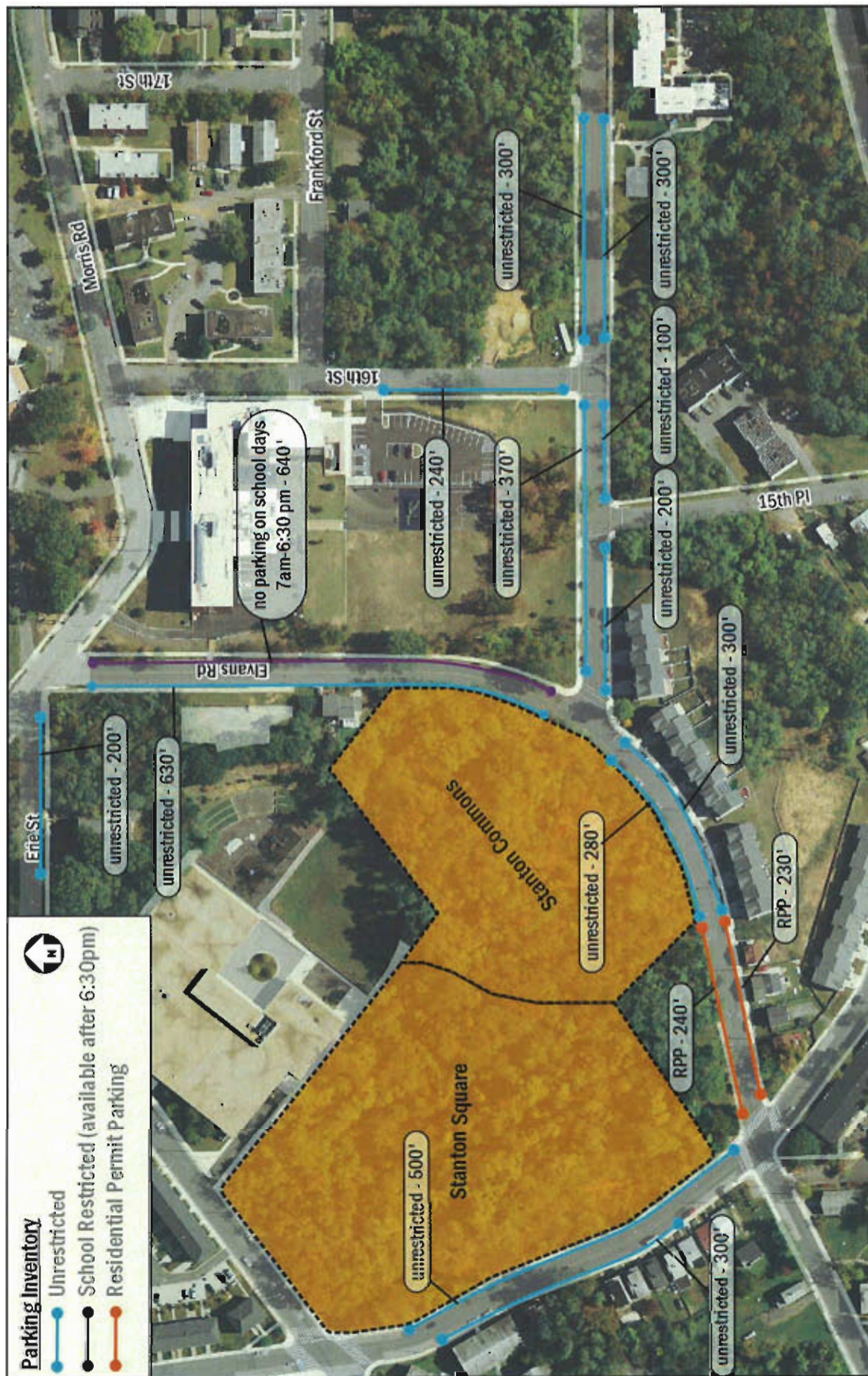


Figure 8: On-Street Parking Inventory

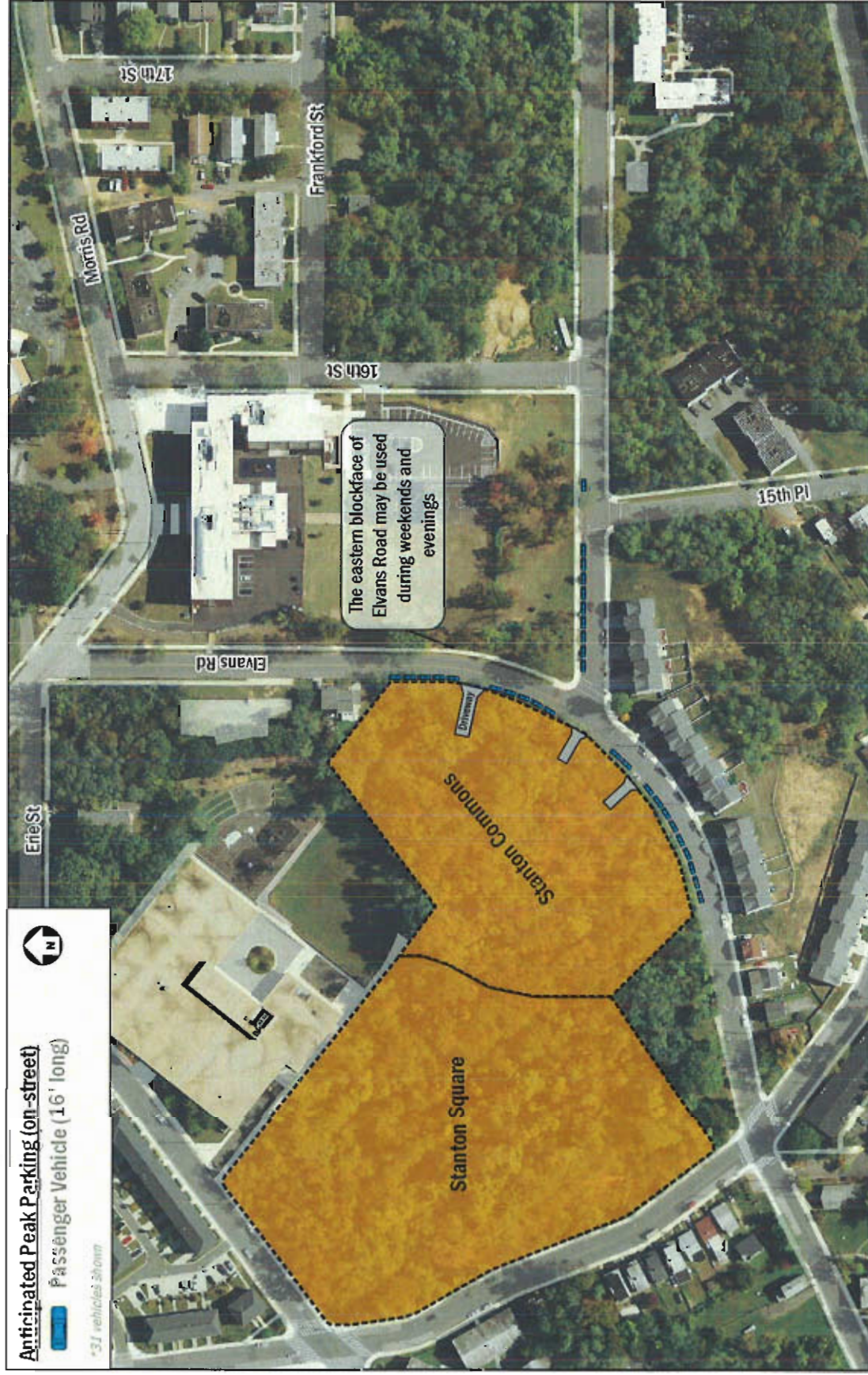


Figure 9: Anticipated Peak On-Street Parking Demand

TRIP GENERATION

This section outlines the transportation demand of the proposed Stanton Square and Commons project. It summarizes the projected trip generation of the site by land use and by mode, which forms the basis for the chapters that follow.

Traditional weekday peak hour trip generation, based on the methodology outlined in the Institute of Transportation Engineers' (ITE) *Trip Generation*, 9th Edition, was used for the residential component (Stanton Square) and the Stage 1 PUD (portion of the community-serving component). This methodology was supplemented to account for the urban nature of the site (*Trip Generation* provides data for non-urban, low transit use sites) and to generate trips for multiple modes: vehicle, transit, bicycle, and walk. Trip generation and mode split assumptions for Martha's Table and Community of Hope were based on survey results supplied by the organizations.

Residential trip generation was calculated based on ITE land use 220, Apartments, splitting trips into different modes using assumptions derived from census data for the residents that currently live near the site. This data was supplemented by the parking supply for the residential component of the project to develop an appropriate mode split.

Trip generation for the Martha's Table and Community of Hope uses within the Stanton Commons portion of the site were

determined based on survey results and other information/experience supplied by the organizations.

For Martha's Table, management staff provided information on staffing levels at the new location and estimations on how current employees would arrive and depart. This was used to determine a distribution of arrival and departure times and to the mode of arrival and departure for each of the following user groups: Employees, Baby & Me, Child Care, Patron, and Volunteer. Using this information, a daily vehicular trip generation was determined for each user group as shown in Figure 10. By mapping daily trip generation, a morning peak hour and evening peak hour were determined for Martha's. The multi-modal trip generation for the morning and evening peak hours of the generator are shown in Table 2. Of note, the Baby & Me, Patron, and Volunteer user groups are not expected to generate any vehicular trips during the peak hours. Detailed survey results as well as trip generation and mode split assumptions are included in the Technical Attachments.

Information provided by Community of Hope was used to determine mode splits and peak hour trip generation for three primary user groups: Employees, Daily Volunteers, and Clients/Community Members. Of note, evening events also take place at Community of Hope once a week, but it is not expected that any trips will be generated during the peak hours. Table 1 shows the expected multi-modal trip generation break down for Community of Hope.

Figure 10: Martha's Table Anticipated Vehicular Trip Generation

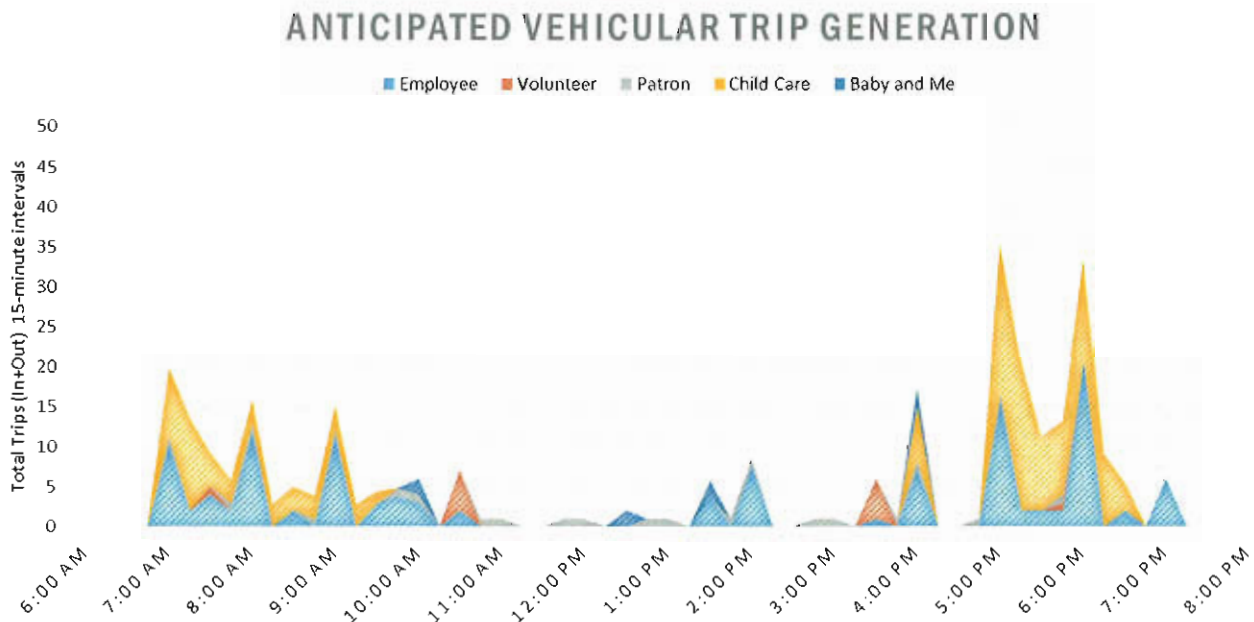


Table 2: Martha's Table Multi-Modal Trip Generation

User Group	Mode	Mode Split (AM/PM)	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Employee	Auto	59%	10 veh/hr	0 veh/hr	10 veh/hr	0 veh/hr	14 veh/hr	14 veh/hr
	Transit	29%	5 ppl/hr	0 ppl/hr	5 ppl/hr	0 ppl/hr	9 ppl/hr	9 ppl/hr
	Bike	0%	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr
	Walk	12%	2 ppl/hr	0 ppl/hr	2 ppl/hr	0 ppl/hr	1 ppl/hr	1 ppl/hr
Daycare	Auto	23%	14 veh/hr	13 veh/hr	27 veh/hr	28 veh/hr	28 veh/hr	56 veh/hr
	Transit	38%	31 ppl/hr	13 ppl/hr	44 ppl/hr	28 ppl/hr	59 ppl/hr	87 ppl/hr
	Bike	0%	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr
	Walk	38%	31 ppl/hr	13 ppl/hr	44 ppl/hr	28 ppl/hr	59 ppl/hr	87 ppl/hr
Patron	Auto	0%	0 veh/hr	0 veh/hr	0 veh/hr	0 veh/hr	0 veh/hr	0 veh/hr
	Transit	50%/0%	2 ppl/hr	0 ppl/hr	2 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr
	Bike	0%	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr
	Walk	50%/100%	2 ppl/hr	0 ppl/hr	2 ppl/hr	20 ppl/hr	0 ppl/hr	0 ppl/hr

Table 1: Community of Hope Multi-Modal Trip Generation

User Group	Mode	Mode Split	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Employee	Auto	50%	8 veh/hr	0 veh/hr	8 veh/hr	0 veh/hr	8 veh/hr	8 veh/hr
	Transit	40%	6 ppl/hr	0 ppl/hr	6 ppl/hr	0 ppl/hr	6 ppl/hr	6 ppl/hr
	Bike	5%	1 ppl/hr	0 ppl/hr	1 ppl/hr	0 ppl/hr	1 ppl/hr	1 ppl/hr
	Walk	5%	1 ppl/hr	0 ppl/hr	1 ppl/hr	0 ppl/hr	1 ppl/hr	1 ppl/hr
Daily Volunteer	Auto	50%	1 veh/hr	0 veh/hr	1 veh/hr	0 veh/hr	1 veh/hr	1 veh/hr
	Transit	0%	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr
	Bike	0%	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr
	Walk	50%	1 ppl/hr	0 ppl/hr	1 ppl/hr	0 ppl/hr	1 ppl/hr	1 ppl/hr
Patron	Auto	10%	1 veh/hr	1 veh/hr	2 veh/hr	1 veh/hr	1 veh/hr	2 veh/hr
	Transit	10%	1 ppl/hr	1 ppl/hr	2 ppl/hr	1 ppl/hr	1 ppl/hr	2 ppl/hr
	Bike	0%	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr
	Walk	80%	3 ppl/hr	3 ppl/hr	6 ppl/hr	3 ppl/hr	3 ppl/hr	6 ppl/hr

Survey results, trip generation assumptions, and mode split assumptions are included in the Technical Attachments.

The Stage 1 PUD building within the Stanton Commons portion of the site is planned to house a community-based nonprofit organization therefore trip generation was calculated based on ITE land use 495, Recreational Community Center. The applied mode split assumptions were determined based on census data for employees coming to the site and the Martha's Table employee survey, as the Stage 1 PUD building will likely serve a similar use.

A summary of the multimodal trip generation for the overall development is provided in Table 3 for the morning and afternoon peak hours. The daycare component Detailed calculations are included in the Technical Appendix.

Table 3: Peak Hour Trip Generation by Land Use/Mode

Mode	Land Use	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Auto	Residential	10 veh/hr	42 veh/hr	52 veh/hr	43 veh/hr	23 veh/hr	66 veh/hr
	Martha's Table and COH	20 ppl/hr	1 ppl/hr	21 ppl/hr	1 ppl/hr	24 ppl/hr	25 ppl/hr
	Daycare	14 ppl/hr	13 ppl/hr	27 ppl/hr	28 ppl/hr	28 ppl/hr	56 ppl/hr
	Stage 1 PUD	32 ppl/hr	16 ppl/hr	48 ppl/hr	31 ppl/hr	33 ppl/hr	64 ppl/hr
	Total	76 ppl/hr	72 ppl/hr	148 ppl/hr	103 ppl/hr	108 ppl/hr	211 ppl/hr
Transit	Residential	7 veh/hr	28 veh/hr	35 veh/hr	29 veh/hr	16 veh/hr	45 veh/hr
	Martha's Table and COH	14 ppl/hr	1 ppl/hr	15 ppl/hr	1 ppl/hr	16 ppl/hr	17 ppl/hr
	Daycare	31 ppl/hr	13 ppl/hr	44 ppl/hr	28 ppl/hr	59 ppl/hr	87 ppl/hr
	Stage 1 PUD	25 ppl/hr	12 ppl/hr	37 ppl/hr	25 ppl/hr	25 ppl/hr	50 ppl/hr
	Total	77 ppl/hr	54 ppl/hr	131 ppl/hr	83 ppl/hr	116 ppl/hr	199 ppl/hr
Bike	Residential	0 veh/hr	2 veh/hr	2 veh/hr	2 veh/hr	1 veh/hr	3 veh/hr
	Martha's Table and COH	1 ppl/hr	0 ppl/hr	1 ppl/hr	0 ppl/hr	1 ppl/hr	1 ppl/hr
	Daycare	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr
	Stage 1 PUD	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr
	Total	1 ppl/hr	2 ppl/hr	3 ppl/hr	2 ppl/hr	2 ppl/hr	4 ppl/hr
Walk	Residential	0 veh/hr	2 veh/hr	2 veh/hr	2 veh/hr	1 veh/hr	3 veh/hr
	Martha's Table and COH	8 ppl/hr	3 ppl/hr	11 ppl/hr	23 ppl/hr	6 ppl/hr	29 ppl/hr
	Daycare	31 ppl/hr	13 ppl/hr	44 ppl/hr	28 ppl/hr	59 ppl/hr	87 ppl/hr
	Stage 1 PUD	11 ppl/hr	5 ppl/hr	16 ppl/hr	11 ppl/hr	11 ppl/hr	22 ppl/hr
	Total	50 ppl/hr	23 ppl/hr	73 ppl/hr	64 ppl/hr	77 ppl/hr	141 ppl/hr

TRAFFIC OPERATIONS

This section provides a summary of an analysis of the existing and future roadway capacity in the study area. Included is an analysis of potential vehicular impacts of the Stanton Square and Commons project and a discussion of potential improvements.

The purpose of the capacity analysis is to:

- Determine the existing capacity of the study area roadways;
- Determine the overall impact of the project on the study area roadways; and
- Discuss potential improvements and mitigation measures to accommodate the additional vehicular trips

This analysis was accomplished by determining the traffic volumes and roadway capacity for the following scenarios:

1. 2015 Existing Conditions
2. 2018 Background Conditions without the development (2018 Background)
3. 2018 Future Conditions with the development (2018 Total Future)

The capacity analysis focuses on the morning and afternoon commuter peak hours, as determined by the existing traffic volumes in the study area.

The following conclusions are reached within this chapter:

- All the study intersections operate at an acceptable level of service during all analysis scenarios for both the morning and afternoon peak hours.
- Overall, this report concludes that the project will not have a detrimental impact to the surrounding transportation network

STUDY AREA, SCOPE, & METHODOLOGY

This section outlines the vehicular trips generated in the study area along the vehicular access routes and defines the analysis assumptions.

The scope of the analysis contained within this report was discussed with and agreed to with DDOT. The general methodology of the analysis follows national and DDOT

guidelines on the preparation of transportation impact evaluations of site development, unless stated otherwise.

Capacity Analysis Scenarios

The vehicular analyses are performed to determine if the proposed development of the Stanton Square and Commons project will lead to adverse impacts on traffic operations. (A review of impacts to each of the other modes is outlined later in this report.) This is accomplished by comparing future scenarios: (1) without the proposed development (referred to as the Background condition) and (2) with the development approved and constructed (referred to as the Future condition).

Specifically, the roadway capacity analysis examined the following scenarios:

1. 2015 Existing Conditions
2. 2018 Background Conditions without the development (2018 Background)
3. 2018 Future Conditions with the development (2018 Total Future)

Study Area

The study area of the analysis is a set of intersections where detailed capacity analyses are performed for the scenarios listed above. The set of intersections decided upon during the study scoping process with DDOT are those intersections most likely to have potential impacts or require changes to traffic operations to accommodate the proposed development. Although it is possible that impacts will occur outside of the study area, those impacts are not significant enough to be considered a detrimental impact nor worthy of mitigation measures.

Based on the projected future trip generation and the location of the site access points, the following intersections were chosen for analysis:

1. Morris Road & Pomeroy Road SE
2. Morris Road & Elvans Road & Erie Street SE
3. Elvans Road & Gainesville Street SE
4. Elvans Road & Stanton Road SE
5. Stanton Road & Pomeroy Road SE
6. Pomeroy Road & Howard Road SE
7. Stanton Road & Sheridan Road SE
8. Stanton Road & Suitland Parkway SE

Figure 11 shows a map of the study area intersections.

Traffic Volume Assumptions

The following section reviews the traffic volume assumptions and methodologies used in the roadway capacity analyses.

Existing Traffic Volumes

The existing traffic volumes are comprised of turning movement count data, which was collected on Wednesday, October 14, 2015 and Tuesday, October 27, 2015. The results of the traffic counts are included in the Technical Attachments. The existing peak hour traffic volumes are shown on Figure 12. For all intersections the individual morning and afternoon peak hours were used.

2018 Background Traffic Volumes (without the project)

Traffic projections for the background conditions typically consist of the existing volumes with two additions:

- Traffic generated by developments expected to be completed prior to the project (known as background developments); and
- Inherent growth on the roadway (representing regional traffic growth).

Following industry, national, and DDOT methodologies, a background development must meet the following criteria to be incorporated into the analysis:

- Be located in the study area, defined as having an origin or destination point within the cluster of study area intersections;
- Have entitlements; and
- Have a construction completion date prior or close to the proposed development.

As discussed previously, multiple background developments were considered; however, none of them meet the criteria to be included in the study.

Alternatively, regional traffic growth is typically accounted for using percentage growth rates. The growth rates used in this analysis are derived from the MWCOG model, comparing the difference between the year 2015 and 2020 model scenarios. The growth rates observed in this model served as a basis for analysis assumptions, and where negative growth was observed, a conservative 0.10 percent annual growth rate was applied to the roadway. The applied growth rates are shown in Table 4.

Table 4: Applied Growth Rates Assumptions

Roadway	Applied Annual Growth Rate		Total Growth between 2015 and 2018	
	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
Stanton Rd SE - NB	1.00%	0.10%	3.03%	0.30%
Stanton Rd SE - SB	0.10%	1.75%	0.30%	5.34%
Pomeroy Rd SE - NEB	1.00%	0.10%	3.03%	0.30%
Pomeroy Rd SE - SWB	0.10%	1.25%	0.30%	3.80%
Morris Rd SE - NWB	1.00%	0.10%	3.03%	0.30%
Morris Rd SE - SEB	0.10%	1.25%	0.30%	3.80%

The traffic volumes generated by the inherent growth along the network were added to the existing traffic volumes in order to establish the 2018 Background traffic volumes. The traffic volumes for the 2018 Background conditions are shown on Figure 13.

2018 Total Future Traffic Volumes (with the project)

The 2018 Total Future traffic volumes consist of the 2018 Background volumes with the addition of the traffic volumes generated by the proposed development (site-generated trips). Thus, the 2018 Total Future traffic volumes include traffic generated by: the existing volumes, the inherent growth on the study area roadways, and the proposed project.

Trip distribution for the site was determined based on: (1) CTPP TAZ data, (2) existing travel patterns in the study area, and (3) the allotted parking locations of various users of the facilities.

The residential trip distribution was significantly influenced by the CTPP TAZ flow data for drivers commuting from the site's TAZ, and adjusted based on traffic volumes and patterns. The origin of outbound and destination of inbound vehicular trips was primarily the new private street connection Pomeroy Road and Stanton Road, with some trips routed to and from the new residential alleys along Stanton Road.

Distribution for Martha's Table and Community of Hope were influenced by the CTPP TAZ flow data for drivers commuting to the site's TAZ, and adjusted based on traffic volumes and patterns. For the purpose of this analysis, it was assumed that peak hour trips generated by Martha's Table and Community of Hope would be that of employees who are expected to park on-street adjacent to the site along Elvans Road and Gainesville Street. Trips generated by the Daycare were assigned primarily to the Martha's Table/Community of Hope surface lot off Elvans Road as parents are expected to park and walk their

children in to the building, with minimal pick-up/drop-off activity expected at the porte-cochere off of Elvans Road.

Trip distribution for the Stage 1 PUD element of the development was influenced by the CTPP TAZ flow data for drivers commuting the site's TAZ. The origin and destination of site-generated trips from the Stage 1 PUD was the surface lot off of Elvans Road SE north of Gainesville Street.

Based on traffic patterns and a comprehensive review of the site access locations, the site-generated trips were distributed through the study area intersections. A summary of trip distribution assumptions and routing for each element of the development is provided on Figure 14 for inbound trips and Figure 15 for outbound trips.

The site-generated traffic volumes are shown on Figure 16 and the 2018 Total Future traffic volumes are shown on Figure 17.

Geometry and Operations Assumptions

The following section reviews the roadway geometry and operations assumptions made and the methodologies used in the roadway capacity analyses.

Existing Geometry and Operations Assumptions

The geometry and operations assumed in the existing conditions scenario are those present when the main data collection occurred. Gorove/Slade made observations and confirmed the existing lane configurations and traffic controls at the intersections within the study area.

The lane configurations and traffic controls for the Existing conditions are shown on Figure 18. Of note, the intersection of Morris Road with Elvans Road and Erie Street was analyzed as a four-legged intersection even though the church driveway acts as a fifth leg. This choice was made because neither HCM 2000 nor HCM 2010 analyze all-way stop-controlled intersections with more than four legs.

Background Geometry and Operations Assumptions

Following national and DDOT methodologies, a background improvement must meet the following criteria to be incorporated into the analysis:

- Be funded; and
- Have a construction completion date prior or close to the proposed development.

Based on these criteria, no background assumptions were included in the analysis.

Total Future Geometry and Operations Assumptions

The geometry and operations assumed in the total future conditions scenario are based on the existing conditions with the addition of a new private roadway connecting Pomeroy Road and Stanton Road, four new driveways along Stanton Road and Elvans Road, and a port-cochere on Elvans Road. The lane configurations and traffic controls for the Total Future Conditions are shown on Figure 19.

Vehicular Analysis Results

Intersection Capacity Analysis

Intersection capacity analyses were performed for the three scenarios outlined previously at the intersections contained within the study area during the morning and afternoon peak hours. *Synchro*, version 8.0 was used to analyze the study intersections based on the [Highway Capacity Manual 2010](#) (HCM) methodology, where possible. [HCM 2000](#) methodology was used when nonstandard lane configurations or signal times were used.

The results of the capacity analyses are expressed in level of service (LOS) and delay (seconds per vehicle) for each approach. A LOS grade is a letter grade based on the average delay (in seconds) experienced by motorists traveling through an intersection. LOS results range from "A" being the best to "F" being the worst. LOS D is typically used as the acceptable LOS threshold in the District; although LOS E or F is sometimes accepted in urbanized areas if vehicular improvements would be a detriment to safety or non-auto modes of transportation.

The LOS capacity analyses were based on: (1) the peak hour traffic volumes; (2) the lane use and traffic controls; and (3) the Highway Capacity Manual (HCM) methodologies (using the *Synchro* software). The average delay of each approach and LOS is shown for the signalized intersections in addition to the overall average delay and intersection LOS grade. The HCM does not give guidelines for calculating the average delay for a two-way stop-controlled intersection, as the approaches without stop signs would technically have no delay. Detailed LOS descriptions and the analysis worksheets are contained in the Technical Attachments.

Table 5 shows the results of the capacity analyses, including LOS and average delay per vehicle (in seconds) for the Existing,

2018 Background, and 2018 Total Future scenarios. The capacity analysis results are shown on Figure 20 for the morning peak hour and

Figure 21 for the afternoon peak hour.

The majority of the study intersections operate at acceptable conditions during the morning and afternoon peak hours for the Existing, 2018 Background, and 2018 Future scenarios with the exception of the following:

- The eastbound approach of Pomeroy Road at Morris Road operates at an LOS F during the PM Peak Hour under Existing, Background, and Future Conditions.
- The northwestbound approach of Morris Road at Elvans Road/Erie Street operates at an LOS E during the AM peak hour under Existing, Background and Future Conditions. In addition the overall intersection operates at an LOS E during the AM peak hour under Background and Future Conditions.
- The westbound, northbound, and southbound approaches at the intersection of Stanton Road and Suitland Parkway operate at LOS F during the AM peak hour under Existing, Background, and Future Conditions. The eastbound, northbound, and southbound approaches at the intersection operate at LOS F during the PM peak hour under Existing, Background, and Future Conditions. In addition, the overall intersection operates at an LOS F during both peak hours under all conditions.

Improvements

Generally speaking, the proposed development is considered to have an impact at an intersection within the study area if the capacity analyses show an LOS E or LOS F at an intersection or along an approach in the future conditions with the proposed development where one does not exist in the existing or background conditions. Following these guidelines, **no intersections are impacted by the planned development**; however, mitigation measures were analyzed to determine potential improvements to the poorly operating intersections.

▪ Pomeroy Road & Morris Road

The eastbound approach operates at an unacceptable LOS during the morning peak hour due to the number of left-turning vehicles along Pomeroy Road which must wait for gaps along Morris Road. Several mitigation measures were evaluated to help operations at this intersection. Due to

the available width of the roadway, an exclusive left- and right-turn lane were tested; however, due to the comparably small number of right turns compared to left turns, minimal improvement to delay was found. All-way stop and signal warrants were also performed, but it was found that neither were warranted based on peak hour vehicle and pedestrian volumes. Therefore, no improvements to the intersection are proposed as part of the development.

▪ Morris Road & Elvans Road & Erie Street

This intersection operates at an unacceptable LOS during the morning peak hour due to the high number of vehicles traveling northwestbound on Morris Road, which must stop due to the all-way stop control. There is enough roadway width curb-to-curb to create an exclusive left-turn lane along this approach; however, thru vehicles would still observe an unacceptable amount of delay. Converting the intersection from all-way stop controlled to two-way stop controlled would alleviate delay on Morris Road, but it is not suggested due to the impacts on pedestrian safety. Therefore, no improvements are proposed as part of the development.

▪ Stanton Road & Suitland Parkway

This intersection operates at an overall LOS F during all study scenarios. Because traffic operates at unacceptable conditions along Stanton Road & Suitland Parkway simultaneously, and due to the long cycle length, adjustments to the signal timings do not result in much improvement to the intersection. Other improvements such as widening the roadways or adding supplemental turn lanes are infeasible. Therefore, no improvements are proposed as part of the development.

Queuing Analysis

In addition to the capacity analyses presented above, a queuing analysis was performed at the study intersections. The queuing analysis was performed using the *Synchro* software. The 50th percentile and 95th percentile maximum queue lengths are shown for each lane group at the study area signalized intersections. The 50th percentile maximum queue is the maximum back of queue on a typical cycle. The 95th percentile queue is the maximum back of queue with 95th percentile traffic volumes. For unsignalized intersection, the 95th percentile queue is reported for each lane group (including

free-flowing left turns and stop-controlled movements) based on the HCM 2010 calculations.

Table 6 shows the queuing results for the study area intersections. No significant impacts to the queuing results are seen with the addition of the proposed development. During the morning and afternoon peak hours, queues are slightly increased at all of the study intersections, but no major impacts are seen.

Overall, the site does not have a significant impact on queuing in the study area.

Site Driveways

The capacity analyses shows that the new site driveways all operate at acceptable conditions as stop sign controlled on the driveway approach. None of the driveways need to operate as an all-way stop intersection or trigger the need for a traffic signal.

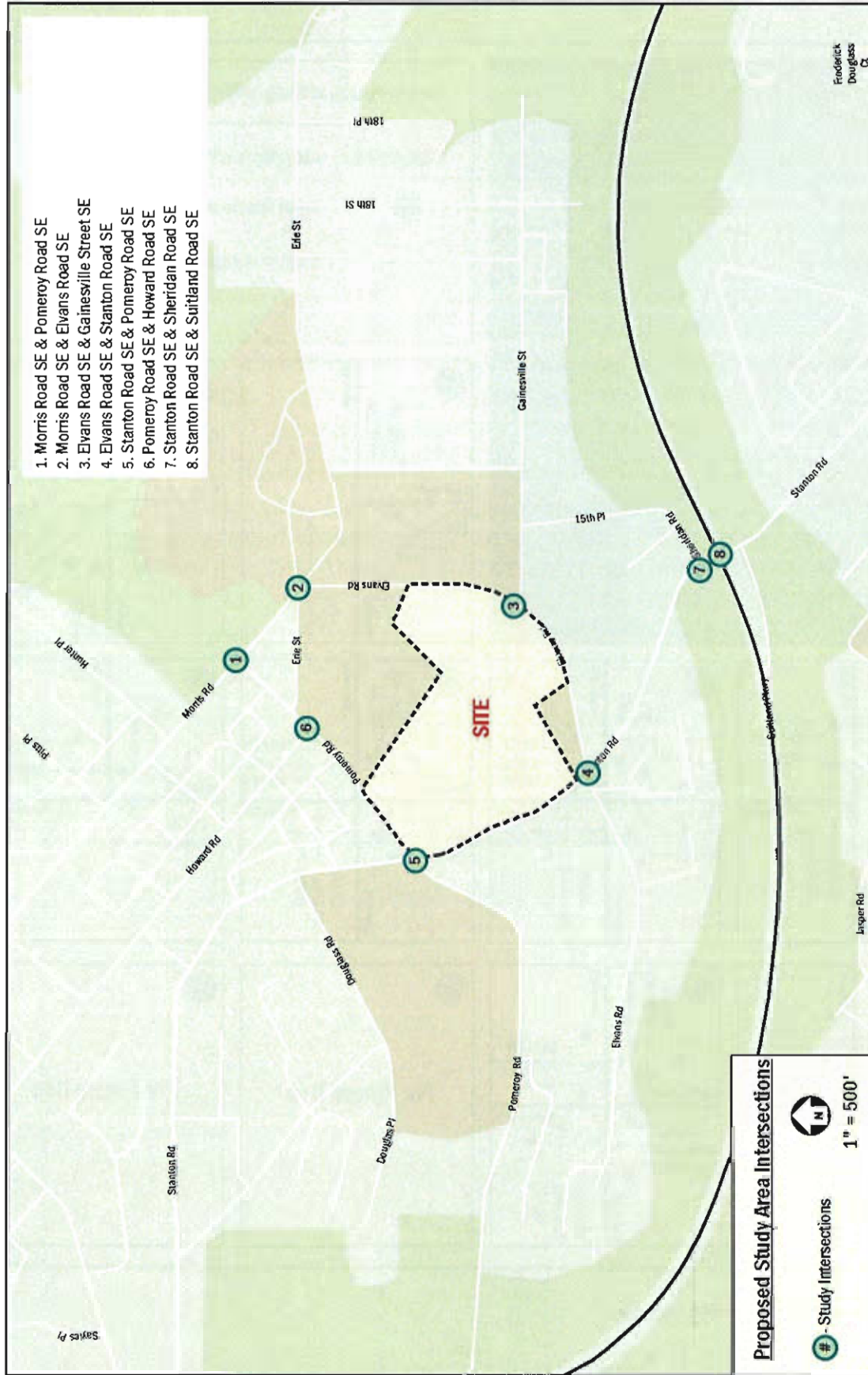


Figure 11: Study Area Intersections

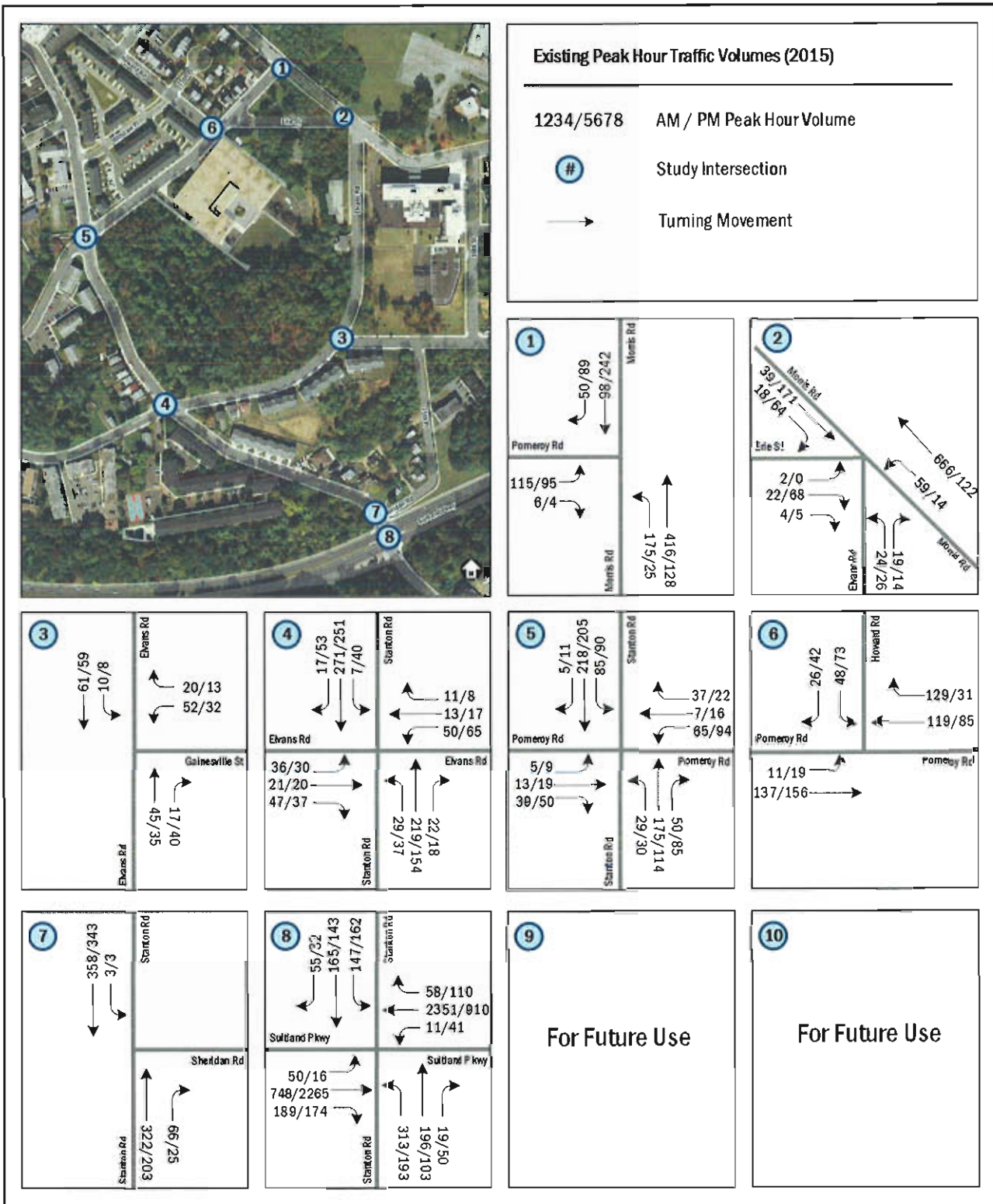


Figure 12: Existing Peak Hour Traffic Volumes

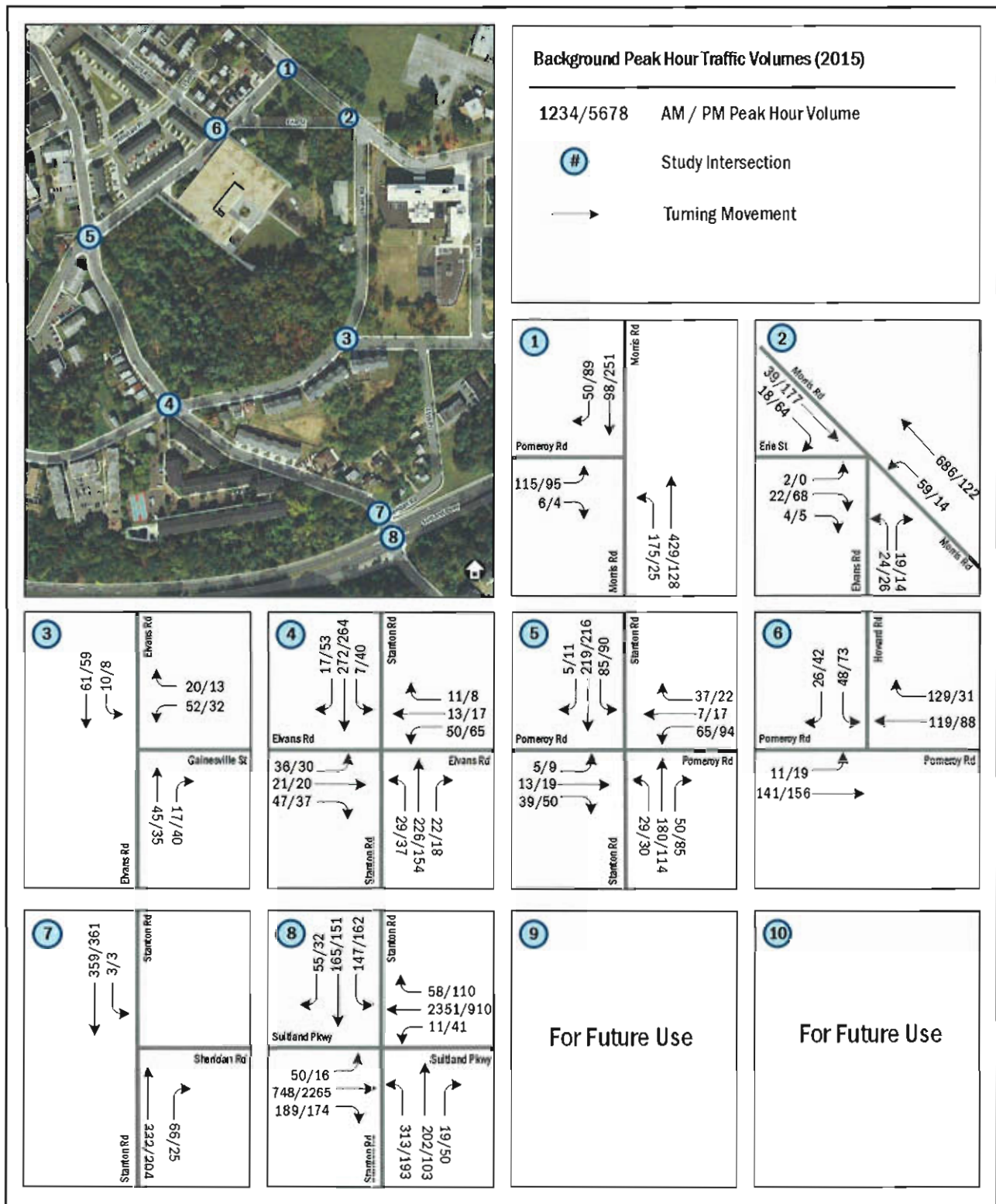


Figure 13: Background Peak Hour Traffic Volumes

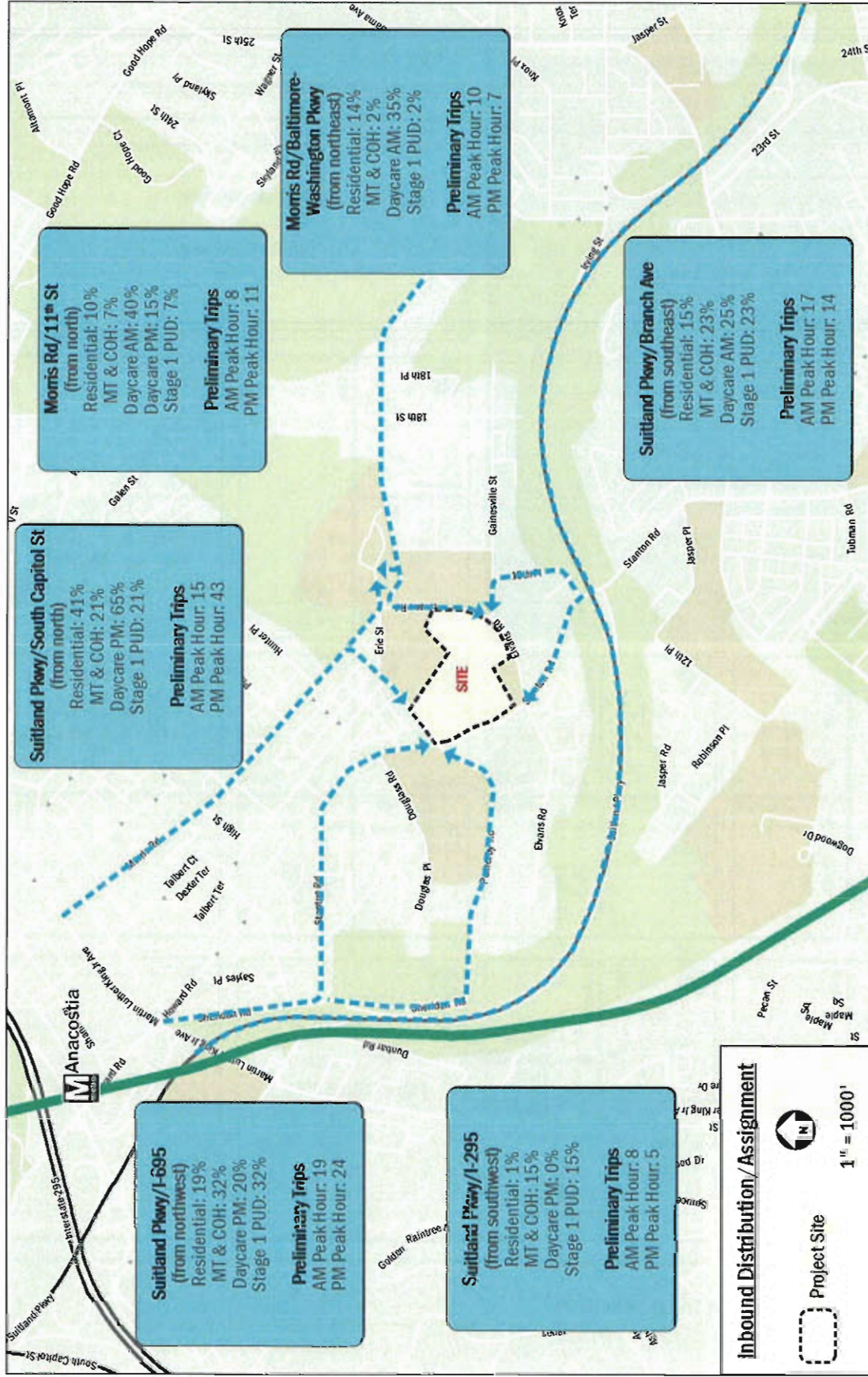


Figure 14: Inbound Trip Distribution and Routing

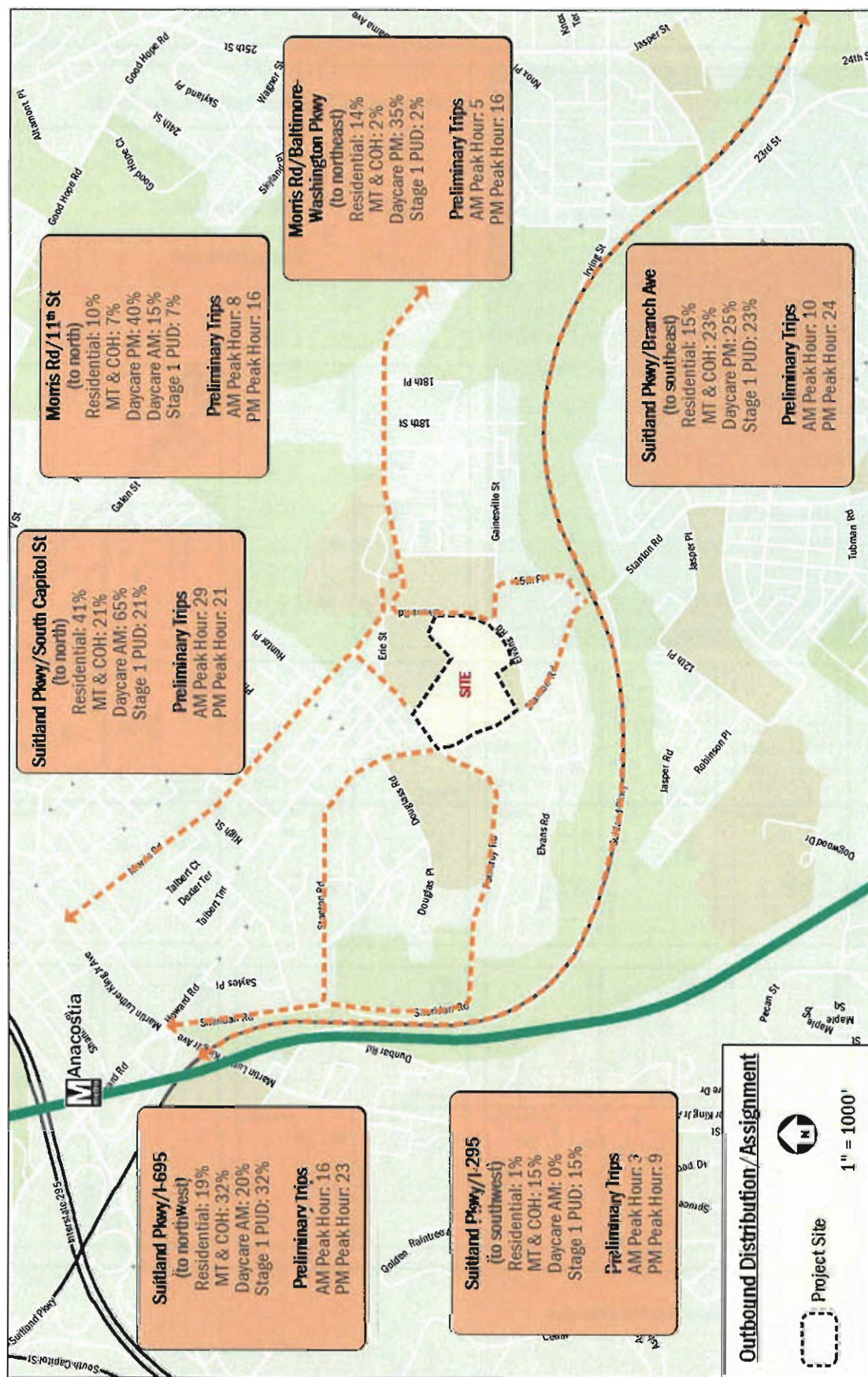


Figure 15: Outbound Trip Distribution and Routing

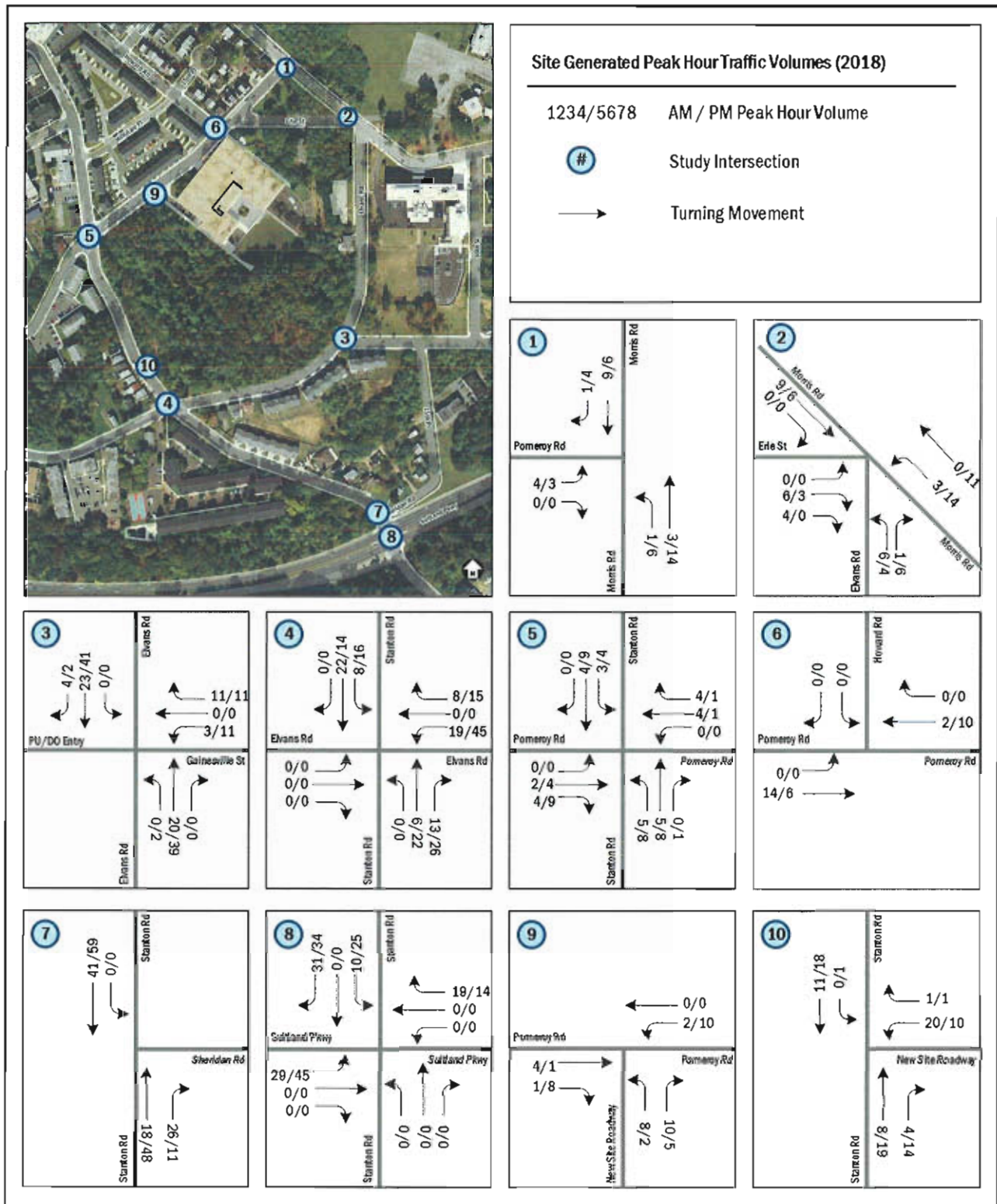


Figure 16: Site-Generated Peak Hour Traffic Volumes

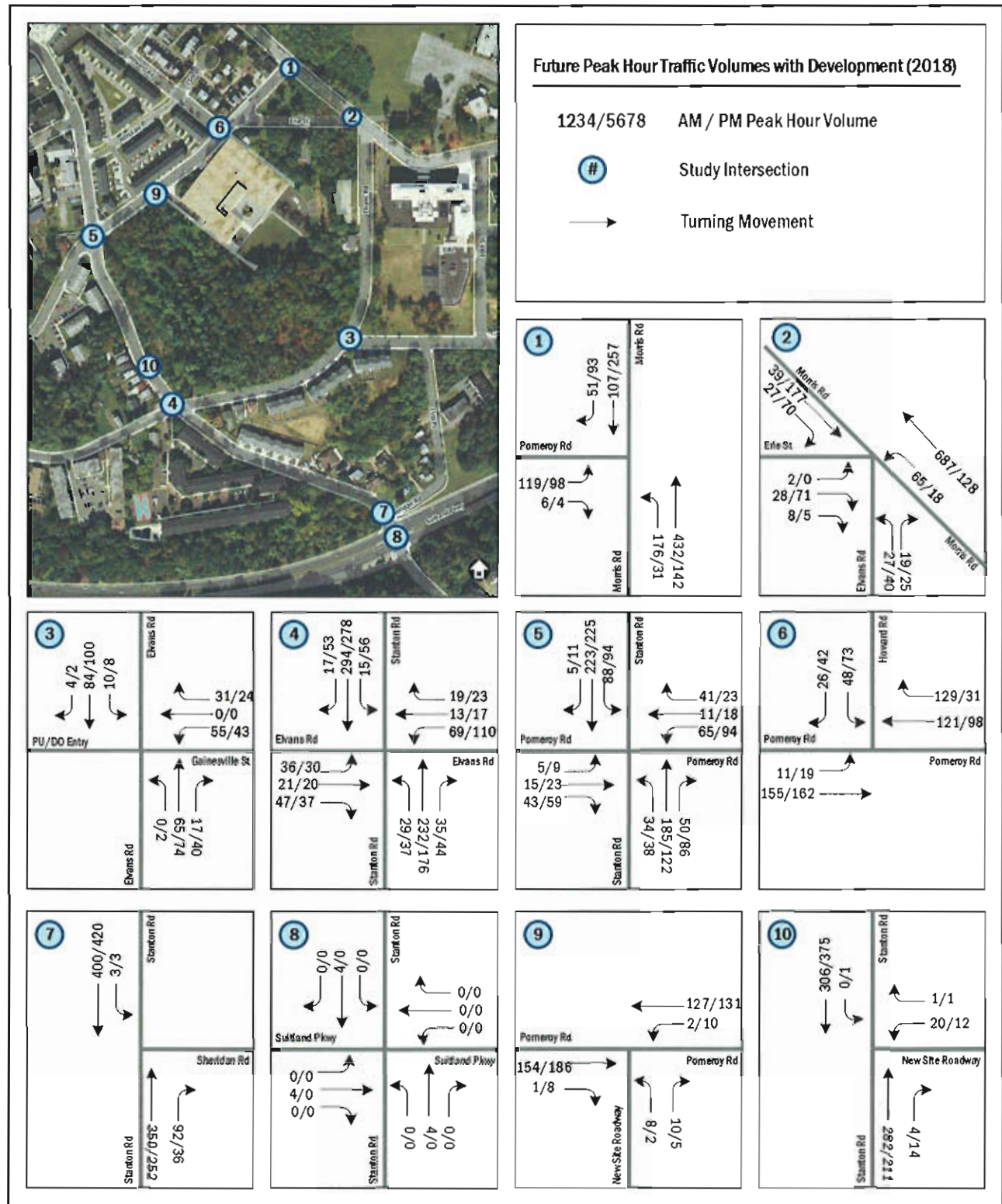


Figure 17: Total Future Peak Hour Traffic Volumes

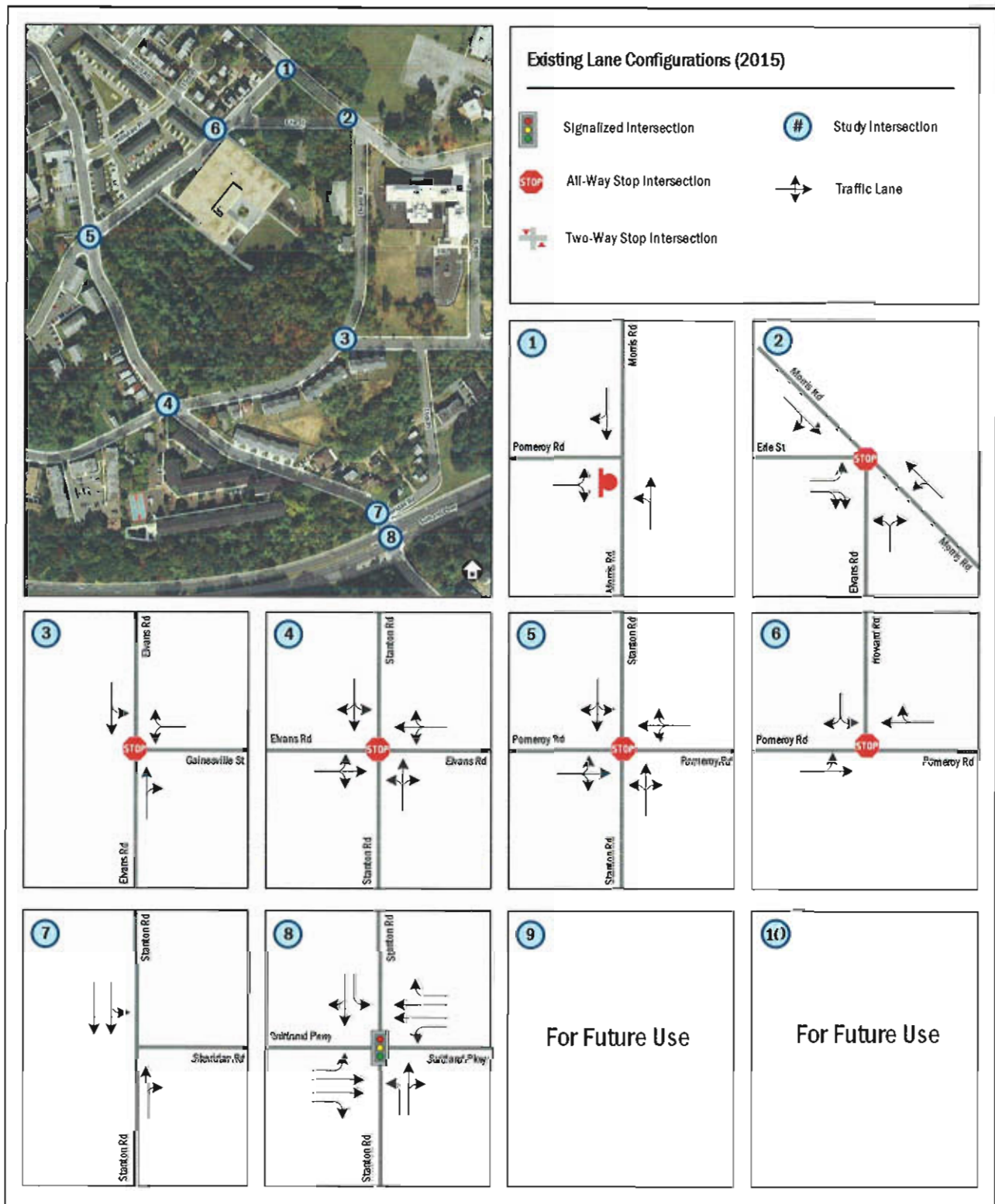


Figure 18: Current Lane Configuration and Traffic Control

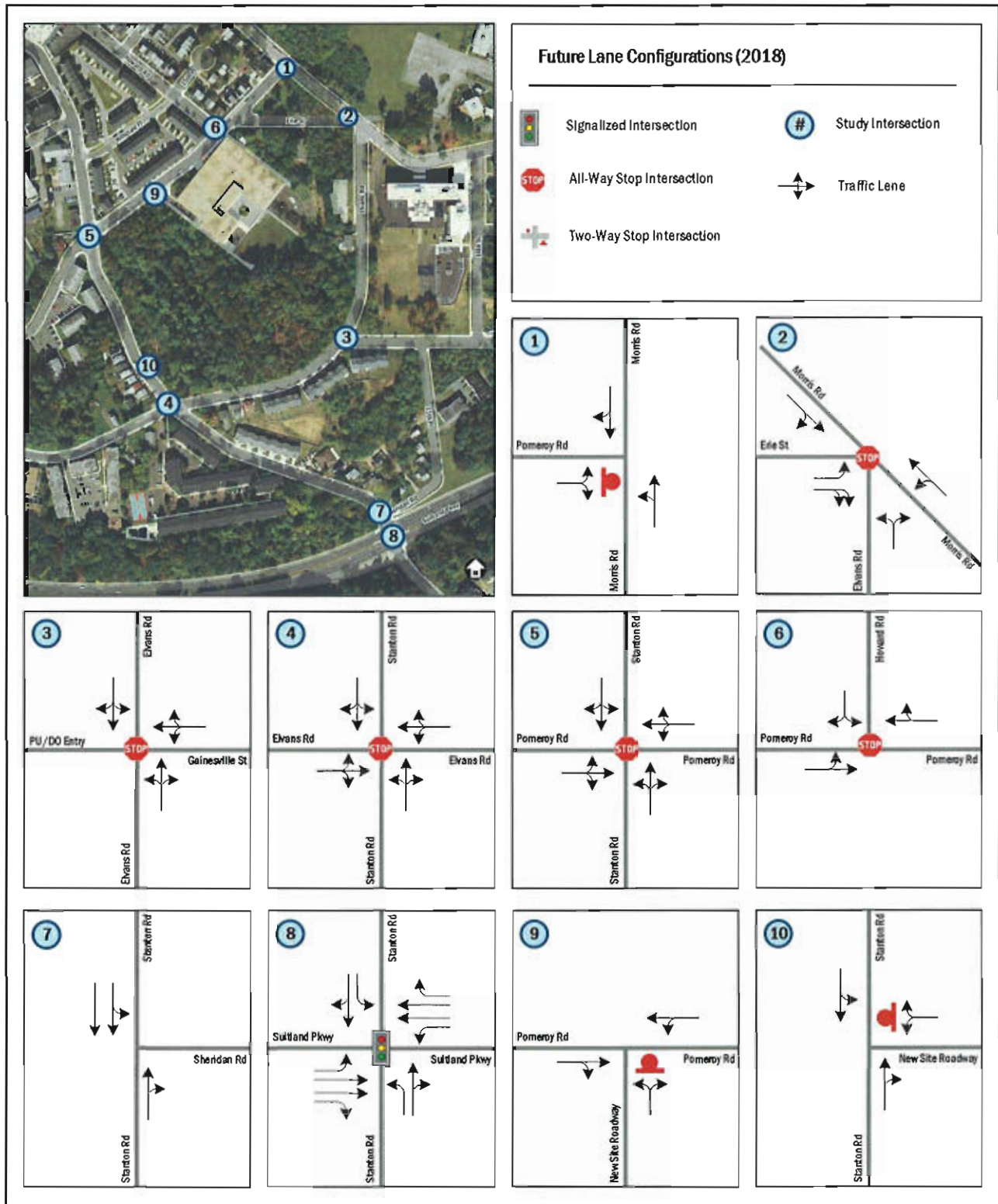


Figure 19: Proposed Lane Configuration and Traffic Control

Table 5: LOS Results

Intersection	Approach	Existing Conditions (2015)						Future Background Conditions (2018)						Total Future Conditions (2018)					
		AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
Morris Rd & Pomeroy Rd	Eastbound	56.7	F	14.8	B	60.0	F	14.9	B	68.1	F	15.9	C						
	Northbound Left	8.1	A	8.2	A	8.1	A	8.2	A	8.2	A	8.3	A						
Elvans Rd & Morris Rd & Erie St	Overall	34.1	D	8.9	A	38.6	E	8.9	A	41.9	E	9.2	A						
	Eastbound	7.8	A	7.9	A	7.7	A	8.0	A	7.9	A	8.1	A						
	Northbound	9.2	A	8.0	A	9.1	A	8.0	A	9.5	A	8.3	A						
	Northwestbound	38.5	E	8.9	A	43.7	E	8.9	A	48.4	E	9.2	A						
	Southeastbound	9.3	A	9.4	A	9.2	A	9.4	A	9.5	A	9.7	A						
Elvans Rd & Gainesville St	Overall	7.7	A	7.4	A	7.7	A	7.4	A	7.9	A	7.9	A						
	Westbound	7.8	A	7.6	A	7.8	A	7.6	A	8.0	A	7.9	A						
	Northbound	7.5	A	7.2	A	7.5	A	7.2	A	7.8	A	7.8	A						
	Southbound	7.7	A	7.6	A	7.7	A	7.6	A	7.9	A	8.0	A						
Stanton Rd & Elvans Rd	Overall	11.4	B	11.9	B	11.5	B	12.2	B	12.8	B	15.1	C						
	Eastbound	10.0	A	9.9	A	10.1	B	9.9	A	10.5	B	10.8	B						
	Westbound	9.8	A	10.1	B	9.8	A	10.1	B	10.5	B	12.0	B						
	Northbound	11.6	B	11.1	B	11.8	B	11.2	B	12.9	B	13.6	B						
	Southbound	12.1	B	13.3	B	12.2	B	13.8	B	14.1	B	18.2	C						
Stanton Rd & Pomeroy Rd	Overall	11.6	B	12.0	B	11.7	B	12.2	B	12.2	B	13.0	B						
	Eastbound	9.1	A	9.5	A	9.1	A	9.5	A	9.3	A	9.9	A						
	Westbound	10.0	A	10.8	B	10.1	B	10.9	B	10.3	B	11.2	B						
	Northbound	11.7	B	11.8	B	11.8	B	11.8	B	12.5	B	12.7	B						
Pomeroy Rd & Howard Rd	Southbound	12.6	B	13.3	B	12.7	B	13.8	B	13.3	B	14.8	B						
	Overall	9.0	A	8.6	A	9.0	A	8.6	A	9.1	A	8.7	A						
	Eastbound	8.9	A	8.9	A	8.9	A	8.9	A	9.1	A	9.1	A						
	Westbound	9.1	A	8.2	A	9.1	A	8.2	A	9.2	A	8.3	A						
	Southbound	8.7	A	8.6	A	8.7	A	8.6	A	8.7	A	8.7	A						
Stanton Rd & Sheridan Rd	Southbound Left	0.2	A	0.2	A	0.2	A	0.2	A	0.2	A	0.2	A						

Intersection	Approach	Existing Conditions (2015)						Future Background Conditions (2018)						Total Future Conditions (2018)					
		AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
		Delay	LOS		Delay	LOS		Delay	LOS		Delay	LOS		Delay	LOS		Delay	LOS	
Stanton Rd & Suitland Pkwy	Overall	125.7	F		108.4	F		126.2	F		120.0	F		137.3	F		118.3	F	
	Eastbound	19.8	B		123.8	F		19.8	B		121.8	F		22.0	C		121.8	F	
	Westbound	135.7	F		20.1	C		135.7	F		22.1	C		146.3	F		22.1	C	
	Northbound	224.1	F		120.6	F		226.3	F		120.6	F		226.3	F		120.6	F	
	Southbound	194.8	F		261.0	F		194.8	F		368.5	F		248.5	F		354.9	F	
New Site Roadway & Pomeroy Rd	Westbound Left	--	--		--	--		--	--		--	--		7.6	A		7.7	A	
	Northbound	--	--		--	--		--	--		--	--		9.8	A		9.8	A	
Stanton Rd & New Site Roadway	Westbound	--	--		--	--		--	--		--	--		13.5	B		13.2	B	
	Southbound Left	--	--		--	--		--	--		--	--		0.0	A		7.7	A	

Table 6: Queuing Results

Intersection	Lane Group	Storage Length (ft)	Existing Conditions (2015)						Future Background Conditions (2018)						Total Future Conditions (2018)					
			AM Peak			PM Peak			AM Peak			PM Peak			AM Peak			PM Peak		
			50th%	95th%	50th%	50th%	95th%	50th%	50th%	95th%	50th%	50th%	95th%	50th%	50th%	95th%	50th%	50th%	95th%	50th%
Morris Rd & Pomeroy Rd	Eastbound LR	200.0	--	112.5	--	22.5	--	22.5	--	117.5	--	22.5	--	22.5	--	130.0	--	27.5	--	27.5
	Northbound LT	215.0	--	12.5	--	2.5	--	2.5	--	12.5	--	2.5	--	2.5	--	12.5	--	2.5	--	2.5
Elvans Rd & Morris Rd & Erie St	Eastbound Left	340	--	0.0	--	0.0	--	0.0	--	0.0	--	0.0	--	0.0	--	0.0	--	0.0	--	0.0
	Eastbound Right	340	--	2.5	--	7.5	--	7.5	--	2.5	--	7.5	--	7.5	--	5.0	--	10.0	--	10.0
	Northbound LR	665	--	5.0	--	5.0	--	5.0	--	5.0	--	5.0	--	5.0	--	7.5	--	7.5	--	7.5
	Northwestbound LT	330	--	355.0	--	17.5	--	17.5	--	392.5	--	17.5	--	17.5	--	417.5	--	20.0	--	20.0
	Southeastbound TR	215	--	7.5	--	32.5	--	32.5	--	7.5	--	35.0	--	35.0	--	10.0	--	37.5	--	37.5
Elvans Rd & Gainesville St	Westbound LR	216	--	7.5	--	5.0	--	5.0	--	7.5	--	5.0	--	5.0	--	10.0	--	7.5	--	7.5
	Northbound TR	570	--	7.5	--	7.5	--	7.5	--	7.5	--	7.5	--	7.5	--	10.0	--	12.5	--	12.5
	Southbound LTR	665	--	7.5	--	7.5	--	7.5	--	7.5	--	7.5	--	7.5	--	12.5	--	12.5	--	12.5
Stanton Rd & Elvans Rd	Eastbound LTR	1405	--	17.5	--	15.0	--	15.0	--	17.5	--	15.0	--	15.0	--	20.0	--	15.0	--	15.0
	Westbound LTR	580	--	12.5	--	15.0	--	15.0	--	12.5	--	15.0	--	15.0	--	17.5	--	32.5	--	32.5
	Northbound LTR	760	--	47.5	--	40.0	--	40.0	--	50.0	--	40.0	--	40.0	--	60.0	--	62.5	--	62.5
	Southbound LTR	575	--	62.5	--	80.0	--	80.0	--	62.5	--	87.5	--	87.5	--	82.5	--	125.0	--	125.0
	Eastbound LTR	1900	--	7.5	--	12.5	--	12.5	--	7.5	--	12.5	--	12.5	--	10.0	--	15.0	--	15.0
Stanton Rd & Pomeroy Rd	Westbound LTR	485	--	17.5	--	25.0	--	25.0	--	17.5	--	25.0	--	25.0	--	20.0	--	27.5	--	27.5
	Northbound LTR	575	--	50.0	--	47.5	--	47.5	--	52.5	--	47.5	--	47.5	--	60.0	--	55.0	--	55.0
	Southbound LTR	200	--	67.5	--	72.5	--	72.5	--	67.5	--	77.5	--	77.5	--	72.5	--	87.5	--	87.5
	Eastbound LT	510	--	20.0	--	25.0	--	25.0	--	22.5	--	25.0	--	25.0	--	25.0	--	27.5	--	27.5
Pomeroy Rd & Howard Rd	Westbound TR	260	--	37.5	--	15.0	--	15.0	--	37.5	--	15.0	--	15.0	--	37.5	--	17.5	--	17.5
	Southbound LR	130	--	10.0	--	15.0	--	15.0	--	10.0	--	15.0	--	15.0	--	10.0	--	15.0	--	15.0
	Eastbound Left	225	22.0	64.0	7.0	17.0	22.0	22.0	64.0	7.0	17.0	22.0	64.0	7.0	17.0	22.0	29.0	46.0	29.0	46.0
Stanton Rd & Suitland Pkwy	Eastbound Thru	2300	220.0	312.0	2237.0	2151.0	220.0	220.0	312.0	2237.0	2151.0	220.0	220.0	2237.0	2151.0	312.0	2237.0	2152.0	2152.0	2152.0
	Eastbound Right	320	0.0	38.0	58.0	96.0	0.0	38.0	58.0	96.0	96.0	0.0	38.0	58.0	96.0	38.0	58.0	96.0	96.0	96.0
	Westbound Left	245	5.0	13.0	19.0	59.0	5.0	13.0	19.0	59.0	59.0	5.0	13.0	19.0	59.0	13.0	19.0	58.0	19.0	58.0
	Westbound Thru	2100	1907.0	2032.0	382.0	404.0	1907.0	2032.0	382.0	404.0	1907.0	2032.0	382.0	404.0	1928.0	2032.0	393.0	422.0	393.0	422.0
	Westbound Right	325	0.0	9.0	10.0	34.0	0.0	9.0	10.0	34.0	34.0	0.0	9.0	10.0	34.0	22.0	11.0	38.0	11.0	38.0
	Northbound Left	85	578.0	746.0	303.0	449.0	578.0	746.0	303.0	449.0	578.0	303.0	449.0	578.0	746.0	303.0	449.0	449.0	303.0	449.0
	Northbound TR	730	297.0	458.0	221.0	311.0	310.0	478.0	221.0	311.0	310.0	221.0	311.0	310.0	478.0	221.0	311.0	311.0	221.0	311.0
Stanton Rd & Suitland Pkwy	Southbound Left	60	181.0	316.0	309.0	454.0	181.0	316.0	309.0	454.0	181.0	309.0	454.0	195.0	345.0	388.0	538.0	388.0	538.0	538.0



Intersection	Lane Group	Storage Length (ft)	Existing Conditions (2015)						Future Background Conditions (2018)						Total Future Conditions (2018)					
			AM Peak			PM Peak			AM Peak			PM Peak			AM Peak			PM Peak		
			50th%	95th%	50th%	50th%	95th%	50th%	50th%	95th%	50th%	50th%	95th%	50th%	50th%	95th%	50th%	50th%	95th%	50th%
New Site Roadway & Pomeroy Rd	Southbound TR	810	336.0	527.0	344.0	493.0	336.0	527.0	371.0	523.0	409.0	609.0	473.0	629.0						
	Eastbound TR		--	--	--	--	--	--	--	--	--	0.0	--	0.0						
	Westbound LT		--	--	--	--	--	--	--	--	--	0.0	--	0.0						
	Northbound LR		--	--	--	--	--	--	--	--	--	2.5	--	0.0						
Stanton Rd & New Site Roadway	Westbound LR		--	--	--	--	--	--	--	--	--	5.0	--	2.5						
	Northbound TR		--	--	--	--	--	--	--	--	--	0.0	--	0.0						
	Southbound LT		--	--	--	--	--	--	--	--	--	0.0	--	0.0						

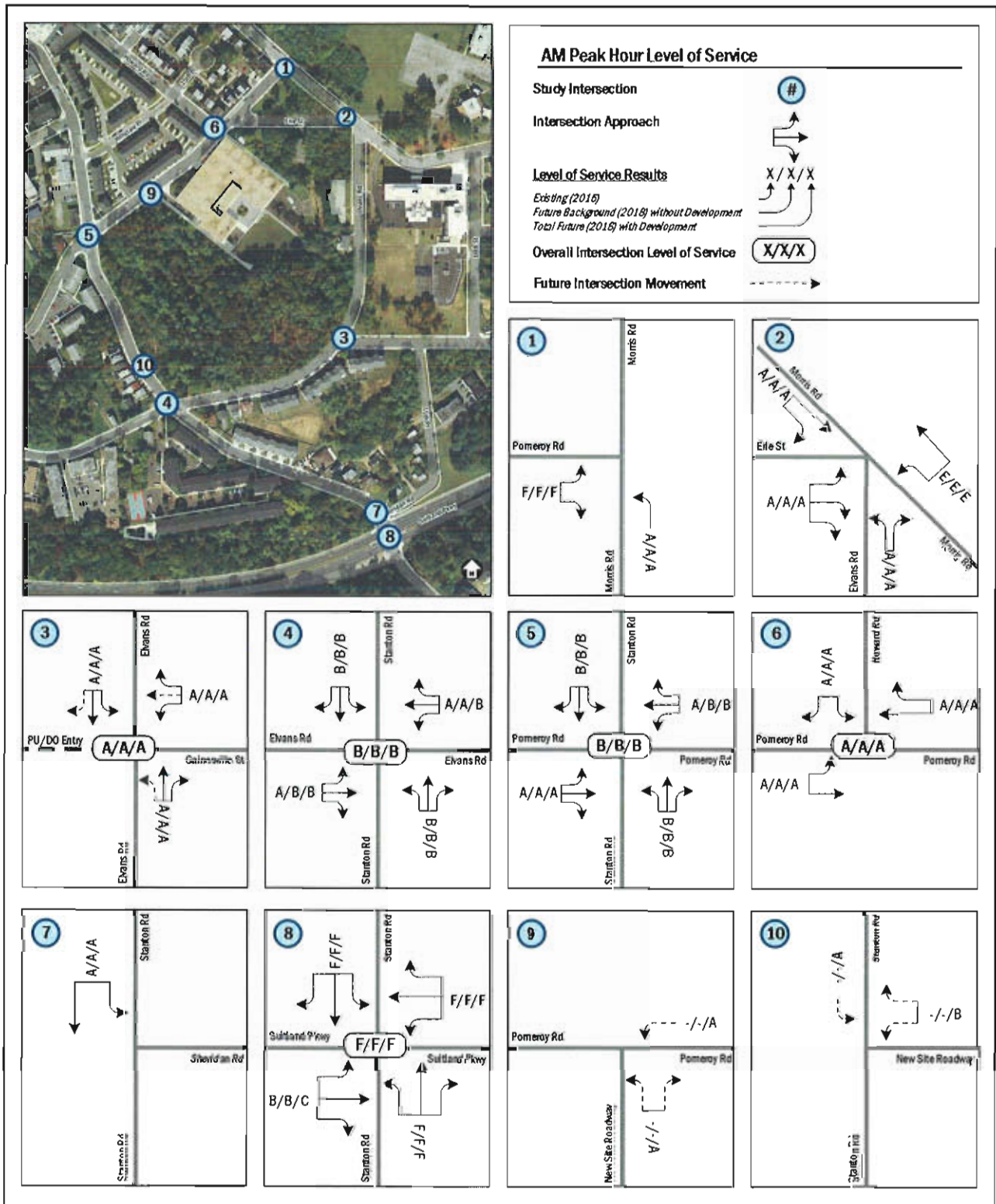


Figure 20: Morning Peak Hour Capacity Analysis Results

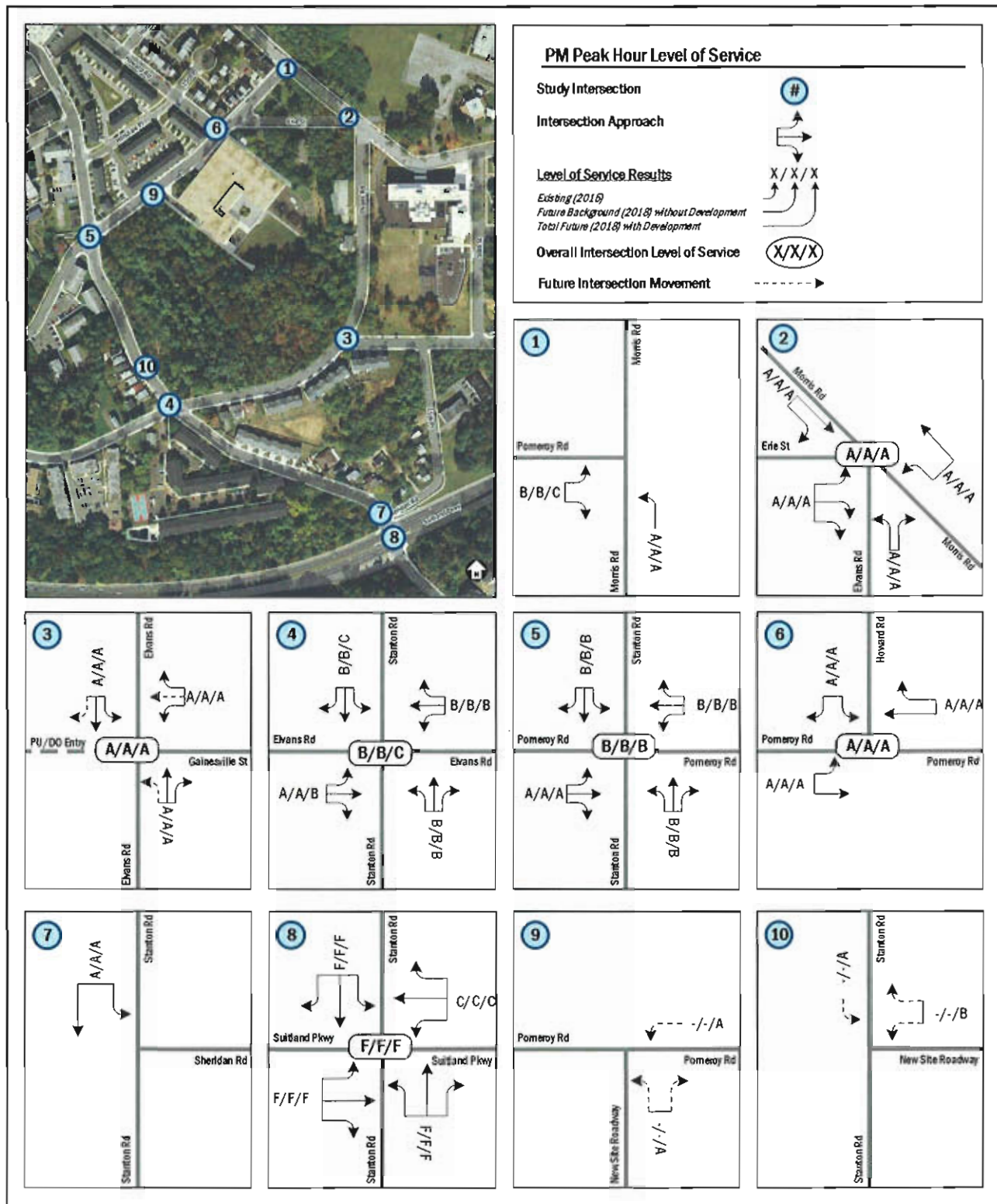


Figure 21: Afternoon Peak Hour Capacity Analysis Results



TRANSIT

This section discusses the existing and proposed transit facilities in the vicinity of the site, accessibility to transit, and evaluates the overall transit impacts due to the Stanton Square and Commons project.

The following conclusions are reached within this chapter:

- The development site is one mile from the Anacostia Metrorail station and is surrounded by several Metrobus routes that travel along multiple primary corridors
- The site is expected to generate a manageable amount of transit trips, and the existing service is capable of handling these new trips

EXISTING TRANSIT SERVICE

The study area is well served by Metrobus and has access to Metrorail. Combined, these transit services provide local, city wide, and regional transit connections and link the site with major cultural, residential, employment, and commercial destinations throughout the region. Figure 22 identifies the major transit routes, stations, and stops in the study area.

The Anacostia Metrorail station is located less than one mile from the development site. The Anacostia Metrorail station is served by the Green Line, which travels north from Branch Avenue, through downtown DC, and then continues north through the District core to Greenbelt. Trains run approximately every six minutes during the morning and afternoon peak hours. They run about every 12 minutes during weekday non-peak hours, every 20 minutes on weekday evenings after 9:30 pm and 12 to 20 minutes on the weekends.

The site is also serviced by six Metrobus lines along multiple primary corridors. These bus lines connect the site to many areas of the District, Maryland, and Virginia, including several Metrorail stations serving all of the six lines. Multiple bus stops along the perimeter of the site and 24 buses that are scheduled to arrive every hour during peak commuting times, provide a good connection to Metrorail and other destinations. Table 7 shows a summary of the bus route information for the routes that serve the site, including service hours, headway, and distance to the nearest bus stop.

PROPOSED TRANSIT SERVICE

Due to growth of population, jobs, and retail in several neighborhoods in the District and the potential for growth in other neighborhoods, the District's infrastructure is challenged with the need for transportation investments to support the recent growth and to further strengthen neighborhoods. In order to meet these challenges and capitalize on future opportunities, DDOT has developed a plan to identify transit challenges and opportunities and to recommend investments. This is outlined in DC's *Transit Future System Plan* report published by DDOT in April 2010, which includes the reestablishment of streetcar service in the District.

Four streetcar routes are expected to travel near the site. The first route will connect Bolling Air Force Base to Minnesota Avenue Metrorail Station, running generally along portions of South Capitol Street, Howard Road and Firth Sterling Avenue. The second route will connect Congress Heights to Buzzard Point, serving the Anacostia Waterfront area including the Nationals Park baseball stadium, Buzzard Point, and the growing commercial, office, and residential development along the route. The third route will connect Woodley Park/Adams Morgan to Congress Heights, providing a connection between

Table 7: Metrobus Route Information

Route Number	Route Name	Service Hours	Headway	Walking Distance to Nearest Bus Stop
93	U Street-Garfield Line	Weekdays: 4:23AM – 2:01 AM Weekends: 4:21AM – 2:18 AM	15-30 min	<0.1 miles, 1 minute
94	Stanton Road Line	Weekdays: 5:10AM – 12:30 AM Weekends: 6:37AM – 12:36 AM	15-30 min	<0.1 miles, 1 minute
W2,W3	United Medical Center-Anacostia Line	Weekdays: 5:30AM – 1:48 AM Weekends: 6:36AM – 12:40 AM	18-32 min	0.3 miles, 6 minutes
W6,W8	Garfield-Anacostia Loop Line	Weekdays: 6:06AM – 2:10 AM Weekends: 6:20AM – 1:55 AM	20-30 min	<0.1 miles, 1 minute

several commercial districts including Woodley Park, Adams Morgan, U Street NW, NoMa, H Street NE, Barracks Row, Anacostia Waterfront, and Historic Anacostia. The fourth route will connect Congress Heights to Washington Circle, providing a connection to the Anacostia Waterfront, Capitol Hill, Union Station, H Street NE, Downtown DC, and K Street.

Additionally, WMATA and DDOT published the *90-92-93 Metrobus U Street-Garfield Line Study in March 2011*, which discusses recommendations for Metrobus lines that run near the site. The report cites the need for improved service and reliability due to the high ridership numbers. Furthermore, the report outlines general recommendations for bus infrastructure such as improved bus stop locations and shelters, and the creation of a Metro Express Route Limited-Stop Service. Unfortunately, the report fails to distinguish between the three lines that form the 90s lines, so recommendations that can directly improve service and reliability for the 93 line, which runs along Stanton Road and Pomeroy Road, cannot be identified.

SITE-GENERATED TRANSIT IMPACTS

The proposed development is projected to generate 131 transit trips (77 inbound, 54 outbound) during the morning peak hour and 199 transit trips (83 inbound, 116 outbound) during the afternoon peak hour.

US Census data was used to determine the distribution of those taking Metrorail and those taking Metrobus. The site lies in TAZ 20355 which shows that approximately 52 percent of transit riders used Metrorail and the remainder use Metrobus or Circulator. Given the size of the development, approximately 68 people will use Metrorail and 63 will use Metrobus during the morning peak hour; approximately 103 people will use Metrorail and 96 will use Metrobus during the afternoon peak hour.

WMATA studied capacity of Metrorail stations in its *Station Access & Capacity Study*. The study analyzed the capacity of Metrorail stations for their vertical transportation, for example the capacity of the station at elevators, stairs, and escalators to shuttle patrons between the street, mezzanine, and platforms. The study also analyzed stations capacity to process riders at fare card gates. For both analyses, vertical transportation and fare card gates, volume-to-capacity ratios were calculated for existing data (from 2005) and projections for the year 2030. According to the study, the Anacostia station will require

additional sidewalks to accommodate the 38.9% growth in ridership at the station, and can currently accommodate future growth at all access points.

WMATA also studied capacity along Metrobus routes. DC's *Transit Future System Plan* (2010) lists the bus routes with the highest load factor (a ratio of passenger volume to bus capacity). A load factor is considered unacceptable if it is over 1.2 during peak periods or over 1.0 during off-peak or weekend periods. According to this study the Metrobus routes that travel near the site do not exceed the acceptable load factor during all periods of the day. Based on this information and the extensive Metrobus service surrounding the site, it is not expected that site-generated transit trips will cause detrimental impacts to Metrobus service.

The location of Metrobus stops in the vicinity of the proposed development will adequately serve the needs of all users. Pedestrian facilities to and from the Metrobus stops should be improved as to allow as comfortable of an environment for pedestrians and transit-users alike.

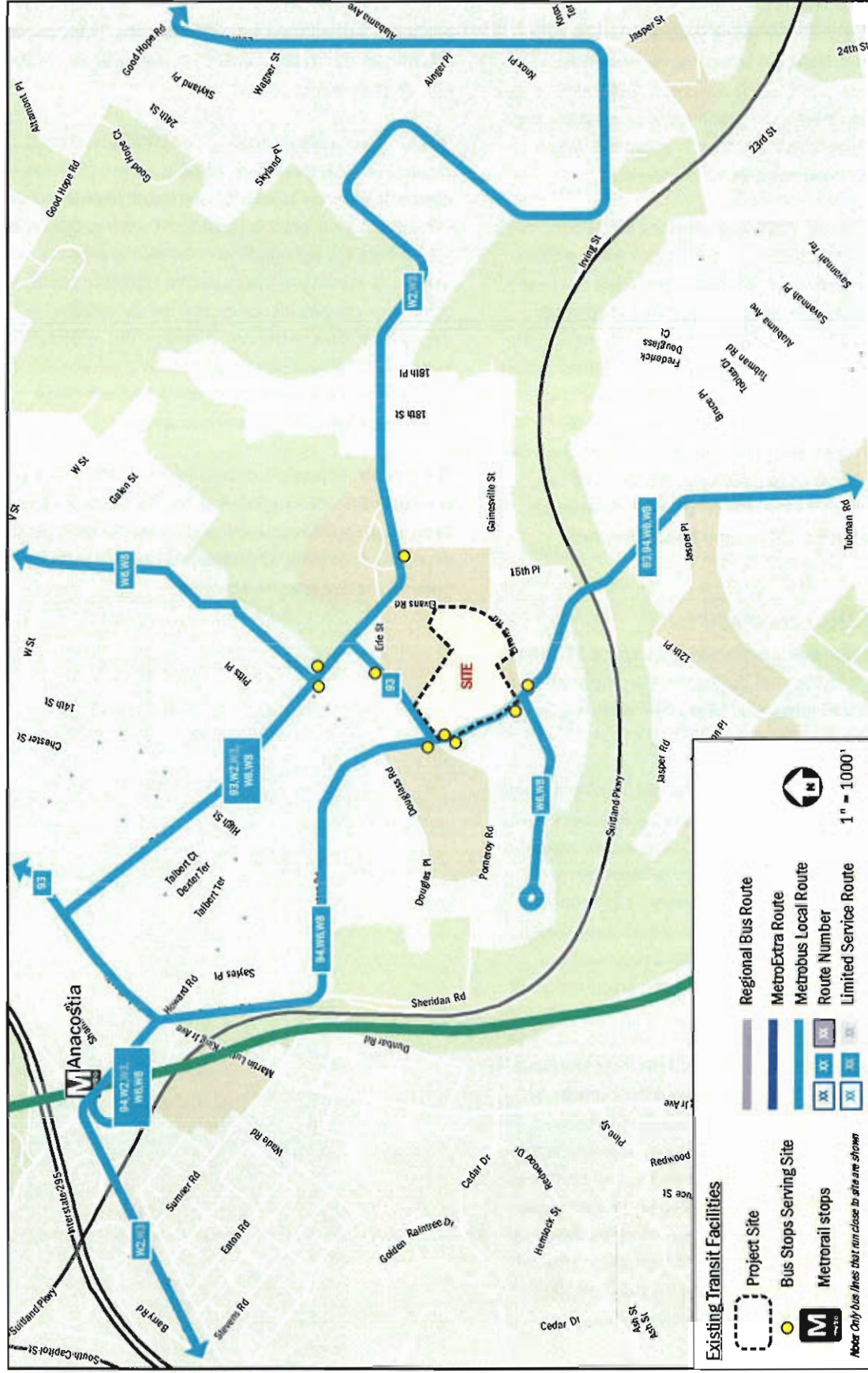


Figure 22: Existing Transit Service

PEDESTRIAN FACILITIES

This section summarizes existing and future pedestrian access to the site and reviews walking routes to and from the site.

The following conclusions are reached within this chapter:

- The existing pedestrian infrastructure surrounding the site provides an adequate walking environment. There are some gaps in the system, but there are sidewalks along all primary routes to pedestrian destinations.
- Improvements to pedestrian infrastructure surrounding the site will improve pedestrian levels-of-service.

PEDESTRIAN STUDY AREA

Facilities within a quarter-mile of the site were evaluated as well as routes to nearby transit facilities. The site is easily accessible to transit options such as bus stops along Pomeroy Road, Stanton Road, and Morris Road. There are some barriers and areas of concern within the study area that negatively impact the quality of and attractiveness of the walking environment. This includes roadway conditions that reduce the quality of walking conditions, narrow or nonexistent sidewalks, incomplete or insufficient crossings at busy intersections, and Suitland Parkway that limits connectivity to the south and west. Figure 23 shows suggested pedestrian pathways, walking time and distances, and barriers or areas of concern.

PEDESTRIAN INFRASTRUCTURE

This section outlines the existing and proposed pedestrian infrastructure within the pedestrian study area.

Existing Conditions

A review of pedestrian facilities surrounding the planned development shows that most facilities do not meet DDOT standards and provide a poor walking environment. Figure 24 shows a detailed inventory of the existing pedestrian infrastructure surrounding the site. Sidewalks, crosswalks, and curb ramps are evaluated based on the guidelines set forth by

DDOT's *Public Realm Design Manual* in addition to ADA standards. Sidewalk widths and requirements for the District are shown below in Table 8.

Within the area shown, most roadways are considered residential with a low to moderate density. Most of the sidewalks surrounding the site do not comply with DDOT standards, particularly due to the lack of buffer space; however there are some areas which have adequate sidewalks.

ADA standards require that all curb ramps be provided wherever an accessible route crosses a curb and must have a detectable warning. Additionally, curb ramps shared between two crosswalks is not desired. As shown in the figure, under existing conditions there are some issues with crosswalks and curb ramps near the site.

PUD Pedestrian Improvements

In order to help improve sidewalk conditions, as part of the PUD, the Applicant plans to improve conditions along the site, and between the Stanton Square and Commons portions on property not part of the PUD. This requires dedicating property within the PUD to public use.

The Applicant has designed a public realm along Stanton, Elvans and Pomeroy Roads that allows for a three foot wide planting strip adjacent to the travelways and a six foot wide sidewalk. In order to accomplish this, the Applicant has placed all of the sidewalk along Pomeroy Road on private property, along Stanton Road the sidewalk includes 2.3-2.9 feet of private property, and along Elvans Road the sidewalk includes 2.2-4.8 feet of private property. The above provisions will provide a vastly improved pedestrian environment near the site.

Furthermore, the Applicant will fund the upgrading of sidewalks adjacent to Lot 874, which the Applicant does not own, to complete the pedestrian network between Stanton Square and Commons components of the development.

Table 8: Sidewalk Requirements

Street Type	Minimum Sidewalk Width	Minimum Buffer Width
Residential (Low to Moderate Density)	6 ft	4 ft (6 ft preferred for tree space)
Residential (High Density)	8 ft	4 ft (6 ft preferred for tree space)
Commercial (Non-downtown)	10 ft	4 ft
Downtown	16 ft	6 ft



SITE IMPACTS

This section summarizes the impacts of the development on the overall pedestrian operations in the vicinity of the site.

Pedestrian Trip Generation

The planned development is expected to generate 73 walking trips (50 inbound, 23 outbound) during the morning peak hour and 141 walking trips (64 inbound, 77 outbound) during the afternoon peak hour. The origins and destinations of these trips are likely to be:

- Employment opportunities where residents can walk to work
- Retail locations in the vicinity of the site
- Employees and patrons of the Commons
- Students accessing after-school programs

In addition to these trips, the transit trips generated by the site will also generate pedestrian demand between the site and nearby transit stops. About 48 percent of these will be walking to the Anacostia Metrorail Station located less than one mile from the site and the rest will be walking to Metrobus stops, which are primarily located along Pomeroy Road and Stanton Road within a block of the site.

Mitigations

Although the PUD includes the pedestrian improvements to sidewalks described above, this report recommends additional improvements to help improve the pedestrian environment near the site. The additional improvements recommended by this report focus on two nearby intersections on the expected pedestrian walking routes, as follows:

- (1) Improved marking and signage, including stop bars, crosswalks, and curb ramps at the intersection of Elvans Road and Gainesville Street so that they meet DDOT and ADA standards.
- (2) Improved marking and signage, including stop bars, crosswalks, and curb ramps at the intersection of Elvans Road and Morris Road and Erie Street so that they meet DDOT and ADA standards.

These two intersections currently have pedestrian facilities below standards due to faded or ineffective markings as well as missing curb ramps.

These improvements have not been designed. If, after going through design, the costs of bringing these intersections up to

full DDOT standards are too burdensome on the PUD, then this report suggests that the improvements focus on pedestrian safety and visibility as much as possible within reasonable limits. Complications in design could stem from non-transportation issues such as utility pole relocation costs, conflicts with sewer/stormwater infrastructure, and/or right-of-way limitations.

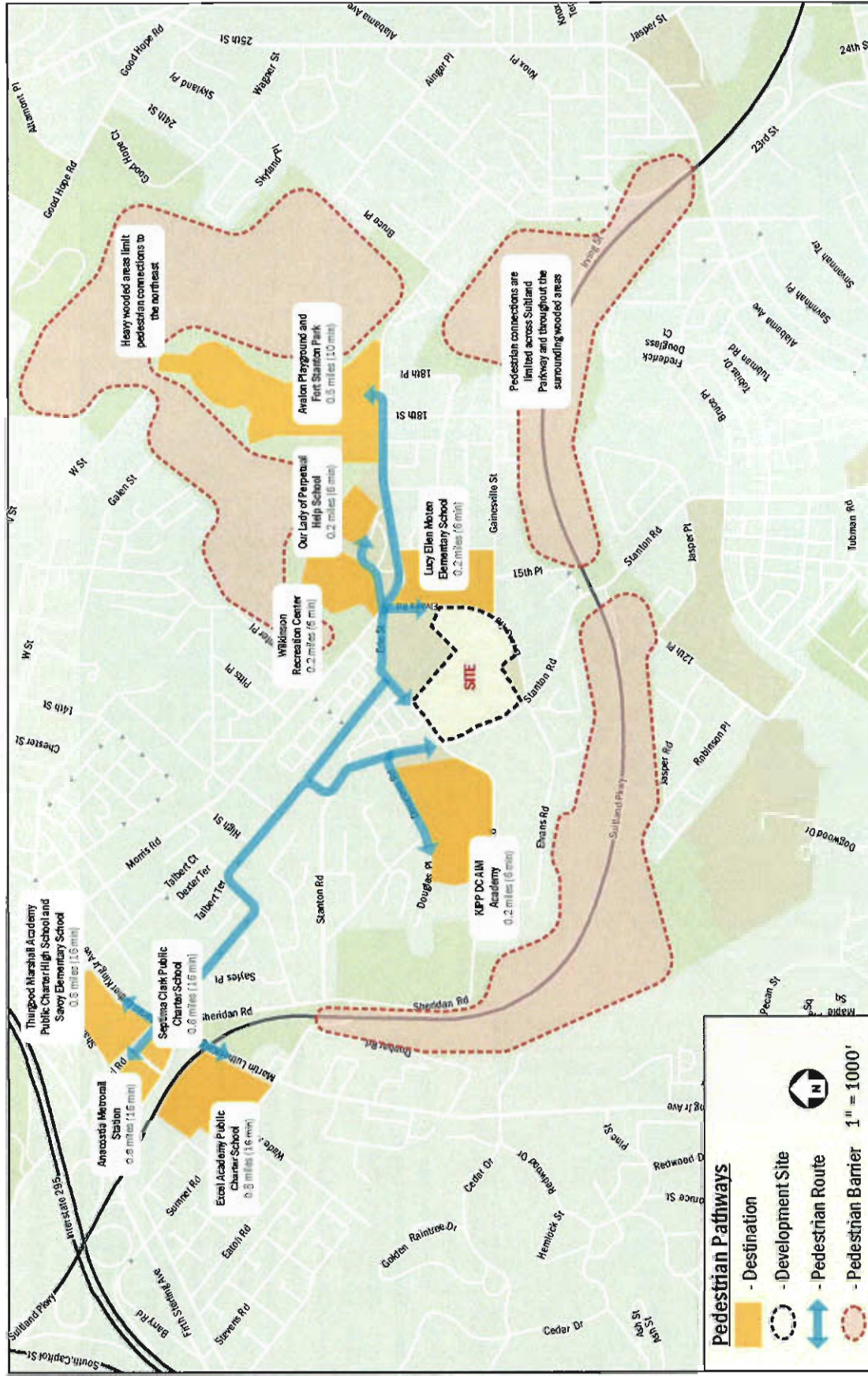


Figure 23: Pedestrian Pathways

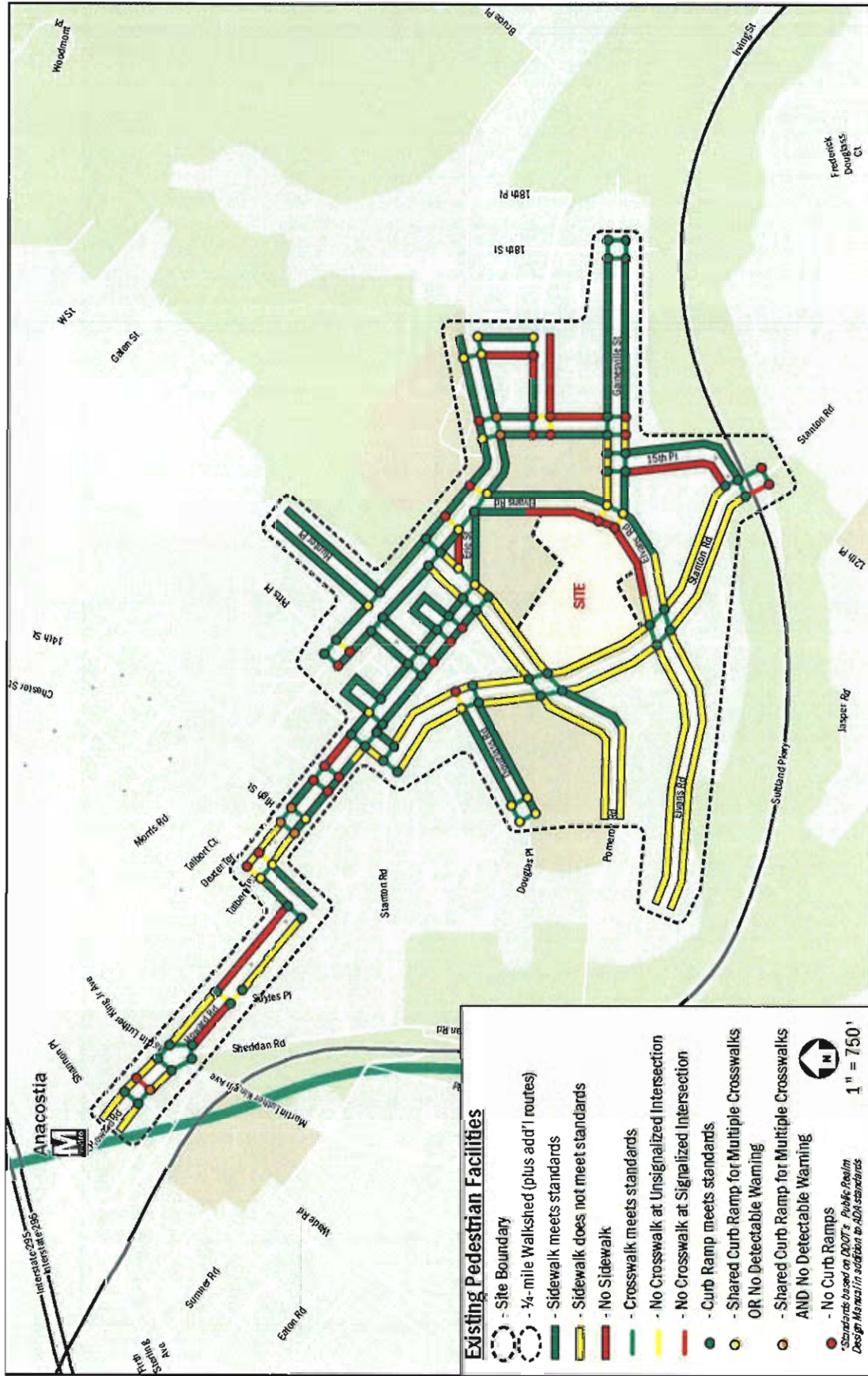


Figure 24: Existing Pedestrian Infrastructure

BICYCLE FACILITIES

This section summarizes existing and future bicycle access, reviews the quality of cycling routes to and from the site, and presents recommendations.

The following conclusions are reached within this chapter:

- The site has access to one bike trail; The Suitland Parkway Trail.
- The site is not expected to generate a significant amount of bicycle trips, therefore all site-generated bike trips can be accommodated on existing infrastructure.
- The development site will include short-term bicycle racks within the site and along the perimeter of the site.

EXISTING BICYCLE FACILITIES

The site has access to existing on- and off-street bicycle facilities. East-west connectivity is provided along the Suitland Parkway Trail. North-south connectivity is provided along signed bike routes on Sheridan Road and 25th Street. Figure 25 illustrates the existing bicycle facilities in the area.

No bike parking is provided along the perimeter of the site under existing conditions.

PROPOSED BICYCLE FACILITIES

The MoveDC plan outlines several bicycle improvements in the vicinity of the site. These improvements are broken up into four tiers that rank the priority for implementation. The four tiers are broken down as follows:

- **Tier 1**
Investments should be considered as part of DDOT's 6-year TIP and annual work program development, if they are not already included. Some projects may be able to move directly into construction, while others become high priorities for advancement through the Project Development Process.

A bicycle trail from Stanton Road to Firth Sterling Avenue along Suitland Parkway will be in the tier 1 additions.
- **Tier 2**
Investments within this tier are not high priorities in the early years of MoveDC implementation. They could begin moving through the Project Development Process if there are compelling reasons for their advancement.

There are a no tier 2 additions in the vicinity of the site.

- **Tier 3**
Investments within this tier are not priorities for DDOT-led advancement in the early years of MoveDC's implementation. They could move forward earlier under circumstances such as real estate development initiatives and non-DDOT partnerships providing the opportunity for non-District-led completion of specific funding.
- **Tier 4**
Generally, investments within this tier are not priorities for DDOT-led advancement and are lower priority for project development in the early years of implementation.

Due to the timeline of the Stanton Square/Commons development, this report focuses on the Tier 1 and Tier 2 recommendations within the vicinity of the site.

Although these projects are discussed in the MoveDC plan, they are not currently funded or included in DDOT's Transportation Implementation Plan thus they will not be assumed as complete for this analysis.

SITE IMPACTS

This section summarizes the impacts of the development on the overall bicycle operations surrounding the site and develops recommendations for connectivity improvements.

Bicycle Trip Generation

The planned development is expected to generate 3 bicycle trips (1 inbound, 2 outbound) during the morning peak hour and 4 bicycle trips (2 inbound, 2 outbound) during the afternoon peak hour. Although bicycling will be an important mode for getting to and from the site, with facilities located on site and routes to and from the site, the impacts from bicycling will be relatively less than impacts to other modes.

On-Site Bicycle Elements

The project will provide amenities that cater to cyclists including short-term bicycle racks. Exact numbers and locations of bicycle racks have not yet been determined; however, it is expected that bicycle racks will be located along the perimeter of the site. The Applicant is willing to work with DDOT to determine the locations of bicycle racks within public space.



Figure 25: Existing Bicycle Facilities

CRASH DATA ANALYSIS

This section of the report reviews available crash data within the study area, reviews potential impacts of the proposed development on crash rates, and makes recommendations for mitigation measures where needed.

SUMMARY OF AVAILABLE CRASH DATA

A crash analysis was performed to determine if there was an abnormally high crash rate at study area intersections. DDOT provided the last three years of intersection crash data, from 2012 to 2014 for the study area. This data was reviewed and analyzed to determine the crash rate at each location. For intersections, the crash rate is measure in crash per million-entering vehicles (MEV). The crash rates per intersections are shown in Table 9.

According to the Institute of Transportation Engineer's *Comprehensive Transportation Review for Site Development*, a crash rate of 1.0 or higher is an indication that further study is required. Three intersections in this study area meet this criterion (as shown in red in Table 9 and detailed in Table 10).

The Stanton Square/Commons development should be developed in a manner to help alleviate, or at minimum not add to, the conflicts at these intersections.

A rate over 1.0 does not necessarily mean there is a significant problem at an intersection, but rather it is a threshold used to identify which intersections may have higher crash rates due to operational, geometric, or other issues. In some cases, the crashes were located near the intersection and not necessarily within the intersection.

For these three intersections, the crash type information from the DDOT crash data was reviewed to see if there is a high percentage of certain crash types. Generally, the reasons for why an intersection has a high crash rate cannot be derived from crash data, as the exact details of each crash are not represented. However, some summaries of crash data can be used to develop general trends or eliminate possible causes. Table 10 contains a breakdown of crash types reported for the seven intersections with a crash rate over 1.0 per MEV.

POTENTIAL IMPACTS

This section reviews the three locations with existing crash

Table 9: Intersection Crash Rates (2012 to 2014)

Intersection	Total Crashes	Ped Crashes	Bike Crashes	Rate per MEV*
Morris Rd & Pomeroy Rd	2	0	0	0.25
Elvans Rd & Morris Rd & Erie St	5	0	0	0.65
Elvans Rd & Gainesville St	0	0	0	0.00
Stanton Rd & Elvans Rd	27	2	0	3.35
Stanton Rd & Pomeroy Rd	12	2	0	1.49
Pomeroy Rd & Howard Rd	1	0	0	0.21
Stanton Rd & Sheridan Rd	3	0	0	0.41
Stanton Rd & Suitland Pkwy	127	3	0	2.73

Table 10: Crash Type Breakdown

Intersection	Rate per MEV	Right Angle	Left Turn	Right Turn	Rear End	Side Swiped	Head On	Parked	Fixed Object	Ran Off Road	Ped. Involved	Backing	Non-Collision	Under/Over Ride	Unspecified	Total
Stanton Rd & Elvans Rd	3.35	1	0	0	5	5	0	6	0	2	2	1	1	0	4	27
		4%	0%	0%	19%	19%	0%	22%	0%	7%	7%	4%	4%	0%	15%	
Stanton Rd & Pomeroy Rd	1.49	0	1	1	0	2	1	1	2	0	2	0	2	0	0	12
		0%	8%	8%	0%	17%	8%	8%	17%	0%	17%	0%	17%	0%	0%	
Stanton Rd & Suitland Pkwy	2.73	2	2	4	68	14	9	1	7	7	1	4	1	0	7	127
		2%	2%	3%	54%	11%	7%	1%	6%	6%	1%	3%	1%	0%	6%	

rates over 1.0 MEV and reviews potential impacts of the proposed development.

- *Stanton Road & Elvans Road*

This intersection is significantly over the threshold of 1.0 crashes per MEV, with a rate of approximately 3.35 crashes per MEV over the course of the three year study period. The majority of the crashes at this intersection were crashes involving parked vehicles. A common cause for such crashes is improper turning or parked vehicles attempting to improperly merge into the travel lane. Furthermore, the offset geometry of the intersection impacts sight-lines and could be another possible explanation for the elevated crash rates.

This report does not recommend mitigation measures at this intersection as the proposed development is not projected to make changes to the commuting patterns, operations, or geometry of this intersection that could negatively influence safety.

- *Stanton Road & Pomeroy Road*

This intersection is over the threshold of 1.0 crashes per MEV, with a rate of 1.49 crashes per MEV over the course of the three year study period. No specific crash type shows prevalence at this location with all crash types occurring one to three times over the study period. That said, this intersection, like Stanton Road and Elvans Road, has offset geometry that may result in an **elevated** crash rate and poor sight lines.

This report does not recommend mitigation measures at this intersection as the proposed development is not projected to make changes to the commuting patterns, operations, or geometry of this intersection that could negatively influence safety.

- *Stanton Road & Suitland Parkway*

This intersection is significantly over the threshold of 1.0 crashes per MEV, with a rate of 2.73 crashes per MEV over the course of the three year study period. The majority of crashes at this intersection were rear end crashes. Elevated rear end crashes are typically observed at signalized intersections, and may be more prevalent at this intersection due to the short left-turn lane on the southbound approach of Stanton Road.

Given the curved nature of Stanton Road leading up to the intersection, it may be beneficial to have a sign denoting the lane configuration to better prepare drivers for the turn lane; however, this report does not recommend added signage as part of the development as the project is not projected to make changes to the commuting patterns, operations, or geometry of this intersection that could negatively influence safety.

SUMMARY AND CONCLUSIONS

Based on a technical comparison of the existing conditions, background conditions, and total future conditions, this report concludes that **the project will not have a detrimental impact** to the surrounding transportation network assuming that all planned site design elements and mitigations are implemented.

Proposed Project

Pedestrian access to the Stanton Square portion of the development will occur predominately via Stanton Road and Pomeroy Road. Pedestrian access to the Commons portion of the development will be off Elvans Road.

Vehicular access to the Stanton Square component will be off Pomeroy Road and Stanton Road. Two curb cuts are proposed to provide vehicular access to the planned development's private street, and two curb cuts will provide access to two private alleys that abut the townhomes. Vehicular access to the Commons component will be off Elvans Road. Three curb cuts are proposed to provide vehicular access to the western portion of the Commons, and one curb cut will provide access to the eastern portion of the Commons.

The PUD meets zoning minimums for loading. Based on an analysis of anticipated loading activity, the PUD also provides sufficient loading facilities to accommodate practical loading needs.

The PUD exceeds zoning minimums for parking. Although that is the case, this report examined practical parking demand versus the proposed supply. This analysis concluded that at peak times, up to 31 vehicles will use on-street parking in the vicinity of the site. There is sufficient on-street parking to accommodate this demand, the majority of which is curbside space adjacent to the PUD.

Thus, although a mixture of surface parking on-site and off-street parking adjacent to the project will be used to accommodate demand, the PUD will not generate a detrimental impact to the surrounding on-street parking supply.

Multi-Modal Impacts and Recommendations

Transit

The site is well-served by regional and local transit services such as Metrorail and Metrobus. The site is less than 1 mile

from the Anacostia Metrorail station portal located on Howard Road between Firth Sterling Avenue and Martin Luther King Jr Avenue. Six Metrobus routes service the site, with 24 buses scheduled to arrive during the peak commuting time, providing a good connection to Metrorail and other destinations. Metrobus stops are located within a block of the site along Stanton Road, Pomeroy Road, and Morris Road.

Although the development will be generating new transit trips on the network, the existing facilities have enough capacity to handle the new trips. The Anacostia Metrorail station does not have existing capacity concerns and is not expected to as a result of the planned development.

Pedestrian

The site is surrounded by a pedestrian network with limited connections. Some roadways within a quarter-mile radius provide sidewalks and acceptable crosswalks and curb ramps, particularly along primary walking routes. There are some pedestrian barriers surrounding the site such as limited connectivity to the south and west due to Suitland Parkway. The area in the vicinity of the site is considered to be below the District average in terms of quality of pedestrian facilities.

In order to help improve sidewalk conditions, as part of the PUD, the Applicant plans to improve conditions along the site, and between the Stanton Square and Commons portions on property not part of the PUD. This requires dedicating property within the PUD to public use.

The Applicant has designed a public realm along Stanton, Elvans and Pomeroy Roads that allows for a three foot wide planting strip adjacent to the travelways and a six foot wide sidewalk. In order to accomplish this, the Applicant has placed all of the sidewalk along Pomeroy Road on private property, along Stanton Road the sidewalk includes 2.3-2.9 feet of private property, and along Elvans Road the sidewalk includes 2.2-4.8 feet of private property. The above provisions will provide a vastly improved pedestrian environment near the site.

Furthermore, the Applicant will fund the upgrading of sidewalks adjacent to Lot 874, which the Applicant does not own, to complete the pedestrian network between Stanton Square and Commons components of the development.

Bicycle

The site has adequate access to existing bicycle facilities. The Suitland Parkway Trail, to the south and west of the site, offers east-west connectivity. On site, the planned development will meet zoning requirements for bicycle parking.

Vehicular

The Stanton Square and Commons site is well-connected to regional roadways such as Suitland Parkway and Interstate 295, as well as primary and minor arterials such as Martin Luther King Jr Avenue and an existing network of collector and local roadways.

In order to determine if the proposed development will have a negative impact on this transportation network, this report projects future conditions with and without the development of the site and performs analyses of intersection delays. These delays are compared to the acceptable levels of delay set by DDOT standards to determine if the site will negatively impact the study area. Three intersections were found to operate under unacceptable delay/Level-of-service (LOS) in existing conditions were reviewed for potential improvements. The analysis found no instances of unacceptable conditions in the scenario with the PUD constructed that do not occur in the scenario without the PUD.

The analyses concluded that the planned development will not have adverse impacts on the surrounding transportation network.

Summary and Mitigations

Overall, the PUD will not generate significant transportation demand during peak hours, and this demand can be accommodated within on the local roadway, transit and parking systems. The one aspect of the surrounding network that cannot accommodate anticipated demand is the pedestrian infrastructure near and adjacent to the site.

As described above, the Applicant has already committed to improving sidewalks adjacent to the site, and between the two portions of the PUD off-property.

This report recommends additional improvements to help improve the pedestrian environment near the site. The additional improvements recommended by this report focus on two nearby intersections on the expected pedestrian walking routes, as follows:

- (1) Improved marking and signage, including stop bars, crosswalks, and curb ramps at the intersection of Elvans Road and Gainesville Street so that they meet DDOT and ADA standards.
- (2) Improved marking and signage, including stop bars, crosswalks, and curb ramps at the intersection of Elvans Road and Morris Road and Erie Street so that they meet DDOT and ADA standards.

These two intersections currently have pedestrian facilities below standards due to faded or ineffective markings as well as missing curb ramps.

With these pedestrian improvements in place, and the Transportation Demand Management (TDM) plan outlined within, this report concludes that the PUD will not have a detrimental impact on the surrounding transportation network.